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# Phylogeny and taxonomy of European funnel-web spiders of the *Tegenaria–Malthonica* complex (Araneae: Agelenidae) based upon morphological and molecular data

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The taxonomy and systematics of European house spiders, currently constituting the ill-defined *Tegenaria–Malthonica* complex (including *Aterigena*) in the family Agelenidae, are revised. In Europe four monophyletic genera and 81 species are defined. One genus, ***Eratigena* gen. nov.**, and seven species are described as new; at species level 17 new synonyms and 20 new combinations are proposed, and the original combination of 14 species is reinstated. Five species could not be placed (incertae sedis) because of insufficient material and one taxon is regarded as 'nomen dubium'. On the basis of a detailed morphological assessment, 88 characters were chosen for a cladistic analysis. Phylogenetically informative characters include mostly spination patterns as well as spinneret and genital structures. In addition to morphology, three gene sections [cytochrome *c* oxidase subunit 1 (CO1), nicotinamide adenine dinucleotide dehydrogenase subunit 1 (NADH1) 28S] were analysed. Morphological and molecular analyses were performed individually and in combination applying maximum parsimony and Bayesian tree search methods. In all resulting trees *Malthonica* and *Tegenaria* in their present composition are either polyphyletic or paraphyletic. Consequently, we redefined the two genera and erected a new genus, ***Eratigena* gen. nov.** Identification keys are provided for the European agelenid genera as well as for the European species of *Tegenaria* and ***Eratigena* gen. nov.** The genera and most of the constituent species are described and illustrated. The new classification has also been applied to some extra European members of the *Tegenaria-Malthonica* complex resulting in additional three new synonyms, seven reversals to the original combination, and four new combinations.

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ADDITIONAL KEYWORDS: 28S – mtDNA – new genus – new species – taxon description.

## INTRODUCTION

Araneomorph funnel-web spiders (Agelenidae) are remarkable for several reasons. Probably because of their impressive size and general appearance, they are well known to the general public. The European house spiders, e.g. *Tegenaria atrica* C. L. Koch, 1843, and *Tegenaria domestica* (Clerck, 1757), with their impressively long legs are perfect candidates for causing arachnophobia in susceptible persons. The notorious hobo spider, *Tegenaria agrestis* (Walckenaer, 1802), has been blamed for biting humans and causing necrotic wounds in North America, where it has been introduced (Vest, 1987; Akre & Myhre, 1991; Binford, 2001; Baird & Stoltz, 2002; Vetter *et al.*, 2003; Vetter & Swanson, 2004). It may be, therefore, a species of medical relevance.

Some agelenid spiders are used as laboratory animals in research. They are convenient because of their size and are easy to keep in captivity. One

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*Corresponding author. E-mail: angelo.bolzern@arachnodet.com important research topic concerns venoms, both from medical and chemical points of view, e.g. the potential use in insecticides (Johnson *et al*., 1998; Yamaji *et al*., 2007; Benli & Yigit, 2008; Schroeder *et al*., 2008). Other research areas concern the evolution of specific behaviour patterns (Ibarra, 1985; Pourie & Trabalon, 1999, 2001; Trabalon & Assi-Bessekon, 2008; Pruitt, 2010; Uhl, Nessler & Schneider, 2010), evolution in general (Stratton, Suter & Miller, 2004; Croucher *et al*., 2007; Král, 2007; Blackledge *et al*., 2009), and developmental biology (Jacunski & Templin, 2003; Pourie & Trabalon, 2003; Napiorkowska, Jacunski & Templin, 2007). Despite this wide interest, the taxonomic and phylogenetic relationships within the Agelenidae are still poorly understood (e.g. Zhang, Zhu & Song, 2006a; Bolzern, Hänggi & Burckhardt, 2010).

C. L. Koch (1837) established the family 'Agelenides', comprising the genera *Philoica* Koch, 1837, and *Tegenaria* Latreille, 1804 (now regarded as synonyms), *Asagena* Sundevall, 1833 (now in Theridiidae), *Arachne* Audouin, 1826 (corresponding to *Tegenaria* and *Agelena*), *Lachesis* Audouin, 1826 (= *Lachesana*, now in Zodariidae), *Nyssus* Walckenaer, 1805 (= *Supunna*, now in Corinnidae), *Textrix* Sundevall, 1833, *Agelena* Walckenaer, 1805, *Hersilia* Audouin, 1826 (now in Hersiliidae), and *Argyroneta* Latreille, 1804 (now in Cybaeidae). Around the same time, Blackwall published the discovery of the calamistrum (Blackwall, 1833: 473, 474, table 31, figs 2, 3) and the cribellum (Blackwall, 1841b: 223, 224). These findings led him to describe a new, cribellate family, Ciniflonidae Blackwall (today considered as a synonym of Amaurobiidae), including the genera *Ciniflo* Blackwall, 1840 (= *Amaurobius* C. L. Koch, 1837) (Blackwall, 1841a), and *Ergatis* Blackwall, 1841 (= *Dictyna*). In the same publication, Blackwall established the genus *Coelotes* Blackwall, 1841, with *Coelotes saxatilis* (Blackwall, 1833) as type species [synonym of *Coelotes atropos* (Walckenaer, 1830); prior to this, Blackwall affiliated this species with *Clubiona* Latreille, 1804, or *Drassus* Walckenaer, 1805] and placed *Coelotes* into Agelenidae C. L. Koch.

C. L. Koch (1850) revised the family and established three subfamilies: (1) 'Eigentliche Trichterspinnen' (*Tegenaria*, *Agelena*, *Textrix*, *Hahnia* C. L. Koch, 1841, and *Hersilia*); (2) 'Wanderspinnen' [*Philoica* (= *Tegenaria*), *Anyphaena* Sundevall, 1833 (currently regarded as separate family, not closely related to Agelenidae)]; and (3) 'Wasserspinnen' [*Argyroneta* (currently regarded as separate family)].

L. Koch (1868) accepted the Ciniflonidae Blackwall and the placement of Coelotinae in Agelenidae by Blackwall, and described *Caelotes bucculentus* L. Koch, 1868, now regarded as a member of *Tegenaria*. Based on the lack of two segmented posterior spinnerets and the lack of calamistrum and cribellum, L. Koch (1868) established the genus *Cybaeus* (with two spp.), although without assigning it to a family.

In his work on European spiders, Thorell (1869) stated that his family 'Agalenoidae' (=Agelenidae) comprises 'tolerably heterogeneous elements' (Thorell, 1869: 119) and grouped its members into three subfamilies: the Amaurobiinae, the 'Agaleninae' (= Ageleninae) and the Argyronetinae. In reference to C. L. Koch's (1850) subfamily 'Wanderspinnen' he states that it seems to be an 'unnatural section' and transferred the constituent genera to the 'Agelenoidae' (*Philoica*) and 'Drassoidae' (*Anyphaena*), respectively. Even though Thorell (1869: 118) considered the shape of the cephalothorax taxonomically more informative than the calamistrum and cribellum, he left *Coelotes* in the 'Agelenoidae', despite the fact that it resembles *Amaurobius* in this character. Thorell (1869: 129–131) also discussed the confusing nomenclatural and taxonomical history of *Tegenaria*.

Simon (1897, 1898, 1901, 1903) gave a very extensive description of the Agelenidae and included four subfamilies: Nicodaminae (Australian taxon, which he doubtfully included in the family; now family Nicodamidae Simon, 1897), Cybaeinae (now family Cybaeidae Banks, 1892), 'Hahniae' (now family Hahniidae Bertkau, 1878), and Ageleninae. He divided the Ageleninae into the Cryphoeceae and Ageleneae with *Agelena*, *Coelotes*, *Coras* Simon, 1898, *Hadites* Keyserling, 1862, *Malthonica* Simon, 1898, *Tegenaria*, and *Textrix*.

Lehtinen (1967) narrowed the concept of the Agelenidae in transferring many genera to other families. His Agelenidae comprises only the genera of Simon's Ageleneae and some subsequently described taxa, including several by him. He divided the family Agelenidae into the Ageleninae and Coelotinae. Lehtinen's 'radical classification' was criticized by many subsequent authors. Roth & Brame (1972: 2, 3) rejected Lehtinen's changes for the '. . . extreme difficulty experienced in using his grouping of genera, the inadequacy of his tables for separating genera and higher categories, and general lack of acceptance of his proposals by arachnologists'.

Based on similarities in genital structures, Wunderlich (1986) regarded the ecribellate Coelotinae more closely related to Amaurobiinae than *Agelena* and placed it, as a junior synonym of Amaurobiinae, in his Agelenidae *s.l.* Recent studies suggest that this classification is highly artificial (Bi, Zhou & Song, 2005; Spagna & Gillespie, 2008; Bolzern *et al*., 2010) and that the Coelotinae belongs to Agelenidae (Miller *et al*, 2010). In addition to the 'Coelotinae problem', there is an on-going discussion about the definition of Agelenidae and whether the Australian genera are closely related to Agelenidae or not (Griswold *et al*., 1999, 2005; Jocqué & Dippenaar-Schoeman, 2006; Spagna & Gillespie, 2008; Miller *et al*., 2010).

Currently the Agelenidae (including the Coelotinae) comprises 68 genera and 1152 species (Platnick, 2012). During recent years many taxonomic papers with descriptions of new genera and species of Agelenidae (including Coelotinae) have been published from Asia (Nishikawa & Ono, 2004; Guseinov, Marusik & Koponen, 2005; Ovtchinnikov & Inayatullah, 2005; Tanikawa, 2005; Xu, Li & Wang, 2005, 2008; Zhang, Zhu & Wang, 2005; Zhang *et al*., 2006a, b; Chami-Kranon, Likhitrakarn & Dankittipakul, 2007; Wang & Jäger, 2007, 2008; Xu & Li, 2007, 2008; Zhang, Zhu & Song, 2007; Dankittipakul & Wang, 2008; Dankittipakul & Zhang, 2008; Wang, Xu & Li, 2008; Zhang, Li & Xu, 2008; Zhang & Zhu, 2010), Europe (Kovblyuk, 2006; Barrantes & Eberhard, 2007; Gasparo, 2007; Bolzern, Hänggi & Burckhardt, 2008; Kovblyuk & Ponomarev, 2008; Deltshev, 2008b; Bolzern, Crespo & Cardoso, 2009; Bolzern *et al*., 2010; Bolzern & Hervé, 2010; Bosmans, 2011), and North America (Ayoub, Riechert & Small, 2005; Stocks, 2009).

The confusing history and the unstable concept of Agelenidae *s.l.* make the taxonomic revision of the family an urgent task given the popularity of its members as laboratory animals and other reasons outlined earlier. The aim of the present work is to contribute to this goal by revising the *Tegenaria–Malthonica*-complex in Europe. These taxa are members of Lehtinen's (1967) subfamily Ageleninae, which includes four tribes: Agelenopsini (Nearctic and Neotropical), Agelenini (Holarctic and Afrotropical), Textricini, and Tegenariini (both mainly Palaearctic). According to Lehtinen (1967) the Tegenariini comprises *Hadites*, *Histopona* Thorell, 1869, *Malthonica*, *Pseudotegenaria* Caporiacco, 1934, and *Tegenaria*. Most species have been associated with *Tegenaria* or *Malthonica*. Bolzern *et al*. (2010) have shown that the tribes as conceived by Lehtinen are only partly monophyletic and that the current generic affiliation of several species is doubtful. This is especially true for *Tegenaria* (Levy, 1996; Guseinov *et al*., 2005) and *Malthonica* (Barrientos & Cardoso, 2007; Bolzern *et al*., 2010). The problem has been partly solved by Bolzern *et al*. (2010) in erecting the new genus *Aterigena* comprising species previously assigned to both genera.

Here the European species of the *Tegenaria–Malthonica* complex have been revised and their phylogenetic relationships analysed. As the combination of morphological and molecular data improved the reliability of the resulting phylogenies (Giribet, Edgecombe & Wheeler, 2001; Arnedo, Hormiga & Scharff, 2009), we used a mixed approach. Based on the phylogenetic analyses, a new classification is presented. For *Tegenaria* and *Eratigena* gen. nov. definitions, identification keys to species, and (re)descriptions of many constituent species, including seven new ones, are provided.

## MATERIAL AND METHODS

Specimens were examined or are cited from the following institutions: American Museum of Natural History, New York, USA (AMNH, N. Platnick), Göteborgs Naturhistoriska Museum, Sweden (GNHM, T. Nordander), Hungary Natural History Museum, Budapest, Hungaria (HNHM, D. László), Muséum d'histoire naturelle de la Ville de Genève, Switzerland (MHNG, P. Schwendinger), Muséum National d'Histoire naturelle, Paris, France (MNHN, Ch. Rollard), Museo Civico di Storia Naturale di Verona, Italy (MCSN, including the Brignoli collection, L. Latella), Museo Civico di Scienze Naturali 'E. Caffi', Bergamo, Italy (MSNB, P. Pantini), Museum and Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland (MIZ, D. Mierzwa), Natural History Museum, London, United Kingdom (NHML, J. Beccaloni), Naturhistorisches Museum, Basel, Switzerland (NMB), Naturhistorisches Museum, Bern, Switzerland (NHMB, Ch. Kropf), Naturhistorisches Museum, Wien, Austria (NHMW, Ch. Hörweg), Royal Belgian Institute of Natural Sciences, Belgium (RBINS, J. van Keer), Senckenberg Forschungsinstitut und Naturmuseum, Frankfurt am Main, Germany (SMF, including the Wunderlich collection (JW), P. Jäger), Swedish Museum of Natural History, Stockholm, Sweden (SMNH, G. Lindberg), Manchester Museum, Manchester, United Kingdom (D. Logunov), Universitat de Barcelona, Departament de Biología Animal, Facultat de Biología, Spain (UB, M. A. Arnedo, C. Ribera), and the Zoological Museum, Natural History Museum of Denmark, Copenhagen, Denmark (ZMUC, N. Scharff).

Additionally, many specimens from private collections were provided for examination by the following persons: I. Alberti (Germany), J. Altmann (Germany), J. A. Barrientos (Spain), E. Bauchhenss (Germany), A. Bayram (Turkey), G. Bergthaler (Austria), T. Blick (Germany), J.-L. Boevé (Belgium), P. Cardoso (Portugal), L. Crespo (Portugal), E. de Mas (Spain), P. Dettwiler (Switzerland), H. Eikamp (Germany), C. Gack (Germany), M. M. Gaver (United States), M. Geiser (Switzerland), P. Graf (Switzerland), K.-H. Harms (Germany), Ch. Hervé (France), S. Huber (Germany), J & K. van Keer (Belgium), W. Kirchner (Germany), U. Kluge (Germany), M. Lemke (Germany), C. Lötscher (Switzerland), P. Michalik (Germany), R. Mühlethaler (Switzerland), S. Öberg (Sweden), P. Paquin (Canada), S. Bolzern-Ramseyer (Switzerland), M. Reimke (Germany), T. Russell-Smith (United

Kingdom), A. Schönhofer (Germany), A. Stäubli (Switzerland), M. Trüssel (Switzerland), N. Txasko (Spain), Z. Zhang (China), S. Zschokke (Switzerland). All specimens are preserved in 70–96% ethanol.

Three field excursions to Italy and Crete were conducted by A. Bolzern to collect specimens for DNA extraction. Additional material suitable for molecular work was provided by many colleagues mentioned above and listed in the Acknowledgments. Several specimens were collected as juveniles and raised to maturity in the laboratory at the NMB. The specimens from which DNA was successfully extracted are listed in Appendix 1.

## MORPHOLOGICAL METHODS

For the morphological examinations and for the preparation of the drawings a Leica stereomicroscope MZ12 (up to 110 × magnification) and MZ Apo with drawing tube were used. The pencil drawings were scanned and digitally reworked with the help of a graphics tablet and Adobe ILLUSTRATOR. Most measurements were taken from digital pictures taken with a Leica DFC320 camera and calculated with the program ImageJ 1.38x (http://rsb.info.nih.gov/ij/). In order to get sharp pictures, several photographs with different focal levels were taken, followed by a stacking procedure using the program CombineZM (http://hadleyweb.pwp.blueyonder.co.uk/CZM/News.htm).

For clearing the vulva, the removed epigyne was placed into clove oil for several minutes. The descriptions of the bulb are given from a ventral view. The spines on the male palp are mostly not illustrated as they are considered of minor taxonomic significance. Leg measurements were taken from the dorsal side. All measurements are given in millimetres. Measurements of palps and legs are given as [femur, patella, tibia, (metatarsus), tarsus/cymbium]. Patterns of leg spination are given for the palps (femur dorsal–prolateral–retrolateral, patella dorsal–prolateral–retrolateral, tibia dorsal–prolateral–retrolateral) and for each leg segment (leg I dorsal–prolateral–retrolateral–ventral, leg II . . .). A ‘p’ in the spination formula indicates ‘paired spines’ (two spines at approximately the same longitudinal position). The colour description is based on ethanol-preserved specimens.

Specimens used for scanning electron microscopy (SEM) were immersed in 2-ethoxy ethanol for 48–72 h and then placed into ethyl acetate for 2–4 h. After several minutes of air drying, the samples were mounted on Cambridge SEM stubs followed by sputter coating with 20 nm gold (BAL-TEX MED 020). Pictures were generated using a scanning electron microscope (XL30 ESEM, Philips) at an accelerating voltage of 5 kV.

The program DELTA (Dallwitz, 1980; Dallwitz, Paine, & Zurcher, 1999) was used for preparing the morphological data matrix for the phylogenetic analyses (Appendix 2).

Redescriptions, drawings, and photographs have been provided only for species lacking good descriptions or illustration in the literature.

### *Taxa selection and morphological character assessment*

This study concentrates on European taxa, all of which are included. Additional material comes from Africa, Asia, and North America (Appendices 3, S1).

Short definitions of the family Agelenidae have already been provided by Bennett & Ubick (2005) and Jocqué & Dippenaar-Schoenman (2006). The characters and their states used in the cladistic analyses are listed in Table 1 and Appendix 2. In total we scored 105 characters for 69 species. As outgroup *Amaurobius ferox* (Walckenaer, 1830), Amaurobiidae, was used. Besides the ingroup in focus (*Malthonica*, *Tegenaria*) we scored for *Agelena labyrinthica* (Clerck, 1757), *Allagelena gracilens* (C. L. Koch, 1841), both belonging to Agelenini, *Maimuna cretica* (Kulczyński, 1903), *Maimuna vestita* (C. L. Koch, 1841), *Textrix caudata* L. Koch, 1872, and *Textrix denticulata* (Olivier, 1789), all belonging to Textricini, *Histopona hauseri* (Brignoli, 1972), *Histopona torpida* (C. L. Koch, 1837), *Histopona fioni* Bolzern *et al*., 2013, and all known *Aterigena* species to complete the group Tegenariini.

### *Conventions and abbreviations*

The morphological terminology follows Jocqué & Dippenaar-Schoeman (2006) and Bolzern *et al*. (2008). The following abbreviations are used: AER, anterior eye row; ALE, anterior lateral eyes; ALS, anterior lateral spinnerets; AME, anterior median eyes; bulbL, distance of the cymbium base to the most distal tip of the male bulb; CB, cymbium breadth; CBD, combined duct (vulva without recognizable RC); CD, copulatory duct; CL, carapace length; CLY1, clypeus height under AME; CLY2, clypeus height under ALE; CO, copulatory opening at female epigyne; CW, carapace width; FD, fertilization duct; MA, median apophysis at male bulb; OL, opisthosoma length; OW, opisthosoma width; PER, posterior eye row; PLE, posterior lateral eyes; PLS, posterior lateral spinnerets; PME, posterior median eyes; PMS, posterior median spinnerets; RC, receptaculum; RTA, retrolateral tibial apophysis (used here as the sum of all structures in retrolateral position of the tibia of the male pedipalp); STL, sternum length; STW, sternum width.

## MOLECULAR METHODS

For the DNA extraction, one leg was removed from a freshly sampled and alcohol-fixed (pure absolute

**Table 1.** Morphological characters and states used in the cladistic analyses

Relative measurements in males

1. Carapace: (0) three quarters as wide as long or less, (1) more than three quarters as wide as long.
2. Sternum: (0) approximately as long as wide, (1) distinctly longer than wide.
   Textricini (*Maimuna*, *Textrix*) and some *Aterigena* and *Histopona* species have a distinctly elongated sternum as is present in *Amaurobius* species.
3. Ratio carapace length to tibia I length: (0) tibia I shorter or equal to carapace, (1) tibia I longer than carapace.
   Relative size of legs compared to the carapace is a key character for some groups.
4. Length of tibiae: (0) III smallest, (1) II smallest.
   Length of leg tibiae is taken as a representative of leg length in total. In most agelenids the shortest leg is leg III. The shortened second leg is a potential synapomorphy for Textricini, here represented by *Maimuna* and *Textrix*.

Relative measurements and counts in females

5. Labium: (0) wider than long, (1) as wide as long, (2) longer than wide.
   Labium shape is an occasionally used character in different families. Within agelenids, it was here revealed to be homoplastic.
6. Ratio gnathocoxa width to length: (0) smaller than or equal to 0.6, (1) greater than 0.6.
   In Textricini, *Aterigena* and *Malthonica* gnathocoxae are distinctly shortened compared to their width. The classes were chosen based on the visualized distribution of available ratios.
7. Number of small teeth at palpal claw: (0) fewer than five, (1) five to eight, (2) nine or more.
   A high number of small teeth is present in *Aterigena* and ***Eratigena* gen. nov.** The number is reduced in Agelenini, *Histopona*, and *Tegenaria* and even more in Textricini and *Malthonica*.
8. Ratio carapace length to tibia I length: (0) tibia I smaller or equal to carapace, (1) tibia I longer than carapace.
   Relatively longer legs are only present in some species of ***Eratigena* gen. nov.** and *Tegenaria*.
9. Length of tibiae: (0) III smallest, (1) II smallest.
   As for males, the shortening of leg II is a potential synapomorphy for *Textrix* and *Maimuna* species.

Eyes

The eight eyes arranged in two transverse rows are used in the literature to define agelenid genera (Appendices 2, S2, Fig. 3). The curvature of eye rows is a character commonly used in identification keys (e.g. Roberts, 1995; Nentwig *et al*., 2011).

10. Eye size pattern: (0) AME and/or PME smaller than subequally sized lateral eyes, (1) PME largest.
    Eye size is a key character separating Textricini species (PME bigger than others) from other agelenids.
11. Clypeus height (measured under AME): (0) less than 1.5 × AME, (1) 1.5–2 × AME, (2) 2–3 × AME, (3) greater than 3 × AME.
    All included agelenid species have a higher clypeus than *Amaurobius* but within Agelenidae, this character is homoplastic.
12. Anterior eye row in dorsal view: (0) distinctly recurved, (1) moderately recurved, (2) straight, (3) moderately procurved.
    Potential synapomorphy for Agelenini and *Malthonica* (state 3) and Textricini (state 0).
13. Posterior eye row in dorsal view: (0) distinctly recurved, (1) straight or moderately curved, (2) distinctly procurved.
    Potential synapomorphy for Agelenini (state 2) and Textricini (state 0).
14. Anterior eye row in frontal view: (0) distinctly recurved, (1) straight or moderately procurved, (2) strongly procurved.
    Potential synapomorphy for Agelenini and *Malthonica* (state 2) and Textricini (state 0).
15. Posterior eye row in frontal view: (0) straight, (1) distinctly procurved, (2) strongly procurved.
    Potential synapomorphy for Agelenini (state 2) and Textricini (state 0).

Colour patterns

Lehtinen (1967) used colour patterns extensively. This is problematic for several reasons. The colour patterns of the opisthosoma and other structures are very variable. Cave dwellers tend to have reduced pigmentation. Spiders are generally fixed and conserved in ethanol, which strongly affects colours. For these reasons we have reduced the use of colour to a minimum.

16. Pattern of pigmentation on carapace: (0) absent, (1) present.
    Colour pattern on carapace is potentially more informative than colour pattern on abdomen. In contrast to *Amaurobius*, most agelenids show a colour pattern on the carapace. However, in several species this pigmentation has been lost independently.

**Table 1.** *Continued*

17. Pattern of pigmentation of carapace margin: (0) continuous, (1) discontinuous, with three to five spots (where the legs are attached).
    The colour pattern on carapace margin is discontinuous in many *Tegenaria* species (Figs 13O, 22L), a potential synapomorphy for more derived *Tegenaria* species.
18. Pattern of pigmentation of symmetrical longitudinal dark bands dorsally on carapace: (0) more or less continuous, (1) not continuous, serrated or reduced to three to four pronounced triangles.
    Agelenini, Textricini, *Malthonica*, and *Histopona* show state 0 whereas the remaining groups show predominantly the more complex pattern (state 1, Fig. 13O).
19. Pigmentation of sternum: (0) absent, (1) present.
    A sternal pattern of pigmentation, often used for species identification (e.g. Dahl, 1931; Roth, 1968), is present in all included groups except for *Amaurobius*. In some ***Eratigena* gen. nov.** and *Tegenaria* species the pigmentation has been lost independently (probably a cave-dwelling adaption).
20. Pattern of sternal pigmentation: (0) completely darkened, (1) darkened median region, (2) moderately paler median region, (3) pattern with pale median band and symmetrical pale dots laterally.
    Agelenini, Textricini, and *Malthonica* species show a completely darkened sternum or only a darker median band (states 0 and 1) whereas the remaining groups show a more complex pattern (e.g. Fig. 13P).
21. Pigmentation of legs: (0) absent, (1) present.
    In contrast to the outgroup, leg pigmentation is present in all agelenid groups but has been lost in some ***Eratigena* gen. nov.** and *Tegenaria* species independently (probably a cave-dwelling adaption).
22. Pattern of leg pigmentation: (0) annulated, (1) only ventrally annulated, (2) only coxa and proximal part of femorae indistinctly pigmented, (3) patellae and distal part of each leg segment darkened, (4) continuously darkened.
    Even though patterns of coloration are often homoplastic, this character provides potential synapomorphies for Agelenini (state 3) and some groups of ***Eratigena* gen. nov.** (states 2 and 4). State 1 is exclusively present in *Aterigena*, *Histopona*, and *Maimuna* whereas the remaining groups have annulated legs (Fig. 22H).

Modified hairs

23. Plumose hairs: (0) present on carapace, legs, and opisthosoma, (1) absent.
    For Agelenidae, the 'feathery hairs' (Lehtinen, 1967) or 'plumose hairs' (Roth, 1968; Roth & Brame, 1972) (Fig. 2A), are phylogenetically important. Roth (1968) first thought that this character is a key character for *Tegenaria*. Lehtinen (1967) stated correctly, that these hairs are only present in his tribes Agelenopsini, Agelenini, and Tegenariini and are absent in Textricini and Coelotinae (they are also present in two subfamilies of Amaurobiidae).
24. White hairs on carapace: (0) present, (1) absent
    A special type of white hairs on the carapace is a potential synapomorphy for Textricini.

Chelicerae

Several authors have used cheliceral teeth (e.g. Fig. 2I) as important characters for taxa definition or description (e.g. Simon, 1897, 1898, 1901, 1903; Brignoli, 1971a; Levy, 1996; Bolzern *et al*., 2010). Therefore we have included the following three characters.

25. Number of cheliceral teeth on the promargin: (0) three, (1) four or five.
    The number of teeth on the promargin allows the division of the analysed taxa into two groups.
26. Number of cheliceral teeth on the retromargin: (0) fewer than three, (1) three to six, (2) more than six.
    The number of teeth on the cheliceral retromargin provides potential synapomorphies for ***Eratigena* gen. nov.** (Fig. 2I) and Textricini.
27. Shape of cheliceral teeth on the retromargin: (0) all equal or subequal, (1) most proximal tooth distinctly larger, (2) more proximally, the teeth become very small (3) one or two large, and more proximal smaller teeth, well separated from the larger one(s), (4) chaotic pattern of large and small teeth.
    The shape and pattern of the teeth on the cheliceral retromargin provide synapomorphies for ***Eratigena* gen. nov.** and *Malthonica*.

Trochanter

28. Ventral part of trochanter: (0) straight or slightly curved, (1) notched (III & IV, others straight), (2) all notched.
    The notched trochanter is discussed in the literature (e.g. Lehtinen, 1967; Barrientos & Cardoso, 2007; Bolzern *et al*., 2010). It defines *Aterigena* Bolzern *et al*., 2010, together with other characters, and it is, within Agelenidae, a potential synapomorphy for *Histopona* (all trochanters notched).

**Table 1.** *Continued*

Patterns of leg-spination, trichobothria, and claws

In several spider groups, e.g. in Linyphiidae, leg spination patterns are used for identification (e.g. Wiehle, 1956, 1960) even though it can be very variable in some species (e.g. see Kovblyuk, 2004); in fact there are some areas of the legs with high levels of variation but not others.

29. Female palp femur spines: (0) one or two dorsal spines, (1) three or more dorsal spines.
    Whereas *Aterigena* and *Histopona* show the basic pattern (1) ***Eratigena* gen. nov.** and most *Tegenaria* bear a reduced number of spines on the dorsal surface of female palp femora.
30. Prolateral spine on female palp patella: (0) absent, (1) present.
    The presence of lateral spines on patella is an important character in the definition of *Aterigena* (Bolzern *et al*., 2010). Within Tegenariini, it is a potential synapomorphy for *Aterigena*. Lateral spines on palp patellae can be observed also in representatives of the other tribes.
31. Pattern of prolateral spines on female palp tibia: (0) one + one pair, (1) one pair + one, (2) two, (3) two pairs.
    Spination pattern on the female palp segments are phylogenetically informative. *Histopona*, *Malthonica*, and *Tegenaria* have no paired spines at that specific position (2). This character may be a potential synapomorphy for this group relationship but its value is doubtful because this state also occurs in a subgroup of ***Eratigena* gen. nov.**
32. Trichobothria on female palp tarsus: (0) absent, (1) present.
    In contrast to *Amaurobius* most agelenids do not have a trichobothrium on the female palp tarsus. It reappeared independently in two subgroups of ***Eratigena* gen. nov.** and *Tegenaria.*
33. Male palp femur spines: (0) one dorsal spine, (1) two dorsal spines, (3) three dorsal spines.
    As mentioned for char. 29 for females, the reduction of dorsal spines in ***Eratigena* gen. nov.** and *Tegenaria* is also evident in males.
34. Prolateral spines on male palp patella: (1) absent, (2) present.
    Lateral spines on male palp patella are a potential synapomorphy for a subgroup of *Aterigena*.
35. Pattern of prolateral spines on male palp tibia: (0) absent, (1) one, (2) two, (3) one + one pair, (4) two pairs.
    Whereas *Amaurobius* lack prolateral spines on male palp tibia, all agelenids have some (except *Tegenaria montana* and *T. rilaensis*).
36. Short dorsal spike on male palp tibia: (0) absent, (1) present.
    A short spike (probably a reduced spine) dorsodistally on the male palp tibia (Fig. 10G) groups several ***Eratigena* gen. nov.** species.
37. Trichobothria on male palp tibia (dorsal): (0) two rows of trichobothria present, (1) one or more 'fields' of trichobothria present.
    An aggregation of trichobothria dorsally on male palp tibia represents a potential synapomorphy for Agelenini.
38. Trichobothria on female palp tarsus: (0) absent, (1) present.
    As in females (char. 32), the trichobothrium on the male palp cymbium reappeared independently in two subgroups of ***Eratigena* gen. nov.** and *Tegenaria.*
39. Dorsal spines on leg femorae: (0) one or two, (1) more than two (at least at two femora).
    Within Agelenidae, an evolutionary trend of reducing the number of spines is apparent.
40. Lateral spines on leg patellae: (0) absent, (1) legs I–II with only prolateral spines, III–IV with prolateral and retrolateral spines, (2) legs I–IV with prolateral and retrolateral spines, (3) legs I–III with only prolateral spines, IV without lateral or with only retrolateral spines.
    The presence of lateral spines on patellae is an important character providing a potential synapomorphy for *Aterigena* (state 1, Bolzern *et al*., 2010) and groups Agelenini and Textricini (state 2). For the present data set, state 3 represents a potential synapomorphy for *Allagelena*.
41. Lateral spines on tibia I: (0) absent, (1) one to three prolateral spines, retrolateral spines possible.
    The loss of lateral spines on tibia I is recognizable in ***Eratigena* gen. nov.** and *Tegenaria* only.
42. Dorsal spines on tibiae III–IV: (0) absent, (1) present.
    The presence of dorsal spines on tibiae III–IV is a potential synapomorphy for Agelenidae.
43. Number of dorsal spines on tibiae III–IV: (0) one, (1) two.
    Only some species of *Tegenaria* bear two dorsal spines on tibiae III–IV. Whether or not this pattern may represent a synapomorphy is doubtful.
44. Dorsal spines on metatarsi: (0) absent, (1) present.
    Textricini is the only group in which all species lack dorsal metatarsal spines. A large number of *Tegenaria* species also show this plesiomorphic state but not all. Thus, this character is homoplastic.
45. Number of dorsal spines on metatarsi: (0) legs III–IV with one to two spines, (1) legs III–IV with more than two spines, (2) legs II–IV with one or more spines, (3) all legs with more than two spines.

**Table 1.** *Continued*

Bearing more than two spines on all metatarsi is a potential synapomorphy for a clade combining *E. barrientosi* and *E. incognita*.

46. Prolateral spines on metatarsus I: (0) zero to one prolateral spine, (1) two or more prolateral spines.
    The reduction in number of spines is also recognizable on the prolateral metatarsus I. *Aterigena*, *Malthonica*, and some *Histopona* species show the plesiomorphic state (1).
47. Ventrodistal spines on metatarsi III–IV: (0) no pattern or one pair + one single spine (basic pattern), (1) one pair + one pair of spines very close together, (2) one pair + one single or pair of much smaller spines.
    In *Aterigena* (state 2) and Textricini (state 1) special grouping patterns of spines are present ventrodistally on metatarsi III and IV, providing potential synapomorphies.
48. Lateral spines on tarsi III–IV: (0) zero to one prolateral spine, (1) two or more prolateral spines.
    Additional prolateral spines on tarsi III–IV are present in Agelenini, *Aterigena*, and some ***Eratigena* gen. nov.** species.
49. Ventral spines on tarsus III–IV: (0) present, (1) absent.
    Ventral spines on tarsi III and IV (plesiomorphic state) are absent in *Tegenaria*, ***Eratigena* gen. nov.**, and *Malthonica* but present in all other examined taxa.
50. Number of dorsal trichobothria on tarsus I: (0) fewer than six, (1) six or more.
    An important character in Agelenidae is the row of dorsal trichobothria on leg tarsi increasing in length towards apex. In general, Textricini and *Malthonica* species have fewer trichobothria than the remaining Tegenariini. We have divided this character into a state with fewer and one with more trichobothria on tarsus I.
51. Number of small teeth on the paired claw of leg I: (0) fewer than ten, (1) ten to 12, (2) 13 or more.
    Besides the spination and trichobothria patterns, the number of small teeth on the paired claws on tarsus I (Fig. 2B) is variable and highly homoplastic.

Spinnerets

On the opisthosoma the spinnerets represent the most complex external structure. The two-segmented PLS are diagnostic for Agelenidae (e.g. Fig. 9I). As shown by Coddington (1989) and Griswold *et al*. (2005), for different spider families and by Murphy (2007) for Gnaphosidae, spinnerets with the corresponding spigots are potentially informative phylogenetic characters. In Agelenidae the spigots on the ALS have two major ampullate gland spigots or one major ampullate gland spigot and one nubbin, a probably broken off spigot (Griswold *et al*., 2005), and a variable number of pyriform gland spigots in combination with several tartipores (Fig. 1E, H, J).

52. Colulus: (0) strongly reduced, (1) somewhat reduced (two separated plates or only two hairy regions present), (2) distinct (trapezoidal or rectangular plate).
    Lehtinen (1967) introduced the paired colulus of the spinnerets as one of three characters diagnosing the Agelenidae (Figs 1C, G, 9I; the other diagnostic characters proposed by Lehtinen are the lengthened PLS and three tarsal claws). This is problematic as many species do not have this character state. The paired colulus is characteristic for European Agelenini, Textricini, and for several species of *Histopona* but not for *Aterigena*, ***Eratigena* gen. nov.**, or *Tegenaria* species (Fig. 9I). In *Malthonica* the colulus is strongly reduced.
53. Shape of distal margin of trapezoidal or rectangular colulus: (0) more or less straight, (1) with a notch in the middle, not concave, (2) ‘w’-like or concave.
    *Aterigena*, ***Eratigena* gen. nov.**, and *Tegenaria* species have a trapezoidal colulus with the distal margin medially notched or w-shaped (Fig. 9I). These are potential synapomorphies for the corresponding groups.
54. Coloration of distal segment of PLS: (0) pale, (1) moderately darkened.
    Simon (1937) and subsequent authors used the coloration of the segments (*Tegenaria* species almost always have a pale distal segment) for grouping taxa.
55. Length of distal segment of PLS in relation to the length of basal segment: (0) shorter than basal, (1) as long as basal, (2) longer than basal.
    The relative length of the distal segment of PLS (Simon, 1937, and subsequent authors used this forgrouping taxa) is highly homoplastic.
56. Prominent spigots distally on PMS (in females): (0) absent, (1) present.
    The absence of prominent spigots on PMS is a potential synapomorphy for Agelenini and Textricini (Fig. 1B, D, F, I, K, N).
57. Pattern of prominent spigots distally on PMS (in females): (0) one prominent spigot, (1) one prominent spigot anteriorly and one posteriorly, (2) two to three prominent spigots in a group, (3) more than three prominent spigots.
    The number of prominent spigots distally on PMS provides important phylogenetic information. It provides a potential synapomorphy for *Aterigena* species (state 1). ***Eratigena* gen. nov.** and *Malthonica* share character state 0, *Histopona* and *Tegenaria* share character state 2 (Fig. 1B, D, F, I, K, N).

**Table 1.** *Continued*

58. Number of minor ampullate and cylindrical gland spigots distally on PMS (in females): (0) two (posteriorly, on both lateral sides), (1) two (one in the middle, one more posteriolaterally), (2) three (one in the middle, two more posteriolaterally), (3) four to five (one in the middle, three to four more posteriorly in a transversal row or semicircle), (4) eight (one in the middle, one posteriorly, three and three laterally), (5) four (two in the middle, two more posteriolaterally), (6) 6 (two in the middle, two and two laterally), (7) four to seven in a semicircle.
    The distribution of minor ampullate and cylindrical gland spigots on PMS is very diverse in Agelenidae and provides potential synapomorphy uniting *Histopona* and *Tegenaria* (Fig. 1B, D, F, I, K, N).
59. Number of cylindrical gland spigots on the distal segment of PLS (in females): (0) one (basal), (1) two (one basal, one medial), (2) more than three (one to two basal, others in a row towards distal end).
    The number and arrangement of cylindrical gland spigots on the distal segment of PLS provides a potential synapomorphy for the clade *Aterigena* + ***Eratigena* gen. nov.** + *Histopona* + *Tegenaria*) (Fig. 2M).
60. Anal tubercle with long and dark spikes: (0) present, (1) absent.
    This character concerning the posterior appendages of spiders is probably a newly detected one: in several *Agelena*, *Agelescape*, *Allagelena*, and *Hololena* species a special type of spike is present on the anal tubercle (Fig. 2G, absent in all other examined taxa).

Male genitalia

61. Femoral apophysis on male palp: (0) absent, (1) present.
    Within European agelenids, the presence of an apophysis on the male palp femur is a potential synapomorphy for *Maimuna*.
62. Patellar apophysis on male palp: (0) absent, (1) present.
    In Ageleninae a patellar apophysis evolved most probably several times independently. Whereas all Agelenini and *Maimuna* species have one, only some ***Eratigena* gen. nov.** or *Histopona* species show this character state (e.g. Fig. 11B).
63. RTA, number of branches: (0) no distinct branch, (1) one branch, (2) two branches, (3) three branches.
    The apophysis on the retrolateral side of the male palp tibia has previously been used in spider systematics to define the 'RTA-clade'. The hypothesis that this character is phylogenetically meaningful is supported by several important works on spider phylogeny (Griswold *et al*., 2005; Spagna & Gillespie, 2008; Blackledge *et al*., 2009; Miller *et al*., 2010). A challenging task is the recognition of homologous branches of the RTA in different taxa. Several taxa have strongly modified RTAs with fused or reduced branches. For this reason we defined the number of branches as one character, and estimated complexity of the whole RTA as another (char. 64).
64. RTA complexity: (0) low (one peak, bulge or flat ridge), (1) medium, (2) high (more peaks, bent points, fused branches).
    See statement for char. 63.
65. Palp tibia with retrolateroventral ridge, sometimes fused with ventral branch of RTA: (0) present, (1) absent.
    An important character of the treated taxa may be the presence (absence) of a lateroventral ridge (Fig. 2E), even though this is probably a homoplastic character.
66. Palp tibia with prolateroventral apophysis: (0) present, (1) absent.
    In all examined *Histopona* species, we observed a small but distinct prolateral tibia apophysis, a potential synapomorphy for this genus.
67. Embolus shape: (0) filiform, getting thinner to the end or distally truncated, (1) more complex.
    All Tegenariini, Textricini (and Coelotinae) share the presence of a filiform embolus (sometimes distally truncated).
68. Position of embolus origin (free apex) at the left palp in ventral view: (0) 6–8 o'clock position, (1) 8–10 o'clock position, (2) 10–12 o'clock position, (3) 12–2 o'clock position.
    Levy (1996) and Guseinov *et al*. (2005) suggested that the position of the origin of the free apex of the embolus is phylogenetically significant, a hypothesis that was not supported by our analysis showing the homoplasy of this character.
69. Shape of embolus tip: (0) distinctly shaped, (1) inconspicuous.
    *Maimuna* and many *Tegenaria* species have a modified embolus tip (Fig. 2C), most probably a homoplastic character.
70. General shape of conductor: (0) lamelliform, (1) lamelliform but complex (several lamellae), (2) massive, complex, (3) massive, with a large, membranous part and often with a broad connection to the tegulum.
    A meaningful character is the shape of the conductor (Fig. 2D). Even though this structure strongly varies amongst taxa, the general shape provides information to separate groups within Ageleninae.
71. Transversal ridge on conductor: (0) absent, (1) present.

**Table 1.** *Continued*

The presence (absence) of a transverse ridge (e.g. Figs 8C, 11A) may provide little phylogenetic information because it occurs in all three of the included tribes, indicating homoplasy.

72. Transversal ridge on conductor, details: (0) sclerotized, (1) lamelliform, membranous, (2) massive.
    In contrast to the presence (absence) of this structure, the shape is more informative, providing two potential synapomorphies, one for *Tegenaria* (Fig. 20S) and one for a subgroup in ***Eratigena* gen. nov.** (Fig. 13E).
73. Additional tegular apophysis: (0) absent, (1) present.
    The presence of an additional tegular apophysis at the base of the embolus (e.g. Fig. 20K) is detectable in *Histopona* and *Tegenaria*.
74. Additional tegular apophysis, shape: (0) lobe-like, flat, and somewhat protruding, (1) big bulge between tegulum and conductor, (2) strongly sclerotized ridge forming a pocket-like structure, (3) strongly sclerotized structure originating at the basis of the free embolus, complex.
    The shape of the additional tegular apophysis is phylogenetically meaningful, supporting small clades within *Tegenaria*.
75. Connection of conductor to tegulum: (0) membranous, not strongly sclerotized, (1) sclerotized and fixed.
    Only *Tegenaria* and *Textrix* have in most species a strongly sclerotized and fixed conductor (e.g. Fig. 17O).
76. Shape of distal portion of conductor: (0): differently shaped, no real distal portion detectable, (1) broadly rounded, not elongated (distance from the connection to the tip smaller than the width of the distal portion), (2) as long as wide, (3) elongated (distance from the connection to the tip larger thanthe width of the distal portion).
    Even though the shape of the distal portion of the conductor is hard to compare amongst several species, we included this character in order to reflect this diversity.
77. Lateral margin of conductor: (0) not folded, (1) folded.
    Only *Malthonica* and Agelenini do not have an at least partly folded conductor margin.
78. Lateral margin of conductor folded: (0) only at the terminal half, (1) completely folded.
    Both states are present in ***Eratigena* gen. nov.** and *Tegenaria*. In ***Eratigena* gen. nov.** an only partly folded conductor margin may unite a subclade.
79. Terminal end of conductor, dorsal part: (0) absent, (1) present.
    A dorsal protuberance on the conductor is present in all Agelenini and Textricini and in most *Tegenaria* and some ***Eratigena* gen. nov.** species (e.g. Fig. 22F).
80. Terminal end of conductor, dorsal part, details: (0) plate like, rounded, or pointed, (1) rounded outgrowth, more complex than a plate, (2) big rounded outgrowth, (3) more complex structure.
    The shape of that protuberance is very diverse but may provide a potential synapomorphy for *Allagelena*.
81. Terminal end of conductor, ventral part: (0) rounded, one short point or cone shaped, (1) one elongated and strong point, (2) more complex (several peaks, plates, etc.).
    Within the data set, *Allagelena*, ***Eratigena* gen. nov.**, and *Maimuna* species show a modification of the ventral terminal end of the conductor (e.g. Fig. 8C).
82. Conductor distinctly bifid with ventral part functional: (0) absent, (1) present.
    A distinct modification of the conductor is present in a subclade of *Tegenaria* (Fig. 18I, N, R)
83. Conductor terminally elongated to dorsal side of cymbium: (0) absent, (1) present.
    A conductor protruding to the dorsal side of the cymbium is a potential synapomorphy for *Maimuna.*
84. Median apophysis: (0) present, (1) absent.
    Another important structure on the male palp is the median apophysis (Fig. 2D). It may serve as a key character for the definition of several groups. In European Ageleninae it is generally present, except in *Histopona* and *Textrix*.
85. Position of origin of MA at the left palp in ventral view: (0) 1–3 o'clock, (1) 3–5 o'clock, (2) 5–7 o'clock, (3) 7–9 o'clock.
    MA originating at 7–9 o'clock position is a potential synapomorphy for an ***Eratigena* gen. nov.** subclade (e.g. Fig. 9K). State 0 can only be observed in *Agelena*.
86. MA protruding: (0) only somewhat protruding, connection wider than MA long, (1) protruding, connection as wide as MA long, (2) protruding, connection narrower than MA long.
    In most Ageleninae, the MA is strongly protruding. In some ***Eratigena* gen. nov.**, *Allagelena*, and one species of *Tegenaria* the MA is moderately reduced.
87. Connection of MA to the tegulum: (0) sclerotized (at least partly), (1) membranous.
    The sclerotized connection of the MA to the tegulum is a potential synapomorphy for a subclade of ***Eratigena* gen. nov.**
88. Distal sclerite on MA: (0) absent, (1) present.
    Absence of a distal sclerite of the MA is only observable in *Agelena*.

**Table 1.** *Continued*

89. Shape of distal sclerite of MA: (0) plate like, forming a kind of pocket, (1) plate like, forming a kind of spoon, (2) thorn like, finger shaped, or pointed (also several points possible), (3) more complex, with more than one ending, (4) very complex, strongly sclerotized.
    Even though the shape of the distal sclerite of the MA is hard to compare amongst several species, we included this character in order to reflect this diversity. At least one potential synapomorphy for*Maimuna* is provided by this character.
90. Basal portion of tegulum: (0) not visible in ventral view, (1) visible in ventral view.
    The basal portion of the tegulum is visible in most Ageleninae (e.g. Fig. 15T) but not in Agelenini and a subclade of ***Eratigena* gen. nov.** (e.g. Fig. 9J).
91. Shape of basal portion of tegulum: (0) simple with a more or less continuous margin, (1) more complex, margin undulated.
    The more complex basal portion of the tegulum can be observed in a large clade of *Tegenaria* and in *Histopona torpida*.

Female genitalia

Epigynes and vulvae vary amongst the examined taxa and the detection of homologies is a major problem. In addition, the ontology proposed by Sierwald (1989) for genital structures of Pisauridae could only be adopted partly here.

92. Atrium: (0) no or indistinct atrium expressed, (1) distinct cavity.
    The presence of a distinct atrium (Fig. 9D) is diagnostic for Agelenini but is also developed in ***Eratigena* gen. nov.**, most probably a convergence.
93. Lateral disruption, separating the epigynal plate from the median plate: (0) absent (no separated median plate or median plate is strongly fused to epigynal plate), (1) present (separated median plate exists, laterally not completely fused to epigynal plate).
    The absence of a distinctly separated median plate is observed in Agelenini, *Maimuna*, and ***Eratigena* gen. nov.** (e.g. Fig. 10A).
94. Posterior sclerite: (0) absent, (1) present.
    The definition of the posterior sclerite (e.g. Fig. 16Q, U) remains problematic. The reduction of a posterior sclerite is a homoplastic character observable in Agelenini and Tegenariini.
95. Shape of posterior sclerite: (0) expressed as a strongly sclerotized bar or big plate, almost touching the anterior border, well separated from the epigynal plate, (1) big bulge, (2) expressed as a strongly sclerotized plate transversally and protruding ventrad.
    This character provides a potential synapomorphy for ***Eratigena* gen. nov.** (state 2, e.g. Fig. 11G, I).
96. Epigynal teeth: (0) absent, (1) present.
    The usage of the term ‘epigynal teeth’ in the literature is inconsistent and confusing (for Coelotinae see Wang & Jäger, 2010). This problem is reflected by the homoplasy of this character.
97. Epigynal teeth, details: (0) only ‘pseudo-teeth’ as posteriolateral elongation of lateral margin of atrium present, (1) present, anteriorly of CO at anterior margin of atrium, (2) present, posteriorly of the CO.
    ‘True’ teeth (state 2, posteriorly of the CO, Fig. 9D) group some species of ***Eratigena* gen. nov.**, whereas ‘pseudo’ teeth (only a pointed protuberance of the lateral margin limiting the median area, Figs 2F, 10A, B) are plesiomorphic and present in *Aterigena*, *Malthonica*, ***Eratigena* gen. nov.**, and *Tegenaria*.
98. Sclerotized ‘pockets’: (0) absent, (1) present.
    The presence and structure of sclerotized pockets (see also char. 99) on the epigyne constitute synapomorphies for some *Tegenaria* species around *Teg. parmenidis* and for several ***Eratigena* gen. nov.** species around *E. arganoi*.
99. Sclerotized ‘pockets’, details: (0) median of the epigyne, open towards anterior, (1) median of the epigyne, open towards posterior (by the posterior sclerite), (2) lateral, open towards posteriomedial (posteriorly of the CO), (3) lateral, open towards lateral.
100. Shape of vulva: (0) combined duct, (1) one pair of receptacula, (2) two pairs of receptacula, (3) receptacula irregularly sclerotized, enclosing convoluted ducts.
    The ‘fused’, characteristically shaped vulva (Fig. 10D–F) is phylogenetically informative in ***Eratigena* gen. nov.** and *Tegenaria*. In many *Tegenaria* species the vulva lacks distinct structures that could be described as a receptaculum and has instead a continuous duct (Fig. 25D, H).
101. Length of CD or combined duct: (0) short; (1) long.
    The duct from the copulatory opening to the receptaculum is named the copulatory duct. Short CD or combined ducts are defined as being shorter or equal receptaculum length or, for combined ducts, shorter than epigynal width.

**Table 1.** *Continued*

102. Sclerotization of CD or combined duct: (0) less sclerotized part (first part, starting at the CO) present, (1) all more or less equally sclerotized.
The degree of sclerotization of the CD is strongly homoplastic.
103. Appendages at CD: (0) absent, (1) present.
*Agelena*, *Allagelena*, and several ***Eratigena* gen. nov.** species possess appendages on the CD (blind-ending ducts possibly synonymous with 'spermathecal head' of Sierwald (1989) and Bennett (2006).
104. Appendages at CD, details: (0) small diverticula at CD present, (1) long, band-like appendages at the CD present.
The reduction of the appendages at the CD to small bulges is a potential synapomorphy for a subclade of ***Eratigena* gen. nov.**
105. Length of fertilization duct: (0) very small (only leaf-shaped appendages at receptacula expressed), (1) as long as or longer than receptaculum width.
Fertilization ducts are defined to be the duct connecting the receptaculum with the uterus. Distinctively elongated fertilization ducts are a potential synapomorphy for *Aterigena* (Bolzern *et al*., 2010). The only exception is *Tegenaria regispyrrhi*, probably a convergence.

AME, anterior median eyes; CD, copulatory duct; CO, copulatory opening at female epigyne; MA, median apophysis at male bulb; PLS, posterior lateral spinnerets; PME, posterior median eyes; PMS, posteriormedian spinnerets; RTA, retrolateral tibial apophysis.

ethanol) specimen. The ethanol was removed by placing the leg into a vacuum centrifuge for 30 min at 40 °C. Then the leg was processed according to the protocol for the purification of total DNA from animal tissues (Spin-Column protocol) of the DNeasy Blood & Tissue Kit (Qiagen). The DNA concentration of the resulting solution was measured using a NanoDrop spectrophotometer. The amplification of three loci was undertaken by using the following primer pairs: C1-J-1718 and C1-N-2191 (Simon *et al*., 1994) for the mitochondrial cytochrome *c* oxidase subunit 1 gene (CO1, 471 bp), TL-1-N-12718 (Hedin & Maddison, 2001; numbered following Simon *et al*., 1994) and M510 (Murphy *et al*., 2006) for the mitochondrial nicotinamide adenine dinucleotide dehydrogenase subunit 1 (NADH1, 591 bp), and 28S 'O' and 28S 'C' (Hedin & Maddison, 2001) for the nuclear-encoded large subunit of the rDNA repeat (28S, 848-bp). For the PCR, Illustra PuReTaq Ready-To-Go PCR beads (GE Healthcare) were used. The following thermo cycling conditions were applied: initial denaturation step at 93 °C for 3 min, followed by 35 cycles at 95 °C for 30 s, an annealing temperature of either 55 °C (for CO1 and 28S) or 48 °C (for NADH1) for 30 s, and an extension temperature of 72 °C for 45 s. This was then followed by an additional extension at 72 °C for 7 min. To eliminate incorporated nucleosides and primers, the PCR products were treated with ExoSAP-IT (GE Healthcare). The fragments were then sequenced in both directions using an ABI PRISM BigDye Terminator Cycle Sequencing Ready Reaction Kit (Applied Biosystems). Sequences were then analysed using an ABI Prism 3100 Genetic Analyzer and edited with the software SEQUENCE NAVIGATOR (Applied Biosystems).

### *Alignments*

Each sequence was proof-read by checking the chromatograms by eye using the software FinchTV v. 1.4.0 (Geospira Inc., available online at http://www.geospiza.com/Products/finchtv.shtml). The complementary sequences (5′ and 3′ directions) of each specimen were aligned using the web-based ClustalW 2 (Larkin *et al*., 2007; Thompson, Higgins & Gibson, 1994) to test the sequence quality. If parts of these complementary strands could not be aligned because of major reading mistakes during sequencing and the remaining strand was not obviously readable, the corresponding sequences were discarded. Each good sequence was checked for contamination by using the 'Basic Local Alignment Search Tool' (BLAST) at the NCBI website (http://blast.ncbi.nlm.nih.gov/).

The alignments of the mitochondrial gene sections were carried out manually, using the translation to amino acids as a guide and checking for any inappropriately placed stop codons and insertions or deletions. All sequences were then cut to a length of 471 (CO1) or 591 bp (NADH1). Within these two alignments no indels occurred.

In favour of repeatability and objectivity we used a fixed automatic alignment for the 28S sequences instead of manually edited alignments or alignments based on secondary structures (as proposed by different authors; e.g. Spagna & Gillespie, 2008; Arnedo *et al*., 2009). Therefore we carried out the multiple sequence alignments using the software package OPAL (Wheeler & Kececioglu, 2007) implemented in MESQUITE (Maddison & Maddison, 2011). We applied the default parameters of OPAL (A<->G: 56; C<->T: 53; transversions: 100; gap costs: open: 260; terminal open: 100; extension: 69; terminal extension:

66) because these values are based on empirical studies (Ruiz & Maddison, 2012). For the resulting alignments we recorded the included gaps as separate presence/absence characters by using the software FastGap v. 1.2 (Borchsenius, 2009) following the method proposed by Simmons & Ochoterena (2000). This procedure allows gaps to be included as potentially important characters in phylogenetic tree searches but treats them as single indel events. Thereby, the effect of increased weight of overlapping multiple nonhomologous gaps is minimized (Pons & Vogler, 2006). The problem of paralogous 28S sequences reported by Murphy *et al*. (2006) for Lycosidae and Vink, Dupérré & McQuillan (2011) for Salticidae and Pholcidae (C. J. Vink, pers. comm.) may be problematic for phylogenetic reconstructions. Within Agelenidae, we did not find evidence of amplification of paralogous 28S sequences and there was no obvious conflict amongst analysed data sets.

Different alignments and matrices were combined using WINCLADA v. 1.00.08 (Nixon, 2002).

### *Taxa selection*

As for the morphological analyses *Amaurobius ferox*, Amaurobiidae, was used as outgroup. Based on availability of appropriate data, we included additional species of Amaurobiidae, Cybaeidae, and Agelenidae (Coelotinae and Ageleninae). For details see Appendix 1.

## PHYLOGENETIC METHODS

We applied two phylogenetic methods: (1) Bayesian analyses, which use likelihood models in a Markov chain Monte Carlo algorithm (MCMC) using the program MrBayes v. 3.1.2 (Yang & Rannala, 1997; Huelsenbeck & Ronquist, 2001; Ronquist & Huelsenbeck, 2003) and (2) maximum parsimony analyses using the program TNT (Goloboff, Farris & Nixon, 2008b).

For the selection of best-fit models of nucleotide substitution for the present alignments, the software jModelTest 0.1.1 (Guindon & Gascuel, 2003; Posada, 2008) was used. As the underlying sequences of the two mitochondrial gene sections code for proteins, the analyses were performed with respect to the codon position, allowing MrBayes to use different substitution models with independent rates for each partition (one partition for each codon position and locus). The statistically chosen models under the Akaike information criterion with correction for small samples (AICc) were: K80 + G [first CO1, nst = 2, rates = gamma, statefreqpr = fixed(equal)], JC + I [second CO1, nst = 1, rates = propinv, statefreqpr = fixed(equal)], HKY + G (third CO1, first and third NADH1, nst = 2, rates = gamma), TrNef + G [second NADH1, nst = 6 rates = gamma, statefreqpr = fixed(equal)], and GTR + G + I (28S, nst = 6, rates = invgamma). The presence/absence matrix of the gap coding of the 28S is specified with the model JC (nst = 1 coding = variable, rates = gamma). For all Bayesian analyses the outgroup was defined after the analyses by rooting the resulting trees at the *Amaurobius* branch/clade. Two parallel and independent analyses, both with four chains (three heated, one cold MCMC chains) were run for 1–10 million generations (depending on when the average standard deviation of split frequencies dropped below 0.01 and remained there), sampling trees every 1000 generations. For all analyses the heating temperature was left at the default value 2.0, except for the separate 28S and NADH1 analyses. In these cases, no branch swapping between chains 1, 3, 4 and 2, 4 took place. Thus, the temperature was reduced to 1.5. At the end of the analysis, 10% of the collected trees were discarded as 'burn-in'. Of the remaining trees, a consensus tree was calculated applying the 50% majority rule.

In parsimony analyses we applied the heuristic tree search with tree bisection-reconnection (TBR). For all analyses including the 28S alignment, gaps were read as missing data but are represented by the presence/absence matrix mentioned above for the Bayesian analyses. For all parsimony analyses, rooting of the trees was defined before running the analyses by defining *Amaurobius ferox*. A variety of parameters of random additions of taxa (sequences) and holding trees per iteration was applied to search the whole tree space (100/1000, 300/300, 1000/100, 10 000/10, 50 000/2, 100 000/1) and to check if the same trees were found. The best compromise, which yielded most hits on all most parsimonious trees, was then chosen for further analyses (1000/100). Branch support was estimated applying the jack-knife resampling method (1000 replicates) with default removal probability of characters (0.36). Bremer branch support (Bremer, 1994) was calculated for the morphological and the all combined data set applying the procedure proposed by Goloboff, Farris & Nixon (2008b): the optimal trees were used as a starting point for searches, saving successively larger sets (holding 3000 trees as starting point, increasing by 3000 for each step up to 60 000 trees) of more suboptimal trees by using the trees saved in the memory (RAM) and stopped when the maximum numbers of trees was hit (selecting 'trees from RAM' and 'stop when maxtrees hit'). With the 60 000 optimal and suboptimal trees stored in memory, the program checks minimum score differences to lose each group by using the 'bsupport' command.

As the weighting of characters is a highly controversial topic (Kjer *et al*., 2007; Goloboff *et al*., 2008a; Ojanguren-Affilastro & Ramirez, 2009), we analysed the data under weighting regimes against homoplasy, using implied weighting (Goloboff, 1993) by varying the strength of the weighting function with different values of the constant of concavity *K* (0 = equal weight, 1, 3, 4, 5, 6, 10, 15, 20, 50) and calculated the corresponding jack-knife supports.

All Bayesian analyses were carried out on the freely available BIOPORTAL (www.bioportal.uio.no). Trees were drawn in FigTree (Rambaut, 2009) and edited in Adobe ILLUSTRATOR.

## RESULTS

### PHYLOGENY

*Morphological analyses*

A parsimony analysis of the morphological data set under equal weights resulted in 32 shortest trees (Table 2, Fig. 3). The species from the *Tegenaria–Malthonica* complex were divided into four well-supported monophyletic clades (*Tegenaria*, *Malthonica*, *Eratigena* gen. nov., *Aterigena*) as in the molecular analysis. Implied weighting with a different strength (Table 2, Appendices S2, S3) did not have a significant impact. The monophyly of *Malthonica* (jack-knife value 74, Bremer support 2, supported by one synapomorphy) and *Tegenaria* (jack-knife value 77, Bremer support 6, Appendix S2, supported by one synapomorphy) is weakly supported. Generic relationships amongst the genera are not resolved. Within the analysed genera, only very few groups are well supported by both branch support values (Fig. 3, Appendices S2, S3).

*Molecular analyses*

The most inclusive Bayesian analysis, including all three gene sections (CO1, NADH1, and 28S), resulted in a tree that supports four highly supported (100% posterior probability) monophyletic clades within the *Tegenaria–Malthonica* complex (Fig. 4, Table 2, Appendices S2, S3). One clade, including *Tegenaria domestica*, comprises all *Tegenaria* species, the second corresponds to *Aterigena*, the third to *Eratigena* gen. nov. (corresponding to 'Tegenaria-Clade 2' in Bolzern *et al*., 2010), and the fourth to *Malthonica*. Furthermore, the Bayesian tree suggests (Fig. 4) that *Malthonica* is sister to *Tegenaria* and the two together constitute a polytomic clade with *Eratigena* gen. nov. and *Histopona*. This clade, again, constitutes a polytomic Ageleninae clade with *Aterigena* and a Textricini (*Lycosoides* Lucas, 1846, *Maimuna*, *Textrix*)/ Agelenini (*Agelena*, *Allagelena*, *Calilena* Chamberlin & Ivie, 1941, *Hololena* Chamberlin & Gertsch, 1929, *Novalena* Chamberlin & Ivie, 1942)/Agelenopsini (*Agelenopsis* Giebel, 1869, *Barronopsis* Chamberlin & Ivie, 1941) clade. The Ageleninae clade is sister to the Coelotinae clade (with the exception of *Draconarius*).

Within *Tegenaria* six clades are strongly supported: the first consists of *Tegenaria domestica*, *Tegenaria ariadnae* Brignoli, 1984, plus *Tegenaria avernis* Brignoli, 1978; it forms the sister clade of the other *Tegenaria* species, the second well-supported clade (Fig. 4). Within the latter, a *Tegenaria ferruginea*-clade, made up by *Tegenaria ferruginea* (Panzer, 1804) and *Tegenaria parietina* (Fourcroy, 1785) and a combined clade consisting of the *Tegenaria parmenidis*-clade (*Tegenaria parmenidis* Brignoli, 1971, *Tegenaria circeoensis* sp. nov.), the *Tegenaria henroti*-clade (*Tegenaria henroti* Brignoli, 1971, *Tegenaria eleonorae* Brignoli, 1974), and the species *Tegenaria campestris* (C. L. Koch, 1834), *Tegenaria rilaensis* Deltshev, 1993, and *Tegenaria ramblae* Barrientos, 1978, can be recognized. Within *Eratigena* gen. nov. five well-supported clades are found (Fig. 4): the *Eratigena arganoi*-clade [*Eratigena arganoi* (Brignoli, 1978), *Eratigena sardoa* (Brignoli, 1977), and *Eratigena sicana* (Brignoli, 1976)], and *Eratigena herculea* (Fage, 1931) are sister taxa of the remaining *Eratigena* gen. nov. species (the second clade). Within this clade *Eratigena vomeroi* (Brignoli, 1977) represents the sister species of the remaining *Eratigena* gen. nov. species (the third clade). The next well-supported clade consists of the *Eratigena picta*-clade [*Eratigena balearica* (Brignoli, 1978) and *Eratigena picta* (Simon, 1870)], *Eratigena feminea*, and the last clade within this group, the *Eratigena atrica*-clade [*Eratigena fuesslini* (Pavesi, 1873), *Eratigena agrestis* (Walckenaer, 1802), and *Eratigena atrica* (C. L. Koch, 1843)]. The parsimony analyses under implied weighting ($K = 10$) resulted in 100 shortest trees (Table 2, tree not shown; supported clades are indicated in the Bayesian tree in Fig. 4). Jack-knife values support only some clades recovered in the Bayesian analysis and all four *Tegenaria–Malthonica s.l.* clades (*Aterigena*, *Eratigena* gen. nov., *Malthonica*, and *Tegenaria*) with values between 93–98 % (Fig. 4). The most important difference is that the parsimony analysis did not resolve any generic relationship within Agelenidae, except that the Textricini and Agelenopsini are monophyletic. Within *Tegenaria*, the sister relationship of *Teg. eleonorae*/ *henroti* and most other species collapses. Within *Eratigena* gen. nov. the third clade has no jack-knife support (Appendix S3).

The Bayesian trees resulting from analyses of both single and combined mitochondrial genes (CO1, NADH1) show all the same four well-supported monophyletic clades within the *Tegenaria–Malthonica* complex as presented above for the most inclusive analysis (Table 2, Appendices S2, S3, Figs 5, 6). No partial analysis could resolve all clades detected by the most inclusive analysis, but, most probably because of different taxa and data composition, they could detect additional supported clades. The mono-

**Table 2.** Important values and statistics used and observed during phylogenetic analyses

| Locus | No. of terminals | No. of characters | Partitions | No. of parsimony informative characters | Generations (millions) | No. of trees retained (MrBayes) | Weighting (*K*=) | Length of shortest tree(s) (TNT) | No. of shortest trees | No. of hits of shortest trees (1000 replications) | Consistency index of strict consensus tree | Retention index of strict consensus tree |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28S | 52 | 885 | 2 | 238 | 10 | 18002 | 0 | 1019 | 2716 | 550 | 0.486 | 0.672 |
| 28S | 52 | 885 | 2 | 238 | 10 | 18002 | 6 | 1024 | 6 | 169 | 0.513 | 0.705 |
| CO1 | 62 | 471 | 3 | 191 | See Bollzern *et al*. (2010) | | | | | | | |
| NADH1 | 75 | 591 | 3 | 331 | 7 | 12602 | 0 | 3349 | 21 | 88 | 0.191 | 0.565 |
| | | | | | | | 10 | 3369 | 1 | 345 | 0.193 | 0.569 |
| mtDNA | 101 | 1062 | 6 | 632 | 10 | 18002 | 3 | 5095 | 1100 | 14 | 0.197 | 0.557 |
| | | | | | | | 10 | 5052 | 1500 | 20 | 0.197 | 0.561 |
| DNA | 113 | 1947 | 8 | 895 | 30 | 54002 | 0 | 6092 | 1100 | 11 | 0.250 | 0.597 |
| | | | | | | | 10 | 6107 | 100 | 1 | 0.250 | 0.597 |
| Morph | 69 | 105 | 1 | 103 | 10 | 18002 | 0 | 572 | 32 | 682 | 0.303 | 0.744 |
| | | | | | | | 10 | 581 | 3 | 10 | 0.300 | 0.740 |
| All data | 135 | 2052 | 9 | 987 | 40 | 60002 | 0 | 6721 | 15800 | 158 | 0.229 | 0.582 |
| | | | | | | | 10 | 6755 | 1500 | 15 | 0.251 | 0.630 |

CO1, cytochrome *c* oxidase subunit 1; NADH1, nicotinamide adenine dinucleotide dehydrogenase subunit 1.

phyly of Tegenariini (*Aterigena*, *Eratigena* gen. nov., *Histopona*, *Malthonica*, and *Tegenaria*) is therefore very doubtful because this clade is only supported by the analysis of the mtDNA (Fig. 5, jack-knife support 84, posterior probability 84%). In all other analyses the resulting hypotheses suggest that this group is paraphyletic. The single analyses of the NADH1 sequences (not shown) and the combined mitochondrial data (Fig. 5) detected additional well-supported (> 90% posterior probability) clades within the *Eratigena* gen. nov. clade (*E. atrica* + *E. saeva*; *E. atrica* + *E. saeva* + *E. agrestis* + *E. feminea*; *E. sardoa* + *E. sicana* + *E. herculea*), and additional or contradicting clades in the *Tegenaria* clade (Fig. 6, Appendices S2, S3). The single analysis of 28S sequences (Fig. 6) recovered four well-supported clades (*Tegenaria hasperi* + *Tegenaria pagana*; *Teg. hasperi* + *Teg. pagana* + *Tegenaria silvestris* + *Tegenaria maronita* + *Tegenaria parvula* + *Tegenaria tridentina*; *Teg. campestris* + *Teg. ramblae*; *Teg. parmenidis* + *Teg. circeoensis* + *Teg. rilaensis*).

As for the most inclusive analyses, most of the well-supported clades of the Bayesian analyses also appeared in the shortest trees (if more than one tree, in the strict consensus tree) computed during parsimony analyses (Table 2, Appendices S2, S3, Figs 5, 6).

### *Combined analyses*

The most inclusive Bayesian analysis with combined morphological and molecular data (Table 2) resulted in a tree with highly resolved clades for the genera (99–100% posterior probability, Fig. 7). As in the molecular analyses, the relationships amongst genera are much less supported and remain unresolved. Generally, species relationships within *Tegenaria* and *Eratigena* gen. nov. are as in the combined DNA analysis with the exception of ten species groups that are not supported in the combined DNA analysis (four in *Eratigena* gen. nov., six in *Tegenaria*, Figs 4, 7, Appendices S2, S3) and three species groups that are not supported in the most inclusive Bayesian analysis (three in *Tegenaria*, Figs 4, 7, Appendices S2, S3). Parsimony analysis of all data combined (DNA and morphology) resulted in 1500 most parsimonious trees (Table 2). The four clades in focus are, in correspondence with the Bayesian analysis, all highly supported [jack-knife values 70–99, Bremer support 4–10 (*Aterigena* not supported)]. Genera relationships are not resolved and result in a polytomy. Within *Tegenaria* and *Eratigena* gen. nov., clades are very sensitive to different strengths of implied weighting (Appendix S3).

## SYSTEMATICS

### FAMILY AGELENIDAE C. L. KOCH, 1837

'Agelenides' C. L. Koch, 1837: 13.

*Diagnosis:* 'Small to medium sized araneomorph spiders; three tarsal claws; ecribellate; entelegyne; eight eyes; posterior spinnerets two-segmented, long and slender, with apical segment tapering towards tip; tarsi with trichobothria increasing in length towards tip; colulus paired'. (Jocqué & Dippenaar-Schoeman, 2006: 60).

All agelenids build a kind of sheet web with a special tube- or funnel-shaped retreat. Their webs are attached to various substrates (vegetation, rocks, caves, buildings).

Recently, the Coelotinae and the cribellate genus *Tamgrinia* Lehtinen, 1967, were placed into Agelenidae (Miller *et al*., 2010). Therefore, the family diagnosis provided by Jocqué & Dippenaar-Schoeman (2006) should be adjusted. In this work, we focus on members of the subfamily Ageleninae and exclude Coelotinae.

In the following we list the European species of *Eratigena* gen. nov., *Malthonica*, and *Tegenaria* in alphabetical order. For each taxon, taxonomically and nomenclaturally relevant references are provided. Bonnet (1959), van Helsdingen (2011), and Platnick (2012) provide details of species distribution. Details of the examined type material are listed in the following order: country: state/region/canton: commune, locality, number of specimens (comments, collection code, voucher number), collecting date, collector(s). Details for additional nontype material examined are listed in Appendix S1.

### ***ERATIGENA* GEN. NOV.**

*Type species*

*Tegenaria atrica* C. L. Koch, 1843, present designation.

*Etymology*

Anagram of *Tegenaria*, gender feminine.

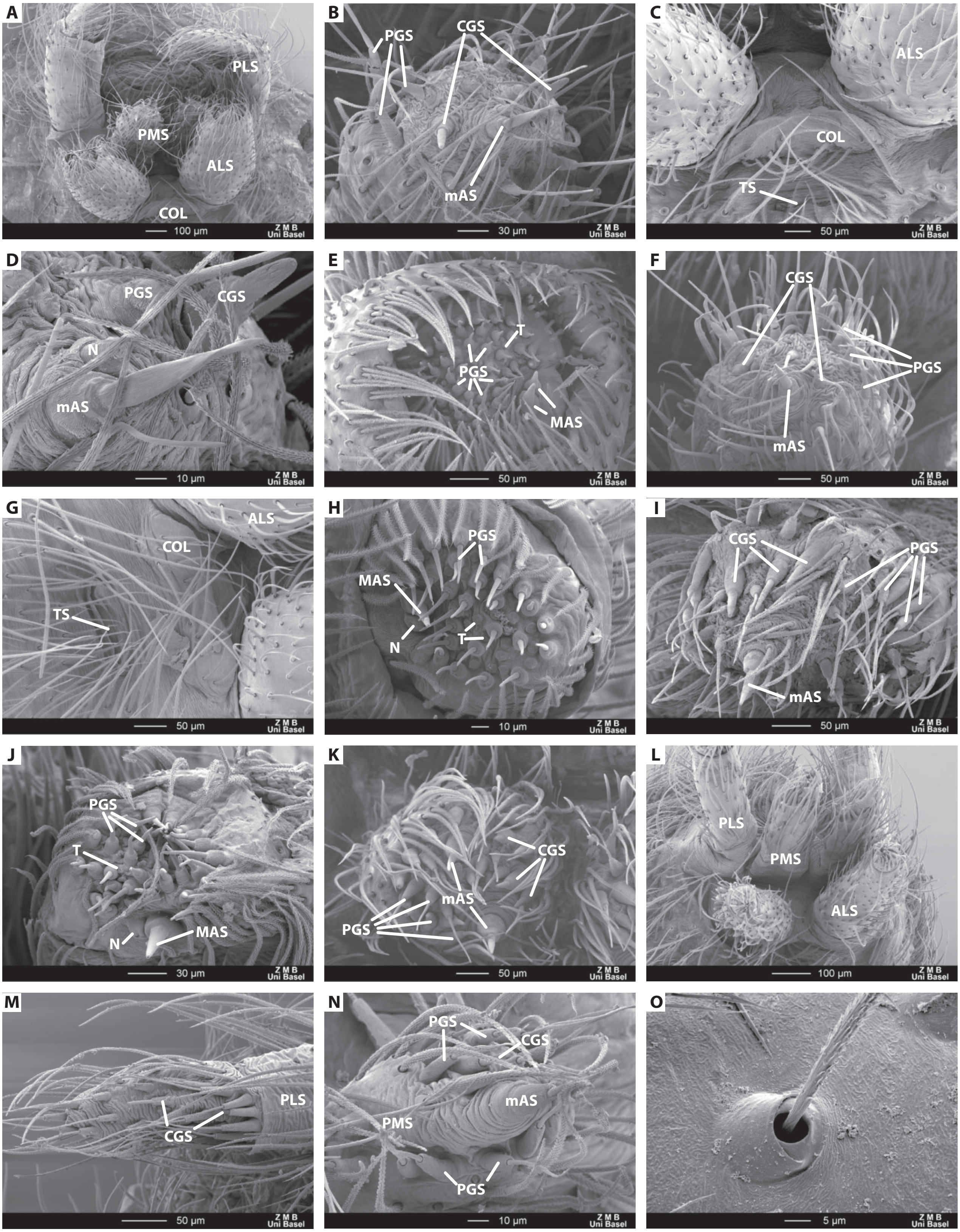
*Diagnosis*

Agelenid spiders bearing the following character combination: plumose hairs present (absent in *Lycosoides*, *Maimuna*, and *Textrix*). AER and PER straight or only slightly pro- or recurved in dorsal view (both rows recurved in *Lycosoides*, *Maimuna*, and *Textrix*; both rows procurved in *Agelena*, *Agelescape*, *Allagelena*, and *Benoitia*) and moderately procurved in frontal view (AER strongly procurved in *Agelena*, *Agelescape*, *Allagelena*, *Benoitia*, and *Malthonica*; AER recurved in *Lycosoides*, *Maimuna*, and *Textrix*). Cheliceral retromargin with six or more teeth (fewer than three teeth in *Lycosoides*, *Maimuna*, and *Textrix*; six or fewer teeth in *Tegenaria*) that decrease in size from distal to proximal (all equal in *Tegenaria*). Trochanter straight or slightly curved (notched in *Aterigena*, *Histopona*, and *Malthonica*). Patellae with

### Key to European agelenid genera (Coelotinae not included)

*Pseudotegenaria* Caporiacco, 1934, is excluded here because the only remaining species, *P. parva* Caporiacco, 1934, is mentioned only from Libya and no specimen was available for examination.

1. Trochanters III and IV notched …… 2
–. All trochanters straight or only slightly curved …… 5
2. Dorsal and lateral spines present on patellae III and IV. Tarsus IV with one to two ventral spines …… *Aterigena* (five spp.)
–. Only dorsal spines present on all patellae …… 3
3. Colulus developed as medially slightly divided plate, sometimes only two hairy plates visible, patellar apophysis on male palps sometimes present, median apophysis absent …… *Histopona* (20 spp.)
–. Colulus strongly reduced, only hairs present (Fig. 1L). Patellar apophysis on male palps absent, median apophysis present …… 4
4. Eyes well developed. Tarsi with fewer than seven dorsal trichobothria. Cheliceral retromargin with one or two larger and several smaller teeth …… *Malthonica* (two spp.)
–. Eyes very small or lacking, tarsi with seven or more dorsal trichobothria. Several equally large teeth on the cheliceral retromargin …… *Hadites* (one sp.)
5. PER in dorsal view considerably recurved or procurved. AER in frontal view either considerably procurved or slightly recurved. Patellae I and II with dorsal and prolateral spines. Colulus clearly divided into two hairy plates …… 6
–. Both eye rows in frontal and dorsal view more or less straight (eyes may be reduced). Patellae with dorsal spines only. Colulus trapezoidal plate with distal margin straight, w-shaped, or with a notch …… 12
6. Eye rows in dorsal view recurved; PME largest. Feathery hairs absent …… 7
–. Eye rows in dorsal view procurved; PME never largest. Feathery hairs present (Fig. 2A) …… 9
7. Conductor on male palp with conspicuous laterodorsal projection; femur of male palp with flat but distinct prominence. No patellar apophysis. Epigyne without raised median portion reaching anteriorly into large atrium …… *Maimuna* (seven spp.)
–. Conductor on male palp without laterodorsal projection; femoral apophysis absent; patellar apophysis sometimes present. Epigyne with posteriorly protruding pocket or slightly raised median portion …… 8
8. Conductor simple; median apophysis absent; patellar apophysis absent. Epigyne with posteriorly protruding pocket …… *Textrix* (seven spp.)
–. Conductor more complex; median apophysis present; patellar apophysis present. Epigyne with slightly raised median portion reaching anteriorly into atrium … …… *Lycosoides* (ten spp.)
9. Distinct spikes absent on the anal tubercle. Conductor helical, strongly protruding. Epigynal plate with two clearly divided copulatory openings …… *Benoitia* (nine spp.)
–. Anal tubercle with distinct long and dark spikes. Conductor never helical and strongly protruding. Epigynal plate longitudinally not completely divided …… 10
10. Embolus thin and filamentous. Conductor simple. Anterior margin of epigynal atrium with protruding scapus …… *Agelescape* (seven spp.)
–. Embolus either broad and short or spiral, elongated with an attached membrane. Conductor complex. Anterior margin of epigynal atrium without scapus …… 11
11. Patellar protuberance absent. Two tibia apophyses developed. Embolus short and broad. Vulva with an interiorly originating spermathecal head; spermathecal apophyses present …… *Agelena* (70 spp.)
–. Patellar protuberance with a long spine. One tibial apophysis developed. Embolus long and spiral with attached membrane. Vulva with a laterally or medially originating spermathecal head; spermathecal apophyses absent …… *Allagelena* (five spp.)
12. Cheliceral retromargin with six or more teeth (more proximal teeth decrease in size). RTA with mostly two branches; lateroventral ridge absent. Conductor with a membranous or massive (not strongly sclerotized) transverse ridge, terminal end not bifid (only in *E. montigena*) with ventral apex either forming elongated process or being more complex (several points or spiral). Median apophysis strongly attached to the tegulum (sometimes only membranous), distally with a simple, pocket-like sclerite. Vulva irregularly sclerotized (enclosed convoluted duct) and/or with diverticula attached to the copulatory duct (exception: *E. sicana* with two ST) …… ***Eratigena* gen. nov.** (19 spp.)
–. Cheliceral retromargin with three to six large, subequal teeth. RTA mostly with three branches or strongly protruding bulge and lateroventral ridge. Conductor lamelliform, sometimes with sclerotized transverse ridge, apex often bifid with ventral ending simple; median apophysis strongly protruding with distal sclerite plate-like or more complex. Vulva only convoluted duct or with more or less regularly sclerotized, globular spermathecae …… *Tegenaria* (56 spp.)


A
PLS
PMS
ALS
COL
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B
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**Figure 1.** Scanning electron microscopy pictures of spinnerets of female and other structures. A–D, *Tegenaria domestica*; E, F, *Tegenaria parietina*; G, H, *Tegenaria dalmatica*; I, *Eratigena agrestis*; J, *Eratigena atrica*; K, *Aterigena ligurica*; L–N, *Malthonica lusithanica*; O, *Allagelena gracilens*. A, L, overview; B, D, F, I, K, N, PMS; E, H, J, ALS; M, distal segment of PLS; C, G, colulus; O, tarsal trichobothrium. Abbreviations: ALS, anterior lateral spinnerets; CGS, cylindrical gland spigot; COL, colulus; mAS, minor ampullate gland spigot; MAS, major ampullate gland spigot; N, nubbin; PGS, piriform gland spigots; PLS, posterior lateral spinnerets; PMS, posterior median spinnerets; T, tartipore; TS, tracheal stigma.

◀

dorsal but without lateral spines (as in *Histopona*, *Malthonica*, and *Tegenaria*; all other European genera with lateral patellar spines). Lacking ventral spines on all tarsi (as in *Malthonica* and *Tegenaria*; all other European genera with ventral spines). Colulus forming rectangular or trapezoidal plate with distal margin straight or w-shaped (in *Tegenaria* trapezoidal and notched medially; colulus strongly reduced in *Hadites* and *Malthonica*; two separated plates in all other European agelenids). Females with one minor ampullate gland spigot, very prominent, and two to four cylindrical gland spigots distally on PMS (as in some species of *Aterigena* and *Malthonica*, all other European genera with different patterns). Male palp: RTA with one or two branches, may also be reduced (complex in most *Tegenaria*), palp tibia often with short dorsal spike (absent in all other European genera), filiform embolus, mostly with massive conductor (lamelliform in *Tegenaria*) with a membranous or massive transverse ridge (as in *Lycosoides*, *Maimuna*, and *Textrix*; in other genera absent or only moderately sclerotized) and a complex or strongly elongated terminal ending (as in *Allagelena* and *Maimuna*; simple in *Tegenaria*), only moderately elongated median apophysis with distal plate-like sclerite (absent in *Histopona* and *Textrix*; without sclerite in *Agelena*, *Agelescape*, and *Benoitia*). Female: epigyne without separated or strongly fused median area (as in *Agelena*, *Agelescape*, *Allagelena*, *Benoitia*, *Lycosoides*, and *Maimuna*; clearly separated in *Tegenaria*). Vulvae either with an irregularly sclerotized RC with enclosed convoluted ducts or with distinct appendages at the copulatory duct (exception: *E. sicana*).

### *Description*

Body size medium to large (carapace length between 2 and 7 mm). Margin of carapace narrowly and continuously darkened (for cave-living species, pigmentation absent); two symmetrical longitudinal dark bands present dorsally on carapace, serrated, continuous, or reduced to three to four conspicuous triangles. Sternum slightly longer than wide with a distinct pattern of pale median region, sometimes additionally with three to four lateral spots; plumose hairs present on carapace, legs, and opisthosoma. Chelicerae with three promarginal teeth and six or more retromarginal teeth; retromarginal teeth decrease in size proximally. Labium as wide as long. AER and PER straight or only slightly pro- or recurved in dorsal view and moderately procurved in frontal view. Anterior eyes larger than posterior ones or lateral eyes larger than median ones or all eyes equal, except AME slightly smaller. All trochanters straight or slightly curved. Leg I or IV longest, III shortest. Legs sometimes without pattern, only coxa and proximal part of femur darkened, annulated, or completely darkened. Palp and leg spination: palp femora with one to two dorsal and sometimes one pro- and/or one retrolateral spines, female palp tibia with two dorsal and either one + one pair, two, or two paired prolateral spines; male palp tibia dorsodistally often with a short spike and prolateral with one + one pair, two, or two pairs of spines; all leg femora with one to two dorsal spines and variable number of lateral spines; patellae with two dorsal and no lateral spines; number of dorsal spines on metatarsi variable; metatarsus I without or with one prolateral spine, others variable; metatarsi III and IV ventrodistally with one pair + one spines; tarsi I and II lacking spines, III and IV with zero to several prolateral and one to several retrolateral spines, without ventral spines. Spinnerets: colulus rectangular or trapezoidal plate with the distal margin straight or w-shaped. ALS one-segmented, with a field of several pyriform spigots distally and with two major ampullate spigots medially (present in all agelenids). PMS as long as or slightly shorter than ALS, bearing one conspicuously prominent spigot. PMS with one minor ampullated and two to four cylindrical gland spigots, one medially located and two to four posteriolaterally located and several aciniform gland spigots. PLS longer than all others with distal segment as long as or longer than basal segment. PLS bearing typically one basal and one medial cylindrical gland spigot. Male palp without femoral apophysis, patellar apophysis can be present. RTA mostly with two branches and simple (in some species several short or bent points can be expressed), sometimes reduced to one branch or entirely lacking. Embolus filiform, getting thinner to apex. Conductor mostly massive (thick and broad, if different then always median with a white membranous part), transversally with a membranous or massive ridge, mostly indistinct, elongated distal

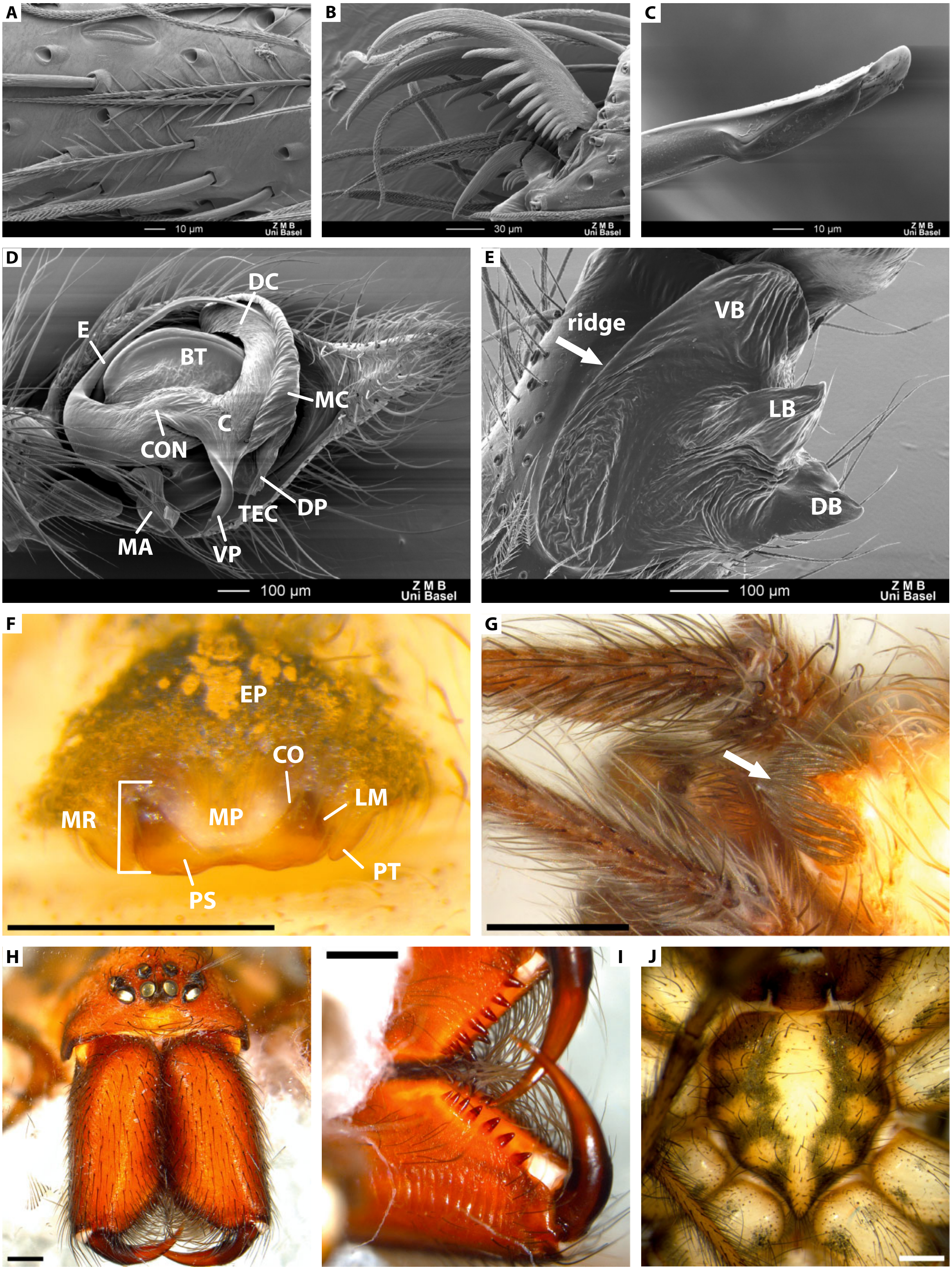
A
10 µm
ZMB
Uni Basel
B
30 µm
ZMB
Uni Basel
C
10 µm
ZMB
Uni Basel
D
DC
E
BT
MC
C
CON
TEC
DP
MA
VP
100 µm
ZMB
Uni Basel
E
ridge
VB
LB
DB
100 µm
ZMB
Uni Basel
F
EP
CO
LM
MR
MP
PT
PS
G
H
I
J

**Figure 2.** Microscope and scanning electron microscopy pictures of character details. Plumose hairs (A) and claws (B) on tarsus I of *Tegenaria dalmatica*; C, embolus tip of *Tegenaria ferruginea*; D, male palp of *Tegenaria dalmatica* in ventroretrolateral view; E, retrolateral tibial apophysis in retrolateral view of *Tegenaria ferruginea*; F, epigyne in ventral view of *Tegenaria domestica*; G, long and dark spikes on the anal tubercle of *Agelena labyrinthica*; H, face and chelicerae, frontal view; I, cheliceral margins with teeth, ventral view; and J, sternum, ventral view, of female *Eratigena atrica*. Abbreviations: BT, basal portion of tegulum; C, conductor; CO, copulatory opening; CON, connection of tegulum and conductor; DB, dorsal branch; DC, distal portion of conductor; DP, dorsal part of terminal end of conductor; E, embolus; EP, epigynal plate; LB, lateral branch; LM, lateral margin of median region; MA, median apophysis; MC, lateral margin of conductor (here entirely folded); MP, median plate; MR, median region; PS, posterior sclerite (here bar- or band like); PT, 'pseudo teeth'; TEC, terminal end of conductor (here bifid); VB, ventral branch; VP, ventral part of terminal end of conductor. Scale bars for F–J = 0.5 mm.

◀

portion (exception: *E. picta*) and lateral margin folded along the terminal half or the whole length, terminal end consists mostly of one elongated peak or a more complex structure (spiral, several points) but dorsally only rarely with rounded bulge. Median apophysis usually not protruding (as wide as or wider than long, exception e.g. *E. sardoa*), consisting of membranous base and distal sclerite, which is pocket- or spoon-shaped and can be fixed to tegulum by strong sclerotization. Epigynal plate strongly sclerotized without or with strongly fused median plate; epigynal plate sometimes with distinct, cave-like atrium. Posterior sclerite either absent or forming a large bulge or a strongly sclerotized transverse plate protruding ventrally (posteriorly of the copulatory opening). Epigynal teeth mostly present, originating posteriorly of the genital openings, but sometimes reduced or forming 'pseudo teeth' (= elongation of lateral margin of atrial region). Vulvae at least partly with irregularly sclerotized structure enclosing a convoluted duct or with appendages at the copulatory duct, possibly homologous with spermathecal head of Bennett (2006) and Sierwald (1989) (exception: *E. sicana*). Fertilization ducts only represented by short, leaf-shaped appendages.

### *Comment*

Comprising 17 species of which most are limited to Italy, France, and the Iberian Peninsula. *Eratigena agrestis* and *E. atrica* also occur in Central Europe. These species may have been introduced to North America and the UK.

## ***ERATIGENA AGRESTIS*** (WALCKENAER, 1802) **COMB. NOV.** (FIGS 1I, 8C–F, 9A–H)

*Aranea agrestis* Walckenaer, 1802: 216.

*Tegenaria agrestis*: Walckenaer, 1805: 50.

*Tegenaria alpestris*: Walker, 1864: 9276; probably lapsus (see Bonnet, 1959: 4269).

*Philoica agrestis*: Karsch, 1873: 136.

*Tegenaria rhaetica* Thorell, 1875b: 94, female; Thorell, 1875a: 79.

*Tegenaria magnacava* Exline, 1936: 23, pl. 1, fig. 3, male; Exline, 1938: 24, pl. 4, fig. 34, female.

*Tegenaria osellai* Brignoli, 1971a: 76–79, figs 20–22, syn. nov.

*Tegenaria trinacriae* Brignoli, 1971a: 79–81, figs 23–25, syn. nov.

### *Types*

Type material of *E. agrestis*, *Teg. rhaetica*, and *Teg. magnacava* was not available for examination.

Sub *Teg. osellai*: Holotype. Italy: Toscana: Lucca, Alpi Apuana, Monte Pisanino, ♂ (MCSN, 77), 22.vii.1970, Osella.

Sub *Tegenaria trinacriae*: Holotype. Italy: Sicily: Palermo, Parco Reg. delle Madonie, Piano della Battaglia, ♂ (MCSN, 77), 28.vii.1968, Aliquo.

### *Other material examined*

Austria (3 ♂, 1 ♀); Croatia (1 ♂, 1 ♀); Czech Republic (1 ♂, 7 ♀); France (23 ♂, 29 ♀); Germany (28 ♂, 32 ♀); Greece (1 ♂, 20 ♀); Italy (10 ♂, 24 ♀); Poland (4 ♂, 2 ♀); Romania (1 ♂); Spain (3 ♂, 4 ♀); Switzerland (12 ♂, 21 ♀). North America: USA (5 ♂, 6 ♀). No exact data (11 ♂, 21 ♀).

### *Diagnosis*

*Eratigena agrestis* can be separated from other *Eratigena* gen. nov. species by the darkened leg coxa and proximal parts of femora (spotted, as in *E. atrica*, all other *Eratigena* gen. nov. species with different patterns), short dorsal spike at male palp tibia present (as in *E. atrica*, *E. fuesslini*, *E. barrientosi, E. montigena*, *E. picta*, and *E. balearica*, absent in all other species), MA expressed as a broad pocket, strongly attached to the tegulum, originating at 7–9 o'clock position (as in *E. atrica* and *E. fuesslini*, in all other species more basal, 5–7 o'clock position), basal portion of tegulum almost completely hidden by upper part (embolic division) of tegulum (as in *E. atrica*, *E. fuesslini*, and to some extent also in *E. sardoa*, in all other species of *Eratigena* gen. nov. well visible), the distinct terminal end of the conductor, and the atrial cavity posteriorly limited by a large bulge, bearing


Amaurobius ferox
Malthonica lusitanica
Malthonica oceanica
74/2
-/2
Agelena labyrinthica
100/10
Allagelena gracilens
89/8
Textrix denticulata
96/5
Textrix caudata
99/10
Maimuna cretica
Maimuna vestita
96/4
Histopona torpida
97/7
Histopona hauseri
Histopona fioni
Aterigena aspromontensis
99/9
Aterigena soriculata
Aterigena aliquoi
79/3
Aterigena aculeata
63/2
Aterigena ligurica
72/2
100
>20
-/3
Eratigena sardoa
Eratigena sicana
98/9
Eratigena arganoi
Eratigena herculea
88/3
Eratigena hispanica
Eratigena feminea
-/5
Eratigena picta
87/3
Eratigena balearica
51/4
Eratigena fuesslini
Eratigena agrestis
Eratigena atrica (sub saeva)
87/2
Eratigena atrica
Eratigena atrica (sub duellica)
57/1
Eratigena barrientosi
82/5
Eratigena incognita
Eratigena montigena
Eratigena inermis
Eratigena vomeroi
98/8
-/3
Tegenaria domestica
Tegenaria rhodiensis
Tegenaria racovitzai
Tegenaria ariadnae
Tegenaria percuriosa
77/6
Tegenaria hasperi
-/3
Tegenaria hauseri
Tegenaria sbordonii
Tegenaria circeoensis
Tegenaria parmenidis
Tegenaria mirifica
Tegenaria mercanturensis
Tegenaria regispyrrhi
Tegenaria argaeica
Tegenaria pasquinii
77/4
Tegenaria campestris
Tegenaria montana
Tegenaria rilaensis
Tegenaria parvula
Tegenaria silvestris
Tegenaria tridentina
Tegenaria carensis
Tegenaria ramblae
Tegenaria ferruginea
Tegenaria annulata
Tegenaria parietina
Tegenaria femoralis
Tegenaria henroti
Tegenaria levantina
Tegenaria dalmatica
-/3
Tegenaria pagana
Tegenaria eleonorae
Tegenaria armigera
Tegenaria tyrrhenica
Malthonica
Agelenini
Textricini
Histopona
Aterigena
Eratigena n. gen.
Tegenaria

**Figure 3.** Most parsimonious strict consensus tree based on morphological data with equal character weights. Branch support is indicated by jack-knife values (1000 pseudoreplicates)/Bremer support at the nodes. Analysis with implied weighting ($K = 10$) resulted in additional supported clades (jack-knife support): *Tegenaria mercanturensis* + *Tegenaria mirifica* (69), *Tegenaria montana* + *Tegenaria rilaensis* (52), *Tegenaria parvula* + *Tegenaria silvestris* (55). Black dots indicate apomorpies, white dots indicate homoplasies. Numbers above the dots correspond to the character number, numbers below the dots to the character state.

epigynal teeth pointing posteriomediad (these characters vary to some extent). *Eratigena fuesslini* can be separated from closely related species by the body size (*E. fuesslini* much smaller than *E. agrestis*), the broad conductor (in retrolateral view, less broad in *E. fuesslini*), the terminal end of the conductor, the posterior bulge of the epigyne (not protruding posteriad in *E. agrestis* but in *E. fuesslini*).

*Description*

*Measurements:* Male ($N = 2$): CL 5.0–5.25, CW 3.5–3.75, STL 2.3, STW 2.0–2.3, OL 5.0–6.0, OW, 3.25–3.5. Leg I (5.4–6.0, 1.75–2.0, 5.5–6.0, 5.35–5.75, 3.15–3.4), II (4.5–5.0, 1.65–1.85, 4.0–4.25, 4.2–4.5, 2.5–2.75), III (4.1–4.15, 1.5, 3.5, 4.3–4.5, 2.15–2.35), IV (5.25–6.0, 1.75–1.85, 5.1–5.25, 6.1–6.35, 2.75–3.0). Pedipalp (2.23, 0.96, 0.83, 2.2–2.25), bulbL 1.25–1.5. Female ($N = 3$): CL 5.4–6.1, CW 3.7–4.25, STL 2.65–2.85, STW 2.35–2.5, OL 5.5–8.85, OW 3.75–5.75. Leg I (5.55–5.75, 2.0–2.15, 5.1–5.75, 4.9–5.25, 2.95–3.1), II (4.8–4.85, 1.85–2.0, 3.75–4.25, 4.1–4.5, 2.35–2.5), III (4.5, 1.65–2.0, 3.2–3.65, 4.5–4.75, 2.0–2.4), IV (5.7–6.0, 1.9–2.0, 4.9–5.5, 6.35–6.65, 2.6–2.8). Pedipalp (2.2–2.35, 1.02–1.06, 1.36–1.38, 2.29–2.42). EPL 0.95–1.04, EPW 1.1–1.4, ATL 0.3, ATW 0.55. Eyes: PME 0.18–0.19, PLE 0.21–0.24, AME 0.22–0.23, ALE 0.23–0.24. Eye distances: PME–PME 1.5 × PME, PME–AME 1 × PME, PME–PLE 1–1.5 × PME, PME–ALE 1.5 × PME, AME–AME 0.5–1 × AME, AME–ALE < 0.5 × AME. CLY1 2–3 × AME, CLY2 2–2.5 × ALE.

*Male palp:* RTA with two branches, lateral branch simple and pointed, dorsal branch broad, distally truncated, and variable in shape (from one larger and several smaller points to only one point). Short dorsal spike on palp tibia present. Embolus length less than 1.5 × CB, originating at 9–10 o'clock position, distal tip at 3–4 o'clock position. Conductor massive and very broad (in retrolateral view), anteriodistally not elongated, folded only at the terminal half, which is strongly twisted ventroprolaterally; terminal end very complex, consisting of two to three strongly sclerotized, stepped, and elongated points (can be very variable in size); retrolaterally distinctly furrowed. Transversal ridge of conductor expressed as membranous lamella. Conductor membranously connected to tegulum. MA originating at 7–8 o'clock position, moderately protruding, wider than long, distally with pocket-like sclerite. Connection of MA to tegulum partly strongly sclerotized.

*Epigyne and vulva:* Epigyne medially with distinct atrial cavity, posteriorly limited by a distinct, bulge-like sclerite (owing to variation, this bulge can be strongly extended anteriorly, described in lit., e.g. Brignoli, 1971a), strongly fused to the epigynal plate. Epigynal teeth present, originating laterally on the posterior bulge, pointing posteriomediad. Vulva consists of distinguishable CD, RC, and FD. CD very short and curved, distinct appendages absent. RC irregularly oblong and unevenly sclerotized, enclosing convoluted ducts, separated by about their diameter or less. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral retromargin with six to nine teeth. Colulus rectangular shaped with distal margin w-shaped. PMS with one prominent minor ampullate gland spigot and three to four cylindrical gland spigots laterally. Trichobothria on cymbium and palp tarsus absent. Seven to ten tarsal trichobothria. Small teeth on paired claws of leg I 17–18. Leg spination: male palp (2–0–0–0, 2–0–0, 1–2p–0–0 or 2–2p-0–0), female palp (2–0–0–0, 2–0–0, 2–2p–0–0), leg femora (2–2–0–0 or 2–3–0–0 or 2–2–1–0 or 2–2–2–0 or 2–3–1–0 or 3–2–1–0, 2–2–1–0 or 2–2–3–0 or 2–3–2–0 or 2–3–3–0 or 3–3–2–0, 2–2–3–0 or 2–3–2–0 or 2–3–3–0, 2–1–1–0 or 2–2–1–0), patellae (all 2–0–0), tibiae (0–0–0–3p or 0–0–0–3p+1 or 0–0–0–4p, 0–1–0–3p or 0–1–0–3p+1 or 0–2–0–3p, 2–2–2–3p or 2–2–2–3p+1, 1–2–2–3p+1 or 2–2–2–3p or 2–2–2–3p+1), metatarsi (0–0–0–4p+1, 0–2–0–5p, 1–4–4–5p or 1–4–4–5p+1, 1–4–4–1p+2+3p), tarsi [I–II 0 (in males one prolateral spike on tarsus II possible), III 0–2–3–0; IV 0–2–3–0 or 0–2–4–0].

*Coloration:* Carapace with weakly serrated, symmetrical longitudinal dark bands. Sternum with distinct pale median region. Opisthosoma darkened green-brownish, at the cardiac mark yellowish, continuing posteriorly in broad chevrons (~ five). Legs not annulated, only coxa and proximal part of femora with dark spots. ALS and both segments of PLS dorsally darkened.

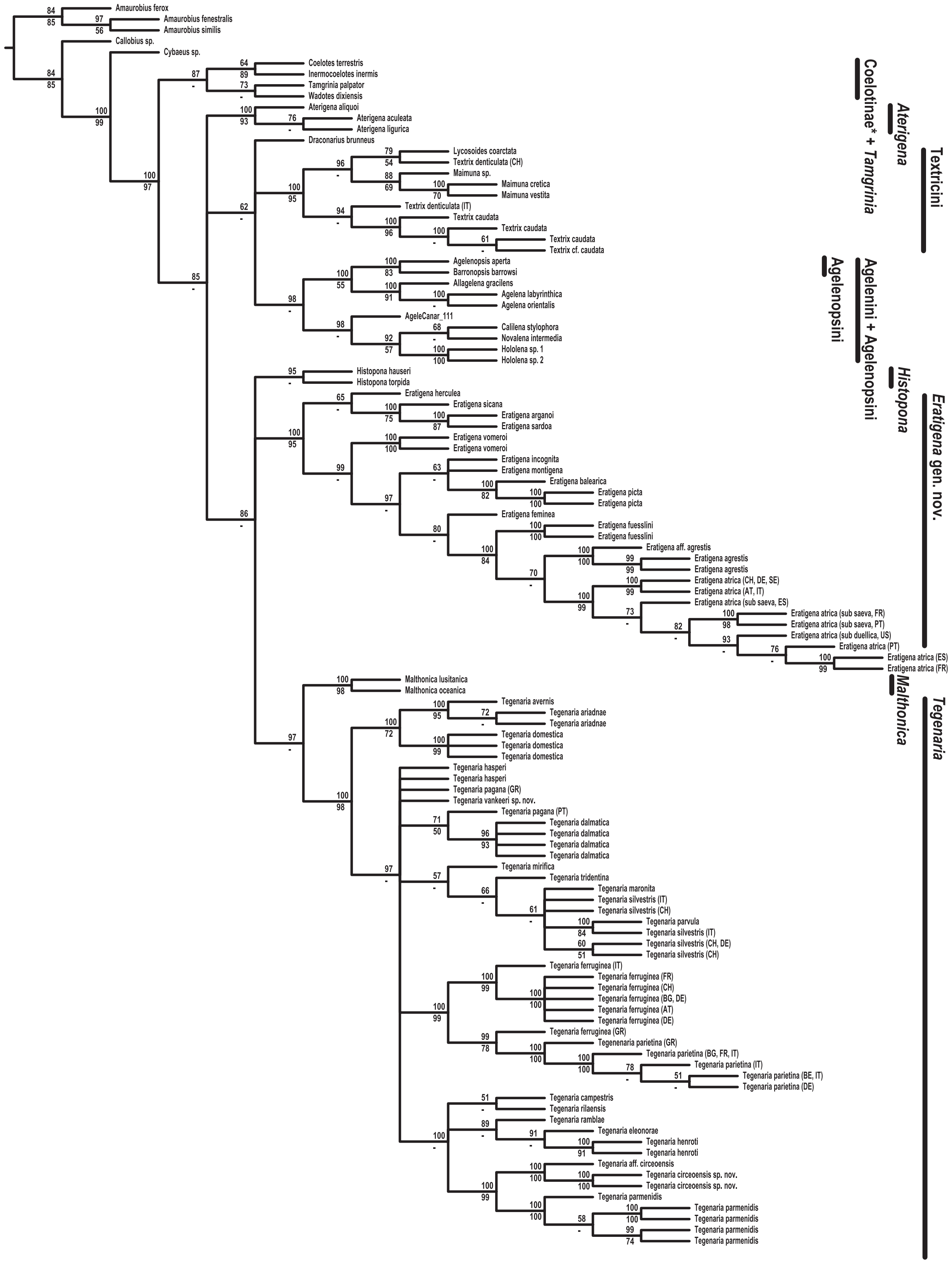
Amaurobius ferox
Amaurobius fenestralis
Amaurobius similis
Callobius sp.
Cybaeus sp.
Coelotes terrestris
Inermocoelotes inermis
Tamgrinia palpator
Wadotes dixiensis
Aterigena aliquoi
Aterigena aculeata
Aterigena ligurica
Draconarius brunneus
Lycosoides coarctata
Textrix denticulata (CH)
Maimuna sp.
Maimuna cretica
Maimuna vestita
Textrix denticulata (IT)
Textrix caudata
Textrix caudata
Textrix caudata
Textrix cf. caudata
Agelenopsis aperta
Barronopsis barrowsi
Allagelena gracilens
Agelena labyrinthica
Agelena orientalis
AgeleCanar_111
Calilena stylophora
Novalena intermedia
Hololena sp. 1
Hololena sp. 2
Histopona hauseri
Histopona torpida
Eratigena herculea
Eratigena sicana
Eratigena arganoi
Eratigena sardoa
Eratigena vomeroi
Eratigena vomeroi
Eratigena incognita
Eratigena montigena
Eratigena balearica
Eratigena picta
Eratigena picta
Eratigena feminea
Eratigena fuesslini
Eratigena fuesslini
Eratigena aff. agrestis
Eratigena agrestis
Eratigena agrestis
Eratigena atrica (CH, DE, SE)
Eratigena atrica (AT, IT)
Eratigena atrica (sub saeva, ES)
Eratigena atrica (sub saeva, FR)
Eratigena atrica (sub saeva, PT)
Eratigena atrica (sub duellica, US)
Eratigena atrica (PT)
Eratigena atrica (ES)
Eratigena atrica (FR)
Malthonica lusitanica
Malthonica oceanica
Tegenaria avernis
Tegenaria ariadnae
Tegenaria ariadnae
Tegenaria domestica
Tegenaria domestica
Tegenaria domestica
Tegenaria hasperi
Tegenaria hasperi
Tegenaria pagana (GR)
Tegenaria vankeeri sp. nov.
Tegenaria pagana (PT)
Tegenaria dalmatica
Tegenaria dalmatica
Tegenaria dalmatica
Tegenaria dalmatica
Tegenaria mirifica
Tegenaria tridentina
Tegenaria maronita
Tegenaria silvestris (IT)
Tegenaria silvestris (CH)
Tegenaria parvula
Tegenaria silvestris (IT)
Tegenaria silvestris (CH, DE)
Tegenaria silvestris (CH)
Tegenaria ferruginea (IT)
Tegenaria ferruginea (FR)
Tegenaria ferruginea (CH)
Tegenaria ferruginea (BG, DE)
Tegenaria ferruginea (AT)
Tegenaria ferruginea (DE)
Tegenaria ferruginea (GR)
Tegenenaria parietina (GR)
Tegenaria parietina (BG, FR, IT)
Tegenaria parietina (IT)
Tegenaria parietina (BE, IT)
Tegenaria parietina (DE)
Tegenaria campestris
Tegenaria rilaensis
Tegenaria ramblae
Tegenaria eleonorae
Tegenaria henroti
Tegenaria henroti
Tegenaria aff. circeoensis
Tegenaria circeoensis sp. nov.
Tegenaria circeoensis sp. nov.
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria parmenidis
Coelotinae* + *Tamgrinia*
*Aterigena*
Textricini
Agelenini + Agelenopsini
Agelenopsini
*Histopona*
*Eratigena* gen. nov.
*Malthonica*
*Tegenaria*

**Figure 4.** Combined DNA data (cytochrome *c* oxidase subunit 1, nicotinamide adenine dinucleotide dehydrogenase subunit 1, and 28S) Bayesian tree. Posterior probabilities of clades are expressed in percentages and given above branches. Clade support (> 50) from the resampling method (jack-knife, 1000 replications) based on parsimony analysis with implied weighting ($K = 10$) is given below the branches. Abbreviations: AT, Austria; BE, Belgium; BG, Bulgaria; CH, Switzerland; DE, Germany; ES, Spain; FR, France; GR, Greece; IT, Italy; PT, Portugal; SE, Sweden; US, United States.

*Distribution*
Reported from most European countries. Introduced into North America in the early 20th century (Roth, 1968; Baird & Stoltz, 2002).

*Discussion*
The examination of a large number of specimens from a wide geographical range showed clearly that different characters of this species, in particular the male and female genital structures, are highly variable. In females, this variation has been documented by Brignoli (1971a) (see also Fig. 9D, E, G, H). Surprisingly, Brignoli did not consider the same degree of variation in males and described the species *Teg. osellai* and *Teg. trinacriae* based on a single male of each (Brignoli, 1971a). He mentioned that both species are very close to *Teg. agrestis* and that they differ only in the shape of the distal end of the conductor and the dorsal branch of the RTA. The examination of a large number of specimens, also from places close to the type localities of *Teg. osellai* and *Teg. trinacriae*, show that these shapes are linked by intermediates and, therefore, reflect intraspecific variation. Brignoli's two species represent extreme forms of *E. agrestis*.

## ***ERATIGENA ARGANOI*** (BRIGNOLI, 1971) **COMB. NOV.**
(FIG. 12C, D, H, N, O)

*Cicurina arganoi* Brignoli, 1971a: 124–128, figs 82–87, female.

*Malthonica arganoi*: Brignoli, 1977a: 38, figs 20–22.

*Type*
Paratype. Italy: Lazio: Roma, Altopiano di Arcinazzo, ♀ (MHNG); 17.iv.1966, Brignoli.

*Other material examined*
Italy (32 ♂, 25 ♀).

*Diagnosis*
The differentiation of *E. arganoi*, *E. sardoa*, and *E. sicana* ('*Eratigena arganoi*-group') from other *Eratigena* gen. nov. species is provided in the Diagnosis section of *E. herculea*. The '*Eratigena arganoi*-group' can be separated from *E. herculea* and *E. hispanica* by having two unpaired prolateral spines on the palp tibia (in males and females, other species with one pair of spines), the small number of tarsal trichobothria (more than six in the other species), and the PMS bearing two cylindrical gland spigots laterally (others with three to four). *Eratigena arganoi* can be separated from *E. sardoa* and *E. sicana* by the very special, three-pointed dorsal branch of the RTA (only one point in the other species), the very long and convoluted CD with attached diverticula (as in *E. sardoa*, much shorter, and straight in *E. sicana*) and the long oval and irregularly sclerotized RC (globular and smoothly sclerotized in the other species).

*Description*
*Measurements:* Male ($N = 1$): CL 2.16, CW 1.65, STL 1.23, STW 1.08, OL 2.31, OW 1.62. Leg I (2.85, 0.88, 2.64, 2.67, 1.42), II (2.32, 0.80, 1.90, 1.94, 1.16), III (2.15, 0.75, 1.65, 2.12, 1.12), IV (2.96, 0.82, 2.54, 3.04, 1.35). Pedipalp (1.12, 0.42, 0.49, 0.95), bulbL 0.69. Female ($N = 1$): CL 1.80, CW 1.30, STL 1.00, STW 0.89, OL 2.47, OW 1.63. Leg I (1.83, 0.70, 1.57, 1.51, 1.09), II (1.55, 0.61, 1.14, 1.24, 0.83), III (1.49, 0.57, 1.10, 1.39, 0.73), IV (2.02, 0.63, 1.73, 2.03, 1.03). Pedipalp (0.78, 0.33, 0.48, 0.77). EPL 0.41, EPW 0.54, ATL 0.13, ATW 0.22. Eyes: PME 0.09–0.12, PLE 0.09–0.11, AME 0.06–0.08, ALE 0.10–0.12. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 0.5–1 × PME, AME–AME 0.5–1 × AME, AME–ALE < 0.5–0.5 × AME. CLY1 2–2.5 × AME, CLY2 0.5–1 × ALE.

*Male palp:* RTA with two branches, lobe-like lateral branch protruding only slightly, dorsal branch strongly sclerotized and protruding, distally curved and triangular shaped with three points. Short dorsal spike on male palp tibia absent. Embolus length about 0.75–1.25 × CB, originating at 10 o'clock position, distal tip at 4 o'clock position. Conductor with distal portion moderately elongated, as long as wide, not reaching distal margin of alveolus, lateral margin folded. Terminal end simple, long, drawn out, and pointed. Transversal ridge of conductor weakly expressed as membranous lamella. Conductor membranously, connected to tegulum. MA originating at 6–7 o'clock position, protruding, longer than wide, distally with spoon-like sclerite. MA membranously connected to tegulum.

*Epigyne and vulva:* Epigyne with distinct posterior sclerite, forming a strongly sclerotized, triangularly shaped and protruding pocket, opening posteriad. Epigynal teeth present, originating distally of the


Amaurobius ferox
Amaurobius fenestralis
Amaurobius similis
Cybae sp.
Wadotes dixiensis
Coelotes terrestris
Inermocoelotes inermis
Textrix cauda
Textrix cf. caudata
Textrix caudata
Textrix caudata
Lycosoides coarctata
Textrix denticulata
Textrix denticulata
Maimuna sp.
Maimuna cretica
Maimuna vestita
Agelenopsis aperta
Barronopsis barrowsi
Allagelena gracilens
Agelena labyrinthica
Agelena orientalis
Agelena canariensis
Calilena stylophora
Novalena intermedia
Hololena sp. 1
Hololena sp. 2
Eratigena herculea
Eratigena sicana
Eratigena arganoi
Eratigena sardoa
Eratigena vomeroi
Eratigena vomeroi
Eratigena incognita
Eratigena montigena
Eratigena balearica
Eratigena picta
Eratigena picta
Eratigena feminea
Eratigena fuesslini
Eratigena fuesslini
Eratigena aff. agrestis
Eratigena agrestis
Eratigena agrestis
Eratigena atrica (CH, DE, SE)
Eratigena atrica (AT, IT)
Eratigena atrica (sub saeva, ES)
Eratigena atrica (sub saeva, FR)
Eratigena atrica (sub saeva, PT)
Eratigena atrica (sub duellica, US)
Eratigena atrica (PT)
Eratigena atrica (ES)
Eratigena atrica (FR)
Histopona hauseri
Histopona torpida
Aterigena aliquoi
Aterigena aculeata
Aterigena ligurica
Malthonica lusitanica
Malthonica oceanica
Tegenaria ariadnae
Tegenaria ariadnae
Tegenaria domestica
Tegenaria domestica
Tegenaria domestica
Tegenaria vankeeri sp. nov.
Tegenaria hasperi
Tegenaria hasperi
Tegenaria pagana
Tegenaria dalmatica
Tegenaria dalmatica
Tegenaria dalmatica
Tegenaria dalmatica
Tegenaria ferruginea (GR)
Tegenaria ferruginea (IT)
Tegenaria ferruginea (AT, BG, DE)
Tegenaria ferruginea (CH, FR)
Tegenaria ferruginea (DE)
Tegenaria parietina
Tegenaria parietina
Tegenaria parietina
Tegenaria parietina
Tegenaria parietina
Tegenaria tridentina
Tegenaria mirifica
Tegenaria parvula
Tegenaria silvestris
Tegenaria silvestris
Tegenaria campestris
Tegenaria rilaensis
Tegenaria eleonorae
Tegenaria henroti
Tegenaria aff. circeoensis
Tegenaria ramblae
Tegenaria circeoensis sp. nov.
Tegenaria circeoensis sp. nov.
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria parmenidis
Coelotinae
Textricini
Agelenopsini
Agelenini
*Eratigena* gen. nov.
*Histopona*
*Aterigena*
*Malthonica*
*Tegenaria*

**Figure 5.** Combined mtDNA data (cytochrome *c* oxidase subunit 1, nicotinamide adenine dinucleotide dehydrogenase subunit 1) Bayesian tree. Posterior probabilities of clades are expressed in percentages and given above branches. Clade support (> 50) from the resampling method (jack-knife, 1000 replications) based on parsimony analysis with implied weighting ($K = 10$) is given below the branches. Abbreviations: AT, Austria; BG, Bulgaria; CH, Switzerland; DE, Germany; FR, France; GR, Greece; IT, Italy; PT, Portugal; US, United States.

posterior sclerite, pointing posteriomediad. CO located anteriolaterally of the posterior sclerite. Vulva consists of distinguishable CD, RC, and FD. CD long and convoluted with attached appendages. RC long, oval, irregularly formed, and sclerotized, enclosing convoluted duct, RC separated by about the diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with eight to nine teeth. Colulus rectangular shaped with distal margin almost straight. Distal segment of PLS longer than basal segment. PMS with one prominent minor ampullate gland spigot and two cylindrical gland spigots laterally. Trichobothria on cymbium and palp tarsus absent. Six tarsal trichobothria. Small teeth on paired claws of leg I 12–13. Leg spination: male palp (2–0–0–0, 2–0–0, 1–2–0–0), female palp (1–0–0–0 or 2–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–1–0–0, 1–1–1–0 or 2–1–0–0 or 2–1–1–0, 2–1–1–0, 1–1–1–0), patellae (all 1–0–0), tibiae (2–0–0–1 or 2–0–0–2p, 2–0–0–2 or 2–1–0–2+1p, 2–2–1–1 or 2–2–2–1+1p+1, 2–2–2–2+1p+1 or 2–2–2–3), metatarsi (0–0–0–1+2p+1 or 0–0–0–1p+1+2p+1, 0–0–0–3p+1 or 0–1–0–3p+1, 0–3–2–3p+1 or 0–3–3–3p+1, 0–3–3–1p+1+2p+1 or 0–4–3–1p+1+2p+1), tarsi (I–IV 0).

*Coloration:* Carapace dorsally with two symmetrical longitudinal dark bands, sometimes reduced. Sternum with a distinct, pale median region. Opisthosoma brown-grey-green, dorsoanteriorly with two symmetrical longitudinal pale bands, continuing posteriad in chevrons and spots. Legs without a pattern. ALS indistinctly darkened, PLS with both segments darkened.

*Distribution*
Reported from mainland Italy.

*Discussion*
Drawings of the male palp are available in Bolzern *et al*. (2008). Drawings of both sexes, also with comment on the variation, are available in Brignoli (1971a, 1977a).

### ***ERATIGENA ATRICA*** (C. L. KOCH, 1843) **COMB. NOV.**
### (FIGS 1J, 2H–J, 8A–B, 9I–O, 10A–G)

*Tegenaria atrica* C. L. Koch, 1843: 105–107, fig. 825; Blackwall, 1861: 165, pl. 11, fig. 106; Simon, 1875: 81, pl. 5, fig. 5; Locket & Millidge, 1953: 10, figs 6A, 7A, 9A, 11B.

*Tegenaria saeva* Blackwall, 1844: 179–182, syn. nov.; Simon, 1937: 1003, 1039, figs 1545–1546; Roth, 1968: 29, figs 36–39 (synonymized with *Tegenaria gigantea*, rejected by Brignoli, 1978a: 273); Locket, Millidge & Merrett, 1974: 42, figs 23A, E; Locket, 1975: 85–90, figs 1, 4, 6–11, 13–16.

*Tegenaria duellica* Simon, 1875: 83–85, pl. V, fig. 6, syn. nov.

*Tegenaria larva* Simon, 1875: 86, 87, Planche V: fig. 8.

*Tegenaria nervosa* Simon, 1870: 273–275, synonymized by Simon (1937), reactivated by Brignoli (1978a) but only based on drawings.

*Tegenaria hibernica* Pickard-Cambridge, 1891: 86, fig. 4, male; Pickard-Cambridge, 1893: 150, fig. 6, female.

*Tegenaria gigantea* Chamberlin & Ivie, 1935: 31, pl. XIII, fig. 106; synonymized with *Teg. duellica* by Brignoli, 1978a: 271, 273; Merrett, 1980; Oxford & Smith, 1987; Oxford & Plowman, 1991; Heimer & Nentwig, 1991; Croucher, Oxford & Searle, 2004; Croucher *et al*., 2007; Oxford, 2008.

*Tegenaria praegrandis* Fox, 1937: 176–177, fig. 3.

*Tegenaria deroueti* Dresco, 1957: 212–215, figs 2, 13–14.

*Tegenaria derouetae*: Denis, 1959: 173.

*Tegenaria propinqua* Locket, 1975: 85–90, figs 2, 3, 5, 17–19; synonymized with *Teg. gigantea* by Crawford & Locket (1976).

*Types*
No type material available for *Teg. atrica*, *Teg. derouti*, *Teg. duellica*, *Teg. larva*, *Teg. nervosa*, and *Teg. saeva* in the collection of either the MNHN or NHML.

Sub *Tegenaria gigantea*: Paratypes. Canada: British Columbia: Vancouver Island, Sidney, 2 ♂, 2 ♀ (AMNH), 16.ix.1935, Chamberlin & Ivie; 4 ♂, 4 ♀ (AMNH), same data as previous; Vancouver Island, South Saanich, 1 ♂ (AMNH), 1922.

*Other material examined*
Austria (1 ♂, 4 ♀); Belgium (1 ♂, 18 ♀); Czech Republic (2 ♀); Germany (23 ♂, 34 ♀); France (2 ♂, 6 ♀); Italy (1 ♂); Luxemburg (1 ♀); Poland (1 ♂, 1 ♀); Spain (2 ♂, 3 ♀); Sweden (1 ♀); Switzerland (21 ♂, 17 ♀). Asia: Lebanon (1 ♀).

Sub *Tegenaria duellica/gigantea:* France (1 ♀); United Kingdom (5 ♂, 3 ♀); Spain (3 ♀); Portugal (3 ♀). North America: USA (1 ♀).

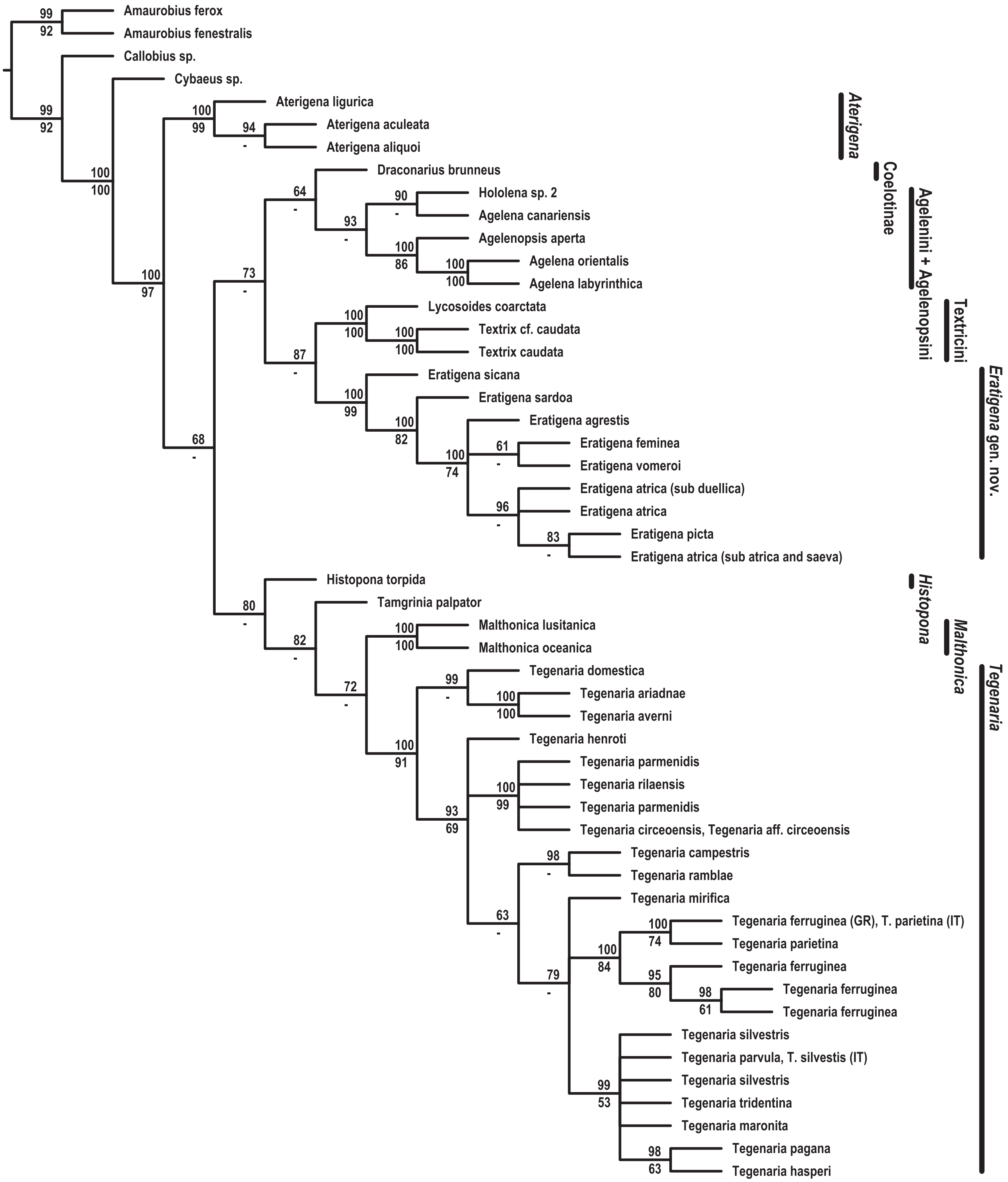

**Figure 6.** Bayesian tree of single analysis of 28S. Posterior probabilities of clades are expressed in percentages and given above branches. Clade support (> 50) from the resampling method (jack-knife, 1000 replications) based on parsimony analysis with implied weighting ($K = 6$) is given below the branches. Abbreviations: GR, Greece; IT, Italy.

## KEY TO EUROPEAN SPECIES OF ***ERATIGENA*** GEN. NOV.

***Eratigena vidua*** (Cárdenas & Barrientos, 2011) **comb. nov.** (from *Tegenaria*) is not treated here as material was not available for examination. The new combination is based on the information provided in the original description (Cárdenas & Barrientos, 2011).

1\. Legs distinctly annulated, at least two femora with more than two dorsal spines, male bulb with distinct and massive transversal ridge of conductor base (Fig. 14A), vulva with distinct and long appendages at the CD ...... 2

–. Legs either pale, completely darkened or only coxa and proximal part of femora darkened (exception: *E. sicana*, legs may be annulated), other characters different ...... 3

2\. Basal part of MA very strongly sclerotized, transversal ridge of conductor base with distinct border line of sclerotization, long appendix anteriorly of CD shorter than RC height ...... *Eratigena inermis*

–. Basal part of MA less sclerotized, transversal ridge of conductor base without special border line of sclerotization, long appendix anteriorly of CD reaches at least to the top of the RC ...... *Eratigena vomeroi*

3\. Trichobothria on female tarsal tibia and on male cymbium present, length of male tibia I shorter than or equal to the length of carapace ...... 4

–. Trichobothria on female tarsal tibia and on male cymbium absent, male tibia I longer than carapace (exceptions: *Eratigena fuesslini* and *Eratigena bucculenta sensu* Barrientos, 1991) ...... 7

4\. Patellar apophysis on male palp present, RTA strongly reduced, epigyne with special posterior plate, protruding ventroposteriad (Figs 8K, M, 11G, I, K) ...... 5

–. Patellar apophysis absent, RTA with two simple branches, distally truncated, epigyne without posterior sclerite ...... 6

5\. Patellar apophysis with two well-separated points, conductor with straight terminal end and as long as the alveolus, epigynal posterior sclerite rectangularly shaped and copulatory openings lateral ...... *Eratigena feminea*

–. Patellar apophysis with three moderately separated points, conductor shorter than the alveolus with terminal end bent ventrad, epigynal posterior sclerite more triangular, copulatory opening anterior ...... *Eratigena bucculenta* (*sensu* Machado, 1941)

6\. Male palp with pyramidal-shaped structure at conductor connection, terminal end of conductor pointing orthogonally away from cymbium (in lateral view), vulva with small diverticula at copulatory duct originating laterally, egg-shaped receptacula irregularly sclerotized ...... *Eratigena barrientosi*

–. Male palp without conspicuous structure at connection of conductor, terminal end of conductor pointing dorsad or posteriad (in lateral view), vulva with small diverticula at copulatory duct originating dorsally, globular receptacula smoothly sclerotized ...... *Eratigena incognita*

7\. Legs with only coxa and proximal part of femora darkened (exception: *Eratigena fuesslini*, completely darkened), distal segment of PLS as long as or only marginally longer than basal segment, median apophysis on male left palp originating at 7–9 o'clock position, basal portion of tegulum not visible between embolus and conductor in ventral view (Fig. 9A), epigyne with 'pseudo teeth' (Fig. 10A–C) or with distinct atrial cavity in combination with a posterior sclerite expressed as a large bulge ...... 8

–. Legs either pale or completely darkened (exception: *Eratigena sicana*, legs may be annulated), distal segment of PLS longer than basal segment, median apophysis on male left palp originating at 5–7 o'clock position, basal portion of tegulum visible in ventral view (Fig. 10L), epigyne different ...... 10

8\. Sternum with a pale median band and symmetrical pale dots laterally, female tibia I longer than carapace length, origin of embolus at 10–11 o'clock position, terminal end of conductor simple, epigynal 'pseudo teeth' present, atrium without a distinct cavity ...... *Eratigena atrica*

–. Sternum with a pale median band, female tibia I shorter than or as long as carapace length, origin of embolus at 8–10 o'clock position, terminal end of conductor complex, epigynal teeth present, atrium forms a distinct cavity in combination with a posterior sclerite expressed as a large bulge ...... 9

9\. Carapace longer than 4.8 mm, conductor very broad in retrolateral view with a very complex terminal end, epigyne with a posterior sclerite expressed as a large bulge, not protruding posteriad, copulatory ducts relatively short ...... *Eratigena agrestis*

–. Carapace shorter than 4.5 mm, conductor relatively slender in retrolateral view with a bifid terminal end, epigyne with a posterior sclerite expressed as a large bulge protruding posteriad, copulatory ducts relatively long ...... *Eratigena fuesslini*

10\. Distal portion of conductor not elongated (shorter than broad), lateral margin of conductor folded only at the terminal half, transversal ridge massive and moderately protruding, epigyne and vulva as in Figs 10M–N and 11N–P ...... 11

–. Distal portion of conductor moderately to strongly elongated, lateral margin of conductor completely folded, transversal ridge (if present) only expressed as a membranous ridge, epigyne and vulva not as above ...... 12

11. RTA strongly protruding ventrad, terminal end of conductor bifid and with additional spur (Fig. 10O, black arrow), strongly sclerotized epigynal plate with two symmetrically arranged reniform depressions with copulatory openings (Fig. 10M)........................................*Eratigena montigena*
–. RTA simple, terminal end indistinct with only one somewhat elongated point, epigyne with posterior sclerite expressed as strongly sclerotized and protruding plate (median of the atrium)........................................*Eratigena bucculenta* (*sensu* Barrientos, 1991)
12. Dorsal branch of RTA dorsally bent posteriad (Fig. 12R), short dorsal spike at male palp tibia present, terminal end of conductor bent or convoluted, complex, median apophysis only moderately protruding, epigyne with a distinct atrial cavity........................................13
–. Dorsal branch of RTA not as above, short dorsal spike at male palp tibia absent, terminal end of conductor simple with elongated point, median apophysis protruding, epigyne with a distinct posterior sclerite expressed as a protruding sclerotized plate or with a portion protruding strongly posteriad (Fig. 12A, F, I)........................................14
13. Distal portion of conductor strongly elongated, terminal end of conductor convoluted, relatively short male palp tibia, CD barely visible through epigynal plate, vulva with very long and convoluted CD (Fig. 13H)........................................*Eratigena picta*
–. Distal portion of conductor only moderately elongated, terminal end of conductor bent, relatively long male palp tibia, CD distinctly visible through epigynal plate, vulva with short CD........................................*Eratigena balearica*
14. Eyes very small, clypeus higher than three × AME, at least one pair of spines prolateral at palp tibia, seven or more tarsal trichobothria, dorsal branch of RTA distinct (Fig. 12L, M), female tibia I longer than carapace, appendages at copulatory ducts long........................................15
–. Eyes larger, clypeus lower than three × AME, two (not paired) prolateral spines at palp tibia, up to six tarsal trichobothria, dorsal branch of RTA different, female tibia I shorter than or equal to the length of carapace, appendages at copulatory ducts short or absent........................................16
15. Carapace shorter than 3.5 mm, distal tip of conductor not reaching the distal margin of the alveolus, epigyne lacking distinct membranous region anteriorly of posterior sclerite, vulva with short, convoluted appendages........................................*Eratigena herculea*
–. Carapace longer than 4 mm, RTA as in Figure 12L, M, distal tip of conductor reaching distal margin of alveolus, epigyne with distinct membranous region basal of posterior sclerite, vulva with long, convoluted appendages........................................*Eratigena hispanica*
16. Dorsal branch of RTA three-pointed (Fig. 12O), vulva with long oval and irregularly sclerotized (enclosing convoluted ducts) receptacula........................................*Eratigena arganoi*
–. Dorsal branch of RTA with one point, vulva with globular and smoothly sclerotized receptacula........................................17
17. Ratio of bulb to cymbium length larger than 0.65, terminal end of conductor expressed as a strongly posteriad elongated point, epigyne with a strongly posteriad protruding portion, vulva with very long convoluted ducts........................................*Eratigena sardoa*
–. Ratio bulb to cymbium length smaller than 0.60, terminal end of conductor inconspicuous, epigyne with a portion protruding posteriad........................................*Eratigena sicana*

**Figure 7.** Combined DNA and morphological data (cytochrome *c* oxidase subunit 1, nicotinamide adenine dinucleotide dehydrogenase subunit 1, 28S, and morphological data) Bayesian tree. Posterior probabilities of clades are expressed in percentages and given above branches. Clade support (> 50) from the resampling method (jack-knife, 1000 replications) based on parsimony analysis with implied weighting ($K = 10$) is given below the branches. Bremer support (> 4) is given to the right of the corresponding node. Abbreviations: AT, Austria; CH, Switzerland; DE, Germany; ES, Spain; FR, France; GR, Greece; IT, Italy; PT, Portugal; SE, Sweden; US, United States.

→

Sub *Tegenaria saeva:* France (7 ♂, 9 ♀); United Kingdom (7 ♂, 3 ♀); Portugal (5 ♀); Spain (3 ♂, 3 ♀).

*Diagnosis*

*Eratigena atrica* can be separated from all other *Eratigena* gen. nov. species by having leg coxa and proximal parts of femora darkened (spotted, as in *E. agrestis*, all other *Eratigena* gen. nov. species with different patterns), short dorsal spike at male palp tibia present (as in *E. agrestis*, *E. fuesslini*, *E. barrientosi*, *E. montigena*, *E. picta*, and *E. balearica*, absent in all other species), very massive conductor, laterally folded only at the terminal half with the very distinct shape of the conductor in retrolateral view (Fig. 9J–L), MA broad pocket-like, strongly attached to the tegulum, originating at 7–9 o'clock position (as in *E. agrestis* and *E. fuesslini*, in all other species more basal, 5–7 o'clock position), basal portion of tegulum almost completely hidden by upper part (embolic division) of tegulum (as in *E. agrestis*, *E. fuesslini*, and to some extent also in *E. sardoa*,

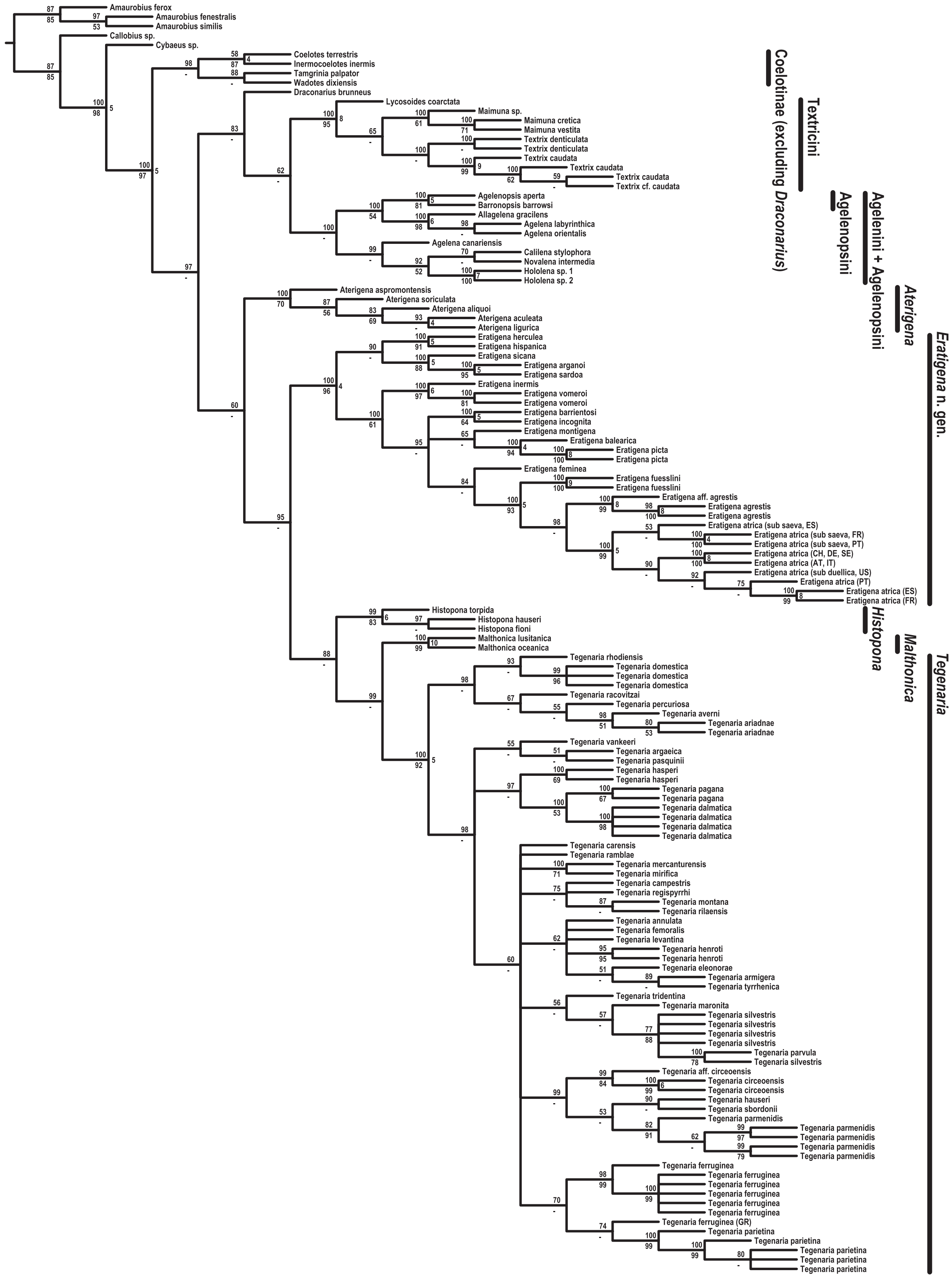
Amaurobius ferox
Amaurobius fenestralis
Amaurobius similis
Callobius sp.
Cybaeus sp.
Coelotes terrestris
Inermocoelotes inermis
Tamgrinia palpator
Wadotes dixiensis
Draconarius brunneus
Lycosoides coarctata
Maimuna sp.
Maimuna cretica
Maimuna vestita
Textrix denticulata
Textrix denticulata
Textrix caudata
Textrix caudata
Textrix caudata
Textrix cf. caudata
Agelenopsis aperta
Barronopsis barrowsi
Allagelena gracilens
Agelena labyrinthica
Agelena orientalis
Agelena canariensis
Calilena stylophora
Novalena intermedia
Hololena sp. 1
Hololena sp. 2
Aterigena aspromontensis
Aterigena soriculata
Aterigena aliquoi
Aterigena aculeata
Aterigena ligurica
Eratigena herculea
Eratigena hispanica
Eratigena sicana
Eratigena arganoi
Eratigena sardoa
Eratigena inermis
Eratigena vomeroi
Eratigena vomeroi
Eratigena barrientosi
Eratigena incognita
Eratigena montigena
Eratigena balearica
Eratigena picta
Eratigena picta
Eratigena feminea
Eratigena fuesslini
Eratigena fuesslini
Eratigena aff. agrestis
Eratigena agrestis
Eratigena agrestis
Eratigena atrica (sub saeva, ES)
Eratigena atrica (sub saeva, FR)
Eratigena atrica (sub saeva, PT)
Eratigena atrica (CH, DE, SE)
Eratigena atrica (AT, IT)
Eratigena atrica (sub duellica, US)
Eratigena atrica (PT)
Eratigena atrica (ES)
Eratigena atrica (FR)
Histopona torpida
Histopona hauseri
Histopona fioni
Malthonica lusitanica
Malthonica oceanica
Tegenaria rhodiensis
Tegenaria domestica
Tegenaria domestica
Tegenaria domestica
Tegenaria racovitzai
Tegenaria percuriosa
Tegenaria averni
Tegenaria ariadnae
Tegenaria ariadnae
Tegenaria vankeeri
Tegenaria argaeica
Tegenaria pasquinii
Tegenaria hasperi
Tegenaria hasperi
Tegenaria pagana
Tegenaria pagana
Tegenaria dalmatica
Tegenaria dalmatica
Tegenaria dalmatica
Tegenaria dalmatica
Tegenaria carensis
Tegenaria ramblae
Tegenaria mercanturensis
Tegenaria mirifica
Tegenaria campestris
Tegenaria regispyrrhi
Tegenaria montana
Tegenaria rilaensis
Tegenaria annulata
Tegenaria femoralis
Tegenaria levantina
Tegenaria henroti
Tegenaria henroti
Tegenaria eleonorae
Tegenaria armigera
Tegenaria tyrrhenica
Tegenaria tridentina
Tegenaria maronita
Tegenaria silvestris
Tegenaria silvestris
Tegenaria silvestris
Tegenaria silvestris
Tegenaria parvula
Tegenaria silvestris
Tegenaria aff. circeoensis
Tegenaria circeoensis
Tegenaria circeoensis
Tegenaria hauseri
Tegenaria sbordonii
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria parmenidis
Tegenaria ferruginea
Tegenaria ferruginea
Tegenaria ferruginea
Tegenaria ferruginea
Tegenaria ferruginea
Tegenaria ferruginea
Tegenaria ferruginea (GR)
Tegenaria parietina
Tegenaria parietina
Tegenaria parietina
Tegenaria parietina
Tegenaria parietina
Coelotinae (excluding *Draconarius*)
Textricini
Agelenopsini
Agelenini + Agelenopsini
*Aterigena*
*Eratigena* n. gen.
*Histopona*
*Malthonica*
*Tegenaria*

**Figure 8.** A, B, *Eratigena atrica*; C–F, *Eratigena agrestis*; G–I, *Eratigena fuesslini*; J, K, P, Q, *Eratigena feminea*; L–O, R, S, *Eratigena bucculenta s.l.* Left male palp in ventral (A, C, G, J, L, N) and retrolateral views (B, D, H, I, K, M, O); epigyne in ventral view (E, P, R); vulva in dorsal view (F, Q, S).

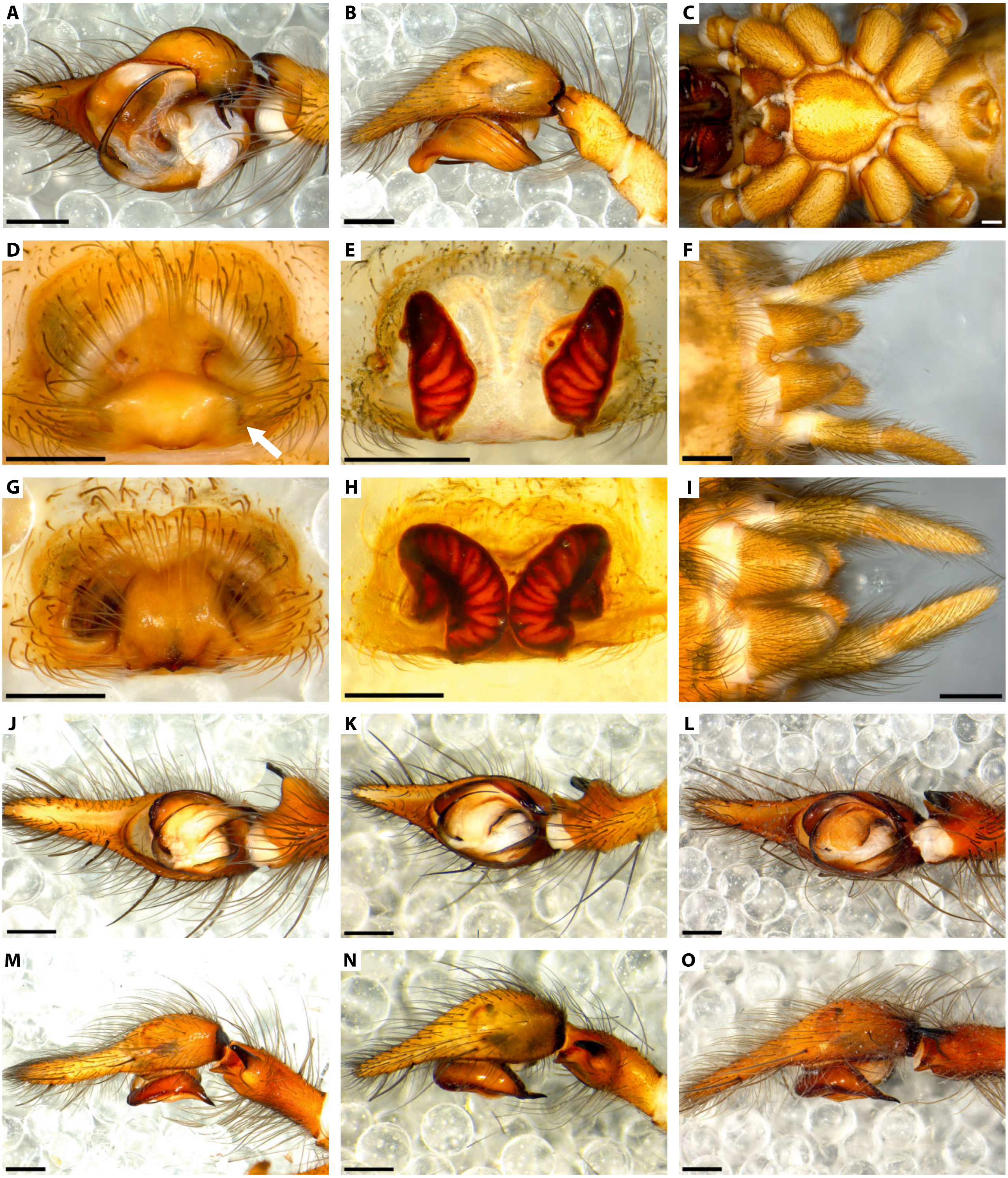

**Figure 9.** *Eratigena agrestis* (A–H) and *Eratigena atrica* (I–O). Male intraspecific morphological variation (I–O); the extremes correspond to the following taxa recognized by some authors: *Eratigena atrica* (J, M), *Eratigena saeva* (K, N) and *Eratigena duellica* (L, O). Left male palp in ventral (A, J–L) and retrolateral views (B, M–O); epigyne in ventral view (D, white arrow pointing to an epigynal tooth) and vulva in dorsal view (E); variation of epigyne in ventral (G) and vulva in dorsal views (H); sternum in ventral view (C); spinnerets in ventral view (F, I). Scale bars = 0.5 mm.

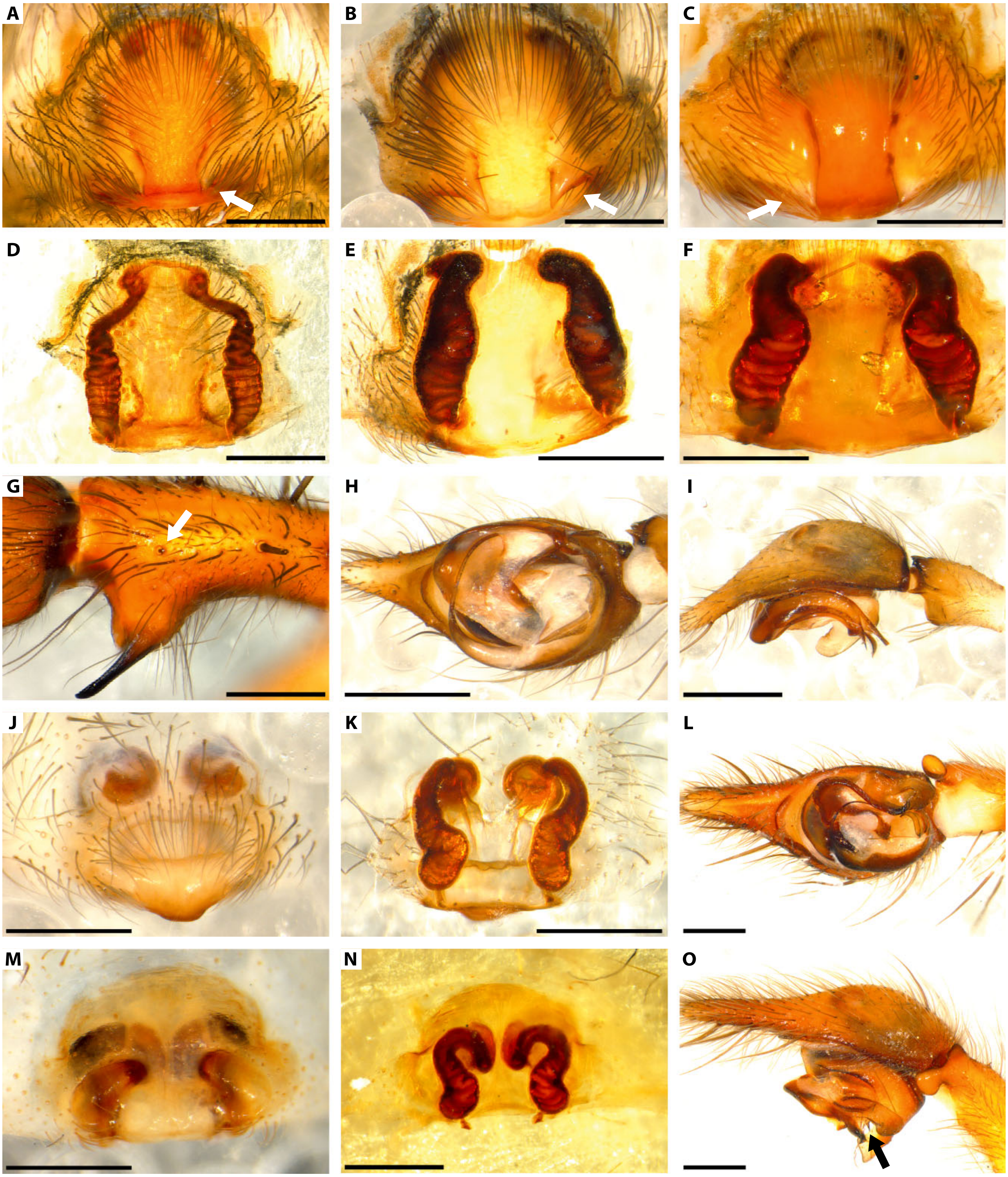

**Figure 10.** A–G, *Eratigena atrica*; H–K, *Eratigena fuesslini*; L–O, *Eratigena montigena*. Female intraspecific morphological variation (A–F); the extremes correspond to the following taxa recognized by some authors: *Eratigena atrica* (A, D), *Eratigena saeva* (B, E), and *Eratigena duellica* (C, F). Epigyne in ventral view [A–C with 'pseudo teeth' (white arrows), J, M]; vulva, dorsal view (D–F, K, N); left male palp in ventral (H, L) and retrolateral views (I, O); male tibia in dorsal view (G) with short dorsal spike (white arrow). Scale bars = 0.5 mm.

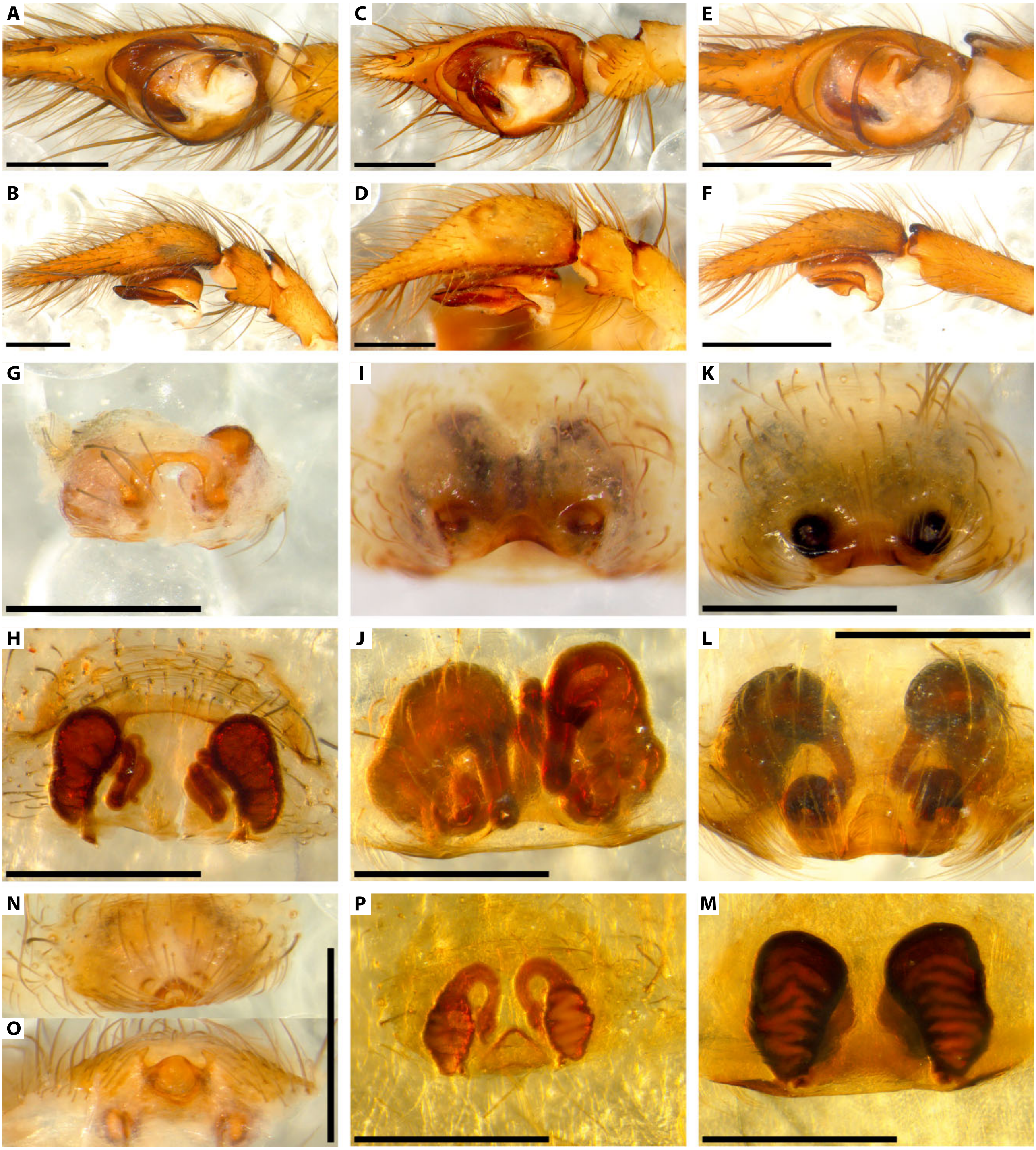

**Figure 11.** A, B, G, H, *Eratigena feminea*; C–F, I–P, *Eratigena bucculenta s.l*. Left male palp in ventral (A, C, E) and retrolateral views (B, D, F); epigyne in ventral (G, I, K, N) and posterior views (O); vulva in ventral (J, L) and dorsal views (H, M, P). Scale bars = 0.5 mm (scale for I is missing).

in all other species of *Eratigena* gen. nov. well visible), strongly expressed epigynal 'pseudo teeth' (Fig. 10A–C, white arrows), which are missing in all other *Eratigena* gen. nov. species.

*Description*

*Measurements:* Male ($N = 2$): CL 4.87–6.78, CW 3.65–5.12, STL 2.35–3.23, STW 2.12–3.05. Leg I (7.66–11.12, 1.91–2.85, 7.40–11.40, 7.79–11.31, 3.52–4.43),


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**Figure 12.** A, B, *Eratigena herculea*; C, D, H, N, O, *Eratigena arganoi*; E, K, *Eratigena sicana*; F, G, L, M, *Eratigena hispanica*; I, J, P, Q, *Eratigena sardoa*; R–T, *Eratigena picta*. Female epigyne in ventral (A, C, F, I) and vulva in dorsal view (B, D, E, G, J); male left palp in ventral (L, N, P, R) and retrolateral views (M, O, Q, S); frontal face of male *E. arganoi* (H); habitus of female *E. sicana* (K); habitus of two males of *E. picta* (T). Scale bars = 0.5 mm.

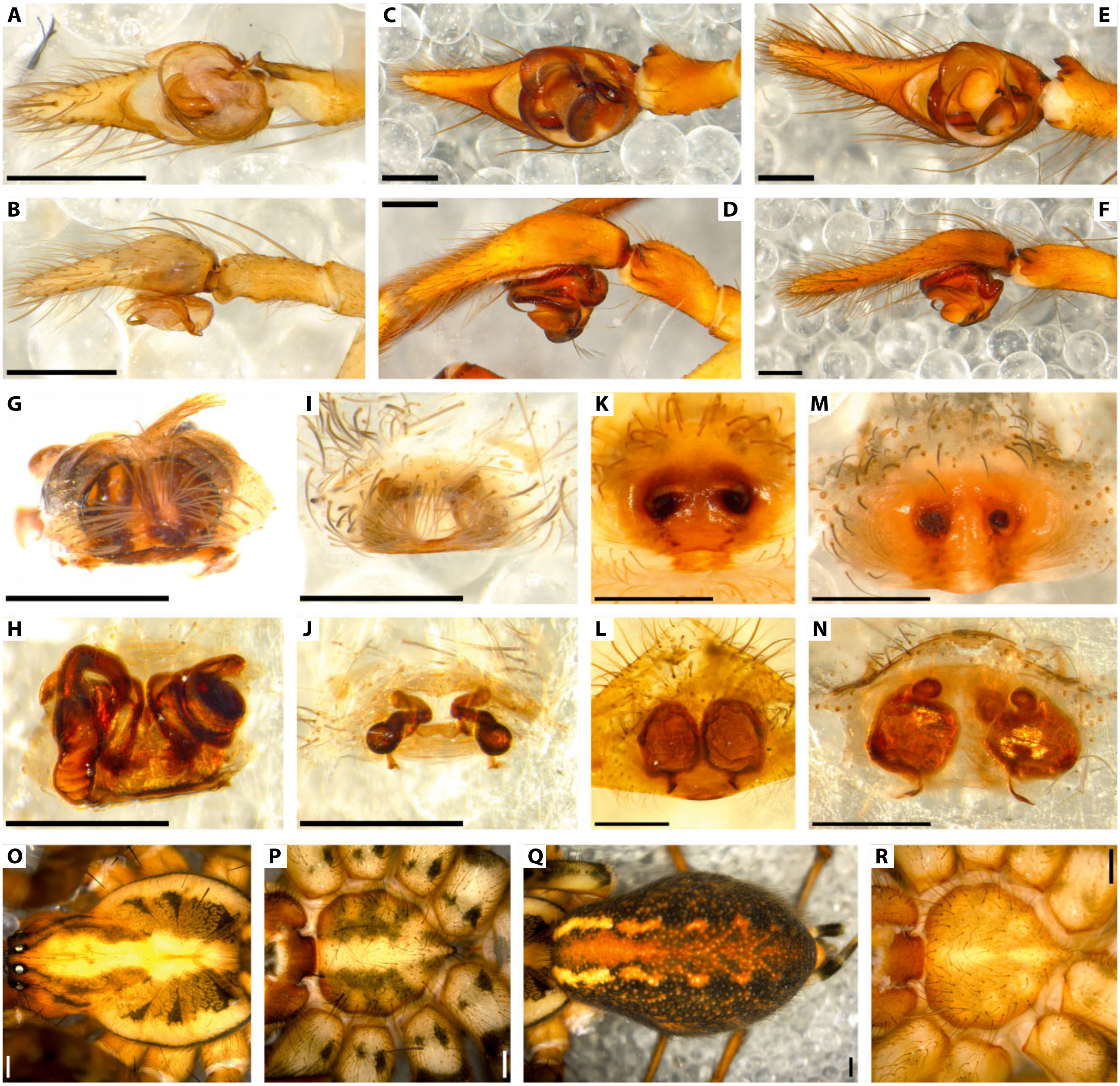


**Figure 13.** A, B, I, J, *Eratigena balearica*; C, D, K, L, R, *Eratigena inermis*; E, F, M–Q, *Eratigena vomeroi*; G, H, *Eratigena picta*. Male left palp in ventral (A, C, E) and retrolateral views (B, D, F); epigyne in ventral (G, I, K, M) and vulva in dorsal view (H, J, L, N); carapace (O) and abdomen (Q) in dorsal view, sternum in ventral view (P, R). Scale bars = 0.5 mm.

II (6.17–8.69, 1.76–2.69, 5.42–7.93, 6.29–9.38, 2.79–3.43), III (5.42–7.52, 1.62–2.30, 4.47–6.32, 6.23–8.94, 2.48–3.36), IV (6.95–9.32, 1.69–2.49, 6.33–8.60, 8.58–12.56, 3.19–4.21). Pedipalp (2.50–3.24, 0.92–1.26, 1.10–1.42, 2.22–2.81), bulbL 1.26–1.30. Female (*N* = 1): CL 5.84, CW 4.10, STL 2.82, STW 2.49, OL 6.27, OW 4.13. Leg I (6.94, 2.28, 6.61, 3.21), II (6.12, 2.03, 5.08, 5.83, 2.85), III (5.60, 1.94, 4.37, 6.05, 2.55), IV (7.10, 1.99, 6.43, 8.67, 2.96). Pedipalp (2.78, 1.10, 1.80, 2.68). EPL 1.19, EPW 1.41, ATL 0.95, ATW 0.60. Eyes: PME 0.22–0.24, PLE 0.23–0.25, AME 0.25–0.27, ALE 0.26–0.27. Eye distances: PME–PME 1 × PME, PME–AME 0.5 × PME, PME–PLE 1–1.5 × PME, PME–ALE 1–1.5 × PME, AME–AME 0.5 × AME, AME–ALE < 0.5 × AME. CLY1 2–2.5 × AME, CLY2 1.5–2 × ALE.

*Male palp:* RTA with two branches, lateral branch simple and pointed, dorsal branch a large knoll with a strongly sclerotized and pointed protrusion. Short dorsal spike on palp tibia present. Embolus length about 1–1.25 × CB, originating at 10–12 o'clock position, distal tip at 4 o'clock position. Conductor massive, distal portion not elongated, folded only at the terminal half. Terminal end of conductor expressed as strongly sclerotized and elongated point directing ventrad. Transversal ridge of conductor expressed as membranous lamella. Conductor membranously connected to tegulum. MA originating at 7–9 o'clock position, moderately protruding, wider than long, distally with pocket-like sclerite. Connection of MA to tegulum at least partly sclerotized.

*Epigyne and vulva:* Epigyne medially with strongly sclerotized, long rectangular plate, anteriorly of which the CO are located. Posterior sclerite absent. Epigynal teeth absent, but 'pseudo teeth' present. Vulva consists of distinguishable CD, RC, and FD. CD short and straight without long appendages. RC irregularly oblong and sclerotized, enclosing convoluted ducts, separated by more than two times their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with seven to nine teeth. Colulus rectangular with distal margin w-shaped. PMS with one prominent minor ampullate gland spigot and three to four cylindrical gland spigots laterally. Trichobothria on cymbium and palp tarsus absent. Seven to ten tarsal trichobothria. Small teeth on paired claws of leg I: 13–14. Leg spination: male palp (2–0–0–0 or 2–1–0–0 or 2–1–1–0, 2–0–0, 1–2p–0–0), female palp (2–0–0–0 or 2–0–1–0 or 2–1–0–0, 2–0–0, 2–2p–0–0), leg femora (2–3–3–0 or 2–3–4–0 or 3–3–2–0 or 3–3–3–0 or 3–3–4–0 or 3–4–4–0, 2–3–2–0 or 2–3–3–0 or 3–3–3–0, 2–2–2–0 or 2–3–2–0, or 2–3–3–0 or 2–3–4–0 or 2–4–2–0, 2–2–1–0 or 2–3–1–0 or 2–3–2–0), patellae (all 2–0–0), tibiae (0–0–0–1p+1+1p or 0–0–0–2p or 0–1–0–1p+1, 0–1–0–2p or 0–2–0–2p or 2–2–0–2p, 2–1–1–1p+2+1p or 2–2–2–1p+1+1p or 2–2–2–2p or 2–2–3–2p, 2–2–2–1p+1+1p+1 or 2–2–2–2p or 2–2–2–3p), metatarsi (0–0–0–1p+2+1p+1 or 0–0–0–4p+1, 0–2–0–4p+1 or 0–3–0–3p+1+2p or 0–3–0–5p, 1+1p–4–3–5p or 2–4–4–5p, 3–4–4–1p+1+1p+2+2p or 3–4–4–5p+1), tarsi (0, 0 or 0–1–0–0 or 0–1–1–0 or 0–1–3–0 or 0–2–2–0, 0–1–3–0 or 0–2–3–0, 0–2–3–0 or 0–2–4–0).

*Coloration:* Two symmetrical longitudinal dark bands dorsally on carapace, sometimes serrated or reduced to triangular dots. Sternum with distinct pattern of pale median band and three symmetrical pairs of pale dots laterally. Opisthosoma darkened with one pale band anteriorly in the middle, laterally with pale dots, continuing to the posterior in chevrons. Legs not annulated, darkened, sometimes only coxa and proximal part of femora with dark spots. ALS slightly darkened, PLS with both segments darkened dorsally, distal segment moderately paler.

### *Distribution*

Reported from most west, Central, and north European countries. Introduced into North America (first mentioned sub *Teg. praegrandis* Fox, 1937). Additionally, there was a specimen from Lebanon in the collection at SMF, unfortunately with insufficient locality information written on the related label.

### *Discussion*

As mentioned by Locket (1975) and Brignoli (1978a), no type material is available for *Teg. duellica*. Here, the argumentation of Brignoli (1978a) is followed. The examined type material of *Teg. gigantea* and the examined specimens sub *E. duellica* are not separable. Therefore, *Teg. gigantea* Chamberlin & Ivie has to be recognized as a junior synonym of *E. duellica* (Simon) (sub *Tegenaria*) and is therefore also a synonym of *E. atrica*.

As in some other species of *Tegenaria* and *Eratigena* gen. nov., some morphological characters are highly variable in, e.g. the size of different body parts (e.g. Simon, 1937: 1003) or the patterns of leg spination. This variation has been reflected upon and discussed in many publications (Blackwall, 1861; Locket & Millidge, 1951, 1953; Denis, 1959; Roth, 1968; Locket *et al.*, 1974; Crawford & Locket, 1976; Brignoli, 1978a; Barrientos & Ribera, 1988; Croucher *et al.*, 2004, 2007). Whereas some authors considered this variation of intraspecific nature, others used it to recognize three species (*E. atrica*, *E. saeva*, *E. duellica*). Barrientos & Ribera (1988) were proponents of the former idea and their view is supported as follows: (1) as shown by Croucher *et al*. (2004), Bolzern *et al*. (2010), and the present paper, the three species are not recovered with CO1 and NADH1 gene sequences (the genetic distances are very small); (2) as suggested by Barrientos & Ribera (1988), seemingly major morphological differences arise when structures are not observed in the same perspectives. This is particularly relevant if published drawings are compared, as in the case of *Teg. nervosa*, which was synonymized with *Teg. atrica* by Simon (1937) and later again recognized as a valid species by Brignoli (1978a) based only on the drawing of Simon (1875).

Members of the British research group of Geoff Oxford (Oxford & Smith, 1987; Oxford & Plowman, 1991; Croucher *et al*., 2007; Anderson *et al*., 2009) suggested that in Great Britain the three species are mostly allopatric with narrow hybrid zones. The major problem with this concept is that it is not applicable to the continental populations in which transitional morphs exist.

## ***ERATIGENA BALEARICA*** (BRIGNOLI, 1978) **COMB. NOV.** (FIG. 13A–B, I–J)

*Malthonica balearica* Brignoli, 1978a: 278, 279, fig. 8, female; Barrientos & Febrer, 1986: 123–128, figs 1–3.

### *Types*

Holotype: Spain: Balearic Islands: Majorca, Porto Cristo, 'près de Cueva del Drach', ♀ (MHNG), 1.iv.1968, Hauser.

Paratype. Spain: Balearic Islands: Majorca, 'sur route de Palma-Valldemosa', ♀ (MHNG), 4.iv.1968, Hauser.

### *Other material examined*

Spain (3 ♂, 3 ♀)

### *Diagnosis*

See Diagnosis section of *E. picta*. For illustrations see Barrientos & Febrer (1986).

### *Description*

*Measurements:* Measurements of males were provided by Barrientos & Febrer (1986). Female ($N = 1$): CL 2.1, CW 1.4, STL 1.2, STW 1.0. Leg I (2.1, 0.7, 2.0, 1.7, 1.2), II (1.75, 0.7, 1.5, 1.4, 1.0), III (1.7, 0.6, -, -, -), IV (2.2, 0.8, 2.1, 2.0, 1.1). Pedipalp (0.85, 0.3, 0.55, 0.8). Eyes: PME 0.095, PLE 0.124, AME 0.105, ALE 0.114. Eye distances: PME–PME 1–1.5 × PME, PME–AME 1–1.5 × PME, PME–PLE 1 × PME, PME–ALE 1.5 × PME, AME–AME 0.5–1 × AME, AME–ALE < 0.5–0.5 × AME. CLY1 1.5–2 × AME, CLY2 0.5–1 × ALE.

*Male palp:* RTA with two branches, lateral branch broad, flattened, and distally truncated, dorsal branch broad, elongated, and bent posteriad. Short dorsal spike on male palp tibia present (arrow in Fig. 13B). Embolus length about 1.5–1.75 × CB, originating at 8 o'clock position, distal tip at 2–4 o'clock position. Conductor long oval, distal portion moderately elongated, as long as wide, lateral margin almost completely folded. Terminal end complex, strongly sclerotized, and with two spirally twisted points. Transversal ridge of conductor expressed as membranous lamella. Conductor membranously connected to tegulum. MA originating at 5 o'clock position, wider than long, distally with pocket-like sclerite. Connection of MA to tegulum at least partly strongly sclerotized.

*Epigyne and vulva:* Epigyne medially with distinct, oval atrial cavity, posteriorly limited by narrow margin. Epigynal teeth absent. Anteriorly, CD are visible through epigynal plate. Vulva consists of distinguishable CD, RC, and FD. CD convoluted, ending in irregularly sclerotized, thickened, tube-like RC, separated by about 1.5 × their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral retromargin with eight to nine teeth. Colulus rectangularly shaped with distal margin w-shaped. Distal segment of PLS longer than basal segment. PMS with one prominent minor ampullate gland spigot and two cylindrical gland spigots on both lateral sides. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria five to six. Small teeth on paired claws of leg I 16. Leg spination: female palp (2–0–0, 2–0–0, 2–2–0, several), male palp (2–0–0, 2–0–0, 1–2–0, several), leg femora (2–2–0–0, 2–1–0–0 or 2–1–1–0 or 2–2–1–0, 2–1–1–0, 1–1–1–0 or 2–1–1–0), patellae ( all 2–0–0), tibiae (0–0–0–2+1p or 0–0–0–2p or 0–0–0–4, 0–1–0–1+1p or 2–1–0–1+1p, 2–2–1–1+1p or 2–2–2–1+1p or 2–2–2–1+1p+1, 2–2–2–2+1p+1 or 2–2–2–3), metatarsi (0–0–0–3p+1, 0–2–0–3p+1 or 0–3–0–3p+1, 1–3–3–4p+1 or 1–4–3–1p+1+2p+1, 1–4–4–1p+1+2p+1 or 1–4–4–3p+1), tarsi (I and II 0, 0–1–2–0, 0–1–1–0 or 0–1–2–0).

*Coloration:* Carapace with two symmetrical longitudinal dark bands. Sternum with distinct pale median region. Opisthosoma brownish to dark brownish, anteriorly with three bands, yellowish, posteriorly continuing in chevrons. Legs weakly but continuously darkened. ALS and both segments of PLS darkened.

### *Distribution*

Reported from the Balearic Islands.

*Discussion*
Barrientos & Febrer (1986) suggested that this species is closely related to *E. picta*. The generic assignment of this species was controversial until the restricted definition of *Malthonica* by Barrientos & Cardoso (2007). Their hypothesis, that *E. balearica* does not belong to *Malthonica* and that it is closely related to *E. picta*, is fully supported here.

### ***ERATIGENA BARRIENTOSI*** (BOLZERN *ET AL.*, 2009) **COMB. NOV.**

*Tegenaria barrientosi* Bolzern *et al.*, 2009: 48–52, figs 1–5, 11–14.

*Types*
All type material and other known specimens were examined and listed by Bolzern *et al.* (2009, sub *Tegenaria*).

*Diagnosis*
*Eratigena barrientosi* can be separated from other *Eratigena* gen. nov. species by the presence of dorsal trichobothria on the female and male palp tarsus/cymbium (shared character with *E. feminea*, *E. bucculenta sensu* Machado, and *E. incognita*; absent in all other *Eratigena* gen. nov. species), and the male tibia I shorter than or equal to the length of carapace (as in *E. feminea*, *E. incognita*, and *E. fuesslini*, all other *Eratigena* gen. nov. species tibia I longer), presence of more than two dorsal spines at all metatarsi (as in *E. incognita*, all other *Eratigena* gen. nov. species without dorsal spines on tibia I and II) and having only two cylindrical gland spigots laterally on PMS (as in *E. picta*, *E. balearica*, *E. arganoi*, *E. sardoa*, and *E. sicana*, all other species with three to four such spigots).

*Description*
Essential information was provided by Bolzern *et al.* (2009, sub *Tegenaria*).

*Distribution*
Reported from two localities in Portugal.

### ***ERATIGENA BUCCULENTA*** (L. KOCH, 1868) **COMB. NOV.** (FIGS 8L–O, R–S, 11C–F, I–P)

*Comment*
*Eratigena bucculenta* is morphologically very variable and is grouped here into three morphotypes:

#### MORPH A (FIG. 11I–J)

*Coelotes bucculentus* L. Koch, 1868: 36–38, fig. 17, female.

*Tegenaria bucculenta*: Simon, 1875: 106–107, female, male doubtful; Brignoli, 1978a: 275–276, fig. 2.

*Types*
According to Simon (1875: 107) one of the females in his sample 467 represents Koch's type specimen (= syntype) collected in El Escorial (L. Koch, 1868: 38, 'Escurial'). Spain: Sierra Nevada, Guadarrama, 2 ♀ (long CD) (MNHN, 1974, 467). The male of sample 467 mentioned by Simon (1875: 107) and Machado (1941) could not be found in this tube. According to Machado (1941), this male with the location 'Sierra Nevada' represents the 'type' of *Tegenaria patula* Simon, 1870 (cf. *E. feminea*).

*Other material examined*
Spain: Madrid: Sierra Guadarrama, Puerto de Paular, 1 ♀ (long CD) (same tube as male of *E. bucculenta sensu* Barrientos, MCSN, 542, 9.v.1967, Osella. They are stored in the collection of Brignoli (♂) and the MCSN (♀). These collections are presently housed together in the same institution (MCSN). Brignoli (1978a: 275) only cited the male, but provided drawings of the female.

#### MORPH B (FIGS 8L–M, R–S, 11C–D, K–M)

*Tegenaria bucculenta*: Machado, 1941: 36–42, figs 22–29.

*Material examined*
Portugal: Bracança: Freixo de Espada à Cinta, Palão, 5 ♂ (sub *Tegenaria feminea*, ZMUC, 00012609), 18.iv.2001, Cardoso; Guarda: Fozcôa, 1 ♂, 1 ♀ (short CD) (MNHN, 1970), iii.1940; Braga: PNPG, Albergaria, 1 ♂, 1 ♀ (short CD) (sub *Tegenaria feminea*, ZMUC, 00012599), 15.vi.2005, Cardoso.

Spain: Castilla y León: Zamora, Sandin de Carballeda, 1 ♀ (short CD) (MHNG), vii.1975, Haymoz.

#### MORPH C (FIGS 8N–O, 11E–F, N–P)

*Tegenaria bucculenta*: Barrientos, 1991: 228–231, figs 2, 3, male.

*Material examined*
Spain: Castilly y León: Salamanca, Puerto de Vallejera, 2 ♂, 1 ♀ (NMB, AB1017), 13.vii.1984, Jerardino; Salamanca, Castañar de Béjar, 2 ♂, 1 ♀ (NMB, AB1016), 26.vi.1984, Jerardino; Madrid: Sierra Guadarrama, Puerto de Paular, 1 ♂ (same tube as female

of *E. bucculenta* with long CD, MCSN, 542,), 9.v.1967, Osella; Los Molinos, 1 ♂ (AMNH), 1961, Haller.

*Diagnosis for E. bucculenta sensu Machado*
See Diagnosis section for *E. feminea*.

*Description*
Detailed description with measurements was provided by Machado (1941) for *E. bucculenta sensu* Machado (sub *Tegenaria*) and by Barrientos (1991) for *E. bucculenta sensu* Barrientos (only for the male).

*Discussion*
Morphotype A is represented by the syntype of *E. bucculenta* (MNHN, 1974, 467) with long, convoluted CD (Fig. 11J). The female specimen described by Brignoli (1978a: fig. 2) is morphologically similar, his male, however, corresponds to the male described by Barrientos (morphotype C, Fig. 11E, F). Morphotype B corresponds to the male and female (vulva with short CD) described by Machado (1941: 38, fig. 26). No other morphological character could be found that separates morphotypes A and B. Morphotype C comprises the male described by Barrientos (1991) and the female, which differs from the other two morphotypes (Fig. 11N, O) in the following characters: distinctly pronounced atrium (much shallower in morphotypes A and B), much more strongly pronounced and elongated epigynal teeth, differently shaped vulva (RC relatively smaller in respect to the CD), much longer palpal tibia, and the absence of dorsal trichobothria on the palp tarsus/cymbium (trichobothria are present in morphotypes A and B and also in *E. feminea*). Morphotypes A and C are restricted to the 'Sistema Central', a system of mountain ranges on the Iberian Peninsula, whereas morphotype B occurs in an area north-west of the 'Sistema Central' not geographically overlapping with morphotypes A and C.

The syntype of *Teg. bucculenta* corresponds to morphotype A. Morphotype C differs significantly from *Teg. bucculenta s.s.* and may represent a different species (*Teg. bucculenta sensu* Barrientos, 1991). Morphotype B could be a variation of morphotype A. If this is the case *Teg. bucculenta sensu* Machado (1941) (female with short CD) should be called *E. bucculenta*. The available material is insufficient to solve this problem.

## *ERATIGENA FEMINEA* (SIMON, 1870) COMB. NOV.

(FIGS 8J–K, P–Q, 11A–B, G–H)

*Tegenaria feminea* Simon, 1870: 283, 284, male; Barrientos, 1980: 15–20, figs 1, 2.

*Tegenaria cisticola* Simon, 1870: 286–288, male.

*Tegenaria patula* Simon, 1870: 285, 286, male.

*Tegenaria maderiana* Thorell, 1875a: 76, 77, syn. nov.

*Tegenaria carpetana* Brignoli, 1978a: 276, 277, fig. 4, female.

*Types*
Probable syntypes. Spain: Malaga, Sevilla, Cepeda, 4 ♂, 1 ♀ (MNHN, 1974, 468), Simon.

Sub *Tegenaria cisticola*: Probable syntypes. Spain: Sierra Morena, 1 ♂, 3 ♀ (MNHN, 1974, 477), Simon.

Sub *Tegenaria maderiana*: Holo- and paratypes. Portugal: Madeira, 'Insula Madera', 3 ♀ (SMNH, Burk 226), Heer.

Sub *Tegenaria carpetana*: Holotype. Spain: Madrid: Galapagar, ♀ (MCSN, 100), 10.v.1967, Osella.

*Other material examined*
Portugal (9 ♂, 9 ♀); Spain (5 ♂, 13 ♀).

Africa: Algeria (3 ♀). Asia: Syria (1 ♂).

*Diagnosis*
*Eratigena feminea* can be separated from other *Eratigena* gen. nov. species by the reduced RTA and the presence of a two-pointed patellar apophysis at the male palp (as in *E. bucculenta sensu* Machado, 1941; all other *Eratigena* gen. nov. species with RTA and without patellar apophysis), the presence of dorsal trichobothria on the female and male palp tarsus/cymbium (shared character with *E. bucculenta sensu* Machado, *E. barrientosi* and *E. incognita*; absent in all other *Eratigena* gen. nov. species, also absent in *E. bucculenta sensu* Barrientos, 1991) and the male tibia I shorter than or equal to the length of carapace (as in *E. barrientosi*, *E. incognita*, and *E. fuesslini*, all other *Eratigena* gen. nov. species tibia I longer). It can be separated from the closely related *E. bucculenta sensu* Machado (1941) by the patellar apophysis having two well-separated points, the conductor being as long as the alveolus and the straight terminal end of the conductor (*E. bucculenta*: three-pointed patellar apophysis, close together, conductor shorter than the alveolus with terminal end bent ventrad). Females can be separated by the rectangularly shaped posterior sclerite with CO facing laterally (*E. bucculenta sensu* Machado: triangular posterior sclerite and CO facing anteriorly).

*Description*
*Measurements:* Some measurements were provided by Simon (1870: 283–287, sub *Teg. feminea*, *Teg. patula*, and *Teg. cisticola*) and Brignoli (1978a: 276–277, sub *Teg. carpetana*). The specimens examined here are in the same range. Eyes: PME 0.11, PLE 0.15, AME 0.13, ALE 0.13. Eye distances: PME–PME 1.5 × PME, PME–AME 1 × PME, PME–PLE 1–1.5 × PME,

PME–ALE 1.5–2 × PME, AME–AME 0.5–1 × AME, AME–ALE < 0.5 × AME, CLY1 1.5–2 × AME, CLY2 1–1.5 × ALE.

*Male palp:* Patellar apophysis at male palp present, dorsally with large and sclerotized point, lateroventrally with smaller point, both well separated. RTA reduced. Short dorsal spike on male palp tibia absent. Embolus length 0.75–1.25 × CB, originating at 9 o'clock position, distal tip at 4 o'clock position. Conductor with distal portion as long as wide, not reaching distal margin of alveolus, lateral margin folded only at terminal half. Terminal end simple, long, drawn out, straight, and inconspicuously pointed. Transversal ridge of conductor expressed as membranous lamella. Conductor membranously connected to tegulum. MA originating at 5–6 o'clock position, moderately protruding, as long as wide, distally with pocket-like sclerite. MA membranously connected to tegulum.

*Epigyne and vulva:* Epigyne with distinct posterior sclerite, forming a strongly sclerotized, rectangularly shaped pocket, opening towards posterior. Epigynal teeth present, originating posteriodistally of posterior sclerite, pointing posteriomediad. CO located laterally of posterior sclerite, opening laterad. Vulva consists of distinguishable CD, RC, and FD. CD long and convoluted, without appendages but expanded region at its beginning (probably homologous to the appendages of *E. bucculenta*). RC oblong, irregularly formed, and sclerotized, enclosing convoluted ducts, separated by less than or about their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with seven to 11 teeth. Colulus rectangularly shaped with distal margin w-shaped. Distal segment of PLS as long as basal segment. PMS with one prominent minor ampullate gland spigot and three to four cylindrical gland spigots laterally. Tarsal trichobothria present on cymbium and palpal tarsus. Seven to nine tarsal trichobothria. Small teeth on paired claws of leg I 11–13. Leg spination: male palp (2–0–0–0, 2–0–0, 2–2p–0–0), female palp (2–0–0–0, 2–0–0, 2–2p–0–0), leg femora (1–2–1–0 or 2–2–0–0 or 2–2–1–0 or 3–2–0–0, 2–2–1–0 or 2–3–1–0, 2–1–2–0 or 2–2–2–0 or 2–2–3–0, 1–1–1–0), patellae (all 2–0–0), tibiae (0–0–0–2p or 0–0–0–3p, 0–1–0–3p or 0–2–0–3p, 2–2–2–1+1p or 2–2–2–2+1p or 2–2–2–2p or 2–2–2–3p, 1–2–2–1+2p+1 or 2–2–2–1+3p or 2–2–2–2+1p+1 or 2–2–2–4p), metatarsi (0–0–0–4p+1, 0–2–0–4p+1, 1p–4–3–4p+1, 1p–4–3–4p+1 or 2–4–4–4p+1), tarsi (I & II 0, III & IV 0–2–3–0).

*Coloration:* Two symmetrical longitudinal dark bands dorsally on carapace present, sometimes reduced to only triangular dots. Sternum with a distinct pale median region. Opisthosoma brown-grey-green, dorsoanteriorly with two symmetrical longitudinal pale bands continuing posteriorly in chevrons and then in dots. Legs either without a pattern or spotted. ALS indistinctly darkened (occasionally only distally), PLS both segments darkened.

*Distribution*

Reported from the Iberian Peninsula and northern Africa (Algeria).

The specimen from Algeria has already been mentioned by Machado (1941). In one tube labelled by Simon with the number '469 (Syria)', one male was determined as *E. feminea*, together with other specimens belonging to other species. It is known that Simon added later specimens to some tubes. There is some doubt as to whether the specimen in question really is from Syria.

*Discussion*

*Eratigena feminea* has very distinct male and female genitalia. The coloration (spotted legs or not, black dots on cephalothorax) and the size are very variable, which led to the description of several species that were subsequently synonymized. One synonym, established by Lehtinen (1967: 267) has to be corrected: the specimens of *Teg. cisticola* preserved in MNHN (Simon's no. 477) belong, as mentioned by Machado (1941), Barrientos (1980), and Brignoli (1978a), to *E. feminea* and not to *E. bucculenta*.

*Eratigena feminea* seems to be closely related to *E. bucculenta*. In one sample from Portugal (Boticas) both species are present with one male (male of *E. bucculenta sensu* Machado, 1941). For further discussion see *E. bucculenta*.

### ***ERATIGENA FUESSLINI*** (PAVESI, 1873) **COMB. NOV.** (FIGS 8G–I, 10H–K)

*Tegenaria fuesslinii* Pavesi, 1873: 105–107, figure without a number, only female.

*Tegenaria pallidula* Simon, 1875: 95, 96, only male.

*Tegenaria capra* Simon, 1875: 97, 98, only male.

*Tegenaria ericarum* Simon, 1875: 98, 99.

*Tegenaria corsica* Simon, 1937: 1038, 1039, figs 1539, 1540.

Simon (1937) synonymized *Teg. pallidula*, *Teg. capra*, and *Teg. ericarum* with *Teg. corsica* Bremi-Wolf (also Bremi-Wolff); the name *Teg. corsica* is considered a nomen nudum (see Brignoli, 1971a: 84).

*Types*

No type material was available for this study [could not be traced, apparently not represented in the collection of Genova (Giuliano Doria, pers. comm.) and until now not traceable in the collection of the Museo di Storia Naturale dell'Università di Pavia (Michele Abderhalden, pers. comm.)].

*Other material examined*
France (36 ♂, 65 ♀); Italy (19 ♂, 40 ♀); Spain (35 ♂, 14 ♀); Switzerland (1 ♂, 2 ♀).

*Diagnosis*
*Eratigena fuesslini* can easily be separated from all other *Eratigena* gen. nov. species by the distinct terminal end of the conductor, and the atrial cavity posteriorly limited by a large bulge. From the closely related species, *E. agrestis*, it can be separated by the body size (*E. fuesslini* much smaller than *E. agrestis*), the less broad conductor (in retrolateral view, broader in *E. agrestis*), the terminal end of the conductor, the bulge at the epigyne protruding posteriad (not protruding in *E. agrestis*), and the CD being visible through the epigynal plate.

*Description*
*Measurements:* Male ($N = 2$): CL 3.25–4.2, CW 2.35–3.0, STL 1.7–2.05, STW 1.4–1.75, OL 3.75–4.0, OW 2.3. Leg I (3.4–4.35, 1.2–1.55, 3.2–4.0, 3.3–4.2, 2.0–2.65), II (2.95–3.5, 1.1–1.5, 2.4–2.85, 2.75–3.4, 1.75–2.2), III (2.75–3.3, 1.1–1.3, 2.05–2.5, 2.25–3.5, 1.3–1.9), IV (3.6–4.0, 1.15–1.5, 3.15–3.7, 4.0–4.6, 2.0–2.3). Pedipalp (1.5–1.75, 0.55–0.65, 0.6–0.75, 1.45–1.75), bulbL 1.0–1.25. Female ($N = 2$): CL 2.25–4.2, CW 1.6–2.7, STL 1.25–2.1, STW 1.05–1.7, OL 2.75–4.9, OW 1.85–3.0. Leg I (1.9–3.5, 0.85–1.5, 1.6–3.1, 1.6–2.95, 1.15–2.0), II (1.65–3.1, 0.75–1.45, 1.2–2.4, 1.45–2.7, 1.0–1.8), III (1.5–3.0, 0.7–1.35, 1.05–2.1, 1.45–2.75, 0.9–1.75), IV (2.05–3.9, 0.8–1.45, 1.8–3.4, 2.1–4.0, 1.05–2.1). Pedipalp (0.85–1.65, 0.45–0.7, 0.5–1.05, 0.6–1.6). EPL 0.48–0.54, EPW 0.62–0.71, ATL 0.07–0.08, ATW 0.29–0.3. Eyes: PME 0.09–0.143, PLE 0.10–0.152, AME 0.08–0.129, ALE 0.10–0.171. Eye distances: PME–PME 1.5–2 × PME, PME–AME 1 × PME, PME–PLE 1–1.5 × PME, PME–ALE 1.5 × PME, AME–AME 0.5–1 × AME, AME–ALE 0.5 × AME, CLY1 2–2.5 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with two branches, lateral branch simple and pointed, dorsal branch broad, distally truncated and variable shaped (from one larger and several smaller points to only two points). Short dorsal spike on palp tibia present. Embolus length 1.25–1.5 × CB, originating at 9–10 o'clock position, distal tip at 4–5 o'clock position. Conductor massive, not conspicuously broad in retrolateral view, distal portion not elongated, folded only at the terminal half, which is twisted ventroprolaterad. Terminal end complex, consisting of two strongly sclerotized, stepped, and elongated points (one additional thorn-like point possible, Fig. 8H), ventral point with a strongly sclerotized, dark posterior margin and a much thinner, plate-like anterior part. Conductor retrolaterally moderately furrowed. Transversal ridge of conductor expressed as membranous lamella. Conductor membranously connected to tegulum. MA originating at 6–8 o'clock position, protruding, wider than long, distally with pocket-like sclerite. Connection of MA to tegulum at least partly strongly sclerotized.

*Epigyne and vulva:* Epigyne medially with distinct atrial cavity, posteriorly limited by a posterior sclerite expressed as distinct large bulge, strongly fused with the epigynal plate, and moderately protruding posteriad. Epigynal teeth present, originating lateral on the posterior bulge, pointing posteriomediad. Anteriorly, CD visible through epigynal plate. Vulva consists of distinguishable CD, RC, and FD. CD moderately convoluted, with a ventral protuberance (close to the CO). RC irregularly oblong and sclerotized, enclosing convoluted ducts, separated by about 1.5 × their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral retromargin with eight to 12 teeth. Colulus rectangularly shaped with distal margin w-shaped. PMS with one prominent minor ampullate gland spigot and three to four cylindrical gland spigots laterally. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria five to nine. Small teeth on paired claws of leg I 12–14. Leg spination: male palp (2–0–0–0, 2–0–0, 1–1+1p–0–0 or 1–2–0–0), female palp (2–0–0–0, 2–0–0, 2–2p–0–0), leg femora [2–2–0–0, 1–0–0–0 or 2–2–0–0 or 2–3–1–0 (in small female with only one dorsal spine), 1–0–0–0 or 2–2–2–0 or 2–2–3–0 or 2–3–3–0 (in small female with only one dorsal spine), 1–0–1–0 (only in small female) or 1–1–1–0 or 2–1–1–0 or 2–2–1–0 or 2–2–2–0], patellae (all 2–0–0), tibiae [0–0–0–1+1p or 0–0–0–1+2p or 0–0–0–2 or 0–0–0–2p or 0–0–0–3p (indistinct dorsal spines possible), 0–1–0–1 or 0–1–0–1p+1+1p or 0–2–0–1p+1+1p, 2–2–1–1 or 2–2–1–2 or 2–2–2–2p or 2–2–2–3p, 2–2–2–1p+1+1p or 2–2–2–2 or 2–2–2–2p], metatarsi (0–0–0–4p+1, 0–0–0–2p+1 or 0–1–0–2p+1 or 0–2–0–4p+1, 0–2–2–1p+1+2p or 0–3–2–1p+1+2p or 1p–4–3–5p or 1p–4–4–5p, 0–4–3–1p+2+2p or 1–4–3–1+4p or 1–4–4–5p or 1p–4–3–4p+1), tarsi (I–II 0, III 0–0–1–0 or 0–2–3–0, IV 0–0–1–1 or 0–2–4–0).

*Coloration:* Carapace with weakly serrated, longitudinal dark symmetrical bands, may be reduced to only triangular dots. Sternum with distinct pale median region. Opisthosoma darkened green-brownish, at the cardiac mark yellowish, posteriorly continuing in broad chevrons (~ five). Legs moderately continuous darkened. ALS and both segments of PLS dorsally darkened.

*Distribution*
Reported from Central to south-western Europe (CH, FR, IT, ES, PT). Some records may be unsure (e.g. YU, DE).

*Discussion*
As described for the previous species, *E. fuesslini* shows very considerable morphological variation in genital characters. This variation led Simon (1875) to describe three species, which he subsequently synonymized (Simon, 1937). Some specimens are strikingly smaller and the female and male genitalia differ in some morphological details. This, however, may be a result of smaller size. With the evidence at hand it is not possible to decide whether these differences reflect intraspecific or interspecific variation and we adopt the synonymy proposed by Simon.

### ***ERATIGENA HERCULEA*** (FAGE, 1931) **COMB. NOV.** (FIG. 12A, B)

*Tegenaria herculea* Fage, 1931: 210, 211, fig. 47, female; Brignoli, 1977c: 69, 70, fig. 3, female; Ribera & Barrientos, 1986: 188–191, figs 1–3, male.

*Pseudotegenaria herculea*: Lehtinen, 1967: 261.

*Types*
Holotype. Gibraltar: 'Cueva de San Miguel', ♀ (MNHN, 1976, 507), 6.iv.1912.

*Other material examined*
Gibraltar (1 ♀); Spain (5 ♀).

No males were available for examination. For figures of males see Ribera & Barrientos (1986).

*Diagnosis*
*Eratigena herculea*, *E. hispanica*, and three species originally described in *Malthonica* (*E. arganoi*, *E. sardoa*, and *E. sicana*, the '*Eratigena arganoi*-group') have the distal segment of PLS longer than basal segment (as in *E. picta*, *E. balearica*, and *E. montigena*; segment as long as basal in other species), short dorsal spike at male palp tibia absent (shared with *E. feminea*, *E. incognita*, *E. inermis*, and *E. vomeroi*, all other *Eratigena* gen. nov. species with spike), conductor with lateral margin entirely folded (as in *E. picta* and *E. balearica*, all other species with folded margin only at the terminal half), terminal end of conductor with one simple elongated peak (comparable with *E. atrica*, *E. bucculenta*, *E. feminea*, *E. barrientosi*, and *E. incognita*, in all other *Eratigena* gen. nov. species more complex), MA protruding, longer than wide, spoon-like (all other *Eratigena* gen. nov. species with the length of MA not exceeding its width, pocket-like), connection of MA to tegulum membranous (only similar in *E. incognita*), epigyne with a distinct posterior sclerite, forming a strongly sclerotized and protruding pocket-like structure (shared with *E. bucculenta* and *E. feminea*, all other *Eratigena* gen. nov. species without such structure).

*Eratigena herculea* and *E. hispanica* can be separated from the '*Eratigena arganoi*-group' by the length of tibia I (longer than CL, in other species shorter than or equal to CL), the PMS bearing three to four cylindrical gland spigots laterally (others with only two), the shape of the dorsal branch of the RTA, the conductor, and the MA, the very long appendages at the CD (short or absent in other species), and the special form of the RC. From *E. hispanica* it differs in the smaller size (Ribera, 1978; Ribera & Barrientos, 1986; even though this character is strongly variable in many species of the genus, there are very few other discriminating characters mentioned in the literature), the shape of the RTA in dorsal view (Ribera & Barrientos, 1986: 190, figs 3, 5), the conductor not reaching the distal margin of the alveolus (reaching it in *E. hispanica*), the differently shaped epigyne (larger membranous part anteriorly of distinctly differently shaped posterior sclerite in *E. hispanica*), the absence of epigynal teeth (present in *E. hispanica*), and the distally less convoluted appendages at the CD (more elongated and convoluted in *E. hispanica*).

*Description*
*Measurements:* Measurements of males were provided by Ribera & Barrientos (1986). Female ($N = 2$): CL 2.96–3.16, CW 2.11–2.15, STL 1.53–1.56, STW 1.31–1.33, OL 2.55–3.63, OW 1.67–2.65. Leg I (4.46, 1.19, 4.64, 4.77, 2.57), II (3.83–3.99, 1.04–1.16, 3.42–3.51, 3.68–4.09, 1.88–2.2), III (3.6–3.74, 1.02–1.05, 3.1–3.24, 3.98–4.22, 1.72–1.93), IV (4.58–4.85, 1.04–1.07, 4.54–4.57, 5.62–5.91, 1.95–2.2). Pedipalp (1.57–1.59, 0.56–0.59, 1.11–1.17, 1.6–1.69). EPL 0.31, EPW 0.53, ATL 0.18, ATW 0.2. Eyes (moderately reduced): PME 0.04–0.06, PLE 0.05–0.06, AME 0.03–0.05, ALE 0.06–0.08. Eye distances: PME–PME 2 × PME, PME–AME 1.5–2 × PME, PME–PLE 1.5–2 × PME, PME–ALE 2–2.5 × PME, AME–AME 1.5–2 × AME, AME–ALE 1.5–2 × AME, CLY1 > 3 × AME, CLY2 2–3 × ALE.

*Male palp:* No male specimen was available for examination. Relevant information was provided by Ribera & Barrientos (1986).

*Epigyne and vulva:* Epigyne with a distinct posterior sclerite, forming a strongly sclerotized, triangularly shaped, and protruding pocket, opening posteriad. Epigynal teeth absent. CO located anteriolaterally of the posterior sclerite. Vulva consists of distinguishable CD, RC, and FD. CD short, with a long, distally somewhat convoluted appendix. RC irregularly formed and sclerotized with several 'chambers', separated by about 1.5 × their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three to four, retromargin with seven to ten teeth. Colulus rectangularly shaped with distal margin w-shaped. Distal segment of PLS longer than basal segment. PMS with one prominent minor ampullate gland spigot and three to four cylindrical gland spigots laterally. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria seven to eight. Small teeth on paired claws of leg I 18. Leg spination: female palp (1–0–0–0, 2–0–0, 2–1+1p–0), leg femora (2–2–1–0 or 2–2–3–0, 1–2–2–0 or 2–3–2–0, 1–2–2–0 or 2–2–2–0 or 2–2–3–0 or 3–2–1–0, 1–1–1–0 or 2–1–1–0 or 2–1–2–0 or 2–2–1–0), patellae ( all 2–0–0, one specimen with one retrolateral spine at patella IV), tibiae (0–0–0–1+1p or 0–1–0–1+1p or 2–2–0–1+1p, 0–2–0–1+1p or 2–2–0–1+2p or 2–2–1–2p, 2–2–1–2p+1 or 2–2–2–1+1p or 2–2–2–2 or 2–2–2–2p, 2–2–2–2p+1, or 2–2–2–3p, or 2–2–3–2, or 2–3–2–2), metatarsi (0–0–0–3p+1, 0–1–0–3p+1 or 0–2–0–3p+1, 0–4–3–2p+1 or 0–4–3–3p+1, 0–4–4–1p+1+2p+1 or 1–4–3–1p+1+2p+1), tarsi (I & II 0, III 0 or 0–0–1–0, IV 0–0–1–0 or 0–0–2–0).

*Coloration:* Carapace not darkened (troglobiont?). Sternum with a weakly expressed pale median region. Opisthosoma brown-yellowish, only cardiac mark darker. Legs without a pattern.

### *Distribution*

Records are known only from southern Spain (mainland and the Balearic Island of Ibiza) (Fage, 1931; Brignoli, 1977c; Ribera & Barrientos, 1986).

### *Discussion*

The specimen from Lima Gesus (Malaga, Tolox) differs slightly from the other material: the conspicuously different run of the copulatory duct, the larger size, and the leg spination. More material is necessary to decide whether or not this specimen represents a different species.

## ***ERATIGENA HISPANICA*** (FAGE, 1931) **COMB. NOV.** (FIG. 12F–G, L–M)

*Tegenaria hispanica* Fage, 1931: 212, 213, fig. 48, only female; Ribera, 1978: 30–32, figs 1–5, male.

*Pseudotegenaria hispanica*: Lehtinen, 1967: 261.

### *Types*

Holotype and paratype. Spain: Catalonia: Tarragona, Tortosa, Cova d'en Rubi, 2 ♀ (MNHN, 1979, 787), 20.v.1914, Fage, 1931.

### *Other material examined*

Spain (1 ♂, 2 ♀).

### *Diagnosis*

See the Diagnosis section for *E. herculea*.

### *Description*

*Measurements:* Male ($N = 1$): CL 4.34, CW 3.14, STL 2.14, STW 2.02, OL 2.97, OW 1.65. Leg I (7.33, 1.71, 7.43, 7.71, 3.61), II (6.32, 1.73, 5.78, 7.17, 3.1), III (5.53, 1.36, 4.89, 6.93, 2.86), IV (6.6, 1.43, 6.31, 9.51, 3.64). Pedipalp (2.31, 0.76, 1.34, 1.81), bulbL 0.66. Female ($N = 1$): CL 5.32, CW 3.54, STL 2.43, STW 2.16, OL 5.01, OW 2.7. Leg I (7.42, 1.98, 7.58, 7.99, 3.53), II (6.77, 1.93, 6.27, 7.56, 3.59), III (6.39, 1.78, 5.73, 7.89, 3.2), IV (7.65, 1.98, 7.51, 10.68, 3.92). Pedipalp (2.74, 0.96, 1.97, 2.84). EPL 0.49, EPW 0.76, ATL 0.33, ATW 0.28. Eyes (somewhat reduced): PME 0.13, PLE 0.13–0.17, AME 0.10–0.11, ALE 0.16–0.17. Eye distances: PME–PME 1–1.5 × PME, PME–AME 1 × PME, PME–PLE 1.5–2 × PME, PME–ALE 1.5–2 × PME, AME–AME 1–1.5 × AME, AME–ALE 0.5–1 × AME, CLY1 3–3.5 × AME, CLY2 1.5–2 × ALE.

*Male palp:* RTA with two branches, lateral branch only moderately protruding, lobe-like dorsal branch strongly sclerotized and protruding, distally with short, claw-like appendix. Short dorsal spike on male palp tibia absent. Embolus length 1.75–2 × CB, originating at 7–8 o'clock position, distal tip at 4 o'clock position (bulb in Fig. 12L–M twisted). Conductor with distal portion moderately elongated, as long as wide, reaching distal margin of alveolus, lateral margin folded. Terminal end simple, long, drawn out, and pointed. Transversal ridge of conductor membranous, lamelliform. Conductor membranously connected to tegulum. MA originating at 5 o'clock position, protruding, longer than wide, distally with spoon-like sclerite. MA membranously connected to tegulum.

*Epigyne and vulva:* Epigyne with distinct posterior sclerite, forming strongly sclerotized, triangularly to rectangularly shaped, and protruding pocket, opening posteriad. Epigynal teeth present, originating distally of posterior sclerite, pointing posteriomediad. CO located anteriolaterally of posterior sclerite at a rectangularly shaped membranous area. Vulva consists of distinguishable CD, RC, and FD. CD short, with long, distally strongly convoluted appendix. RC irregularly formed and sclerotized with several 'chambers', separated by two × the diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with nine to ten teeth. Colulus rectangularly shaped with distal margin more or less straight or moderately w-shaped. Distal segment of PLS longer than basal segment. PMS with one prominent minor ampullate gland spigot and three to four cylindrical gland spigots laterally. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria eight to nine. Small teeth on paired claws of leg I 13–14. Leg spination: male palp (2–1–1–0, 2–0–0, 1–1+1p–0–0), female palp (2–1–0–0 or 2–1–1–0, 2–0–0, 2–2p–0–0), leg femora (2–3–3–0 or 2–3–4–0 or 2–4–3–0, 2–3–4–0, 2–2–4–0 or 2–3–4–0, 2–2–2–0 or 2–3–2–0 or 2–3–3–0), patellae (all 2–0–0), tibiae [2–0–0–4p or 2–1–0–4p or 2–2–0–4p (lateral spines only in female), 2–2–0–4p, 2–2–2–1+3p, 2–2–2–1+3p or 2–2–2–4p], metatarsi (0–0–0–4p+1, 0–2–0–4p+1 or 0–2–1–4p+1, 0–5–4–4p+1 or 1–5–4–4p+1, 0–5–4–4p+1 or 1–5–4–4p+1), tarsi (I & II 0, III 0 or 0–0–1–0 or 0–1–2–0, IV 0–2–2–0 or 0–2–3–0).

*Coloration:* Carapace not darkened (troglobiont?). Sternum with indistinct pale median region. Opisthosoma brown-yellowish, only cardiac mark darker. Legs without a pattern.

*Distribution*

Reported from Catalonia and Valencia (Ribera, 1978; Ribera & Barrientos, 1986).

## ***ERATIGENA INCOGNITA*** (BOLZERN *ET AL.*, 2009) **COMB. NOV.**

*Tegenaria incognita* Bolzern *et al.*, 2009: 52–55, figs 6–10, 15–18.

*Material examined*

All type material and other known specimens was examined and listed in Bolzern *et al.* (2009, sub *Tegenaria*).

*Diagnosis*

See Diagnosis section for *E. barrientosi*.

*Description*

Essential information was provided by Bolzern *et al.* (2009, sub *Tegenaria*).

*Distribution*

Portugal, only known from the type locality.

## ***ERATIGENA INERMIS*** (SIMON, 1870) **COMB. NOV.** (FIGS 13C–D, K–L, R, 14A–B, E–F)

*Tegenaria inermis* Simon, 1870: 271–273, pl. 1, figs 7, 11 (figures not useful for determination).

*Types*

Syntypes (several labels were present in the same tube, one from the type locality). Spain: León: Brañuelas; Navarra: Alsasua; 'Pyr. Raun Bonnes.' (?), 1 ♂ (MNHN, 1960, specimen selected and labelled as 'neotype' by R. De Blauwe). This specimen is here selected as lectotype in order to stabilize the nomenclature (ICZN: art. 74.1; available online at http://iczn.org/); remaining specimens, 4 ♂, 3 ♀, (MNHN, 1960), paralectotypes.

*Other material examined*

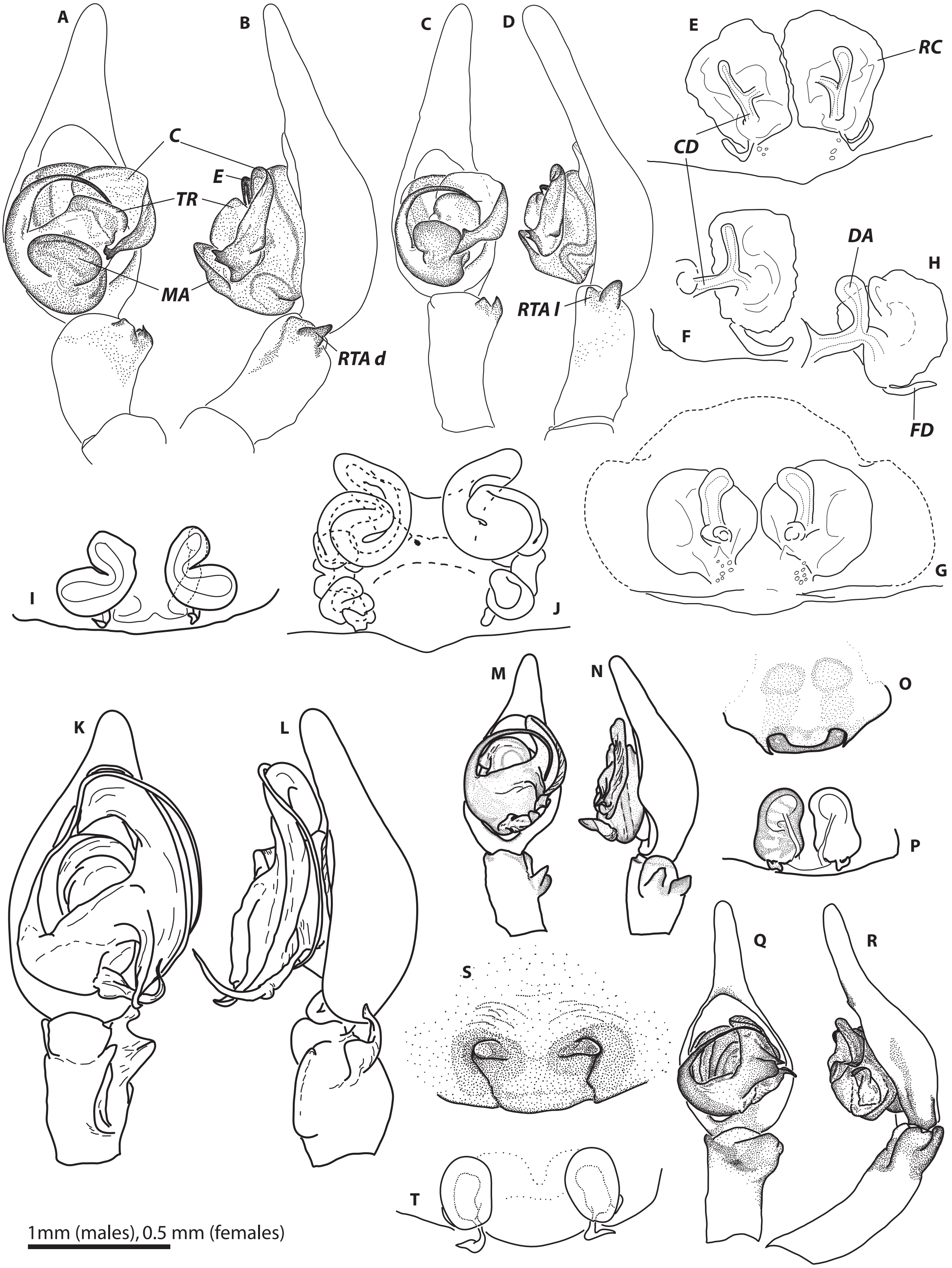
France (6 ♂, 11 ♀); Portugal (7 ♀); Spain (13 ♂, 17 ♀).

*Diagnosis*

*Eratigena inermis* differs from other congeneric species by having distinctly annulated legs (all other *Eratigena* species with other patterns), at least two femora with more than two dorsal spines (also observed in *E. saeva* comb. nov.; all other species with one or two spines), tibia I with prolateral spines (also observed in *E. herculea*, *E. hispanica*, and *E. sicana*; all other species without prolateral spines), massive transversal ridge or bulge at the conductor of the male bulb (Figs 13C–D, 14A–B, distinctly different to all other species), conductor dorsally with a small rounded bulge (as in several *Tegenaria*, but not in *Eratigena* species), conspicuously large and strongly sclerotized MA, epigynal teeth absent, and long appendages at CD (Fig. 14E–F, as in *E. herculea* and *E. hispanica*). It can be separated from the closely related *E. vomeroi* by having the basal part of the median apophysis more strongly sclerotized, the very special massive and prominent transversal ridge

→

**Figure 14.** A, B, E, F, *Eratigena inermis*; C, D, G, H, *Eratigena vomeroi*; I, ***Tegenaria montiszasensis* sp. nov.**; J, *Tegenaria annulata*; K, L, ***Tegenaria schoenhoferi* sp. nov.**; M–P, ***Tegenaria annae* sp. nov.**; Q–T, *Tegenaria ariadnae*. Left male palp in ventral (A, C, K, M, Q) and retrolateral views (B, D, L, N, R); epigyne in ventral view (O, S), vulva in dorsal (E, G, I, J, P, T) and lateral views (F, H). Abbreviations: E, embolus; C, conductor; CD, copulatory duct; DA, dorsal appendages on CD; FD, fertilization duct; MA, median apophysis; RC, receptaculum; RTA d, dorsal branch of retrolateral tibial apophysis; RTA l, lateral branch of retrolateral tibial apophysis; TR, transversal ridge.


A
B
C
D
E
RC
CD
C
E
TR
MA
RTA d
RTA l
F
DA
H
FD
G
I
J
K
L
M
N
O
P
Q
R
S
T
1mm (males), 0.5 mm (females)

at the conductor showing a distinct border line of sclerotization that is only indistinctly expressed in *E. vomeroi*, the long appendages anteriorly of the CD reaching at least to the top of the RC (or even beyond) in *E. vomeroi* but shorter in *E. inermis* (Fig. 14E–H).

### *Description*

*Measurements:* Male ($N = 1$): CL 4.75, CW 3.34, STL 2.11, STW 2.04, OL 5.10, OW 2.92. Leg I (7.4, 2.02, 7.39, 8.21, – ), II (6.45, 1.83, 5.83, 6.75, 3.22), III (5.78, 1.64, 4.79, 6.88, 3.04), IV (6.51, 1.66, 6.11, 7.36, – ). Pedipalp (2.31, 0.76, 0.92, 2.25), bulbL 1.15. Female ($N = 3$): CL 5.42–5.68, CW 3.73–3.91, STL 2.17–2.56, STW 2.17–2.43, OL 6.10–8.61, OW 3.70–5.64. Leg I (5.99–7.13, 1.87–2.12, 5.69–6.81, 5.85–7.48, 3.14–3.61), II (5.35–6.39, 1.73–2.00, 4.64–5.86, 5.27–6.94, 2.81–3.14), III (4.9–6.13, 1.64–1.86, 4.02–5.10, 5.38–7.09, 2.17–2.93), IV (6.14–7.51, 1.71–1.96, 5.36–6.67, 7.49–9.37, 3.07–3.66). Pedipalp (2.55–2.56, 0.97–0.98, 1.72–1.77, 2.64–2.89). EPL 0.65–0.73, EPW 0.94–1.19, ATL 0.29–0.42, ATW 0.45–0.58. Eyes: PME 0.22–0.26, PLE 0.22–0.28, AME 0.17–0.23, ALE 0.23–0.26. Eye distances: PME–PME 1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 1–1.5 × PME, AME–AME 0.5–1 × AME, AME–ALE ≤ 0.5 × AME. CLY1 2.5–3 × AME, CLY2 1.5–2 × ALE.

*Male palp:* RTA with two branches, lateral branch bulge-like, dorsal branch a strongly sclerotized peak. Embolus length < 1.25 × CB, originating at 8–10 o'clock position, distal tip at 2–4 o'clock position. Conductor drop-shaped, folded only at terminal half. Terminal end consists of two strongly sclerotized points and dorsally with a small rounded bulge. Transversal ridge of conductor massive and prominent with distinct margin between membranous and more sclerotized areas. Conductor membranously connected to tegulum. MA originating at 5–7 o'clock position, moderately protruding, much wider than long, pocket-like. Connection of MA to tegulum strongly sclerotized.

*Epigyne and vulva:* Epigyne medially with large bulge, anteriorly of which the CO are located in a transversal depression. Posterior sclerite absent. Epigynal teeth absent. Vulva consists of distinguishable CD, RC, and FD. CD short and straight with long appendages. RC irregularly formed and not constantly sclerotized. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral retromargin with six to seven teeth. Colulus rectangular with distal margin straight. PMS with one elevated minor ampullate gland spigot and three to four cylindrical gland spigots laterally. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria eight to ten. Small teeth on paired claws of leg I 12–14. Leg spination: male palp (2–1–0–0, 2–0–0–0, 1–2p–0–0), female palp (2–0–0–0 or 2–1–0–0, 2–0–0, 2–2p–0–0), leg femora (3–3–3–0 or 3–3–4–0 or 3–4–4–0, 3–3–3–0 or 3–3–4–0 or 3–5–4–0 or 4–6–5–0, 2–3–4–0 or 2–4–3–0 or 2–4–4–0 or 3–4–4–0, 2–2–2–0 or 2–3–2–0 or 2–3–3–0 or 2–4–2–0 or 3–2–2–0 or 3–3–3–0), patellae (all 2–0–0), tibiae [0–2–0–1+2p or 0–2–0–4p, 0–2–0–1+3p or 0–2–0–4p or 0–2–1–4p (dorsally on I & II two indistinct spines possible), 2–2–2–1+3p or 2–2–2–3+1p or 2–2–2–4p, 2–2–2–1+3p or 2–2–2–2+2p or 2–2–2–3+1p or 2–2–2–4p], metatarsi (0–0–0–4p+1, 0–2–0–4p+1 or 0–2–1–4p+1, 0–4–4–4p+1 or 0–5–4–4p+1, 0–5–4–4p+1).

*Coloration:* Two symmetrical longitudinal dark bands dorsally on carapace present (sometimes reduced to triangular dots). Distinct sternal pattern of median region and three symmetrical pale dots laterally, most distal pair fused to the median region (Fig. 13R). Opisthosoma with three pale bands anteriorly, continuing to the back in chevrons. Legs annulated. ALS somewhat darkened, PLS both segments darkened.

### *Distribution*

Reported from the northern part of France and from Spain and Portugal.

### *Comments*

Further useful drawings for the determination of this species were provided by Simon (1937) and Brignoli (1978a).

## ***ERATIGENA MONTIGENA*** (SIMON, 1937) **COMB. NOV.** (FIG. 10L–O)

*Tegenaria montigena* Simon, 1937: 1001, 1039, figs 1541, 1542.

*Tegenaria lusitanica* Schenkel, 1938: 11–13, fig. 4, male; synonymized by Bacelar (1940: 107).

*Tegenaria feminea*: Brignoli, 1978a: 276, fig. 3, female, misidentification.

### *Types*

Syntypes. Spain: Guadarrama, la Granja, 2 ♂, 9 ♀ (MNHN, 1964), vi.1908, Simon.

### *Other material examined*

Portugal (15 ♂, 12 ♀); Spain (3 ♂, 12 ♀).

### *Diagnosis*

*Eratigena montigena* can be easily recognized by the unique and distinctive terminal end of the conductor in lateral view (Fig. 10O), the shape of the one-branched and protruding RTA, the strongly sclerotized epigynal plate with two symmetrically arranged reniform depressions with the CO, the epigynal teeth, and the simply shaped vulva (Fig. 10M–N).

*Description*

*Measurements:* Measurements and detailed description of male were provided by Schenkel (1938: 11–13, sub *Tegenaria lusitanica*). Female ($N = 1$): CL 4.64, CW 3.14, STL 2.36, STW 2.01, OL 6.42, OW 4.16. Leg I (4.20, 1.77, 3.65, 3.65, 2.27), II (3.65, 1.60, 2.67, 3.14, 1.93), III (3.32, 1.39, 2.34, 3.44, 1.76), IV (4.39, 1.56, 3.81, 4.91, 2.14), Pedipalp (1.85, 0.80, 1.05, 1.85). EPL 0.70, EPW 1.08, ATL 0.36, ATW 0.52. Eyes: PME 0.18, PLE 0.18, AME 0.14, ALE 0.19. Eye distances: PME–PME 1 × PME, PME–AME 1 × PME, PME–PLE 1 × PME, PME–ALE 1–1.5 × PME, AME–AME 0.5–1 × AME, AME–ALE < 0.5 × AME. CLY1 2.5–3 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with one branch, laterally oblong protruding ventrad, lobe-like, distally broadly truncated. Short dorsal spike at male palp tibia present. Embolus length 1–1.25 × CB, originating at 10 o'clock position, distal tip at 4 o'clock position. Conductor with distal portion moderately elongated, shorter or almost as long as wide, not reaching distal margin of alveolus, lateral margin folded along terminal half. Terminal end very complex with a simple and curved point ventrally and a strongly protruding and massive outgrowth dorsally, in between these structures a short sharp point. Transversal ridge of conductor expressed as membranous lamella. Conductor membranously connected to tegulum. MA originating at 7 o'clock position, moderately protruding, as long as wide, distally with pocket-like sclerite. Connection of MA to tegulum moderately sclerotized.

*Epigyne and vulva:* Epigyne medially with a strongly sclerotized, trapezoidal to oval plate, anteriorly of which well-separated CO are located at anterior end of two symmetrically arranged reniform depressions. Posterior sclerite absent. Epigynal teeth present, originating posteriolateral at the epigynal plate, pointing mediad. Vulva consists of short and convoluted CD leading into RC, irregularly sclerotized, enclosing convoluted ducts, separated by more than their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with eight to nine teeth. Colulus rectangularly shaped with distal margin w-shaped. Distal segment of PLS longer than basal segment. PMS with one prominent minor ampullate gland spigot and three to four cylindrical gland spigots laterally. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria seven to nine. Leg spination: male palp (2–0–0–0, 2–0–0, 1–1+1p–0–0 or 1–2p–0–0), female palp (2–0–0–0, 2–0–0, 2–2p–0–0), leg femora (I: 2–2–0–0. II: 2–2–0–0. III: 2–2–2–0. IV: 1–1–1–0.), patellae (all 2–0–0), tibiae [I: 0–0–0–3p, or 2–0–0–3p (dorsal spines very skinny). II: 0–1–0–3p, or 2–1–0–3p (dorsal spines very thin). III: 2–2–2–3p. IV: 2–2–2–3p+1+1p], metatarsi (0–0–0–4p+1, 0–2–0–4p+1, 1–4–4–4p+1 or 2–4–3–5p, 2–4–4–2p+1+3p), tarsi (I–II 0, III 0–2–3–0, IV 0–2–4–0).

*Coloration:* Carapace with longitudinal dark symmetrical bands, may be reduced to only triangular dots. Sternum either without a pattern or with moderately paler median region. Opisthosoma dark brown-grey-green, at the cardiac mark yellowish, continuing posteriorly in broad chevrons. Legs without a pattern. ALS fairly darkened, PLS both segments darkened.

*Distribution*

Reported from the Iberian Peninsula (Portugal and Spain).

*Discussion*

Brignoli's concept of *E. montigena* is confusing. He illustrated the vulva (Brignoli, 1971b) of this species under *Teg. montigena* as well as under *Teg. feminea* on the basis of a misidentified specimen from 'Zamora, env. Sandin de Carballeda' (Brignoli, 1978a: 276, fig. 3), which was re-examined here.

### ***ERATIGENA PICTA*** (SIMON, 1870) **COMB. NOV.**
### (FIGS 12R–T, 13G–H)

*Tegenaria picta* Simon, 1870: 280–282.

*Tegenaria minuta* Simon, 1870: 282–283, male; Simon, 1875: 99–100, female.

*Tegenaria pusilla* Simon, 1870: 101, female; Becker, 1896: 202, pl. 13, fig. 10, male.

*Tegenaria perita* Simon, 1870: 102, (juv.?).

*Tegenaria malacensis* Thorell, 1875a: 80–81, male [wrongly cited page number and sex by Roewer, (1954) and subsequently also by Platnick (2012)].

*Tegenaria berthae* Becker, 1879: XX–XI, female.

*Malthonica picta*: Guseinov *et al*., 2005: 164.

*Types*

The type specimens, representing *Teg. picta* and *Teg. pusilla*, could not be traced in the MNHN. Several specimens (MNHN) from the type locality of *E. picta* (Guadarrama) were determined by E. Simon.

Sub *Tegenaria minuta*: Probably male holotype. Spain: Guadarrama, 1 ♂, 2 ♀ (MNHN, 1965, 476;

also labelled as '*Tegenaria picta minuta*', det. Simon; additional location-label: 'Banyuls'), Simon.

Sub *Tegenaria malacensis*: Holotype. Spain: Andalusia, Malaga, ♂ (ZMUC00012601, N. 171), Lünd.

*Other material examined*
France (32 ♂, 47 ♀); Germany (5 ♂, 8 ♀); Portugal (1 ♂); Spain (18 ♂, 45 ♀); Switzerland (2 ♂, 1 ♀).

*Diagnosis: Eratigena picta* and the closely related *E. balearica* have the dorsal branch of the RTA distally elongated and bent posteriad (all other species of *Eratigena* gen. nov. with differently shaped RTA), a short dorsal spike at the male palp tibia (absent in *E. inermis*, *E. vomeroi*, *E. arganoi*, *E. sardoa*, *E. sicana*, *E. hispanica*, *E. herculea*, *E. incognita*, and *E. feminea*), a moderately to strongly elongated distal portion of the conductor (not elongated in *E. inermis*, *E. vomeroi*, *E. atrica*, *E. agrestis*, and *E. fuesslini*), the distal margin of conductor entirely folded (shared character with *E. herculea*, *E. hispanica*, *E. arganoi*, *E. sardoa*, and *E. sicana*), and an epigyne with distinct atrial cavity (shared character with *E. agrestis* and *E. fuesslini*, absent in all other *Eratigena* gen. nov. species). Male *E. picta* can easily be separated from the closely related *E. balearica* by having the distal portion of conductor much more elongated, the more convoluted terminal end of the conductor, and the relatively much shorter male palp tibia. Females of *E. picta* can be separated from *E. balearica* females by the shape of the transparently visible CD on the epigynal plate and the very differently shaped vulvae.

*Description*
Redescriptions of *E. picta* were, at least partly, provided by Dahl (1931: 32, 33 sub *Teg. picta*, 41, 42 sub *Teg. pusilla*) and Jones (1984). Drawings were also provided by Brignoli (1971b).

*Distribution*
Reported from all western European countries. The eastern boundary of distribution may run through western Germany and Switzerland. Records from Hungary, the Balkan region, and Russia may be doubtful (see e.g. Deltshev, 2008a).

*Discussion*
In *E. picta* incredibly great variation in size can be observed, which also influences the genital structures (Fig. 12R–S). Such variation is also found in other related species (e.g. Simon, 1937: 1003; Kraus, 1955: 379; Bolzern *et al*., 2008: 763).

Together with *E. balearica*, *E. picta* forms the '*Eratigena picta*-group'. This is in contrast to previous polyphyletic concepts, which were based on that of Simon (1937) who grouped *E. picta* with *Aterigena soriculata* and *Aterigena ligurica* (all sub *Tegenaria*).

### ***ERATIGENA SARDOA*** (BRIGNOLI, 1977) **COMB. NOV.** (FIG. 12I–J, P–Q)

*Malthonica sardoa* Brignoli, 1977a: 38, 39, fig. 19, female; Bolzern *et al*., 2008: 770–773, figs 12–14, male.

*Material examined*
All type specimens (5 ♀) and other specimens were examined and listed in Bolzern *et al*. (2008).

*Other material examined*
Italy (1 ♂, 4 ♀).

*Diagnosis*
*Eratigena sardoa* can be separated from *E. herculea* and *E. hispanica* by the characters mentioned in the Diagnosis section of *E. arganoi*. It can be separated from *E. arganoi* and *E. sicana* by the simple pointed dorsal branch of the RTA (as in *E. sicana*, complex and with three points in *E. arganoi*), the very long, drawn out, and strongly sclerotized terminal end of the conductor (much shorter in the other species), the very long and convoluted CD with attached appendages (as in *E. arganoi,* much shorter and straight in *E. sicana*), and the globular and smoothly sclerotized RC (long oval and irregularly sclerotized in *E. arganoi*, with two pairs of globular RC in *E. sicana*).

*Description*
Essential information was provided by Brignoli (1977a) and Bolzern *et al*. (2008).

*Distribution*
Reported from Sardinia.

### ***ERATIGENA SICANA*** (BRIGNOLI, 1976) **COMB. NOV.** (FIG. 12E, K)

*Malthonica sicana* Brignoli, 1976a: 30–33, figs 1, 2, 4.

*Material examined*
Type material (♀ holotype, several ♂ and ♀ paratypes) and other specimens were examined and listed in Bolzern *et al*. (2008).

*Diagnosis*
*Eratigena sicana* can be separated from *E. herculea* and *E. hispanica* by the characters mentioned in the Diagnosis section of *E. arganoi*. It can be separated from *E. arganoi* and *E. sardoa* by the simple pointed dorsal branch of the RTA (as in *E. sardoa*, complex and with three points in *E. arganoi*), the bulb to

cymbium ratio (equal to or less than 0.5, in the other species larger than 0.6), the relatively long male palp tibia (shorter in the other species), short and straight CD, and the presence of two pairs (one smaller than the other) of globular and smoothly sclerotized RC (long and convoluted CD with attached diverticula and one pair of RC in the other species).

*Description*
Essential information was provided by Brignoli (1976a) and Bolzern *et al*. (2008).

*Distribution*
Reported from Sicily (Brignoli, 1976a) and Sardinia (Bolzern *et al*., 2008).

### ***ERATIGENA VOMEROI*** (BRIGNOLI, 1977) **COMB. NOV.**
(FIGS 13E–F, M–Q, 14C–D, G–H)

*Tegenaria inermis*: Brignoli, 1971a: 88–89, figs 32–38, misidentified.

*Tegenaria vomeroi* Brignoli, 1977a: 50–51, figs 31–33.

*Malthonica vomeroi*: Guseinov *et al*., 2005: 164.

*Types*
Holotype. Italy: Basilicata: Potenza, Lagonegro, 'Grotta del Cervaro', ♂ (MCSN, 541), 9.xii.1966, Sbordoni.

Paratypes. Italy: same data as holotype, 1 ♂, 1 ♀; Potenza, Tramutola, Risorgenza dell'Aquila, 3 ♂, 1 ♀ (prope *inermis*, MHNG, epigyne missing in the tube, 1 ♂ MNHN, 1971), 21.xi.1970, Vomero; same location as previous, 1 ♂ (MCSN, 541), 9.iv.1970, Sbordoni.

*Other material examined*
Italy (4 ♀).

*Diagnosis*
See Diagnosis section for *E. inermis*.

*Description*
*Measurements:* Male ($N = 1$): CL 5.59, CW 3.97, STL 2.58, STW 2.47, OL 6.0, OW 3.6. Leg I (10.20, 2.23, 10.00, 11.00, 4.60), II (8.63, 2.15, 7.28, 10.10, -), III (6.98, 1.88, 6.15, 9.50, 3.58), IV (9.90, 1.92, 7.88, 12.60, 4.31). Pedipalp (2.55, 0.86, 1.12, 2.64), bulbL 1.06. Female ($N = 2$): CL 5.85–6.56, CW 4.04–4.42, STL 2.56–2.95, STW 2.38–2.73, OL 7.50, OW 3.98. Leg I (7.55–9.00, 2.22–2.30, 7.15–7.88, 7.67–8.55, 3.14–4.00), II (6.89–7.50, 2.07–2.30, 5.97–6.75, 7.19–7.95, 3.16–3.75), III (6.41–7.28, 1.87–2.12, 5.28–6.00, 6.83–7.88, 2.96–3.27), IV (8.26–8.78, 1.91–2.30, 6.67–7.65, 9.75–11.50, 2.82–4.20). Pedipalp (2.68–2.92, 1.00–1.07, 1.79–1.86, 2.81–3.09). EPL 0.80, EPW 1.26, ATL 0.65, ATW 0.80. Eyes: PME 0.23–0.26, PLE 0.25–0.27, AME 0.21–0.24, ALE 0.25–0.32. Eye distances: PME–PME 1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 1–1.5 × PME, AME–AME 0.5–1 × AME, AME–ALE $\leq 0.5 \times$ AME, CLY1 2.5–3 × AME, CLY2 1.5–2 × ALE.

*Male palp:* As in *E. inermis* except for a less sclerotized basal part of the median apophysis and the massive transversal ridge of conductor with indistinct margin between membranous and more sclerotized areas.

*Epigyne and vulva:* As in *E. inermis* except for the long appendages anteriorly of the CD reaching at least to the top of the RC (or even beyond; Fig. 14G, H). As the appearance of the epigyne and vulva seems to be quite variable, no other distinct differences between the two species could be found.

*Other important characters and coloration:* As in *E. inermis* except for spination on male and female palp femora 2–1–1–0.

*Distribution*
Reported from central to southern Italy.

### GENUS *MALTHONICA* SIMON, 1898

*Malthonica* Simon, 1898: 258.

*Type species*
*Malthonica lusithanica* Simon, 1898, by monotypy.

*Diagnosis and description*
A revised diagnosis and description was provided by Barrientos & Cardoso (2007).

*Discussion*
Based on the narrow definition provided by Barrientos & Cardoso (2007) only *Malthonica lusithanica* and *Malthonica oceanica* Barrientos & Cardoso, 2007, remain in the genus. Relevant information on the two species was provided by Barrientos & Cardoso (2007).

### *MALTHONICA DAEDELI* BRIGNOLI, 1980
INCERTAE SEDIS

*Malthonica daedeli* Brignoli, 1980: 80, 81, fig. 13, female.

*Type*
Holotype. Greece: Crete, 10 km south of Heraklion, ♀ (MSNB), 27.v.1964, Valle & Bianchi.

*Description*
A detailed description was provided by Brignoli (1980).

*Discussion*
Brignoli (1980: 81) stated that '. . . the generic position of this species is very puzzling; . . .'. He assigned

it to *Malthonica* because: '. . . The absence of "teeth" on the epigyne and the small number of cheliceral teeth would not suggest relations with *Malthonica*, but a certain general similarity with *M. minoa* (Brignoli, 1976) and the impossibility of placing it elsewhere make it preferable to place it provisionally in this genus . . .'. The holotype is the only known specimen to date. Until more material is available the generic affiliation of this species remains uncertain.

### *MALTHONICA MINOA* (BRIGNOLI, 1976)
### INCERTAE SEDIS

*Cicurina minoa* Brignoli, 1976b: 565, fig. 44, female.
*Malthonica minoa*: Brignoli, 1976a: 31.

*Type*
Holotype. Greece: Crete: Omalos, ♀ (MSNB, 004), 16.iv.1965, Valle & Bianchi.

*Other material examined*
Greece (3 ♀).

*Discussion*
*Malthonica minoa*, *Malthonica paraschiae*, and *Malthonica spinipalpis* do not fit the definition of *Malthonica* provided by Barrientos & Cardoso (2007) and should be transferred to another genus. The three species are morphologically similar, and show some resemblance to *Tegenaria*. However, they significantly differ in the very distinct epigynal teeth, the vulva, the shape of several sclerites on the male palp, and the RTA, suggesting that they do not belong to *Tegenaria*. Until the species group is revised and their phylogenetic relationships elucidated, we keep them in *Malthonica* as incertae sedis.

### *MALTHONICA PARASCHIAE* BRIGNOLI, 1984,
### INCERTAE SEDIS

*Malthonica paraschiae* Brignoli, 1984: 303, fig. 27, female.

*Type*
Holotype. Greece: Naxos, ♀ (MCSN, 62), 4.v.1982, Paraschi.

*Other material examined*
Greece, Paros (1 ♂).

*Discussion*
See *M. minoa*.

### *MALTHONICA* AFF. *PARASCHIAE*

*Material examined*
Greece: Crete: Meskla, 3 ♂ (SMF, neu / Europa), 27.iii.2007, Schönhofer.

*Discussion*
Owing to the small number of specimens the extent of morphological variation cannot be estimated in this species. The specimens from Crete show morphological differences compared with a male specimen from Paros. See *M. minoa* for information on the generic affiliation.

### *MALTHONICA SPINIPALPIS* DELTSHEV, 1990,
### INCERTAE SEDIS

*Malthonica spinipalpis* Deltshev & Paraschi, 1990: 11, figs 19–22.
No material examined.

*Discussion*
See *M. minoa*.

### GENUS *TEGENARIA* LATREILLE, 1804

'Tapiformes (Vestiariae)' Walckenaer, 1802: 215.
*Tegenaria* Latreille, 1804: 134.

*Type species*
*Araneus domestica* Clerck, 1757, by subsequent designation (Latreille, 1810; Kluge, 2007)

*Diagnosis*
Agelenid spiders bearing the following characters combination: plumose hairs present (absent in *Lycosoides*, *Maimuna*, and *Textrix*). AER and PER straight or only slightly procurved or recurved in dorsal view (both rows recurved in *Lycosoides*, *Maimuna*, and *Textrix*; both rows procurved in *Agelena*, *Agelescape*, *Allagelena*, and *Benoitia*) and moderately procurved in frontal view (AER strongly procurved in *Agelena*, *Agelescape*, *Allagelena*, *Benoitia*, and *Malthonica*; AER recurved in *Lycosoides*, *Maimuna*, and *Textrix*). Cheliceral retromargin with three to six teeth (fewer than three teeth in *Lycosoides*, *Maimuna*, and *Textrix*; six and more teeth in *Eratigena* gen. nov.) approximately equally in size (as is in *Histopona*, all other European genera different). Trochanter straight or slightly curved (notched in *Aterigena*, *Histopona*, and *Malthonica*). Patellae with dorsal but no lateral spines (as in *Eratigena* gen. nov., *Histopona*, and *Malthonica*; all other European genera with lateral patellar spines). Absence of ventral spines at all tarsi (as in *Eratigena* gen. nov. and *Malthonica*; all other European genera with ventral spines). Colulus expressed as trapezoidal plate with the distal margin straight or notched medially (in *Eratigena* gen. nov. more rectangular or w-shaped; colulus strongly reduced in *Hadites* and *Malthonica*; two separated plates in all other European agelenids). Females with one to two minor ampullate gland spigots and two to three cylindrical gland spigots, two to three spigots conspicuously prominent on PMS (as in *Histopona*, all other

European genera different). Male palp: RTA with a lateroventral ridge (absent in *Eratigena* gen. nov., *Histopona*, and *Malthonica*), filiform embolus (sometimes terminally truncated), lamelliform conductor with a mostly simple ventral terminal ending (dorsal part may be more complex; more complex or strongly elongated in *Eratigena* gen. nov., *Allagelena*, and *Maimuna*), elongated median apophysis with distal sclerite (absent in *Histopona* and *Textrix*; without sclerite in *Agelena*, *Agelescape*, and *Benoitia*). Female: epigyne with a separated median region (strongly fused or absent in *Agelena*, *Agelescape*, *Allagelena*, *Benoitia*, *Eratigena* gen. nov., *Lycosoides*, and *Maimuna*). Vulvae very differently shaped but always without either diverticula or long appendages at any duct.

### *Description*

Body size medium to large (carapace length between 2 and 6 mm). Margin of carapace narrowly darkened, mostly with three crescent-shaped spots (for cave-living species, pigmentation is absent); two symmetrical longitudinal dark bands dorsally on carapace present, serrated or reduced to three to four pronounced triangles. Sternum slightly longer than wide with a distinct pattern of pale median band and three to four lateral spots, sometimes fused together; plumose hairs present on carapace, legs, and opisthosoma. Chelicerae with three to five promarginal teeth and three to six retromarginal teeth, the latter all equal in size (sometimes second proximal tooth somewhat smaller or most proximal somewhat larger). Labium wider as or as wide as long. AER and PER straight or only slightly procurved or recurved in dorsal view and moderately procurved in frontal view. AME, sometimes also PME, somewhat smaller than all other eyes, which are approximately equal in size. All trochanter straight or slightly curved. Leg I or IV longest, III shortest. All legs annulated or not. Palp and leg spination: palp femora with one to three dorsal and sometimes one prolateral spines; female palp tibia with two dorsal and two prolateral spines (exception: *Teg. ariadnae*, prolateral with one paired + one single spines), male palp tibia either without or with one to two, or one pair of, prolateral spines; all leg femora with one to two dorsal spines and variable lateral spines; patellae with two dorsal and no lateral spines; metatarsi III and IV without, one or two dorsal spines, metatarsi with variable numbers of lateral spines, metatarsi III and IV with one pair + one ventrodistal spines, tarsi I and II spineless, III and IV with zero to one prolateral and one to several retrolateral spines, no ventral spines. Spinnerets: colulus developed as trapezoidal plate with the distal margin straight or notched medially. ALS one-segmented, distally with a field of several pyriform spigots and medially with two major ampullate spigots (present in all agelenids). PMS as long as or slightly shorter than ALS, bearing two to three conspicuously prominent spigots. PMS of females with one to two minor ampullate and two to three cylindrical spigots (two to three spigots are prominent medially), and several aciniform gland spigots. PLS longer than all others with distal segment shorter or longer than basal segment. PLS bearing one basal and one medial cylindrical spigot. Male palp without femoral and patellar apophyses. RTA two- to three-branched, mostly complex (several peaks, bent points, fused branches) and with lateroventral ridge, sometimes somewhat reduced. Embolus filiform, getting thinner towards apex (may be truncated in some species); sometimes with distinct terminal end. Conductor mostly lamelliform (in some species very differently expressed), moderately to strongly elongated distal portion, lateral margin folded along the whole length, terminal end (proximal, best viewed from retrolateral) mostly bifid, dividing it into a ventral (functional) and dorsal part (dorsal ending sometimes reduced to rounded bulge). Median apophysis elongated, consisting of membranous base and distal sclerite, which is spoon-, thorn-, or hook-like, or more complexly shaped. Epigynal plate strongly sclerotized with at least moderately distinct median plate with distinct lateral disruptions (lateral margin of median region); median plate may be interrupted transversally, forming a posterior sclerite. Epigynal teeth mostly absent; if present, expressed as 'pseudo teeth' (= elongation of lateral margin limiting median region) or denticles originating anteriorly of the genital openings. Vulva consists of one or two pairs of receptacula or only of a convoluted duct (in some species, the mergence of sclerotized parts can be observed); often with a less sclerotized segment at its origin. Fertilization ducts mostly only represented by short, leaf-shaped appendages.

### *Comment*

Comprising 56 species most of which are limited to south-eastern Europe and western Asia. Some species, e.g. *Teg. domestica*, are globally distributed, most probably because of introductions by man.

## TEGENARIA ACHAEA BRIGNOLI, 1977 (FIG. 15A, B)

*Tegenaria achaea* Brignoli, 1977b: 945, fig. 4, female.

### *Types*

Holotype and paratype. Greece: North Aegean: Ikaria, 'grotte Phutra to Nao, dans le massif Messaria près Petropoulion', 2 ♀ (MHNG, Hel-75/27), 24.iv.1975, Hauser.

### KEY TO EUROPEAN *TEGENARIA* SPECIES

Only European species are included in the key. The following species are excluded as material was unavailable for examination or insufficient: *Tegenaria animata* Kratochvíl & Miller, 1940, *Tegenaria bayeri* Kratochvíl, 1934, *Tegenaria bosnica* Kratochvíl & Miller, 1940, *Tegenaria chumachenkoi* Kovblyuk & Ponomarev, 2008, *Tegenaria decolorata* Kratochvíl & Miller, 1940, *Tegenaria maelfaiti* Bosmans, 2011, *Tegenaria oribata* Simon, 1916, *Tegenaria podoprygorai* (Kovblyuk, 2006), *Tegenaria scopifera* Barrientos, Ribera & Pons, 2002, and *Tegenaria taurica* Charitonov, 1947.

As material was unavailable, the female of *Tegenaria lapicidinarum* Spassky, 1934, and the male of *Tegenaria levantina* Barrientos, 1981, are not included in the key.

1\. Male……2
–. Female……35
2\. Row of several dorsal trichobothria on cymbium……3
–. Trichobothria on cymbium absent……12
3 Tegular apophysis between tegulum and conductor present (e.g. Fig. 15G)……4
–. Tegular apophysis absent……6
4\. Tegular apophysis protruding only retrolaterad, ventral branch of RTA with indistinct rim and moderately protruding bulge……*Tegenaria eleonorae*
–. Tegular apophysis protruding also distally, ventral branch of RTA with distinct longitudinal rim……5
5\. Ventral branch of RTA with long, drawn-out rim, almost as long as palp tibia, distal branch of conductor reaching two thirds of cymbium tip, distal segment of PMS shorter than basal segment……*Tegenaria armigera*
–. Long, drawn-out rim of RTA relatively shorter than palp tibia, distal branch of conductor reaching one third of cymbium tip, distal segment of PMS longer than basal segment……*Tegenaria tyrrhenica*
6\. Dorsal branch of RTA with two to three elongated spine-like points……7
–. Dorsal branch of RTA different……8
7\. Distal portion of conductor transversal to cymbium……*Tegenaria dalmatica*
–. Distal portion of conductor parallel to cymbium……*Tegenaria ramblae*
8\. Dorsal branch of RTA strongly protruding and pointed……9
–. Dorsal branch of RTA distally truncated and stepped……10
9\. Ventral branch of RTA distally not protruding, terminal end of conductor bifid (retrolateral view)……*Tegenaria femoralis*
–. Ventral branch of RTA distally tusk-like elongated and protruding, terminal end of conductor indistinctly bifid (retrolateral view)……*Tegenaria annulata*
10 Conductor much shorter than cymbium……*Tegenaria parietina*
–. Conductor longer than three quarters of cymbium length……11
11\. Lateral branch of RTA distinctly truncated, flat, ventral portion of terminal end of conductor truncated……*Tegenaria ferruginea*
–. Lateral branch of RTA moderately pointed, longer than broad, ventral portion of terminal end of conductor pointed……*Tegenaria carensis*
12\. Median apophysis with distal sclerite plate-, spoon-, or pocket-like……13
–. Median apophysis with distal sclerite forming a finger-, thorn-, or hook-like structure (can be in combination with a plate)……21
13\. RTA with dorsal and lateral branch equally long, dorsal branch distally truncated (Figs 14N, 16K, X), median apophysis long, band-like, protruding, distally moderately bent ventrad……14
–. RTA and median apophysis differently shaped……15
14\. Embolus short and distally truncated, distal portion of conductor only moderately elongated……*Tegenaria domestica*
–. Embolus longer, filiform, distal portion of conductor longer than wide, conductor with bifid terminal end with very distinctively formed dorsal part……***Tegenaria annae* sp. nov.**
15\. Distal portion of conductor almost parallel to cymbium……16
–. Distal portion of conductor transversal to cymbium, elongated posteriad, RTA with a row of small denticles……*Tegenaria argaeica*
16\. RTA with lobe-, bulge-, or rim-like dorsal branch……17
–. RTA with pointed branch/branches……18
17\. RTA with strongly protruding lobe- or rim-like dorsal branch, very distinctly formed terminal end of conductor, tegular apophysis absent, cymbium inconspicuous……*Tegenaria hauseri*
–. RTA with bulge-like branches, terminal end of conductor inconspicuously pointed, lamelliform tegular apophysis present, cymbium conspicuously modified and distally elongated……*Tegenaria ariadnae*
18\. Lateral branch of RTA shifted posteriad (originating median of the tibia), distant, strongly protruding, and pointed……***Tegenaria vankeerorum* sp. nov.**

–. Lateral branch of RTA different ........ 19
19. Conductor reduced to transparent lamelliform appendage ........ *Tegenaria racovitzai*
–. Conductor stronger sclerotized, not only lamelliform ........ 20
20. RTA with two strongly sclerotized points, tegular apophysis absent ........ *Tegenaria hasperi*
–. RTA with only one strongly sclerotized point, tegular apophysis expressed as pocket-like structure ........ *Tegenaria rhodiensis*
21. Ventral part of terminal end of conductor distinctly elongated and pointed (Fig. 18I, J, N, O), dorsal part complex ........ 22
–. Terminal end of conductor different ........ 24
22. RTA with massive protruding bulge, clearly visible in ventral view ........ ***Tegenaria circeoensis* sp. nov.**
–. RTA lobe- or moderately bulge-like, may be distally bent ........ 23
23. RTA distally not bent, dorsal part of terminal end of conductor convex 'rounded' ........ *Tegenaria parmenidis*
–. RTA distally bent, dorsal part of terminal end of conductor concave or straight ........ *Tegenaria sbordonii*
24. Dorsal branch of RTA broadly elongated and protruding, distally bifid (Fig. 17P) ........ *Tegenaria campestris*, *Tegenaria bozhkovi*, *Tegenaria montana*, *Tegenaria rilaensis* (see comment sub *Teg. rilaensis*)
–. Dorsal branch of RTA differently shaped or absent ........ 25
25. Lateral branch of RTA broad and strongly protruding, distally with a straight, truncated ventral part and a strongly elongated, finger-shaped dorsal protuberance, conductor and median apophysis strongly elongated and narrowly pointed, hook-like (Figs 14K–L, 15V–W) ........ ***Tegenaria schoenhoferi* sp. nov.**
–. Lateral branch of RTA different, conductor and/or median apophysis not strongly elongated and narrowly pointed, hook-like ........ 26
26. Tegulum medially strongly protruding (Figs 19B–C, 20B, K) ........ 27
–. No distinct protuberance medially at the tegulum ........ 28
27. Dorsal branch of RTA truncated, median protrusion of tegulum more or less constantly rounded (Fig. 20B), distal end of conductor moderately bent ventrad (lateral view) ........ *Tegenaria silvestris*
–. Dorsal branch of RTA hook-like, pointed, and distally bent ventrad, median protrusion of tegulum bent distally (Fig. 20K), distal portion of conductor straight (lateral view) ........ *Tegenaria parvula*
28. Embolus relatively short, not exceeding cymbium width or truncated ........ 29
–. Embolus long, filiform ........ 31
29. Terminal end of embolus truncated ........ *Tegenaria mirifica*
–. Terminal end of embolus pointed ........ 30
30. Conductor with distinctly protruding dorsal portion, terminal end of conductor bifid, RTA with two protruding points ........ *Tegenaria mercanturensis*
–. Dorsal portion of conductor not protruding, terminal end of conductor with only one point, RTA different .*Tegenaria percuriosa*
31. Conductor parallel to cymbium ........ 32
–. Dorsal portion of conductor transversal to cymbium ........ *Tegenaria pagana*
32. Distal branch of RTA distinctly leaf-shaped ........ *Tegenaria regispyrrhi*
–. Distal branch of RTA different ........ 33
33. Dorsal branch of RTA hook-like, pointing anteriad, distinct rim at conductor present ........ *Tegenaria henroti*
–. Dorsal branch of RTA pointed, straight, or distally bent ventroposteriad ........ 34
34. Dorsal branch of RTA pointed and distally bent ventroposteriad, terminal end of conductor bifid ........ *Tegenaria tridentina*
–. Dorsal branch of RTA pointed but not bent, terminal end of conductor with one point only ........ *Tegenaria lapicidinarum*
35. Row of several dorsal trichobothria present on palp tarsus ........ 36
–. Trichobothria on palp tarsus absent ........ 45
36. Epigyne with distinct band- or bar-like posterior sclerite with anterior margin concave ........ 37
–. Epigyne without posterior sclerite or with sclerite with anterior margin convex ........ 40
37. Posterior sclerite posteriorly protruding along its whole width (Fig. 16Q) ........ *Tegenaria carensis*
–. Posterior sclerite with straight posterior margin or only medially protruding ........ 38
38. Posterior sclerite medially almost half as long as wide ........ *Tegenaria ramblae*
–. Posterior sclerite medially much shorter than wide ........ 39
39. Lateral margins of the median region of the epigyne follows distinctly the run of the posterior sclerite (especially anteriorly, Fig. 21J, white arrow), vulva strongly convoluted (in two spirals), separated by less than two duct diameters, more than three in *Teg. parietina*) ........ *Tegenaria ferruginea*
–. Lateral margins of the median region of the epigyne runs toward the middle of the epigyne (Fig. 21P, white arrow), vulva less convoluted (especially first spiral), separated by more than three duct diameters ........ *Tegenaria parietina*

40. Epigyne with well-separated posterior sclerite, expressed as large plate or bulge........41
–. Epigyne without posterior sclerite or with median plate distinctly connected to epigynal plate (anteriorly) or with broad opening posteriorly........43
41. Posterior sclerite expressed as a large plate, copulatory openings laterally of this plate (Fig. 20Q)........*Tegenaria eleonorae*
–. Posterior sclerite bulge-like........42
42. Posterior sclerite globular bulge-like, copulatory openings laterally, vulva with strongly convoluted ducts, almost touching each other........*Tegenaria tyrrhenica*
–. Posterior sclerite trapezoidal bulge-like, copulatory openings anteriorly, vulva distinctly convoluted, well separated........*Tegenaria annulata*
43. Epigyne with broad posterior opening (Fig. 15I, white arrow)........*Tegenaria armigera*
–. Epigyne median plate distinctly connected to epigynal plate (anteriorly)........44
44. Median plate moderately protruding, suboval, distinctly round, or oval copulatory openings anteriorly of median plate........*Tegenaria dalmatica*
–. Median plate not protruding, subrectangular, pocket-like copulatory openings visible anteriorly of median plate........*Tegenaria femoralis*
45. Very distinct epigyne, anteriomedially with a narrow rectangular septum, posteriorly with a semicircle-shaped pocket, opening anteriad (Fig. 17D)........*Tegenaria hauseri*
–. Different........46
46. Epigyne with a distinct, strongly sclerotized transversal rim forming a pocket, opening posteriad, copulatory opening anteriolaterally of this structure (Fig. 24A, E, G, I)........*Tegenaria regispyrrhi* (incl. aff. *regispyrrhi*)
–. Different........47
47. Epigyne with protruding median plate, suboval, anteriolaterally with distinct pockets, opening medioposteriad (Fig. 23P, R, T, V)........*Tegenaria pagana*
–. Different........48
48 Epigyne with a distinct posterior sclerite, expressed as bar-, bulge-, or plate-like structure........49
–. Posterior sclerite absent or strongly fused with epigynal plate........59
49. Very complex vulva with two receptaculi and convoluted duct, indistinct small epigynal teeth at the anteriolateral margin of median region sometimes present (Figs 15E–F, 18G–H)........*Tegenaria argaeica*
–. Vulva less complex, no epigynal teeth or only ‘pseudo teeth’ present........50
50. Posterior sclerite expressed as plate-like structure reaching the anterior margin of median region or bulge-like with anterior margin convex, ‘pseudo teeth’ present........51
–. Posterior sclerite expressed as a bar-like structure with anterior margin straight or concave........52
51. Posterior sclerite expressed as plate-like structure reaching the anterior margin of median region, ‘pseudo teeth’ absent........*Tegenaria henroti*
–. Posterior sclerite bulge-like with anterior margin convex, large, reddish receptaculi visible through epigynal plate, ‘pseudo teeth’ present........*Tegenaria racovitzai*
52. ‘Pseudo teeth’ present........53
–. ‘Pseudo teeth’ absent........54
53. CL longer than 3.5 mm, vulva as long as wide........*Tegenaria domestica*
–. CL shorter than 3.5 mm, vulva twice as long as wide........***Tegenaria annae* sp. nov.**
54. Posterior sclerite broad, pocket-like or narrow, semicircularly shaped, protruding posteriad........55
–. Posterior sclerite broad, bar- or bulge-like, only inconspicuously protruding........56
55. Posterior sclerite broad, pocket-like, protruding, vulva globularly shaped........*Tegenaria achaea*
–. Posterior sclerite narrow, semicircularly shaped, protruding posteriad, vulva with distinct appendages, visible through the epigynal plate........*Tegenaria percuriosa*
56. Distal margin of posterior sclerite straight........*Tegenaria faniapollinis*
–. Distal margin of posterior sclerite concave........57
57. Distal margin of posterior sclerite only moderately concave, as wide as deep, vulva spherical........*Tegenaria pieperi*
–. Distal margin of posterior sclerite distinctly concave, vulvae without distinguishable RC, duct-like........58
58. Distal margin of posterior sclerite distinctly concave, semicircularly shaped, anteriorly of posterior sclerite without septum (Fig. 23C)........*Tegenaria tridentina*
–. Anteriorly of posterior sclerite with a very distinct, tongue-like shaped median septum (Fig. 23I)........*Tegenaria levantina*
59. Epigyne with distinct epigynal teeth, originating at the posterior margin of the median plate or ‘pseudo teeth’ (distally pointed projections of lateral margin of median region)........60
–. Epigyne without epigynal teeth........61
60. Epigynal teeth, originating at the posterior margin of the median plate........*Tegenaria rhodiensis*

–. ‘Pseudo teeth’ (distally pointed projections of lateral margin of median region) present …… ***Tegenaria pindosiensis* sp. nov.**

61. Epigyne distinctly ‘half-mask’-shaped (Fig. 16A), vulva as in Figures 14I, 16B …… ***Tegenaria montiszasensis* sp. nov.**

–. Character combination different …… 62

62. Epigyne very distinct (Fig. 17U), distal segment of PLS almost two × longer than basal segment …… *Tegenaria schmalfussi*

–. Character combination different …… 63

63. Epigynal median region anteriorly continuously separated from the epigynal plate by a distinctly sclerotized rim (Fig. 22Q, white arrow) …… 64

–. Distinct separation of the median region by a sclerotized rim absent …… 68

64. Median region oval, no pocket expressed, vulva subrectangular shaped …… *Tegenaria mirifica*

–. Median region rectangular or trapezoidal shaped, vulva globular or suboval shaped …… 65

65. Median region with a distinct pocket in the middle, opening anteriad …… 66

–. Median region without median pocket …… 67

66. Copulatory openings are located at the lateral sides of the median pocket …… *Tegenaria sbordonii*

–. Copulatory openings are much more anteriorly located (Fig. 18P) …… *Tegenaria parmenidis*

67. Copulatory openings originating distant from the lateral rim, no lateral pockets developed …… *Tegenaria capolongoi*

–. Copulatory openings originating right at the lateral rim, distinct pockets posteriorly of the copulatory openings at the lateral rim present …… ***Tegenaria circeoensis* sp. nov.**

68. Distinct median plate, smoothly sclerotized, vulva developed as a strongly convoluted duct …… 69

–. Median plate distinct or indistinct, mostly irregularly sclerotized, vulva globular or irregularly shaped, never only duct-like …… 71

69. Epigynal median plate almost as long as wide, epigyne and vulva as in Figures 19D–I, 20C–E, H, I, L–M …. 70

–. Epigynal median plate wider than long (Fig. 17H, I) …… *Tegenaria campestris* complex (Deltshev, 1993, 2008b)

70. Epigyne and vulva as in Figure 20L, M, genital openings distinct …… *Tegenaria parvula*

–. Epigyne and vulva as in Figures 19D–I, 20C–E, H, I …… *Tegenaria silvestris*

71. Median plate strongly and irregularly sclerotized, very large and distinct copulatory openings …… *Tegenaria mercanturensis*

–. Character combination different …… 72

72. Strongly sclerotized epigyne, copulatory openings triangular or almond-like shaped, vulva suboval shaped …… *Tegenaria ariadnae*

–. Epigyne less sclerotized without distinct median plate, vulva irregularly formed or with convoluted fertilization duct …… 73

73. Indistinct median region rectangular shaped, copulatory openings at the anterior border of this area, most often plugged, vulva very distinctly shaped (Fig. 15N) …… *Tegenaria hasperi*

–. Median region trapezoidal shaped, copulatory opening laterally of this area, ducts and receptaculi clearly visible through the epigynal plate, vulva with broad copulatory ducts, small globular receptaculum, and convoluted fertilization duct (Figs 17X–Z, 19N, O) …… ***Tegenaria croatia* sp. nov.**

### *Description*

General description was provided by Brignoli (1977b). Following his statement on page 945, ‘Misura: (in mm, leggermente approssimate): . . .’ (Measurement: (in mm, approximately): . . .) (1977b: 945), the two females were remeasured and the values given here: Female (*N* = 2): CL 2.03–2.60, CW 1.46–1.91, STL 1.01–1.33, STW 1.01–1.15, OL 3.72, OW 2.69. Leg I (3.41, 1.04, 3.22, 3.3, 1.9), II (2.54–2.75, 0.78–0.92, 2.22–2.68, 2.33–3.05, 1.36–1.53), III (2.15, 0.66, 1.89, 2.3, 1.15), IV (2.68–3.56, 0.76–0.96, 2.48–3.26, 3.14–4.08, 1.37–1.57). Palp (0.99–1.31, 0.35–0.51, 0.79–0.92, 0.88–1.19). Eyes: PME 0.08, PLE 0.09, AME 0.06, ALE: 0.09. Eye distances: PME–PME 1.5 × PME, PME–AME 1.5 × PME, PME–PLE 1.5 × PME, PME–ALE 1–1.5 × PME, AME–AME 1 × AME, AME–ALE 1 × AME.

### *Distribution*

Reported from the island of Ikaria, Greece.

## TEGENARIA ADVENA (C. L. KOCH, 1841)

### NOMEN DUBIUM

*Philoica advena* C. L. Koch, 1841: 57, 58, pl. 268, fig. 633, female.

*Clubiona advena*: Walckenaer, 1847: 440.

*Tegenaria advena*: Simon, 1937: 1039.

No material available.


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**Figure 15.** A, B, *Tegenaria achaea*; C–F, *Tegenaria argaeica*; G–J, *Tegenaria armigera*; K, L, O–Q, *Tegenaria dalmatica*; M, N, *Tegenaria hasperi*; R–U, *Tegenaria annulata*; and V, X, ***Tegenaria schoenhoferi* sp. nov.** Left male palp in lateral (C, H, L, U, W), and ventral views (D, G, K, T, V); epigyne in ventral (A, E, I, M, O, R) and vulva in dorsal view (B, F, J, N, P, S); comparison of vulva of small and large 'forms' of *Teg. armigera* (J); Prosoma in frontal view (Q), abdomen in dorsal view (X). Scale bars = 0.5 mm (epigyne and vulva of *Teg. argaeica*, E–F without scale; photos from syntype taken with digital camera through the oculars).

### *Discussion*

When describing *Teg. advena* (C. L. Koch, 1841; sub *Philoica advena*), C. L. Koch (1841: 58) used almost exclusively colour characters of a specimen preserved in ethanol. Simon (1937: 1039) mentioned that the relevant specimen may be a juvenile of *E. atrica* (C. L. Koch, 1843; sub *Tegenaria*), and Trotta (2005: 74), based on a personal communication from K. Thaler, that *Teg. advena* is a species inquirenda. No type material could be traced, and we consider *Teg. advena* (C. L. Koch, 1841) a nomen dubium.

## *TEGENARIA ANIMATA* KRATOCHVÍL & MILLER, 1940

*Tegenaria animata* Kratochvíl & Miller, 1940: 196–198, fig. 4, female.

*Pseudotegenaria animata*: Lehtinen, 1967: 261; transfer doubted by Brignoli (1971a: 61); rejected by Bolzern *et al*. (2010).

No material examined. Type material probably lost (see Ruzicka *et al*., 2005).

### *Description*

A very detailed description, including measurements, was provided by Kratochvíl & Miller (1940).

### *Distribution*

Reported from Serbia and Montenegro, and Macedonia (van Helsdingen, 2011; Platnick, 2012).

## ***TEGENARIA ANNAE* SP. NOV.** (FIGS 14M–P, 16E–K)

### *Types*

Holotype. Greece: Euboea (Evvoia): Monastery 'Osios David', ♂ (ex. coll. van Keer, 2050, NMB-ARAN 21000), 10.v.2001, van Keer & van Keer.

Paratype. Same data as holotype, ♀ (NMB-ARAN 21001; Paralia Hiliadou (= Paralia Chiliadou), 2 ♀ (ex coll. van Keer, 2046, RBINS), 9.v.2001, van Keer & van Keer; Oros Dirfis, ♂ (MSNB, 002), 29.v.1998, Giachino & Vailati.

### *Etymology*

The species is named after the youngest sister of Johan and Koen van Keer (Belgium), Ann van Keer. It was the wish of Ann's brothers to dedicate a new spider species to her as a special gift.

### *Diagnosis*

The dorsal part of the bifid terminal end of the conductor and the RTA with its round and plate-like ventral branch are two very distinctive characters for the determination of *Teg. annae* sp. nov. and not confusable with other known species so far. Females do show close similarity in genitalia with *Teg. domestica* but can be separated from this species by the distinctly oval vulva (more irregularly globular in *Teg. domestica*).

### *Description*

*Measurements:* Male ($N = 2$): CL 3.40–3.46, CW 2.65–2.81, STL 1.71–1.73, STW 1.63–1.66, OL 4.12–4.42, OW 2.66–3.03. Leg I (3.91–4.18, 1.29–1.38, 3.64–3.82, 3.91–4.29, 2.29–2.50), II (3.74–3.87, 1.26–1.37, 3.07–3.36, 3.54–3.99, 1.98–2.24), III (3.64–3.73, 1.31–1.35, 3.09–3.16, 3.81–3.84, 1.70–1.89), IV (4.37–4.62, 1.08–1.35, 3.84–4.04, 4.85–4.98, 1.91–2.17). Pedipalp (1.32–1.39, 0.51–0.52, 0.50–0.54, 1.45–1.49), bulbL 0.86–0.98. Female ($N = 2$): CL 2.39–2.99, CW 1.80–2.24, STL 1.17–1.55, STW 1.12–1.38, OL 2.95–3.34, OW 1.94–2.27. Leg I (2.42–3.02, 0.87–1.10, 2.24–2.77, 2.32–2.91, 1.49–1.83), II (2.14–2.78, 0.75–0.99, 1.97–2.39, 2.06–2.60, 1.26–1.56), III (2.06–2.73, 0.66–0.88, 1.75–2.03, 1.95–2.64, 0.89–1.31), IV (2.67–3.38, 0.82–0.86, 2.45–3.15, 2.83–3.57, 1.31–1.50). Pedipalp (0.92–1.21, 0.41–0.54, 0.61–0.82, 0.99–1.27). EPL 0.42, EPW 0.56–0.69, ATL 0.08–0.09, ATW 0.27–0.34. Eyes: PME 0.12–0.16, PLE 0.14–0.17, AME 0.09–0.14, ALE 0.12–0.16. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 1 × PME, AME–AME < 0.5–1 × AME, AME–ALE < 0.5 × AME. CLY1 1.5–2 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with three branches, ventral branch broad round and plate-like, lateroventral ridge clearly visible, lateral and dorsal branch equally long elongated, lateral branch moderately pointed, dorsal branch distally broad truncated. Filiform embolus length about 1.5 × CB, originating at 9 o'clock position, distal tip at 2–3 o'clock position. Conductor with distal portion distinctly elongated, longer than wide, lateral margin almost completely folded. Terminal end strongly sclerotized and bifid, ventral part simple and pointed, dorsal part with distinct lobe-like protrusion, bent ventrad. Connection of conductor to

**Figure 16.** A, B, ***Tegenaria montiszasensis* sp. nov.**; C, D, L–N, *Tegenaria ariadnae*; E–K, ***Tegenaria annae* sp. nov.**; O–R, *Tegenaria carensis*; S–V, *Tegenaria ramblae*; and W, X, *Tegenaria domestica*. Left male palp in ventral (I, L, O, S, W) and retrolateral views (J, M, P, T, X); RTA in retrolateral view (K); epigyne in ventral (A, C, E, Q, U) and vulva in dorsal view (B, D, F, R, V); carapace (H) and abdomen (G) in dorsal view; face of male in frontal view (N). Scale bars = 0.5 mm.

tegulum moderately sclerotized. MA originating at 6 o'clock position, protruding, distally with spoon-like sclerite. MA membranously connected to tegulum.

*Epigyne and vulva:* Epigyne medially with pale, membranous area. Posterior sclerite expressed as sclerotized bar with concave anterior margin, limiting median area posteriorly. CO between and laterally of the membranous median area and the posterior sclerite. Epigynal 'pseudo teeth' present. Vulva consists of distinguishable CD, RC, and FD. CD leading into oblong globular, irregularly formed RC, almost touching each other anteriorly. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with four teeth, retromargin with four equally sized teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as basal segment. Tarsal trichobothria at palp tarsus and cymbium absent. Tarsal trichobothria six to eight. Leg spination: male palp (2–0–0–0 or 2–1–0–0, 2–0–0, 0–2–0–0), female palp (1–0–0–0 or 2–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–2–1–0 or 2–2–2–0 or 2–3–2–0, 2–1–1–0 or 2–1–2–0 or 2–2–2–0 or 2–3–2–0, 2–1–2–0 or 2–2–1–0 or 2–2–2–0, 1–2–1–0 or 2–1–1–0 or 2–2–1–0), patellae (all 2–0–0, except holotype with 2–0–1 at leg IV), tibiae (2–1–0–2p or 2–2–0–2p+1 or 2–2–2–3p, 2–2–0–2+1p or 2–2–2–1p+1+1p or 2–2–2–3p, 2–2–1–1p+1+1p or 2–2–2–1p+1+1p or 2–2–2–3p, 2–2–2–1p+1+1p), metatarsi (0–0–0–3p+1 or 0–1–1–3p+1, 0–1–0–3p+1 or 0–2–0–3p+1 or 0–1–1–3p+1 or 0–2–1–3p+1, 0–3–3–3p+1, 0–3–3–3p+1 or 1–3–3–3p+1), tarsi (all 0 or III and IV 0–1–0–0).

*Coloration:* Margin of carapace continuously darkened, dorsally with two longitudinal symmetrical dark bands. Sternum with distinct pale median band and lateral three symmetrical pale dots, most posterior pair may be fused with median band. Opisthosoma dark brownish with yellowish median band (also with indistinct, paler lateral bands) and one to two symmetrical lateral spots, continuing in chevrons posteriad. Legs annulated. ALS darkened, PLS with dark basal and pale distal segment.

*Distribution*

Reported from two localities in Greece, Evvoia.

### ***TEGENARIA ANNULATA*** KULCZYŃSKI, 1913
### **STAT. REV.** (FIGS 14J, 15R–U)

*Tegenaria annulata* Kulczyński, 1913: 6–10, female; Kulczyński, 1914: 381, pl. 16, figs 48, 51, 52, male.

*Malthonica annulata*: Guseinov *et al*., 2005: 164.

No type material available.

*Other material examined*

Croatia (?) (1 ♀); Bosnia-Herzegovina (3 ♂, 5 ♀).

*Description*

*Measurements:* Male ($N = 1$): CL 3.58, CW 2.62, STL 1.81, STW 1.79. Leg I (6.29, 1.63, 6.32, 6.93, 2.74), II (5.35, 1.51, 5.04, 6.1, 2.24), III (4.64, 1.34, 3.90, 5.49, 1.92), IV (5.69, 1.47, 5.16, 7.23, 2.52). Pedipalp (2.09, 0.69, 0.78, 1.76), bulbL 1.52. Female ($N = 1$): CL 5.33, CW 3.89, STL 2.51, STW 2.24. Leg I (7.46, 2.27, 6.80, 7.86, 3.20), II (6.68, 1.88, 6.10, 6.62, 2.61), III (5.94, 1.84, 4.75, 6.44, 2.44), IV (9.02, 2.62, 7.85, 8.40, 2.76). Pedipalp (2.35, 0.94, 1.40, 2.37). EPL 0.82, EPW 1.10, ATL 0.42, ATW 0.56. Eyes: PME 0.18–0.21, PLE 0.19–0.22, AME 0.15–0.19, ALE 0.19–0.24. Eye distances: PME–PME 0.5–1 × PME, PME–AME 1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 1–1.5 × PME, AME–AME 0.5–1 × AME, AME–ALE < 0.5 × AME. CLY1 2–2.5 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with three branches, ventral branch distally tusk-like elongated, ventrally forming distinct ridge, reaching almost three quarters of tibia length, lateral branch short and simple pointed, pale, dorsal branch broad and strongly sclerotized, distally obliquely truncated and moderately pointed. Filiform embolus length longer than 2.5 × CB, originating at 6–7 o'clock position, distal tip at 4 o'clock position. Conductor with distal portion conspicuously narrow and strongly elongated, distally moderately bent, lateral margin completely folded. Terminal end indistinctly bifid, ventral part simple and pointed or moderately truncated, dorsal part forms indistinct protuberance. Connection of conductor to tegulum moderately sclerotized, distinctly arch-like shaped. MA originating at 5 o'clock position, strongly protruding, distally with hook-like sclerite. MA membranously connected to tegulum. Basal part of tegulum clearly visible, undulated.

*Epigyne and vulva:* Epigyne with distinct median area, posterior sclerite expressed as a trapezoidal sclerotized bulge. CO anteriorly of posterior sclerite, anteriolaterally limited by moderately protruding, distinctly sclerotized massive margin of the epigynal plate. Epigynal 'pseudo teeth' absent. Vulva consists of CBD, strongly convoluted, no distinct RC recognizable. CBD well separated from each other. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with four, retromargin with four to five teeth. Colulus developed as trapezoidal plate with the distal margin straight. Female with two minor ampullate and four cylindrical gland spigots distally on PMS, two medially prominent and four laterally (two on both sides). PLS with distal segment as long as basal segment. Tarsal trichobothria on cymbium and palp tarsus present. Tarsal trichobothria seven to ten. Small teeth on paired claws of leg I 15. Leg spination: male palp (2–1–0–0, 2–0–0, 1–2–0–0 or 2–2–0–0), female palp (2–1–1–0, 2–0–0, 2–2–0–0), leg femora (1–3–2–0 or 1–4–2–0 or 1–4–4–0 or 2–3–2–0, 1–3–2–0 or 2–3–2–0, 1–2–2–0 or 1–3–2–0, 1–1–1–0 or 1–2–1–0 or 1–3–2–0), patellae (all 2–0–0), tibiae (0 or 0–0–0–2, 0–1–0–0 or 0–1–0–2 or 0–2–0–2, 2–2–1–3 or 2–2–2–2+1p or 2–2–2–2p, 2–1–1–1+2p or 2–1–1–2+1p or 2–2–1–2+1p), metatarsi (0–0–0–3p or 0–0–0–3p+1, 0–1–0–1p+1+1p+1 or 0–1–0–3p+1, 0–2–2–3p+1 or 0–3–2–3p+1, 0–2–3–1+3p+1), tarsi (I and II 0, III and IV 0–0–1–0).

*Coloration:* Margin of carapace narrowly darkened with three distinctly crescent-shaped spots, dorsally with two symmetrical longitudinal dark bands. Sternum with distinct pale median band and three symmetrical pairs of pale dots laterally, moderately fused together. Opisthosoma pale yellowish (may be a result of alcohol preservation) with many dark spots, one or two pairs of symmetrical white spots anteriorly, posteriorly with chevrons. Legs annulated. Colulus, ALS, and basal segment of PLS darkened, distal segment pale.

*Distribution*

Reported from Bosnia and Herzegovina, Croatia, and Serbia and Montenegro (Platnick, 2012).

*Discussion*

As discussed by Brignoli (1971a) and Bolzern *et al.* (2010), this species is most closely related to species referred to *Pseudotegenaria* by Lehtinen (1967) (here referred to as the *annulata*-complex, together with *Teg. animata*, *Teg. bayeri*, *Teg. bosnica*, and *Teg. decolorata*) and to *Teg. tridentina* (see Simon, 1937). This relationship is based on morphology and for *Teg. tridentina* also on DNA. Owing to the unavailability of material these species cannot be diagnosed here.

### *TEGENARIA ARGAEICA* NOSEK, 1905 STAT. REV.
(FIGS 15C–F, 18G, H)

*Tegenaria argaeica* Nosek, 1905: 136–138, pl. IV, fig. 15a, b.

*Tegenaria boitanii* Brignoli, 1978c: 518, 519, figs 94, 95, only female (misidentification); the male belongs to *Tegenaria percuriosa* Brignoli, 1972 (see Gasparo, 2007).

*Malthonica argaeica*: Guseinov *et al.*, 2005: 164.

*Types*

Syntypes. Turkey: Kayseri: 'Asia Minor: Erdschias Dagh, Nordseite', 1 ♂, 1 ♀ (NHMW), v.1902, Penther.

Sub *Tegenaria boitanii*: Paratypes. Turkey: Ankara: Kizilcahamam, 2 ♀ (MCSN, 544), 16.vii.1971, Brignoli; Bolu: Abant, 1 ♀ (MHNG), 17.vii.1971, Brignoli.

*Other material examined*

Turkey (2 ♂).

*Diagnosis*

*Tegenaria argaeica* is closely related to *Tegenaria lyncea* Brignoli, 1978, and *Tegenaria pseudolyncea* Guseinov, Marusik & Koponen, 2005. Useful figures of both related species were provided by Guseinov *et al.* [2005: figs 57, 58, 63–68, 122–123 (*Teg. lyncea*), 51, 53–56, 59–62, 100, 101, 125 (*Teg. pseudolyncea*)]. The most important characters for the separation of *Teg. argaeica* are the small denticles at the dorsal branch of the RTA (absent in the other species), and the much longer and stronger convoluted duct of the vulva (shorter and less convoluted in the other species).

*Description*

Nosek (1905) provided a very detailed description of this species, including measurements and leg spination patterns. This description is sufficient except for the drawing of the epigyne. Good pictures of the male palp are, for example, the SEM photographs provided by Seyyar, Demir & Topçu (2008).

*Distribution*

Reported from central/northern Turkey. Its occurrence in Bulgaria (Drensky, 1942) is doubtful, because

**Figure 17.** A, B, *Tegenaria domestica*; C, F, G, M, N, *Tegenaria racovitzai*; D, E, Q, R, *Tegenaria hauseri*; H–J, *Tegenaria bozhkovi*; K, L, O, P, *Tegenaria campestris*; S, T, *Tegenaria pieperi*; U, *Tegenaria schmalfussi*; V, *Tegenaria faniapollinis*; W, *Tegenaria percuriosa* (holotype of *Tegenaria bithyniae*); X–Z, ***Tegenaria croatica* sp. nov.** Left male palp in ventral (M, O, Q) and retrolateral views (N, P, R); epigyne in ventral (D, F, H, K, S, U–W, Y) and posterioventral views (T), vulva in dorsal (E, G, I, L, U, Z) and lateral views (J); face of female *Teg. domestica* (A) and *Teg. racovitzai* (C); cheliceral margins of female *Teg. domestica* in posterioventral view (B); habitus, dorsal view (X). Scale bars = 0.5 mm (no scale for *Teg. faniapollinis*, V, and *Teg. schmalfussi*, U).


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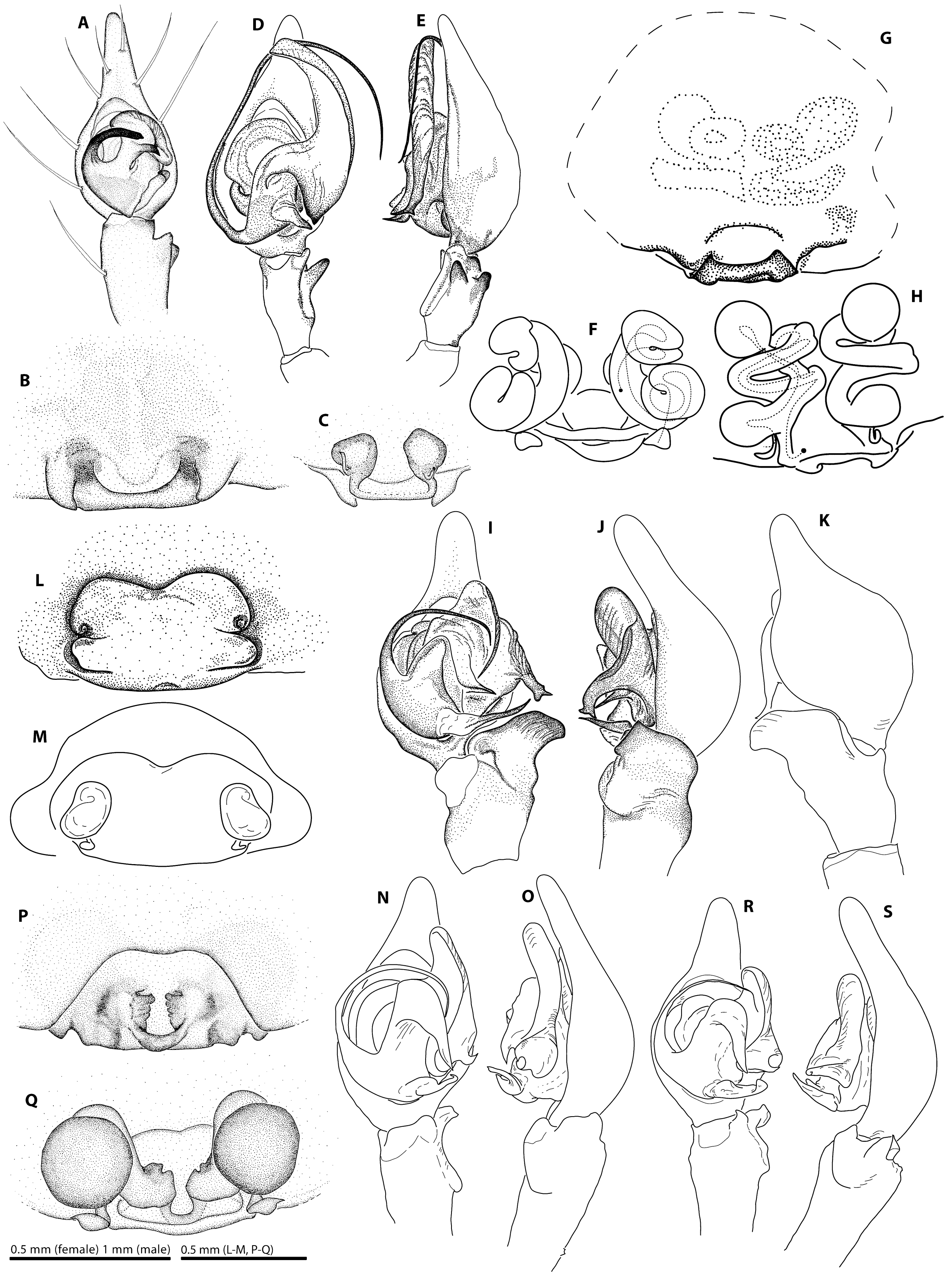
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0.5 mm (female) 1 mm (male)
0.5 mm (L-M, P-Q)

**Figure 18.** A–C, *Tegenaria domestica*; D–F, *Tegenaria carensis*; G, H, *Tegenaria argaeica* (female paratype); I–M, ***Tegenaria circeoensis* sp. nov.**; N–Q, *Tegenaria parmenidis*; R, S, *Tegenaria sbordonii*. Left male palp in ventral (A, D, I, N, R), retrolateral (E, J, O, S), and dorsal views (K); epigyne in ventral (B, G, L, P) and vulva in dorsal view (C, F, H, M, Q).

◀

no reference or newly collected specimens are available (Deltshev, 1993).

*Discussion*

The original description of *Teg. argaeica* is very detailed and precise. However, the drawing of the epigyne (Nosek, 1905: plate IV, fig. 15b) does not correspond to the female paratype. Drensky (1942) listed the species from Bulgaria and provided a drawing of the epigyne, which he may have copied from Nosek (Brignoli, 1978c). The specimens from Drensky's work are not available for examination (Deltshev, 1993). Seyyar *et al*. (2008) redescribed *Teg. argaeica* without mentioning this problem.

Based on the examination of fresh material, Gasparo (2007) showed that the *Teg. boitanii* of previous authors is a mixture of species (males not conspecific with females). The male holotype of *Teg. boitanii* corresponds to *Teg. percuriosa*, with which he synonymized *Teg. boitanii*. He further mentioned that females of *Teg. boitanii* sensu auct. may represent an undescribed species. The examination of the paratype of *Teg. argaeica* and the two females of *Teg. boitanii* from Kizilcahamam showed that they are conspecific. Additionally, the descriptions of female *Teg. boitanii* and *Teg. argaeica* match each other (Nosek, 1905; Brignoli, 1978c).

### *TEGENARIA ARIADNAE* BRIGNOLI, 1984
### (FIGS 14Q–T, 16C, D, L–N)

*Tegenaria ariadnae* Brignoli, 1984: 305, 306, fig. 28, female.

*Tegenaria labyrinthi* Brignoli, 1984: 306, 307, fig. 30, female, syn. nov.

First description of male.

*Types*

Holotype and paratype. Greece: Crete: Perama, grotte 'Melidoni spilia', 3 ♀ (MHNG, Kar 79-17; paratype, MCSN, 542), 14.iii.1979, Hauser.

Sub *Tegenaria labyrinthi*: holotype. Greece: Crete: 'Heraklion, Risorgenza di Almiros', Gazi, ♀ (MCSN, 542), 21.viii.1974, Sbordoni.

*Other material examined*

Greece (4 ♂, 16 ♀).

*Description*

*Measurements:* Male ($N = 1$): CL 3.76, CW 2.94, STL 1.92, STW 1.70, OL 4.61, OW 2.78. Leg I (7.33, 1.51, 7.41, 7.49, 3.61), II (6.51, 1.44, 6.37, 7.52, 3.09), III (5.75, 1.42, 5.49, 7.21, 2.6), IV (6.79, 1.33, 6.74, 9.01, 3.15). Pedipalp (3.03, 1.06, 1.35, 1.72), bulbL 0.94. Female ($N = 2$): CL 4.45–4.64, CW 3.17–3.33, STL 2.16–2.24, STW 1.93–1.97, OL 5.30, OW 3.72. Leg I (7.28–7.55, 1.82–1.84, 7.07–7.44, 7.66–7.85, 3.41–3.63), II (6.76–6.86, 1.81, 6.1–6.37, 6.97–7.04, 3.03–3.10), III (6.15–6.36, 1.58–1.63, 5.46–5.7, 6.99–7.01, 2.55–2.65), IV (6.98–7.22, 1.65–1.78, 6.66–7.29, 7.49–9.32, 2.82–3.09). Pedipalp (2.57–2.74, 0.98–0.99, 1.70–1.80, 2.12–2.17). EPL 0.43–0.5, EPW 0.81–0.82, ATL 0.17–0.30, ATW 0.33–0.55. Eyes: PME 0.11–0.15, PLE 0.14–0.16, AME 0.11–0.12, ALE 0.16–0.18. Eye distances: PME–PME 1–2 × PME, PME–AME 0.5–1.5 × PME, PME–PLE 1–2 × PME, PME–ALE 0.5–1.5 × PME, AME–AME 0.5–1 × AME, AME–ALE 0.5–1 × AME. CLY1 2–3 × AME, CLY2 1.5–2 × ALE.

*Male palp:* Cymbium modified, dorsobasally with a depression, distally narrowly elongated. RTA with two branches, lateral branch basally strongly sclerotized, moderately fused with the lateroventral ridge, distally membranous, protruding, very close to the dorsal branch, which is protruding and strongly sclerotized, distally flattened, and broadly rounded. Filiform embolus length about same as CB, originating at 8 o'clock position, distal tip at 2 o'clock position. Conductor triangularly shaped, distal portion elongated, lateral margin completely folded. Terminal end with moderately protruding dorsal bulge, ventral part short and pointed. Tegular apophysis present, lamelliform, protruding basally of conductor. Connection of conductor to tegulum membranous. MA originating at 5 o'clock position, strongly protruding, distally with plate-like sclerite, tapered. MA membranously connected to tegulum.

*Epigyne and vulva:* Epigynal plate strongly sclerotized. Posterior sclerite absent. CO at anterior border of median area, triangular or almond-like shaped holes, surrounded by moderately protruding margin, distinctly sclerotized. Vulva consists of distinguishable CD, RC, and FD. CD very short leading into oblong globular and smoothly sclerotized RC, separated by 1.5–2 × their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with three to four teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as basal segment. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria seven to ten. Small teeth on paired claws of leg I 11–13. Leg spination: male palp (3–1–0–0, 2–0–0, 1–2–0–0), female palp (3–1–0–0. 2–0–0, 2–1p+1–0–0), leg femora (2–3–2–0 or 2–3–3–0 or 2–5–4–0, 2–4–2–0 or 2–4–3–0 or 2–4–4–0 or 2–5–4–0, 2–2–2–0 or 2–2–3–0 or 2–3–3–0 or 2–3–4–0, 2–1–1–0 or 2–1–2–0), patellae (all 2–0–0), tibiae (0–2–2–2 or 2–2–2–1+1p or 2–2–2–2p, 2–2–2–1+1p or 2–2–2–2p, 2–2–2–1+1p or 2–2–2–1+1p+1 or 2–2–2–2, 2–2–2–1+1p or 2–2–2–2 or 2–2–2–3), metatarsi (0–2–0–4p+1 or 0–1–1–3p+1, 0–1–1–3p+1 or 0–2–1–3p+1, 0–3–2–3p+1 or 0–3–3–3p+1 or 2–3–2–3p+1, 1–3–3–1p+1+2p+1), tarsi (all 0).

*Coloration:* Carapace lacking distinct patterns, only head region and femora of leg I and II in males moderately more darkly sclerotized. Sternum uniform with only slightly pale median region. Opisthosoma bright yellowish, anteriomedian with pale area surrounded by a very weakly pronounced pattern of dark pigments, inconspicuously continuing in broad chevrons posteriad. Legs not annulated. ALS indistinctly darkened, PLS basal segment darkened, distal segment pale or all spinnerets pale.

*Distribution*
Endemic to Greece: Crete (in caves).

*Discussion*
Based on the examination of a series of recently collected specimens along with the types of *Teg. ariadnae* and *Teg. labyrinthi*, the two are synonymized here. The epigynal characters used by Brignoli (1984) to diagnose the two species fall within the range of variation of the recently collected material. Fulvio Gasparo drew the same conclusion with males that he had collected (pers. comm., 2009).

*Tegenaria ariadnae* was only found several metres inside the caves at points with hardly any light. *Tegenaria parietina*, in contrast, was captured at the entrance of both caves. The funnel webs of both species are attached either to stones on the ground or to the wall of the caves.

### *TEGENARIA ARMIGERA* SIMON, 1873 (FIG. 15G–J)

*Tegenaria armigera* Simon, 1873: 140, 141, figs 82–87, female.

*Pseudotegenaria armigera*: Lehtinen, 1967: 261, transfer rejected by Brignoli (1971a).

*Types*
Syntypes. France: Corsica: 1 ♂, many ♀ (MNHN, 1965, 460), Simon.

*Other material examined*
France: Corsica and Sardinia (7 ♂, 4 ♀); Italy (3 ♀).

*Description*
A detailed description was provided by Heimer & Müller (1988).

*Distribution*
Reported from Corsica and Sardinia.

*Discussion*
As mentioned by Heimer & Müller (1988) the specimen, which had been found by Roewer on Sardinia (Roewer, 1953: 49), with the SMF-Nr. 10696 belongs to *Teg. pagana*. However, in contrast to their statement about Brignoli's drawing and identification (Brignoli, 1971a), the specimens from Sardinia belong to *Teg. armigera*.

As in other *Tegenaria* species, very great variation in size can be observed (e.g. Fig. 15J).

### *TEGENARIA BAYERI* KRATOCHVÍL, 1934

*Tegenaria bayeri* Kratochvíl, 1934: 212, 213, fig. 19, female; Kratochvíl, 1935: 20, 21, pl. 2, figs 21, 22, male; Kratochvíl & Miller, 1940: 200, 201, fig. 5.1, male.

*Pseudotegenaria bayeri*: Lehtinen, 1967: 261; transfer doubted by Brignoli (1971a: 61); rejected by Bolzern *et al*. (2010).

No material examined. The female holotype is preserved in the collection of the National Museum, Praha, Czech Republic (Ruzicka *et al*., 2005).

*Diagnosis*
This species belongs to the *Teg. annulata* species complex.

*Description*
A detailed description, including measurements, was provided by Kratochvíl (1934, female; 1935, male).

*Distribution*
Reported from Bosnia and Herzegovina, and Serbia and Montenegro (van Helsdingen, 2011; Platnick, 2012).

### *TEGENARIA BOSNICA* KRATOCHVÍL & MILLER, 1940

*Tegenaria bosnica* Kratochvíl & Miller, 1940: 191–196, figs 2, 3.

*Pseudotegenaria bosnica*: Lehtinen, 1967: 261; transfer doubted by Brignoli (1971a: 61); rejected by Bolzern *et al*. (2010).

No type material available. Probably lost (see Ruzicka *et al*., 2005).

*Other material examined*
Serbia or Albania (1 ♂).

*Diagnosis*
This species belongs to the species complex around *Teg. annulata*.

*Description*
A very detailed description, including measurements, was provided by Kratochvíl & Miller (1940).

*Distribution*
Reported from Croatia, Bosnia and Herzegovina, and Serbia and Montenegro (van Helsdingen, 2011; Platnick, 2012). Possibly also occurs in Albania.

### ***TEGENARIA BOZHKOVI*** (DELTSHEV, 2008) **COMB. NOV.** (FIG. 26H–J)

*Malthonica bozhkovi* Deltshev, 2008b: 38–40, figs 1, 2, 5–8.

No type material examined.

*Other material examined*
Greece (1 ♀).

*Diagnosis and description*
A detailed description was provided by Deltshev (2008b).

*Distribution*
Reported from Bulgaria (West Rhodopy Mountains) (Deltshev, 2008b) and Greece (Falakron Mountains) (Wolf, 1998, sub *Teg.* cf. *campestris*).

*Discussion*
Deltshev (2008b) suggested that *Teg. bozhkovi* forms, together with *Teg. campestris*, *Teg. montana*, and *Teg. rilaensis*, a 'super species' (cf. discussion under *Teg. rilaensis*).

### ***TEGENARIA CAMPESTRIS*** (C. L. KOCH, 1834) **STAT. REV.** (FIG. 26K, L, O, P)

*Aranea decemguttata* Martini & Goeze, in Lister (1778 (1792): 288) (nomen oblitum).

*Aranea campestris* C. L. Koch, 1834: 124, pl. 20, male.

*Tegenaria campestris*: C. L. Koch, 1841: 34, 35, figs 615, 616.

*Philoica campestris*: Simon, 1864: 202.

*Malthonica campestris*: Guseinov *et al*., 2005: 164.

No type material available.

*Other material examined*
Austria (21 ♂, 8 ♀); Germany (9 ♂, 8 ♀); Hungary (1 ♂, 2 ♀).

*Description*
*Measurements:* Male ($N = 1$): CL 3.68, CW 2.93, STL 1.90, STW 1.75, OL 4.02, OW 2.64. Leg I (3.52, 1.46, 3.12, 3.18, 2.00), II (3.41, 1.39, 2.59, 2.82, 1.59), III (3.12, 1.15, 2.20, 2.90, 1.42), IV (3.93, 1.35, 2.98, 3.84, 1.71). Pedipalp (1.59, 0.62, 0.51, 1.78), bulbL 1.49. Female ($N = 1$): CL 3.65, CW 2.79, STL 1.94, STW 1.77. Leg I (3.59, 1.41, 3.14, 3.02, 1.89), II (3.20, 1.36, 2.45, 2.71, 1.60), III (2.94, 1.16, 2.00, 2.55, 1.22), IV (3.94, 1.37, 3.03, 3.74, 1.71). Pedipalp (1.35, 0.62, 0.77, 1.56). EPL 0.40, EPW 0.65, ATL 0.26, ATW 0.38. Eyes: PME 0.18, PLE 0.19–0.21, AME 0.14–0.16, ALE 0.20–0.21. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 0.5–1 × PME, AME–AME < 0.5 × AME, AME–ALE << 0.5 × AME. CLY1 1.5–2 × AME, CLY2 1 × ALE.

*Male palp:* RTA with three branches, ventral branch extensive, lobe-like with distinct ridge, distally moderately protruding, lateral branch spur-like and strongly sclerotized, dorsal branch broad and strongly protruding, distally with several points and ridges. Filiform embolus length about 2.5–3 × CB, originating at 7–8 o'clock position, distal tip at 4–5 o'clock position. Conductor in retrolateral view S-shaped, distal portion distinctly elongated, lateral margin completely folded. Terminal end bifid, ventral part short and pointed, dorsal part plate-like, rounded. Connection of conductor to tegulum moderately sclerotized. MA originating at 6 o'clock position, strongly protruding, distally with complex plate-like sclerite (short point and a longer hook-like ending). MA membranously connected to tegulum. Basal portion of tegulum visible and undulated.

*Epigyne and vulva:* Epigyne with distinct median plate, anteriomedially continuously connected to strongly sclerotized epigynal plate. Posterior sclerite absent. CO anteriorly of median plate, distinctly visible as gaps. Vulva consists of CBD, no distinct RC recognizable. First part (CD) of CBD less sclerotized and moderately convoluted, proximal part strongly convoluted and sclerotized. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with three to four teeth.

Colulus developed as trapezoidal plate with distal margin straight or indistinctly notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment shorter than basal segment. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria six to eight. Small teeth on paired claws of leg I seven to ten. Leg spination: male palp (2–0–0–0, 2–0–0, 2–2–0–0), female palp (2–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–2–1–0, 2–2–2–0 or 2–3–2–0, 2–2–1–0 or 2–2–2–0 or 2–3–2–0, 1–1–1–0 or 1–1–2–0 or 2–1–1–0), patellae (all 2–0–0), tibiae (0–0–0–1+2p or 0–0–0–1p+1+1p or 0–0–0–2p or 0–0–0–3p or 2–0–0–1+2p, 0–2–0–1+2p or 0–2–0–2+1p or 2–2–0–1+2p or 2–2–0–2+1p, 2–2–2–1+2p or 2–2–2–2+1p or 2–2–2–3p, 2–2–2–1+2p or 2–2–2–2+1p or 2–2–2–3p), metatarsi (0–0–0–1+2p+1 or 0–0–0–3p+1, 0–2–0–1p+1+2p+1 or 0–2–0–3p+1, 0–3–2–3p+1 or 0–3–3–3p+1, 0–3–3–1+3p+1 or 0–3–3–3p+1 or 0–3–3–4p+1), tarsi (I & II 0, III: 0–0–1–0, IV: 0–0–1–0 or 0–1–1–0).

*Coloration:* Margin of carapace narrowly darkened with three to four crescent-shaped spots, dorsally with two symmetrical longitudinal dark bands. Sternum with distinct pattern of pale median region and three pairs of symmetrical pale dots laterally, somewhat fused together. Chelicerae with distinct, darkened spots. Opisthosoma dark brownish, anteriomedially with yellowish band, continuing in broad chevrons posteriad. Legs annulated. ALS basally darkened, PLS basal segment darkened, distal segment pale.

### *Distribution*

Reported from Central Europe in the west to Azerbaijan in the east (Blick *et al*., 2004; Otto & Dietzold, 2006; van Helsdingen, 2011).

### *Discussion*

*Tegenaria campestris* is part of a species-complex including *Teg. montana*, *Teg. rilaensis*, and the recently described *Teg. bozhkovi* (Deltshev, 1993; Deltshev, 2008b). The morphological differences amongst the species are very small. Owing to the limited number of specimens examined of *Teg. montana*, *Teg. rilaensis*, and *Teg. bozhkovi*, we could not judge if these differences represent inter- or intraspecific variation.

## *TEGENARIA CAPOLONGOI* BRIGNOLI, 1977

(FIG. 22A, B)

*Tegenaria capolongoi* Brignoli, 1977a: 51, 52, fig. 36, female.

### *Types*

Holotype. Italy: Campania: San Sebastiano al Vesuvio, Grotticella vesuviana, ♀ (MCSN, 543), 19.iii.1973, Capolongo & Cantilena.

Paratype. Vico Egoansa, Grotta della Fontanello, ♀ (MHNG), 14.iv.1973, Capolongo & Cantilena.

### *Other material examined*

Italy (1 ♀).

### *Diagnosis*

*Tegenaria capolongoi* belongs to a species group together with *Teg. circeoensis* sp. nov., *Teg. parmenidis*, and *Teg. sbordonii*. The most useful characters for separating these species are the shape of the RTA, the bifid terminal end of the conductor, the presence/absence of pockets at the median plate of the epigyne, and the location of the copulatory openings.

### *Description*

The description, including measurements, was provided by Brignoli (1977a).

### *Distribution*

Reported from Italy (region around Naples, Campania).

### *Discussion*

*Tegenaria capolongoi* together with *Teg. parmenidis*, *Teg. circeoensis* sp. nov., and *Teg. sbordonii* form a morphologically well-defined species group, restricted to southern Italy.

## *TEGENARIA CARENSIS* BARRIENTOS, 1981

(FIGS 16O–R, 18D–F)

*Tegenaria carensis* Barrientos, 1981: 16–19, figs 4–6, female.

First description of male.

No type material examined.

### *Other material examined*

Spain: Catalonia: Cadi Moixero, 1 ♂ (UB), de Mas; Pedra Paret, Alsina d'Alinya, 1 ♀ (UB, 1869-75), 18.v.1970, Girona.

### *Description*

*Measurements:* Male ($N = 1$): CL 2.86, CW 2.33, STL 1.50, STW 1.41, OL 3.59, OW 2.33. Leg I (4.00, 1.25, 3.50, 3.75, 2.30), II (3.80, 1.13, 3.20, 3.58, 1.92), III (3.54, 1.05, 2.75, 3.33, 1.62), IV (4.30, 1.14, 3.65, 4.65, 2.08), Pedipalp (1.54, 0.49, 0.61, 1.57), bulbL 1.40. Female ($N = 1$): CL 3.97, CW 2.94, STL 1.91, STW 1.88, OL 5.65, OW 3.69. Leg I (5.61, 1.66, 5.25, 5.53, 2.73), II (5.46, 1.61, 4.66, 5.24, 2.46), III (4.87, 1.46, 3.75, 5.05, 2.18), IV (5.87, 1.45, 5.26, 6.90, -). Pedipalp

(1.86, 0.71, 1.18, 1.88). EPL 0.68, EPW 0.90, ATL 0.19, ATW 0.37. Eyes: PME 0.16–0.18, PLE 0.16–0.20, AME 0.12–0.13, ALE 0.15–0.18. Eye distances: PME–PME 0.5–1 × PME, PME–AME 1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 0.5–1 × PME, AME–AME ≤ 0.5 × AME, AME–ALE ≤ 0.5 × AME. CLY1 1.5–2.5 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with three branches, ventral branch long drawn-out lobe reaching more than two thirds of tibia length, with distinct lateral ridge, lateral branch strongly sclerotized, as broad as long, distally broadly pointed, dorsal branch broad and strongly sclerotized, distally obliquely truncated, and stepped. Filiform embolus length more than 3 × CB, originating at 7 o'clock position, distal tip at 4 o'clock position. Conductor with distal portion strongly elongated, lateral margin completely folded. Terminal end moderately bifid, ventral part simple flat pointed, dorsal part consists of indistinct small peak. Connection of conductor to tegulum moderately sclerotized. MA originating at 5–6 o'clock position, strongly protruding, distally with hook-like sclerite. MS membranously connected to tegulum. Basal part of tegulum clearly visible and undulated.

*Epigyne and vulva:* Epigyne with distinct median region separated anteriorly from the epigynal plate by distinct rim. Median region membranous. Posterior sclerite expressed as strongly sclerotized, semicircular bar, limiting atrial area posteriorly. CO laterally between membranous median area and the posterior sclerite. Epigynal 'pseudo teeth' absent. Vulva consists of CBD, no distinct RC. First part (CD) of CBD moderately sclerotized and convoluted around second part, which is strongly sclerotized and convoluted. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with four, retromargin with four teeth. Colulus developed as trapezoidal plate with the distal margin medially moderately notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment shorter than basal segment. Tarsal trichobothria on cymbium present. Tarsal trichobothria seven to nine. Small teeth on paired claws of leg I 13. Leg spination: male palp (2–0–0–0, 2–0–0–0, 1–2–0–0), female palp (2–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–2–2–0 or 2–3–2–0, 2–2–2–0, 1–2–2–0 or 2–2–2–0, 1–1–1–0), patellae (all 2–0–0), tibiae (0–0–0–1 or 0–0–0–1p, 0–1–0–2 or 0–2–0–2, 1–2–1–2+1p or 1–2–2–2+1p, 1–2–2–2+1p), metatarsi (0–0–0–3p+1, 0–0–0–2p+1 or 0–1–0–3p+1, 0–3–3–3p+1, 0–3–3–1p+1+2p+1), tarsi (I & II 0, III 0 or 0–0–1–0, IV 0 or 0–0–1–0).

*Coloration:* Margin of carapace with three connected narrow, crescent-shaped darkened spots, dorsally with two symmetrical longitudinal dark bands, serrated and not continuous. Sternum with distinct pale median band and three symmetrical pairs of pale dots laterally. Opisthosoma yellowish with dark spots and indistinct chevrons dorsally. Legs annulated. Colulus and ALS indistinctly darkened, PLS with basal segment darkened, distal segment pale.

### *Distribution*

Reported from Catalonia (Tarragona and Gerona) and Castile and León (Burgos) in north-eastern Spain (Ribera & Barrientos, 1986).

### *Discussion*

Barrientos (1981) described only females of *Teg. carensis*. Based on somatic morphology (similar size, spination and coloration patterns), the geographical location, and resemblance to the closely related *Teg. levantina* (Barrientos, 1981; Ribera & Barrientos, 1986), the male described here is tentatively referred to *Teg. carensis*.

## *TEGENARIA CHUMACHENKOI* KOVBLYUK & PONOMAREV, 2008

*Tegenaria chumachenkoi* Kovblyuk & Ponomarev, 2008: 147, figs 18–21, female.

No material examined.

### *Description*

A detailed description, including measurements, was provided by Kovblyuk & Ponomarev (2008).

### *Distribution*

Reported from Russia (Krasnodar province) in the western Caucasus (Kovblyuk & Ponomarev, 2008).

## ***TEGENARIA CIRCEOENSIS* SP. NOV.**

(FIGS 18I–M, 22L–S)

### *Types*

Holotype. Italy: Lazio: Frosinone, Esperia, ♂ (NMB-ARAN 21002, AB827), 4.vi.2007, Bolzern & Mühlethaler.

Paratype. Same data as for holotype, 1 ♂, 1 ♀ [1 ♀ was juvenile (juv.) until vii.2007, NMB-ARAN 21003, AB786, NMB-ARAN 21004, AB832]; Latina, at the street between Grotta delle Circeo and San Felice Circeo, 3 ♀ (NMB-ARAN 21005, AB463), 20.vii.2006, Bolzern & Ramseyer; same location as previous, 12 ♀

(9 ♀ were juv. until vii.2007, NMB-ARAN 21006–21012, AB717, 735, 784, 789, 826, 913, 911), 5.vi.2007, Bolzern & Mühlethaler.

*Etymology*

Named after the very beautiful National Park near San Felice Circeo where some of the types were collected.

*Diagnosis*

*Tegenaria circeoensis* sp. nov. belongs to a species group together with *Teg. capolongoi*, *Teg. parmenidis*, and *Teg. sbordonii*. The most useful characters for separating these species are the shape of the RTA, the bifid terminal end of the conductor, the presence/absence of pockets on the median plate of the epigyne, and the location of the copulatory openings.

*Description*

*Measurements:* Male (holotype): CL 4.71, CW 3.88, STL 1.85, STW 1.92, OL 4.80, OW 2.95. Leg I (6.21, 1.63, 6.17, 6.92, 3.30), II (4.38, 1.21, 4.07, 5.15, 2.30), III (5.04, 1.33, 4.17, 5.83, 2.21), IV (6.13, 1.47, 5.89, 7.81, 2.83), Pedipalp (1.93, 0.81, 0.86, 1.54), bulbL 0.95. Female ($N = 2$, paratypes): CL 3.22–3.53, CW 2.60–2.70, STL 1.64–1.69, STW 1.53–1.63, OL 5.46, OW 4.00. Leg I (4.10–4.43, 1.27–1.36, 3.77–4.05, 3.80–4.20, 2.08–2.24), II (3.69–4.05, 1.17–1.26, 3.10–3.34, 3.33–3.75, 1.71–1.90), III (3.35–3.71, 1.09–1.12, 2.61–2.97, 3.21–3.55, 1.44–1.81), IV (4.21–4.64, 1.24–1.25, 3.46–4.13, 4.23–4.68, 1.71–1.96). Pedipalp (1.36–1.58, 0.57–0.59, 0.89–0.93, 1.42–1.47). EPL 0.68, EPW 1.28, ATL 0.48, ATW 0.19. Eyes: PME 0.17–0.19, PLE 0.18–0.19, AME 0.15–0.19, ALE 0.18–0.20. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5 × PME, PME–ALE 0.5–1 × PME, AME–AME < 0.5 × AME, AME–ALE << 0.5 × AME. CLY1 1.5–2 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with two (possibly fused?) branches, ventral branch indistinct but with distinct ventral ridge, dorsolateral branch massive, strongly protruding, distally with distinctly stepped, anterioventrally orientated ridge. Length of filiform embolus equal CB or moderately longer, irregularly bent, originating at 8–9 o'clock position, distal tip at 2 o'clock position. Conductor very distinct and complex with distal portion moderately elongated, lateral margin completely folded, with bulge-like structure at the origin of the conductor. Terminal end bifid, ventral part distally simple and sharply pointed, dorsal part larger than ventral portion with a massive protuberance, elongated ventrad, distally with several small points and knolls. Connection of conductor to tegulum sclerotized. MA originating at 6 o'clock position, strongly protruding with long, hook-like sclerite. MA membranously connected to tegulum. Basal portion of tegulum visible and undulated.

*Epigyne and vulva:* Epigyne with distinct, subrectangular median region, clearly separated from epigynal plate by sclerotized rim. Medially, this atrium is very smoothly sclerotized (although a septum was visible in a specimen found at the same place as the type specimens). Posterior sclerite absent. CO are distinct holes located at lateral rim. Posteriorly of CO, a distinct pocket is developed, opening anteriomediad. Epigynal 'pseudo teeth' absent. Vulva consists of distinguishable CD, RC, and FD. CD short and straight, leading into globular, bean-like shaped, smoothly sclerotized RC, separated by more than 2 × their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with four teeth, in males the second proximal tooth smaller than the others. Colulus developed as trapezoidal plate with the distal margin almost straight. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as basal segment. Trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria six to nine. Small teeth on paired claws of leg I 10–11. Leg spination: male palp (2–0–0–0, 2–0–0, 1–2–0–0), female palp (2–0–0–0 or 3–0–0–0, 2–0–0, 2–2–0–0), leg femora (1–3–2–0 or 2–2–1–0 or 2–3–2–0 or 2–4–2–0, 1–3–2–0 or 2–2–2–0 or 2–3–2–0, 1–2–2–0 or 2–2–2–0, 1–0–0–0 or 1–1–1–0), patellae (all 2–0–0), tibiae (0 or 2–0–0–0, 0–1–0–0 or 0–1–0–1 or 0–2–0–0, 2–1–0–2 or 2–1–1–0 or 2–1–1–1 or 2–1–2–1 or 2–2–1–1 or 2–2–2–1, 2–0–0–1 or 2–1–1–1 or 2–1–1–2), metatarsi [0–0–0–2p (only in male) or 0–0–0–3p+1, 0–1–0–3p+1, 0–2–2–1p+2+1p+1 or 0–2–2–3p+1, 0–2–2–1p+1+2p+1], tarsi (I & II 0, III & IV 0–1–0–0).

*Coloration:* Margin of carapace darkened with three distinct, crescent-shaped spots, dorsally with two longitudinal symmetrical dark bands, distinctly serrated. Chelicerae with extensive dark spots. Sternum with pale median band, reaching only two thirds of sternum length, and four symmetrical pairs of pale dots laterally and posteriorly. Opisthosoma anteriorly with reddish-brown median band, laterally with two distinct, symmetrical white markings, sides darkly mottled, posteriorly with chevrons (pale, dark bordered). Legs annulated. ALS indistinctly darkened, PLS with basal segment darkened, distal segment pale.

*Distribution*
Reported from two localities in Lazio, Italy, where the spiders were collected from a shaded rock face on which they had built their funnel webs.

*Discussion*
The variation in size, spination, and epigyne morphology in the new species is large (Fig. 22S). The association of the males and females is supported by sympatric occurrence, breeding experiments, and genetic distance.

On 19 November 2007 a male from Esperia (AB832) was placed on the web of a female from San Felice Circeo (AB911), both having been kept in captivity since their capture in the field in spring 2007. After a short phase of immobility, the male started courtship behaviour by knocking on the web with the palps and the opisthosoma in a fast cadence followed after a short while by copulation. The copulation lasted some 30 min, after which the specimens were separated into different containers. One month later the female produced a cocoon (17.x.2007) and two months later (xii.2007), the spiderlings hatched. First they were kept together with the mother until only about ten specimens were left, at which point they were split into separate containers and fed with crickets (one to two per week). The spiderlings reached maturity after one year (ix.–x.2008). The adult offspring, 2 ♂ and 4 ♀, are preserved in the collection of the NMB (AB964).

## ***TEGENARIA CROATICA* SP. NOV.**
(FIGS 17X–Z, 19N, O)

Male unknown.

*Types*
Holotype. Croatia: between Trsteno and Banja, ♀ (SMF), 12.v.2006, Schönhofer.

*Etymology*
Named after the provenience of the holotype.

*Diagnosis*
*Tegenaria croatica* sp. nov. has a distinctly developed vulva with a broad and straight CD and a smoothly sclerotized and evenly convoluted FD that are not confusable with other species.

*Description*
*Measurements:* Female (holotype): CL 1.85, CW 1.40, STL 1.03, STW 0.94, OL 2.45, OW 1.60. Leg I (2.01, 0.79, 1.87, 1.78, 1.09), II (1.80, 0.68, 1.50, 1.54, 0.90), III (1.60, 0.60, 1.28, 1.47, 0.68), IV (2.07, 0.69, 1.90, 2.13, 1.05). Pedipalp (0.80, 0.32, 0.49, 0.79). EPL 0.27, EPW 0.55, ATL 0.09, ATW 0.20. Eyes: PME 0.10, PLE 0.11, AME 0.05, ALE 0.11. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE < 0.5 × PME, PME–ALE 0.5–1 × PME, AME–AME 0.5 × AME, AME–ALE < 0.5 × AME. CLY1 3–3.5 × AME, CLY2 1 × ALE.

*Epigyne and vulva:* Epigynal plate moderately sclerotized. Median plate only laterally separated from epigynal plate, medially slightly protruding. Posterior sclerite absent. Distinct CO posteriolaterally of the median plate. Vulva consists of distinguishable CD, RC, and FD. CD strongly sclerotized, bulky, and almost straight. RC globular, smoothly sclerotized, leading into consistently convoluted FD. FD ending in small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three teeth, retromargin with five equally sized teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as or slightly longer than basal segment. Tarsal trichobothria at palp tarsus and cymbium absent. Tarsal trichobothria five to six. Small teeth on paired claws of leg I seven to eight. Leg spination: female palp (2–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–1–0–0, 1–1–0–0, 1–1–0–0, 1–1–1–0), patellae (all 2–0–0), tibiae (2–0–0–1p, 0–1–0–1, 2–2–1–1, 2–2–1–2), metatarsi (0–0–0–3p, 0–0–0–2p+1, 0–1–0–3p+1 or 0–2–0–3p+1, 0–2–2–3p+1), tarsi (all 0).

*Coloration:* Margin of carapace with dark band, two longitudinal symmetrical dark bands present but hardly recognizable (may be a result of alcohol preservation). Sternum with pale median region. Opisthosoma brown-grey-green with pale median band anteriorly continuing in chevrons posteriad. Colulus pale (probably a result of alcohol preservation), AMS and basal segment of PMS darkened, distal segment pale.

*Distribution*
Reported from Croatia.

*Discussion*
Even though *Teg. croatica* sp. nov. is currently known from only a single specimen, it is formally described here as it shows a very characteristic morphology of the epigyne and vulva.

## ***TEGENARIA DALMATICA*** KULCZYŃSKI, 1906 **STAT. REV.** (FIGS 1G, H, 2A, B, D, 15K,L, O–Q)

*Tegenaria dalmatica* Kulczyński, 1906: 162–164, fig. 5, female.

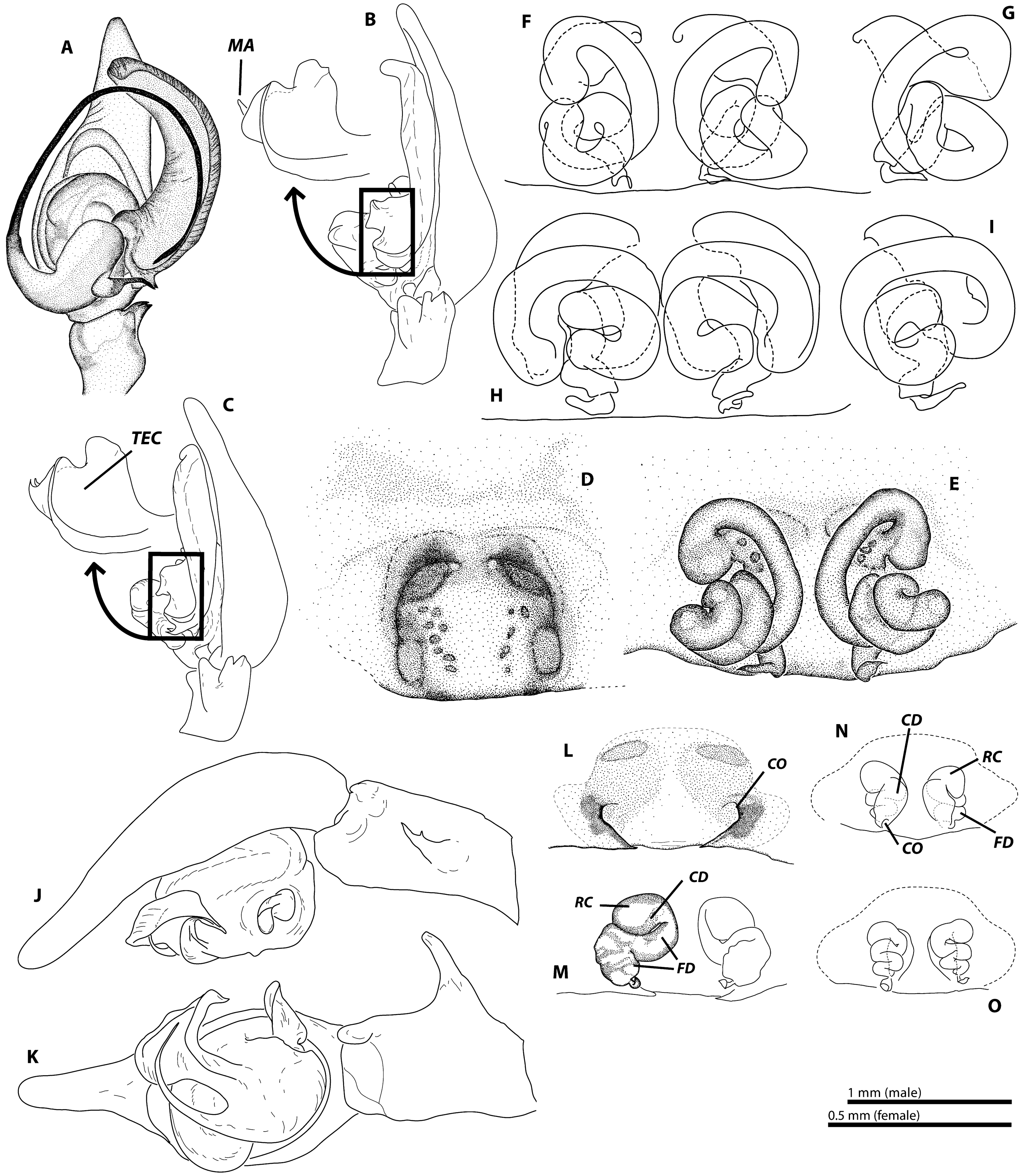

**Figure 19.** A–I, *Tegenaria silvestris*, variation in males and females (B, C, F–I); J, K, ***Tegenaria vankeerorum* sp. nov.**; L, M, ***Tegenaria pindosiensis* sp. nov.**; N, O, ***Tegenaria croatica* sp. nov.** Left male palp in ventral (A, K) and retrolateral views (B, C, J), with detailed drawing of variation of the terminal end of conductor (TEC); epigyne in ventral (D, L) and vulva in dorsal (E, F, H, M, O), ventral (N), and lateral views (G, I). Abbreviations: CD, copulatory duct; CO, copulatory opening; FD, fertilization duct; MA, median apophysis; RC, receptaculum.

*Tegenaria zinzulusensis* Dresco, 1959: 506–509, figs 1–6; synonymized by Levy (1996: 103) after Brignoli (1976b: 568, 569).

*Tegenaria drescoi* Brignoli, 1971a: 110–112, figs 67–69; synonymized by Bolzern *et al*. (2008: 761–763).

*Malthonica dalmatica*: Guseinov *et al*., 2005: 164; Kovblyuk & Nadolny, 2007: 19–22, figs 1–10; redescription.

*Types*

Syntypes. Dalmacia: Zelenika, 2 ♀ (ex. coll. Kulczyński, MIZ, 212369–70, 404 2), Chyzer.

Sub *Tegenaria drescoi*: Holotype. Italy: Sardinia: Sassari, Castelsardo, ♀ (MCSN, 543), 28.iv.1967, Vigna.

*Other material examined*

Croatia (2 ♀); France (20 ♀); Greece (1 ♂, 6 ♀); Italy (12 ♂, 41 ♀); Africa: Algeria (2 ♀); Tunisia (3 ♀).

Asia: Lebanon (1 ♂, 1 ♀); Syria (2 ♂, 1 ♀); Turkey (1 ♀).

*Description*

A very detailed redescription, including measurements and spination patterns, was provided by Kovblyuk & Nadolny (2007).

*Distribution*

Reported from the central and eastern Mediterranean.

*Discussion*

As mentioned in the original description (Kulczyński, 1906: 163), the two syntypes greatly differ in size. Similar variation was also observed in a sample from Lazio (Frosinone, Aquino, 3.vi.2007, Bolzern & Mühlethaler).

### *TEGENARIA DECOLORATA* KRATOCHVÍL & MILLER, 1940

*Tegenaria decolorata* Kratochvíl & Miller, 1940: 198–201, figs 5.2, 6.1–2, male.

*Pseudotegenaria decolorata*: Lehtinen, 1967: 261; transfer doubted by Brignoli (1971a: 61); rejected by Bolzern *et al*. (2010).

No material examined. Holotype (without palps) preserved in the collection of the National Museum, Praha, Czech Republic (Ruzicka *et al*., 2005).

*Diagnosis*

Female unknown. This species belongs to the species complex around *Teg. annulata*.

*Description*

A very detailed description of the male, including measurements, was provided by Kratochvíl & Miller (1940).

*Distribution*

Reported from the island of Krk, Croatia (van Helsdingen, 2011; Platnick, 2012).

### *TEGENARIA DENTIFERA* KULCZYŃSKI, 1908
INCERTAE SEDIS

*Tegenaria dentifera* Kulczyński, 1908: 78, 79, pl. 2, fig. 18, female.

No material available.

*Distribution*

Reported from Cyprus (Kulczyński, 1908).

*Discussion*

Kulczyński's description of epigyne and vulva of *Teg. dentifera* is not informative. No type material could be found and so the species cannot be placed at the moment.

### *TEGENARIA DOMESTICA* (CLERCK, 1758)
(FIGS 1A–D, 2C, 16W, X, 17A, B, 18A–C)

*Araneus domesticus* Clerck, 1757: 76–79, pl. 2, tab. 9, figs 1–4, in part.

*Aranea domesticus*: Linnaeus, 1758: 620.

*Aranea derhamii* Scopoli, 1763: 400.

*Aranea longipes* Fuesslin, 1775: 61.

*Aranea flava* Martini & Goeze, in Lister (1778: 291.)

*Aranea tomentosa* Martini & Goeze, in Lister (1778: 230).

*Aranea annulata* Martini & Goeze, in Lister (1778: 230).

*Aranea civilis* Walckenaer, 1802: 216.

*Tegenaria civilis*: Walckenaer, 1805: 49.

*Aranea domestica*: Treviranus, 1812: 25, figs 14–16, 20, 23–27.

*Arachne familiaris* Audouin, 1826: 315, pl. 1, fig. 6.

*Agelena civilis*: Sundevall, 1831: 20, 1832: 127.

*Tegenaria scalaris* Krynicki, 1837: 73.

*Tegenaria longipes*: C. L. Koch, 1841: 36, fig. 617.

*Agelena familiaris*: Walckenaer, 1842: 23.

*Philoica civilis*: C. L. Koch, 1850: 26.

*Tegenaria cretica* Lucas, 1853: 524.

*Drassina ochracea* Grube, 1861: 171.

*Nyssa familiaris*: Simon, 1864: 212.

*Tegenaria dubia*: Blackwall, 1864: 177.

*Tegenaria testacea* Simon, 1870: 278, female.

*Tegenaria domestica*: Simon, 1875: 73.

*Tegenaria fontium* Simon, 1875: 79.

*Tegenaria modesta* Keyserling, 1878: 594, pl. 14, fig. 17, only male (the female, fig. 18, clearly belongs to *Tegenaria pagana*).

*Tegenaria detestabilis* Pickard-Cambridge, 1877: 275.

*Tegenaria derhamii*: Hansen, 1882: 43, pl. 3, fig. 4.

*Coelotes calcaratus* Keyserling, 1887: 470, pl. 6, fig. 32a.

*Coelotes plumarius* Bishop & Crosby, 1926: 200, pl. 25, fig. 50.

*Mevianops fragilis* Mello-Leitão, 1941: 119, figs 3, 4.

*Coelotes amygdaliformis* Zhu & Wang, 1991: 2, figs 8, 9.

*Tegenaria domesticoides* Schmid, Geisthardt & Piepho, 1994: 111, 112, fig. 21, pl. I: fig. 1, female, syn. nov.

*Draconarius amygdaliformis*: Wang, 2003: 520.

### *Types*

No type material available for *Teg. domestica* and *Teg. modesta*.

Sub *Tegenaria domesticoides*: Holotype. Cape Verde: Santa Antao, Ribeira do Paul, ♀ (SMF, 37531, epigyne lacking!), 12.i.1993, Schmidt.

Paratype. Cape Verde: Sao Nicolau, Monte Gordo, ♀ (SMF, 38579), 20.i.1993, Schmidt.

### *Other material examined*

Austria (1 ♂, 2 ♀); Belgium (1♂, 3 ♀); Bulgaria (1 ♀); Czech Republic (32 ♂, 78 ♀); France (22 ♂, 13 ♀); Germany (28 ♀, 18 ♂); United Kingdom (1 ♂, 1 ♀); Greece (1 ♂, 6 ♀); Italy (3 ♂, 5 ♀); Macedonia (3 ♂, 5 ♀); Poland (1 ♂, 1 ♀); Portugal (3 ♀); Slovakia (1 ♂, 14 ♀); Spain (5 ♀); Switzerland (1 ♂, 1 ♀). Asia: China (2 ♂, 7 ♀); Japan (2 ♀); Lebanon (1 ♂); South Indian Ocean (?) (3 ♀); Sri Lanka (1 ♀); Turkey (2 ♂); Tibet (1 ♀). Australia: (1 ♂, 2 ♀). North America: USA (6 ♂, 9 ♀). Central and South America: Argentina (1 ♂, 2 ♀); Chile (2 ♂, 1 ♀); Costa Rica (1 ♂); Ecuador (2 ♀); Mexico (1 ♂, 1 ♀).

### *Diagnosis*

*Tegenaria domestica* shows a distinct RTA (similar to *Teg. annae* sp. nov.; all other *Tegenaria* species quite different), a truncated, very distinct terminal end of embolus (comparable but distinctly different in *Tegenaria mercanturensis* and *Tegenaria mirifica*), and the drop-shaped, terminally bifid conductor. The epigyne has a strongly sclerotized posterior sclerite with the anterior margin concave (similar in *Teg. annae* sp. nov., *Tegenaria adomestica* Guseinov *et al.*, 2005, *Teg. ferruginea*, *Teg. parietina*, *Teg. tridentina*) and a simple, irregularly globular vulva.

### *Description*

*Measurements:* Male ($N = 1$): CL 4.35, CW 3.25, STL 2.25, STW 2.0, OL 4.5, OW 2.4. Leg I (5.1, 1.7, 4.95, 5.45, 2.65), II (4.6, 1.65, 4.5, 5.05, 2.45), III (4.5, 1.6, 4.0, 5.0, 2.15), IV (5.65, 1.6, 5.35, 6.8, 2.5). Pedipalp (1.85, 0.61, 0.76, 1.27–1.64), bulbL 0.67. Female ($N = 3$): CL 4.0–4.1, CW 2.8–2.9, STL 2.0, STW 1.75–1.85, OL 4.1–4.5, OW 2.75–2.85. Leg I (3.9–4.0, 1.5, 4.0–4.1, 4.9, 2.35–2.5), II (3.75–4.0, 1.35–1.45, 3.5–3.75, 3.6–3.85, 2.0–2.1), III (3.5–3.8, 1.35–1.4, 3.0–3.2, 3.7–3.75, 1.75), IV (4.5–4.7, 1.45–1.5, 4.0–4.25, 5.0–5.35, 2.0–2.1). Pedipalp (1.92, 0.77, 1.15, 1.81). EPL 0.38–0.4, EPW 0.60–0.70, ATL 0.1, ATW 0.48. Eyes: PME 0.17, PLE 0.17–0.2, AME 0.13–0.16, ALE 0.16–0.18. Eye distances: PME–PME 1 × PME, PME–AME 1.5 × PME, PME–PLE 1 × PME, PME–ALE 1 × PME, AME–AME 0.5–1 × AME, AME–ALE 0.5 × AME. CLY1 2–2.5 × AME, CLY2 1.5–2 × ALE.

*Male palp:* RTA with two branches, lateral branch tusk-like shaped, dorsal branch broad and strongly sclerotized, distally obliquely truncated, lateroventral ridge present, inconspicuously expressed. Broad embolus length about 3/4 × CB, terminally truncated, originating at 9 o'clock position, distal tip at 1–2 o'clock position. Conductor drop-shaped with distal portion moderately elongated, lateral margin almost completely folded. Terminal end bifid, ventral part short, simple and pointed, dorsal part plate-like. Connection of conductor to tegulum moderately sclerotized. MA and originating at 5–6 o'clock position, strongly protruding, distally with spoon-like sclerite. MA membranously connected to tegulum. Basal part of tegulum barely visible.

*Epigyne and vulva:* Epigyne medially with a pale, membranous area. Posterior sclerite expressed as sclerotized bar with anterior margin concave, limiting atrial area posteriorly. CO between and laterally of the membranous median area and the posterior sclerite. Epigynal 'pseudo teeth' present. Vulva consists of distinguishable CD, RC, and FD. CD very short leading into globular, irregularly formed RC, separated by about their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with three to four teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Female with four to five minor ampullate and cylindrical gland spigots distally on PMS, two to three medially prominent and two laterally. PLS with distal segment as long as basal segment. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria seven to eight. Small teeth on paired claws of leg I 11–12. Leg spination: male palp (2–0–0–0, 2–0–0, 1–2–0–0 or 2–2–0–0), female palp (2–0–0–0, 2–0–0, 2–2–0), leg femora (2–2–1–0 or 2–2–2–0 or 2–2–3–0 or 2–3–2–0, 2–1–2–0 or 2–2–2–0 or 2–3–2–0, 2–2–2–0, 1–2–1–0 or 2–2–1–0), patellae (all 2–0–0), tibiae [2–0–0–2p or 2–1–0–2p+1 or 2–2–1–3p (dorsal spine inconspicuously), 0–2–0–2+1p or 0–2–2–1p+1+1p or 2–1–0–3 or 2–2–0–2 or 2–2–0–3, 2–2–2–1+1p or 2–2–2–2 or 2–2–2–2p, 2–2–2–1p+1+1p or 2–2–2–1p+2 or 2–2–2–2+1p or 2–2–2–3], metatarsi [0–0–0–3p+1 or 0–1–1–3p+1, 0–1–0–3p+1 (lateral spines only in males), 0–3–3–3p or 0–3–3–3p+1, 0–3–3–3p+1], tarsi (all 0).

*Coloration:* Margin of carapace continuously darkened, dorsally with two symmetrical longitudinal dark bands. Sternum with distinct pale median band and three symmetrical pairs of pale dots laterally. Opisthosoma dark brownish, anterior with yellowish median band, continuing in broad chevrons posteriad. Legs annulated, sometimes only coxa and proximal part of femora with dark dots. ALS indistinctly darkened, PLS with basal segment darkened, distal segment pale.

*Distribution:* Reported from all continents. Probably originating from Europe.

## ***TEGENARIA ELEONORAE*** **BRIGNOLI, 1974 STAT. REV.** (FIG. 20O–R)

*Tegenaria henroti*: Brignoli, 1971a: 68–72, figs 8–12, misidentified.

*Tegenaria eleonorae* Brignoli, 1974: 390, 391.

*Malthonica eleonorae*: Guseinov *et al*., 2005: 164.

### *Types*

Holotype. Italy: Sardinia: Cagliari, Domusnovas, Grotta di S. Giovanni, ♂, (MCSN, 543), 6.x.1968, Pilia & Usai.

Paratypes. Same data as for holotype, 1 ♀; same locality as holotype, 1 ♀ (MCSN, 543), 8.ix.1968, Pirodda, Latte & Pinna; same locality as holotype, 1 ♀ (MCSN, 543), 28.ii.1971, Vigna; same locality as holotype, 1 ♀ (MHNG), 28.ii.1971, Vigna.

### *Other material examined*

Italy (1 ♂, 7 ♀).

### *Diagnosis and description*

Diagnosis, redescription, and discussion were provided by Bolzern *et al*. (2008).

## *TEGENARIA FANIAPOLLINIS* BRIGNOLI, 1978 (FIG. 17V)

*Tegenaria faniapollinis* Brignoli, 1978b: 50, 51, fig. 13.

*Tegenaria paragamiani* Deltshev, 2008b: 40–43, figs 9–16, syn. nov.

### *Types*

Holotype and paratypes. Turkey: Antakya, Grotta di Harbiye, 5 ♀ (MCSN, 100, 542), 26.vi.1971 and 26.vii.1971, Boitani, Brignoli & Osella.

### *Other material examined*

Greece (2 ♂). Asia: Turkey (2 ♀).

### *Description and distribution*

Descriptions, including measurements, were provided by Brignoli (1978b) and Deltshev (2008b; sub *Teg. paragamiani*). Reported from Turkey and Greece (East Rhodopy Mountains, Maronia).

### *Discussion*

Based on drawings by Deltshev (2008b: 42, figs 15, 16), *Teg. faniapollinis* and *Teg. paragamiani* do not differ in epigyne and vulva shape and are, therefore, synonymized.

## *TEGENARIA FEMORALIS* SIMON, 1873 (FIG. 21A–D)

*Tegenaria femoralis* Simon, 1873: 137–139, pl. I, fig. 17; Kraus, 1955: 378, 379, figs 16–19.

### *Types*

Syntype. France: Corsica: ♂ (MNHN, 1978, 486), Simon.

### *Other material examined*

France (3 ♂, 10 ♀); Italy (1 ♀).

### *Description*

A short redescription was provided by Kraus (1955: 378–379, figs 16–19).

*Measurements:* Male ($N = 1$): CL 4.68, CW 3.81, STL 2.32, STW 2.16. Leg I (7.13, 1.89, 6.36, 7.69, 2.53), II (6.78, 1.87, 6.27, 7.29, 2.86), III (6.21, 1.69, 5.39, 7.04, 2.31), IV (6.98, -, -, -, -). Pedipalp (2.20, 0.78, 0.79, 2.21), bulbL 1.70. Female ($N = 1$): CL 4.28, CW 3.15, STL 2.11, STW 2.00. Leg I (5.41, 1.64, 5.71, 6.10, 2.49), II (5.00, 1.55, 4.79, 5.72, 2.21), III (4.84, 1.42, 4.23, 5.55, 1.99), IV (5.15, 1.55, 5.29, 7.03, 2.22). Pedipalp (1.87, 0.76, 1.19, 1.98). EPL 0.66, EPW 1.18, ATL 0.25, ATW 0.49. Eyes: PME 0.20–0.21, PLE 0.21–0.22, AME 0.15–0.17, ALE 0.21–0.23. Eye distances: PME–PME 0.5 × PME or somewhat more, PME–AME 0.5–1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 0.5–1 × PME, AME–AME < 0.5 × AME, AME–ALE < 0.5 × AME. CLY1 2–3 × AME, CLY2 1–1.5 × ALE.

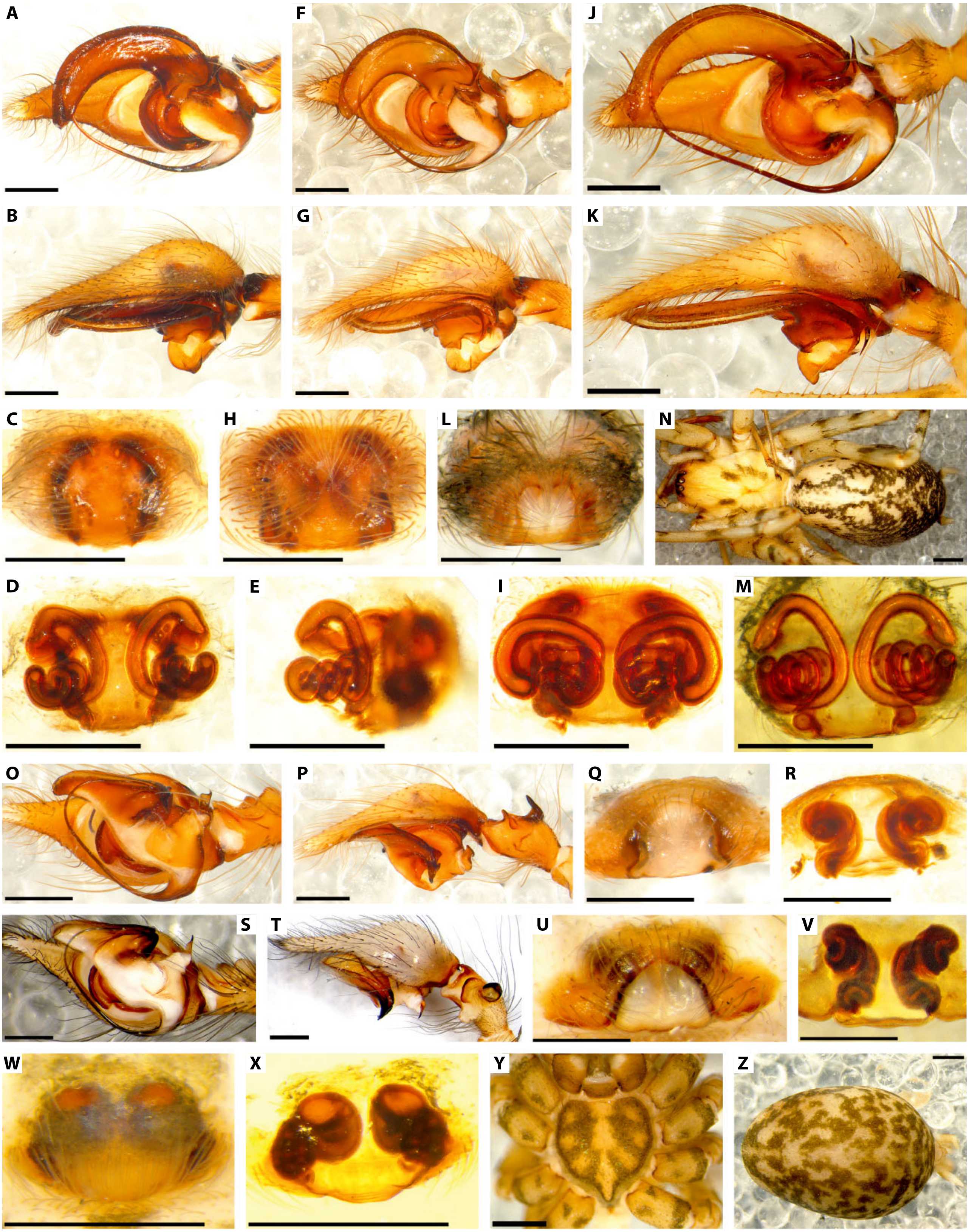
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**Figure 20.** A–I, *Tegenaria silvestris*, variation in males and females (F–I); J–M, *Tegenaria parvula*; N, S–V, *Tegenaria henroti*; O–R, *Tegenaria eleonorae*; W–Z, ***Tegenaria pindosiensis* sp. nov.** Left male palp in ventral (A, F, J, O, S) and retrolateral views (B, G, K, P, T); epigyne in ventral (C, H, L, Q, U, W) and vulva in dorsal (D, I, M, R, V, X) and lateral views (E); female habitus (N) and abdomen in dorsal view (Z); sternum in ventral view (Y). Scale bars = 0.5 mm (except 1 mm for N).

◀

*Male palp:* RTA with three branches, ventral branch lobe-like, reaching more than three quarters of tibia length, forming a distinct ridge, distally protruding, lateral and dorsal branch forming strongly sclerotized and protruding appendages. Filiform embolus length about 2–2.5 × CB, originating at 7 o'clock position, distal tip at 3 o'clock position. Conductor moderately hammerhead shaped with distal portion elongated and tapered, lateral margin completely folded. Terminal end bifid, ventral part short and cone-shaped, dorsal part plate-like. Connection of conductor to tegulum moderately sclerotized. MA originating at 4–5 o'clock position, strongly protruding, distally with hook-like sclerite. MA membranously connected to tegulum. Basal part of tegulum visible and undulated.

*Epigyne and vulva:* Epigynal median plate anteriomedially connected with strongly sclerotized epigynal plate. CO anteriorly of the median plate distinctly expressed as holes with strongly sclerotized anterior margin. Vulva consists of CBD, no distinct RC recognizable. First half (CD) of CBD only moderately sclerotized and convoluted around second half, which is strongly sclerotized. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with four, retromargin with four to five teeth. Colulus developed as trapezoidal plate with distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as basal segment. Trichobothria on cymbium and palp tarsus present. Tarsal trichobothria seven to nine. Small teeth on paired claws of leg I 12–14. Leg spination: male palp (2–0–0–0, 2–0–0, 1–2–0–0 or 2–2–0–0), female palp (2–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–2–2–0 or 2–3–2–0 or 2–3–3–0, 2–3–2–0, 2–2–2–0, 2–2–1–0 or 2–2–2–0), patellae (all 2–0–0), tibiae [0–0–0–2p or 0–0–0–2p+1, 0–2–0–1p+2 or 0–2–0–2+1p or 0–2–0–3p (very indistinct dorsal spines possible), 1–2–2–1+2p or 1–2–2–3p, 1–2–2–3p], metatarsi (0–0–0–3p+1, 0–1–0–3p+1, 0–3–3–3p+1, 0–3–3–1+3p+1), tarsi (all 0).

*Coloration:* Carapace without a colour pattern (may be a result of alcohol preservation). Sternum with distinct pattern of pale median region and three pairs of symmetrical pale dots laterally, somewhat fused together. Legs only ventrally annulated, indistinct. ALS and basal segment of PLS moderately darkened, distal segment pale.

### *Distribution*

Reported from Italy, including Corsica and Sardinia.

### *Discussion*

Contrary to the information provided by Kraus (1955) and Platnick (2012), Simon (1873: 139) not only described the male but also the female of *Teg. femoralis*, although without any drawings. He mentioned several specimens in the original description (Simon, 1873: 139, fourth paragraph) but only one male could be found in the MNHN collection.

Kraus (1955) described two female specimens, which were significantly smaller than the other examined female specimens. He concluded that, because these specimens share the same morphology and differ only in size, they must belong to the same species. Brignoli (1979a: 41), in contrast, argued that this 'forma nana' is not conspecific with *Teg. femoralis* and constitutes an undescribed species. More material is required to solve this problem.

## ***TEGENARIA FERRUGINEA*** (PANZER, 1804)
## **STAT. REV.** (FIG. 21J–M)

*Araneus domesticus*: Clerck, 1757: 76–79, pl. 2, tab. 9, fig. 1, in part.

*Aranea ferruginea* Panzer, 1804: pl. 227, fig. 2.

*Aranea subpilosa* Panzer, 1804: pl. 227, fig. 3.

*Aranea stabularia* C. L. Koch, 1834: 125, pl. 13, male.

*Tegenaria stabularia*: C. L. Koch, 1841: 32–34, fig. 614, female.

*Tegenaria petrensis* C. L. Koch, 1841: 27, 28, fig. 609, female.

*Tegenaria ferruginea*: Simon, 1875: 65–67, pl. 6, fig. 7.

*Tegenaria heteropalpa* Lebert, 1877: 209, 210, pl. 6, fig. 41 male; syn. nov.

*Malthonica ferruginea* Guseinov *et al*., 2005: 164.

### *Comments*

*Tegenaria heteropalpa* Lebert was synonymized with *Teg. pagana* by de Lessert (1910: 455). Types of

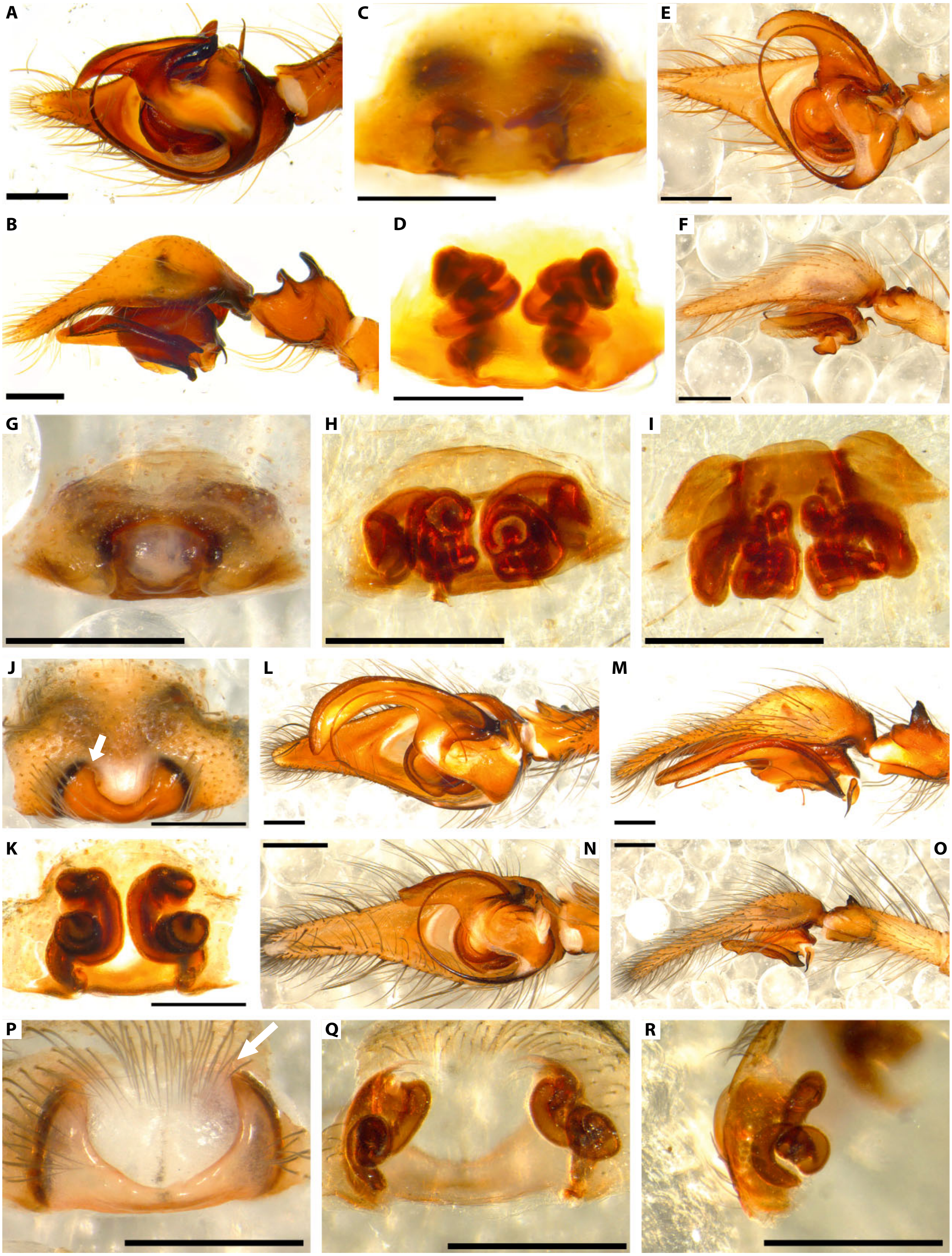


**Figure 21.** A–D, *Tegenaria femoralis*; E–I, *Tegenaria tyrrhenica*; J–M, *Tegenaria ferruginea*; N–R, *Tegenaria parietina*. Left male palp in ventral (A, E, L, N) and retrolateral views (B, F, M, O); epigyne in ventral (C, G, J, P) and vulva in dorsal (D, H, K, Q), lateral (R), and anterior views (I). Scale bars = 0.5 mm.

*Teg. heteropalpa* are lost. However, the description of Lebert (1877) and in particular his illustration is sufficiently diagnostic to suggest that *Teg. heteropalpa* is conspecific with *Teg. ferruginea*. *Tegenaria heteropalpa* is a new synonym of *Teg. ferruginea* rather than one of *Teg. pagana* as suggested by de Lessert (1910). Their conspecificity is supported by the structure of the RTA, the shape of the MA, the relative length of the bulb to cymbium length (Lebert, 1877: pl. 6, fig. 41), the overall size, and the number of teeth on the chelicerae. *Tegenaria pagana* occurs south of the Alps, *Teg. ferruginea* on either side.

No type material available.

*Other material examined*
Albania (1 ♀); Austria (1 ♂, 6 ♀); Belgium (1 ♂); Bulgaria (4 ♀); Croatia (1 ♀); France (14 ♂, 18 ♀); Germany (26 ♂, 33 ♀); Greece (5 ♀); Italy (2 ♂, 4 ♀); Poland (1 ♂); Slovenia (1 ♂, 2 ♀); Switzerland (5 ♂, 5 ♀). South America: Venezuela (1 ♂).

*Diagnosis: Tegenaria ferruginea* females can be separated from *Teg. parietina* by the lateral margins of the median region of the epigyne following distinctly the run of the posterior sclerite (especially anteriorly, Fig. 21J, white arrows, in *Teg. parietina* this margin runs towards the middle of the epigyne, Fig. 21P, white arrow), the differently shaped posterior sclerite, and the stronger convoluted vulva (especially the first spiral). Moreover, the two symmetrical ducts are less separated from each other (under two duct diameters, more than three in *Teg. parietina*). Other characters were presented in detail by Oxford & Merrett (2000). Males of *Teg. ferruginea* have a relatively short cymbium (much longer, in relation to the bulb, in *Teg. parietina*), a distinctly longer and curved distal portion of the conductor (short and almost straight in *Teg. parietina*), and a differently shaped ventral portion of the terminal end of the conductor.

*Description*
A short redescription, including information about the species‘ variation, was provided by Oxford & Merrett (2000).

*Measurements:* Male ($N = 1$): CL 6.40, CW 5.00, STL 3.00, STW 2.85, OL 7.35, OW 5.03. Leg I (7.85, 2.60, 6.95, 8.00, 3.60), II (7.35, 2.55, 6.05, 7.10, 3.25), III (6.50, 2.25, 5.25, 6.50, 2.55), IV (7.90, 2.45, 6.70, 8.55, 3.20). Pedipalp (3.20, 1.00, 1.35, 3.27), bulbL 2.57. Female ($N = 1$): CL 6.12, CW 4.90, STL 3.45, STW 2.88, OL 8.25, OW 5.93. Leg I (7.01, 2.40, 6.08, 7.13, 3.34), II (6.60, 2.40, 5.40, 6.38, 2.78), III (5.94, 2.10, 4.32, 6.00, 2.50,), IV (7.30, 2.35, 6.12, 7.90, 3.03). Pedipalp (2.69, 1.04, 1.54, 2.96). EPL 1.00, EPW 1.52, ATL 0.37, ATW 0.74. Eyes: PME 0.22–0.26, PLE 0.25–0.30, AME 0.26–0.28, ALE 0.26–0.30. Eye distances: PME–PME 1–1.5 × PME, PME–AME 1–1.5 × PME, PME–PLE 1–1.5 × PME, PME–ALE 1.5 × PME, AME–AME < 0.5 × AME, AME–ALE << 0.5 × AME. CLY1 1.5–2 × AME, CLY2 1.5–2 × ALE.

*Male palp:* RTA with three branches, ventral branch broad lobe-like, distally moderately protruding with distinct ridge, lateral branch broad and flat protruding, distally broadly truncated, dorsal branch strongly sclerotized, protruding, as long as wide, distally obtusely and oblique pointed, anteriorly with a stepped, small point. Filiform embolus longer than 2.5 × CB, originating at 7–8 o'clock position, distal tip at 4 o'clock position, conspicuously formed (Fig. 2C). Conductor with distal portion distinctly elongated and curved, lateral margin completely folded. Terminal end bifid, ventral part short, simple and truncated with a very small point, dorsal part plate-like, shorter than ventral part. Connection of conductor to tegulum moderately sclerotized. MA originating at 6 o'clock position, strongly protruding, distally with hook-like sclerite. MA membranously connected to tegulum. Basal part of tegulum visible and undulated.

*Epigyne and vulva:* Epigyne medially with a small pale, membranous area. Posterior sclerite developed as an extensive sclerotized bar with anterior margin concave (semicircular) and medially moderately protruding. CO between and laterally of the membranous median area and the posterior sclerite. Epigynal ‘pseudo teeth’ absent. Vulva consists of CBD, no distinct RC recognizable. Only very first part (CD) of CBD moderately sclerotized, largest part strongly sclerotized and convoluted, forming connected smaller anterior and larger posterior spiral regions. Ducts are separated by less than their duct diameters. FD only represented by small, leaf-shaped appendages distally of the CBD.

*Other important characters:* Cheliceral promargin and retromargin with four teeth. Colulus developed as trapezoidal plate with the distal margin almost straight or medially moderately notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment shorter than basal segment. Tarsal trichobothria on cymbium and palp tarsus present. Tarsal trichobothria seven to eight. Small teeth on paired claws of leg I 11–12. Leg spination: male palp (2–0–0–0, 2–0–0, 1–2–0–0 or 2–2–0–0), female palp (2–0–0–0 or 3–0–0, 2–0–0, 2–2–0–0), leg femora (2–3–1–0 or 2–3–2–0 or 2–4–2–0, 2–2–2–0 or 2–3–2–0, 2–2–2–0, 1–2–2–0 or 2–2–1–0), patellae (all 2–0–0), tibiae [0–0–0–2p+1 or 0–1–0–2p+1 or 0–2–0–3p or 2–0–0–3p (dorsal spines very small), 0–2–0–2+1p or

0–2–0–3p or 2–2–0–2+1p (dorsal spines very small), 2–2–2–3p, 2–2–2–1+2p or 2–2–2–1p+1+1p+1 or 2–2–2–1p+1+2p], metatarsi (0–0–0–3p+1, 0–1–0–3p+1, 0–2–3–3p+1 or 0–3–3–3p+1, 0–3–3–1+1p+1+3p or 0–3–3–1p+1+3p or 0–3–3–5p or 0–4–3–1+3p+1), tarsi (I & II 0, III & IV 0–0–1–0).

*Coloration:* Margin of carapace with three broad, crescent-shaped darkened spots, dorsally with two symmetrical longitudinal dark bands, serrated and not continuous. Chelicerae sometimes medially with darkened spot. Sternum with distinct pale median band, posteriorly very narrow or fused with lateral spots (sometimes with small dark spot in the middle of the posterior half of the pale median band), and three symmetrical pairs of pale spots laterally. Opisthosoma dark brownish, laterally moderately yellowish mottled, dorsally with a distinct, reddish median band. Anteriolaterally of red median band there are short, black bands, more laterally yellowish. More posteriodorsally with one or two symmetrical white spots and four to five indistinct chevrons more posteriad. Legs annulated, borders of bands darker than medially. Colulus partly darkened, ALS ventrally indistinctly darkened, dorsally black, PLS with basal segment black, distal segment pale.

### *Distribution*

Reported from most European countries. Probably absent from northernmost Europe. The specimen from Venezuela would be the first record outside of the Palaearctic region. If the label is correct, *Teg. ferruginea* has been introduced into South America.

### *Discussion*

The identity of this species has been misinterpreted by some authors. Our examination of Brignoli's material showed that he misidentified female *Teg. tridentina* as *Teg. ferruginea* (see Brignoli, 1971a: 92, fig. 40). One female in his collection, which is *Teg. ferruginea*, is labelled 'prope *rhaetica*' (IT: Alto Adige, Bolzano, Collalbo, Renon, 15/20.viii.1966, leg. Hartig) and is also mentioned and illustrated under this name (Brignoli, 1971a: 102, figs 53, 55, 56). Platnick (2012) listed 'prope *rhaetica*' as a synonym of *Teg. agrestis*.

## *TEGENARIA HASPERI* CHYZER, 1897
(FIG. 15M, N)

*Tegenaria hasperi* Chyzer & Kulczyński, 1897: 167, 168, tab. 7, fig. 1, female.

*Tegenaria nemorosa* Simon, 1916: 210, 211, figs 82–87, syn. nov.

*Malthonica nemorosa*: Guseinov *et al*., 2005: 164.

### *Types*

Syntype. Croatia: Crkvenica (= Crikvenica ?), ♀ (HNHM, Araneae-4), vii., Chyzer.

Sub *Tegenaria nemorosa*: syntypes. France: Alpes-Maritimes: Cagnes, 2 ♀ (MNHN, 1968), Berland.

### *Other material examined*

Bulgaria (10 ♀); Croatia (1 ♂, 2 ♀); France (1 ♀); Italy (7 ♂, 28 ♀). Asia: Turkey (4 ♂, 4 ♀).

### *Description*

Good drawings of a male are provided by Brignoli (1971a), SEM photographs by Seyyar *et al*. (2008), drawings of females by Deltshev (1993), photographs of both sexes by Kovács & Szinetár (2012). Some additional information is provided here.

*Measurements:* Female ($N = 2$): CL 2.97–4.85, CW 2.24–3.55. Eye distances: PME–PME 0.5–1 × PME, PME–AME 1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 1 × PME, AME–AME < 0.5 × AME, AME–ALE < 0.5 × AME. CLY1 2 × AME, CLY2 1 × ALE.

*Epigyne and vulva:* Epigyne sclerotized throughout, distinct rectangular median plate. Posterior sclerite absent. CO at the anterior border of the median plate developed as holes (often filled with a 'plug'). Epigynal 'pseudo teeth' absent. Vulva consists of distinguishable CD, RC, and FD. CD short, leading into globular, irregularly but distinctly formed and smoothly sclerotized RC with well-separated chambers. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three to four, retromargin with four teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as basal segment. Trichobothria at palp tarsus absent. Tarsal trichobothria six to nine. Small teeth on paired claws of leg I eight to ten. Leg spination: female palp (2–0–0–0 or 3–0–0–0, 2–0–0, 2–2–0–0), leg femora (0–2–0–0 or 1–2–2–0 or 1–3–2–0, 1–1–2–0 or 1–2–1–0 or 1–2–2–0 or 1–3–2–0 or 2–2–2–0, 1–1–1–0 or 1–2–2–0, 1–1–1–0), patellae (all 2–0–0), tibiae (0 or 0–0–0–1 or 0–0–0–1p, 0–1–0–1 or 0–1–0–1+1p or 0–1–0–2 or 0–1–0–2p, 2–1–1–1p or 2–1–1–2+1p or 2–2–1–1+1p or 2–2–1–1p, 2–2–2–2+1p or 2–2–2–3+1p), metatarsi (0–0–0–3 or 0–0–0–3p+1, 0–1–0–3p+1, 0–2–2–3p+1 or 0–3–3–3p+1, 0–3–3–1+3p+1 or 1–3–3–1+3p+1), tarsi (I & II 0, III & IV 0–0–1–0).

*Coloration:* Margin of carapace with three narrow, crescent-shaped, darkened spots, sometimes connected, dorsally with two symmetrical longitudinal dark bands. Sternum with distinct pale median band and three symmetrical pairs of pale spots laterally. Opisthosoma dark brownish, anteriorly with three yellowish bands, laterally with one to two pairs of white spots, continuing in broad chevrons posteriad. Legs annulated. Colulus partly darkened, ALS indistinctly darkened, PLS with basal segment darkened, distal segment pale.

*Distribution*
Reported from Croatia (Chyzer & Kulczyński, 1897), France (Simon, 1916; Simon, 1937), Italy (Brignoli, 1971a), Bulgaria (Deltshev, 1993), and Turkey (Brignoli, 1978c).

*Discussion*
Almost all examined females had the copulatory openings plugged with a dark, hardened substance. The examination of one female syntype of *Teg. hasperi* from 'Crkvenica' and two syntypes of Simon's *Teg. nemorosa* showed that the latter is a junior synonym of *Teg. hasperi*.

### *TEGENARIA HAUSERI* BRIGNOLI, 1979 (FIG. 17D, E, Q, R)

*Tegenaria hauseri* Brignoli, 1979b: 192–194, figs 24–26.

*Types*
Holotype. Greece: Kythira: Mylopotamos, 'Grotte Aghia Sophia', ♂ (MHNG), 17.iv.1977, Hauser.

Paratypes: Same data as for holotype, 1 juvenile ♀; same locality as holotype, 1 ♀ (MCSN, 542), 17.iv.1977, Hauser.

*Description*
A thorough description, including measurements, was provided by Brignoli (1979b).

*Distribution*
Reported from the type locality in Greece only.

### *TEGENARIA HENROTI* DRESCO, 1956 (FIG. 20N, S–V)

*Tegenaria henroti* Dresco, 1956: 115–118, male; Bolzern *et al*., 2008: 763–768, figs 4–7.

No type material available.

*Other material examined*
Italy (4 ♂, 7 ♀).

*Description*
A redescription and discussion were provided by Bolzern *et al*. (2008).

*Distribution*
Reported from Italy (Sardinia).

### *TEGENARIA LAPICIDINARUM* SPASSKY, 1934

*Tegenaria lapicidinarum* Spassky, 1934: 2–4, pl. 1, figs 3–5.

*Tegenaria spasskyi* Guryanova, 1992: 13, figs 1.1–2, 2.1–2; synonymized by Kovblyuk (2004).

*Types*
Lectotype. Russia: Rostov Oblast, Novocherkassk, ♂, vii.1914, Spasskaja. Lectotype designation by Kovblyuk (2004).

*Description*
A detailed description, including measurements and figures, was provided by Kovblyuk (2004).

*Distribution*
Reported from Eastern Europe.

*Discussion*
Recently, a detailed redescription of this species was provided by Kovblyuk (2004), with drawings of male and female genitalia. Kovblyuk showed that the body measurements, including the size of legs and male palp, vary considerably. As a result of comparing this species with *Teg. mirifica* Thaler, 1987, and *Teg. taurica* Charitonov, 1947, he stated that the spination pattern of legs is insufficient to distinguish *Tegenaria* species.

### *TEGENARIA LEVANTINA* BARRIENTOS, 1981 (FIG. 23I, J)

*Tegenaria levantina* Barrientos, 1981: 13–16, figs 1–3, female; Ribera & Barrientos, 1986: 193–195, figs 8, 9, male.

No type material examined.

*Other material examined*
Spain (1 ♀).

*Description*
Detailed descriptions, including measurements, were provided by Barrientos (1981) and Ribera & Barrientos (1986).

*Distribution*
Reported from Spain (Catalonia: Tarragona, Castellon).

### *TEGENARIA MERCANTURENSIS* BOLZERN & HERVÉ, 2010

*Tegenaria mercanturensis* Bolzern & Hervé, 2010: 21–26, figs 1–11.

*Material examined and description*
See Bolzern & Hervé (2010).

*Distribution*
Reported from France (Mercantour National Park).

## TEGENARIA MIRIFICA THALER, 1987 (FIG. 23E–H)

*Tegenaria mirifica* Thaler, 1987: 391–394, figs 1–8.

*Types*
Holotype. Austria: Tyrol: Piburg, ♂ (NHMW), 15.ix.1989, Pfister.

Paratype. Austria: Tyrol: Pfunds, Stubental, ♀ (NHMW), 2.v.1987, Thaler.

*Other material examined*
Austria (1 ♂, 1 ♀); Italy (5 ♂, 4 ♀); Switzerland (1 ♂, 7 ♀).

*Description*
A detailed description, including measurements, was provided by Thaler (1987).

*Distribution*
Reported from the central and south-eastern Alps.

## ***TEGENARIA MONTANA*** DELTSHEV, 1993 **STAT. REV.**

*Tegenaria montana* Deltshev, 1993: 168–171, figs 9–13.

*Malthonica montana*: Guseinov *et al*., 2005: 164.

*Types*
Paratypes. Bulgaria: Pirin Mountains, Vasilachliezera, 1 ♂, 1 ♀ (NHMW), 25.vii.1985, Deltshev.

*Diagnosis*
Several details and measurements were provided by Deltshev (1993). All examined characters mentioned for *Teg. campestris* were identical to this species except for slight differences in the genital morphology.

*Distribution*
Reported from Bulgaria (Pirin Mountains) (Deltshev, 1993).

*Discussion*
*Tegenaria montana* belongs, together with *Teg. bozhkovi*, *Teg. campestris*, and *Teg. rilaensis*, to a 'super species' described by Deltshev (2008b). Based on the material available for examination, we cannot judge the relationships within this species complex.

## ***TEGENARIA MONTISZASENSIS*** **SP. NOV.**
## (FIGS 14I, 16A, B)

Male unknown.

*Types*
Holotype. Greece: Cyclades, Naxos, 'au-dessus de Filoti, au pied du mont Zeus, grotte *spilia Aria* ou *Zeus*', ♀ (MHNG), 14.v.1985, Hauser.

*Etymology*
Named after 'Mount Zas', where the type was collected. According to Greek mythology, the young Zeus was raised in a cave on 'Mount Zas' on Naxos.

*Diagnosis*
*Tegenaria montiszasensis* sp. nov. can be recognized by the distinctly 'half-mask'-shaped epigyne and the shape of the vulva.

*Description*
*Measurements:* Female (holotype): CL 3.70, CW 2.88, STL 1.86, STW 1.78, OL 5.50, OW 3.40. Leg I (6.10, 1.49, 6.02, 6.36, 3.00), II (5.40, 1.43, 5.00, 5.98, 2.40), III (5.10, 1.38, 4.51, 5.76, 2.13), IV (6.10, 1.39, 5.75, 7.44, 2.74). Pedipalp (2.12, 0.78, 1.42, 1.90). EPL 0.56, EPW 0.91, ATL 0.22, ATW 0.55. Eyes (moderately reduced): PME 0.10, PLE 0.11, AME 0.06, ALE 0.10. Eye distances: PME–PME 1.5–2 × PME, PME–AME 1.5 × PME, PME–PLE 2 × PME, PME–ALE 1.5–2 × PME, AME–AME 1.5 × AME, AME–ALE 2 × AME. CLY1 4.5 × AME, CLY2 2.5–3 × ALE.

*Epigyne and vulva:* Epigyne distinctly 'half-mask'-shaped. Median plate strongly sclerotized and only laterally separated from epigynal plate. Posterior sclerite absent. CO distinct, almond-shaped holes. Vulva consists of distinguishable CD, RC, and FD. CD less sclerotized than RC, straight. RC distinctly formed, smoothly sclerotized. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three teeth, retromargin with five equally sized teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment longer than basal segment. Tarsal trichobothria at palp tarsus and cymbium absent. Tarsal trichobothria eight to ten. Leg spination: female palp (2–0–0–0, 2–0–0, 1–2–0–0 or 2–0–0–0), leg femora (2–3–2–0, 2–3–2–0, 2–2–2–0, 2–2–1–0), patellae (all 2–0–0), tibiae (2–2–1–1+1p, 2–1–1–1+1p or 2–2–1–2p, 2–2–2–1+2p or 2–2–2–3p, 2–2–2–1+2p), metatarsi (0–0–0–3p+1 or 0–1–0–3p+1, 0–1–0–3p+1, 0–3–3–3p+1, 1–3–3–1p+1+1p+1+1p+1 or 1–3–3–1p+1+2p+1), tarsi (all 0).

*Coloration:* No colour pattern visible on carapace (may be a result of alcohol preservation). Sternum with indistinct pale median region. Opisthosoma yellowish. Colulus and spinnerets pale.

*Distribution*
Reported from Greece (Naxos).

### *TEGENARIA ORIBATA* SIMON, 1916

*Tegenaria oribata* Simon, 1916: 211; Simon, 1937: 993, 994, 1037, figs 1524, 1525.

*Pseudotegenaria oribata*: Lehtinen, 1967: 261, figs 228, 232; transfer rejected by Brignoli (1978a: 269).

*Types*
Probable syntypes. France: Pyrénées-Orientales: Forêst du Canigou, 8 ♀ (MNHN, 1965), Simon; Forêst du Canigou, 1 ♂, 1 ♀ (MNHN, 1965, 6386), Simon; Prades, Villefranche-de-Conflent, Grotte de Villefranche, 5 ♀ (MNHN, 1965, 581), Simon.

*Other material examined*
France (3 ♂, 3 ♀).

*Discussion*
Owing to the poor condition of the examined specimens, some of the diagnostically relevant characters could not be observed. We follow Brignoli (1978a) and treat the species under *Tegenaria*.

### ***TEGENARIA PAGANA*** C. L. KOCH, 1840, **STAT. REV.** (FIG. 23K–W)

*Tegenaria pagana* C. L. Koch, 1841: 31, 32, pl. 262, figs 612, 613.

*Tegenaria subtilis* Simon, 1870: 275–277; Simon, 1873: 170, pl. 1, figs 9, 10, male; Thorell, 1875a: 77.

*Tegenaria testacea* Simon, 1870: 278–280, male; female belongs to *Teg. domestica* (see Machado, 1941).

*Tegenaria proxima* Pickard-Cambridge, 1873: 217, 218, male.

*Tegenaria variata* Thorell, 1875c: 74, 75, female.

*Tegenaria urbana* Simon, 1875: 67–69.

*Tegenaria bidentata* Keyserling, 1878: 597–599, pl. 14, fig. 19, male.

*Tegenaria modesta* Keyserling, 1878: 594–597, pl. 14, fig. 18, female (male, fig. 17, is a synonym of *Teg. domestica*), syn. nov.

*Tegenaria obscura* Banks, 1898: 230, pl. 14, fig. 26; synonymized by Roth (1956: 176).

*Tegenaria pagana cavernicola* Simon, 1907: 547, 548.

*Tegenaria pagana proxima*: Strand, 1909: 585, 586.

*Tegenaria antrias* Crosby, 1936: 2, pl. 1, fig. 3, female; Roth, 1952: 284, 285, synonymized by Roth (1956: 176).

*Tegenaria simplex* Bryant, 1936: 90, 91, pl. 3, fig. 9, female.

*Tegenaria pagana urbana*: Simon, 1937: 1010, 1041, syn. nov.

*Tegenaria castro* Chamberlin & Ivie, 1942: 21, 22, pl. 3, figs 27–29.

*Philoicides pallidus* de Mello-Leitão, 1944: 335, fig. 21, female; Roth, 1967: 314, pl. 51, fig. 3; synonymized by Ramirez, Grismado & Blick (2004).

*Tegenaria cerrutii* Roewer, 1960: 91–93, fig. 2a–f, female; Brignoli, 1971a: 119, 120, figs 78, 79, syn. nov.

*Tegenaria marinae* Brignoli, 1971a: 120, 121, figs 80, 81, female; Brignoli, 1977a: 50, figs 29, 30, syn. nov.

*Tegenaria baronii* Brignoli, 1977a: 47–50, figs 25, 26, female, syn. nov.

*Malthonica pagana*: Guseinov *et al*., 2005: 164.

*Types*
Syntypes. Greece: 'aus der Gegend von Nauplia', 1 ♂, 1 ♀ (NHML, BM1917.1.4.98), unknown.

Sub *Tegenaria pagana urbana*: Probable syntypes. France: Gallia, 9 ♂, 16 ♀ (MNHN, 1982).

Sub *Tegenaria castro*: Paratypes. USA: California: Los Angeles, 1 ♂, 1 ♀ (AMNH), 3.v.1936, Grant; Friant, 1 ♀ (AMNH), 1.iii.1913.

Sub *Tegenaria cerrutii*: Holotype. Italy: Sicily: Palermo, Mt. Pelegrino, Grotta Addaure (Adura?), ♀ (SMF, 13374), Cerruti.

Sub *Tegenaria marinae*: Holotype. Italy: Lazio: Latina, Grotta Valmarino, ♀ (MCSN, 543), 31.iii.1970, Sbordoni.

Sub *Tegenaria baronii*: Holotype. Italy: Marche: Fabriano, Grotta Frasassi, ♀ (MCSN, 102), ix.1964, Baroni.

*Other material examined*
Croatia (2 ♀); France (2 ♂, 9 ♀); Greece (1 ♂, 7 ♀); Italy (9 ♂, 49 ♀); Malta (3 ♀); Portugal (1 ♂, 10 ♀); Spain (5 ♂, 19 ♀); Switzerland (1 ♀). Africa: Algeria (4 ♂, 17 ♀); Cape Verde (1 ♂, 1 ♀); Egypt (3 ♂, 16 ♀); Libya (1 ♀); Morocco (2 ♂, 3 ♀); Tunisia (2 ♂, 2 ♀). Asia: Syria (1 ♂, 4 ♀). South America: Chile (6 ♂, 6 ♀). North America: USA (1 ♂, 1 ♀).

*Description*
Several descriptions under different names, some including measurements, were provided by Roth (1952), Brignoli (1971a, 1977a), and Levy (1996). Additional information is provided here.

*Measurements:* Female ($N = 1$): CL 3.41, CW 2.66, STL 1.76, STW 1.59. Leg I (3.97, 1.38, 3.63, 3.72, 2.17), II (3.48, 1.29, 2.85, 3.29, 1.62), III (3.17, 1.10, 2.38, 3.12, 1.42), IV (4.09, 1.29, 3.64, 4.44, 1.68).

Pedipalp (1.48, 0.62, 0.88, 1.36). EPL 0.22, EPW 0.54, ATL 0.14, ATW 0.39. Eyes: PME 0.17, PLE 0.18, AME 0.14, ALE 0.19. Eye distances: PME–PME 0.5–1 × PME, PME–AME 1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 0.5–1 × PME, AME–AME < 0.5 × AME, AME–ALE < 0.5 × AME. CLY1 1.5–2 × AME, CLY2 0.5–1 × ALE.

*Male palp:* RTA with two branches, lateral branch leaf-shaped and distinctly stepped, distally protruding, dorsal branch strongly sclerotized and distally pointed, broad. Filiform embolus shorter than 2 × CB, originating at 8 o'clock position, distal tip at 3 o'clock position. Conductor almost orthogonal to cymbium with distal portion elongated and bent posteriad, lateral margin completely folded. Terminal end bifid, ventral part massive, pointed, dorsal part indistinctly pointed. Connection of conductor to tegulum moderately sclerotized. MA originating at 4–5 o'clock position, strongly protruding, distally with finger-shaped, distally spoon-like, sclerite. MA membranously connected to tegulum. Basal part of tegulum visible with strongly sclerotized band-like structure.

*Epigyne and vulva:* Epigynal plate strongly sclerotized and oval or kidney-like shaped, protruding. Posterior sclerite absent. Laterally with crescent-shaped pockets. CO are situated in these pockets, inside each of which an additional orthogonal pocket originates. Epigynal teeth absent (indistinct denticles present in the holotypes of *Teg. marinae* and *Teg. baronii*). Vulva consists of CBD, no distinct RC recognizable. First half (CD) of CBD convoluted around second half, both parts strongly sclerotized. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with four, retromargin with four to seven teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as basal segment. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria six to nine. Small teeth on paired claws of leg I nine to 11. Leg spination: male palp (2–0–0–0 or 3–0–0–0, 2–0–0, 1–2–0–0), female palp (3–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–2–2–0 or 2–3–1–0 or 2–3–2–0 or 2–4–3–0 or 2–5–3–0 or 2–5–4–0, 2–2–1–0 or 2–2–2–0 or 2–3–2–0 or 2–3–3–0 or 2–4–2–0, 1–1–1–0 or 1–1–2–0 or 2–1–1–0 or 2–2–2–0 or 2–3–2–0, 1–1–1–0 or 2–1–1–0), patellae (all 2–0–0), tibiae [0–2–0–2p or 0–2–0–2p+1 or 0–2–1–2p or 0–2–1–3p or 0–2–2–3p or 0–2–1–2p+1 (indistinct dorsal spines possible), 0–2–0–1p or 0–2–1–1+1p+1 or 0–2–2–1+1p+1 or 0–2–2–1+2p or 0–2–2–1p+1 or 0–2–2–3p (indistinct dorsal spines possible), 2–2–1–1 or 2–2–2–1+1p or 2–2–2–2+1p or 2–2–2–3 or 2–2–2–3p, 2–2–2–2 or 2–2–2–2+1p or 2–2–2–1+2p], metatarsi (0–0–0–3p+1, 0–1–0–3p+1 or 0–1–1–3p+1 or 0–2–1–3p+1, 0–3–2–3p+1 or 0–3–3–3p+1, 0–3–3–3p+1), tarsi (all 0).

*Coloration:* Carapace margin narrow, continuous, indistinctly darkened; dorsally with two indistinct symmetrical longitudinal bands, head region darkened. Sternum with distinct pale median band and three symmetrical pairs of pale dots laterally, the last pair strongly fused with the median band. Opisthosoma brown-yellowish, anteriorly with pale median band, continuing in broad chevrons posteriad, laterally with dark band or moderately mottled. Legs moderately annulated (in the type specimens of *Teg. baronii* and *Teg. marinae* not visible, may be a result of alcohol preservation). ALS indistinctly darkened or pale, PLS with basal segment darkened, distal segment pale.

### *Distribution*

Reported from southern and Central Europe, Mediterranean region, and introduced into North and South America.

### *Discussion*

As in other *Tegenaria* species, *Teg. pagana* shows great variation in somatic and genital characters (e.g. Fig. 23P–W), which is reflected in the long list of synonyms. This phenomenon was well illustrated by Levy (1996: 97, 98, figs 45–48). He mentioned that the *Tegenaria pagana*-complex of Brignoli (1971a, 1977a) may represent this variation. The small posterior denticles on the epigyne of *Teg. marinae* are also found in some specimens of otherwise characteristic *Teg. pagana* and may reflect this variation. Here, we follow Levy and regard *Teg. cerrutii* Brignoli, 1971, *Teg. marinae* Brignoli, 1971, and *Teg. baronii* Brignoli, 1977, as junior synonyms of *Teg. pagana* C. L. Koch, 1940.

## *TEGENARIA PARIETINA* (FOURCROY, 1785)
## (FIGS 1E, F, 21N–R)

*Aranea parietina* Fourcroy, 1785: 533.

*Aranea phalangiodes* Fourcroy, 1785: 535.

*Tegenaria domestica*: Walckenaer, 1805: 49, pl. 6, figs 53, 54 (misidentified); Audouin, 1826: 312, pl. 1, fig. 2 (female, misidentification); Blackwall, 1861: 163–165, pl. 11, fig. 105 (misidentification).

*Tegenaria murina* Walckenaer, 1805: 50; Walckenaer, 1842: 6, male.

*Tegenaria saxatilis* C. L. Koch, 1834: 125, pl. 20, male.

*Trichopus libratus* 'C. M.', 1834: 10; synonymized by Murphy & Merrett (2000: 7).

*Tegenaria guyonii* Guérin-Méneville, 1829–1844: pl. 2, fig. 1; Walckenaer, 1842: 5, male; Lucas, 1846: 241, 242.

*Tegenaria intricata* C. L. Koch, 1841: 29, 30, figs 610, 611.

*Tegenaria parietina*: Simon, 1875: 59–61, pl. 5, fig. 4.

No type material available.

*Other material examined*
Albania (1 ♂); Belgium (8 ♂); Bulgaria (3 ♂); Croatia (3 ♂, 4 ♀); France (3 ♂, 3 ♀); Germany (3 ♂); United Kingdom (1 ♂); Greece (11 ♂, 22 ♀); Italy (22 ♂, 55 ♀); Malta (1 ♀); Portugal (1 ♀); Spain (8 ♂, 10 ♀); Switzerland (2 ♂, 2 ♀). Africa: Algeria (1 ♀, 2 ♀); Egypt (1 ♂, 2); South Africa (1 ♂); Tunisia (1 ♂). Asia: Israel (4 ♂, 2 ♀); Lebanon (5 ♀); Syria (1 ♂); Turkey (3 ♂, 2 ♀). Central America: West Indies (1 ♂). South America: Paraguay (1 ♂).

*Diagnosis*
See the Diagnosis section for *Teg. ferruginea*. See also Oxford & Merrett (2000).

*Description*
Information about the high levels of variation was provided by Oxford & Merrett (2000). Good drawings of male and female were also provided by Locket & Millidge (1953), Roberts (1985), and Levy (1996). Some additional information is provided here.

*Measurements:* Female ($N = 1$): CL 5.32, CW 3.92, STL 2.44, STW 2.29, OL 5.92, OW 4.01. Leg I (7.30, 2.11, 6.90, 7.58, 3.06), II (6.59, 1.93, 6.07, 6.75, 2.76), III (5.62, 1.59, 4.61, 5.70, 2.17), IV (7.09, 1.99, 6.28, 8.45, 2.61). Pedipalp (2.28, 0.89, 1.39, 2.22). EPL 0.56, EPW 1.29, ATL 0.30, ATW 0.73. Eyes: PME 0.20, PLE 0.22, AME 0.18, ALE 0.23. Eye distances: PME–PME 1 × PME, PME–AME 1 × PME, PME–PLE 1 × PME, PME–ALE 1 × PME, AME–AME 0.5–1 × AME, AME–ALE < 0.5 × AME. CLY1 2.5–3 × AME, CLY2 1.5 × ALE.

*Male palp:* RTA with three branches, ventral branch broad, lobe-like, distally moderately protruding, distinct ridge, lateral branch broad and flat, protruding, distally obliquely truncated, dorsal branch strongly sclerotized, protruding, as long as wide, distally obtusely and obliquely pointed, anteriorly with a stepped, small point. Filiform embolus length about 2.5 × CB, originating at 8 o'clock position, distal tip at 3 o'clock position. Conductor with distal portion strongly elongated and moderately curved, lateral margin completely folded. Terminal end bifid, ventral part short, simple rounded plate, dorsal part plate-like, shorter than ventral part. Connection of conductor to tegulum moderately sclerotized. MA originating at 6 o'clock position, strongly protruding, distally with hook-like sclerite. MA membranously connected to tegulum. Basal part of tegulum clearly visible, with undulated margin.

*Epigyne and vulva:* Epigyne medially with small, pale, membranous area. Posterior sclerite expressed as extensively sclerotized bar with anterior margin concave (semicircled). CO laterally of the membranous median area between this area and the posterior sclerite. Epigynal 'pseudo teeth' absent. Vulva consists of CBD, no distinct RC recognizable. Only very first part (CD) of CBD moderately sclerotized, the rest strongly sclerotized and convoluted, with a smaller anterior (not really a spiral) and a larger posterior spiral region. Ducts are separated by more than three duct diameters. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin and retromargin both with four teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as basal segment. Tarsal trichobothria on cymbium and palp tarsus present. Tarsal trichobothria eight to ten. Small teeth on paired claws of leg I 13–14. Leg spination: leg femora (1–3–2–0 or 1–3–3–0, 1–3–2–0, 1–3–2–0, 1–1–2–0), patellae (all 2–0–0), tibiae (0, 0–1–0–1 or 0–2–0–1, 2–2–1–2, 2–1–1–2 or 2–2–2–2), tarsi (I–IV 0, sometimes IV 0–0–1–0).

*Coloration:* Margin of carapace with three crescent-shaped, darkened spots, dorsally with two symmetrical longitudinal dark bands, strongly serrated, sometimes not continuous. Sternum with distinct pale median band, posteriorly very narrow or fused (sometimes with small dark spot in the middle of the posterior half of the pale median band), and three symmetrical pairs of pale dots laterally. Opisthosoma dark brownish, laterally moderately yellowish mottled, dorsally with a reddish median band, in some specimens strongly expressed, in others absent. Anteriolaterally of red median band, short black bands and more laterally yellowish. More posteriodorsally there are one or two symmetrical white spots and four to five indistinct chevrons more posteriad. Legs annulated, very differently expressed. Colulus partly darkened, ALS moderately darkened, PLS with basal segment darkened, distal segment pale.

*Distribution*
Reported from the Mediterranean region and Central and northern European countries. Also reported from Central and South America (probably introduced).

*Discussion*
Individuals of *Teg. parietina* are the largest spiders of the genus. It can often be found at the entrances of caves but never deep inside, and in buildings. Specimens of this species show high levels of variation in size and in the intensity of the colour pattern, ranging from almost grey and lacking annulations to distinctive patterns with annulations.

### *TEGENARIA PARMENIDIS* BRIGNOLI, 1971
(FIGS 18N–Q, 22C–K)

*Tegenaria parmenidis* Brignoli, 1971a: 115–117, figs 74, 75, female; Brignoli, 1977a: 52, fig. 34.

First description of male.

*Types*
Holotype. Italy: Campania: Salerno, Novi Velia, ♀ (MCSN, 543), 2.x.1967, Brignoli.

*Other material examined*
Italy (17 ♂, 39 ♀).

*Diagnosis*
*Tegenaria parmenidis* belongs to a species group together with *Teg. circeoensis* sp. nov., *Teg. capolongoi*, and *Teg. sbordonii*. The most useful characters for separating these species are the shape of the RTA, the bifid terminal end of the conductor, the presence/absence of pockets at the median plate of the epigyne, and the location of the copulatory openings.

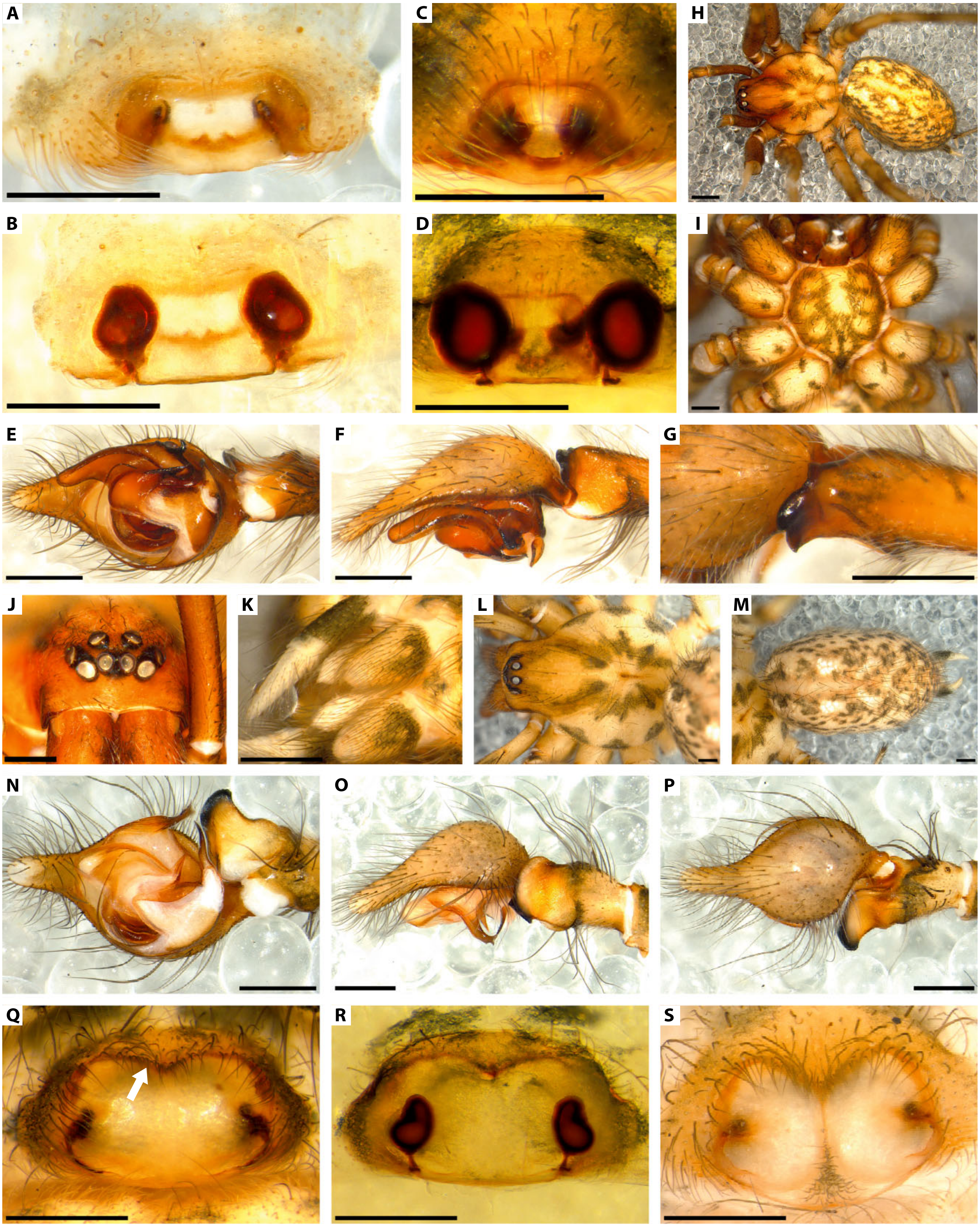
*Description*
*Measurements:* Male ($N = 1$): CL 3.75, CW 3.05, STL 1.84, STW 1.81, OL 4.39, OW 2.91. Leg I (5.54, 1.40, 5.04, 5.98, 2.67), II (5.05, 1.33, 4.21, 5.33, 2.34), III (4.56, 1.31, 3.76, 5.10, 2.38), IV (5.44, 1.25, 4.98, 6.60, 2.46), Pedipalp (2.29, 0.74, 1.15, 1.60), bulbL 1.34. Female ($N = 1$): CL 3.16, CW 2.53, STL 1.59, STW 1.54, OL 5.13, OW 3.60. Leg I (4.10, 1.26, 3.83, 3.94, 2.27), II (3.80, 1.17, 3.24, 3.62, 1.93), III (3.47, 1.12, 2.72, 3.53, 1.64), IV (4.31, 1.28, 3.85, 4.73, 1.87). Pedipalp (1.59, 0.62, 0.95, 1.37). EPL 0.56, EPW 1.11, ATL 0.26, ATW 0.44. Eyes: PME 0.17–0.19, PLE 0.18–0.20, AME 0.13–0.20, ALE 0.18–0.21. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 0.5–1 × PME, AME–AME < 0.5 × AME, AME–ALE < 0.5 × AME. CLY1 1.5–2 × AME, CLY2 1 × ALE.

*Male palp:* RTA with three branches, ventral branch indistinct but with distinct ventral ridge, distally moderately pointed, lateral and dorsal branch basally fused, distally lobe- or bulge-like. Filiform embolus length equal to CB, originating at 8 o'clock position, terminal part strongly bent, distal tip at 2 o'clock position. Conductor very distinct and complex with distal portion elongated and moderately curved, lateral margin completely folded, with bulge-like structure at origin of conductor. Terminal end strongly bifid, ventral part (functional) distally simple and sharply pointed, dorsal part ventrally with massive claw-like appendage, dorsally broadly flattened. Connection of conductor to tegulum membranous. MA originating at 6 o'clock position, strongly protruding, distally with hook-like sclerite. MA membranously connected to tegulum. Basal part of tegulum clearly visible, with undulated margin.

*Epigyne and vulva:* Epigyne with distinct, trapezoidal atrial region, clearly separated from the epigynal plate by a sclerotized ridge. Medially of this atrium there is a distinct pocket, opening anteriad. Posterior sclerite absent. CO expressed as distinct holes, directly anterior of the pocket, opening anteriad. Epigynal 'pseudo teeth' absent. Vulva consists of distinguishable CD, RC, and FD. CD short and straight, leading into globular, smoothly sclerotized RC, RC separated by about their diameter. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with four teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as basal segment. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria seven to eight. Small teeth on paired claws of leg I 11–12. Leg spination: male palp (2–0–0–0 or 3–0–0–0, 2–0–0, 1–2–0–0 or 2–2–0–0), female palp (2–0–0–0 or 3–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–3–2–0, 2–3–3–0 or 3–2–1–0, 2–2–2–0, 1–1–1–0), patellae (all 2–0–0), tibiae [0 or 0–0–0–1p or 2–0–0–0 or 2–0–0–1p (dorsal spines indistinct), 0, 2–1–1–1, 2–1–1–1], metatarsi (0–0–0–3p+1, 0–1–0–3p+1, 0–2–2–3p+1, 0–2–2–1p+1+2p+1 or 0–2–3–1p+1+2p+1 or 0–3–2–1p+1+2p+1), tarsi (I & II 0, III & IV 0–0–1–0).

**Figure 22.** A, B, *Tegenaria capolongoi*; C–K, *Tegenaria parmenidis*; L–S, ***Tegenaria circeoensis* sp. nov.** Left male palp in ventral (E, N), retrolateral (F, O), and dorsal views (G, P); epigyne in ventral (A, C, Q, S) and vulva in dorsal view (B, D, R); intraspecific epigynal morphological variation (S); face of male in frontal view (J); spinnerets in ventral view (K); habitus (H) of male in dorsal and sternum in ventral view (I); carapace and abdomen of male in dorsal view (L, M). Scale bars = 0.5 mm (except 1 mm for H).


A
C
H
B
D
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S

*Coloration:* Margin of carapace with three broad, crescent-shaped, darkened spots, dorsally with two symmetrical longitudinal dark bands, serrated and continuous. Chelicerae medially with darkened spot. Sternum anteriorly with distinct pale median band, reaching only the middle, four symmetrical pairs of pale dots laterally and posteriorly, moderately fused. Opisthosoma brownish-yellowish mottled, dorsally with a distinct, yellowish median band (most anteriorly darkened) with two pairs of white spots laterally, four indistinct chevrons more posteriad. Legs annulated. Colulus partly darkened, ALS ventrally and dorsally darkened, PLS with basal segment black, distal segment pale.

*Distribution*

Reported from Italy. Previously known only from the type locality in Campania, here also reported from Calabria and Sicily.

*Discussion*

*Tegenaria parmenidis* together with *Teg. capolongoi*, *Teg. circeoensis* sp. nov., and *Teg. sbordonii* form a morphologically well-defined species group, restricted to southern Italy.

### ***TEGENARIA PARVULA*** THORELL, 1875, **STAT. REV.** (FIG. 20J–M)

*Tegenaria parvula* Thorell, 1875b: 94, female; Thorell, 1875a: 78, female; Brignoli, 1971a: 97–101, figs 46–50.

*Tegenaria velox* Chyzer & Kulczyński, 1897: 168, 169, pl. 6, fig. 28, female, **s**yn. nov.

*Tetrilus strandi* Caporiacco, 1936: 355, 356, fig. 5, male; Caporiacco, 1938: 39, fig. 2, female; Lehtinen, 1967: 267; synonymized by Brignoli, 1977a: 45.

*Malthonica parvula*: Guseinov *et al*., 2005: 164.

*Types*

No type material examined. The female holotype was examined and drawn by Brignoli (1971a).

Sub *Tegenaria velox*: Holotype. Romania: Caras-Severin, Herkulesfürdö (Polyana Stana Pogara, Rablobarlang), ♀ (HNHM, Araneae-5), iv., Chyzer.

*Other material examined*

Italy (7 ♂, 13 ♀).

*Diagnosis*

*Tegenaria parvula* is very closely related to *Teg. silvestris*. Females can easily be separated by the distinctly different epigyne. Males are more difficult to separate but the most useful characters are the dorsal branch of the RTA, the median protrusion of the tegulum, and the distal portion of the conductor.

*Description*

*Measurements:* Male ($N = 2$): CL 3.31–3.90, CW 2.54–3.07, STL 1.57–1.89, STW 1.58–1.92. Leg I (3.51–4.47, 1.29–1.45, 3.35–4.18, 3.53–4.57, 2.15–2.40), II (3.17–4.00, 1.17–1.38, 2.79–3.54, 3.13–3.53, 1.80–1.84), III (2.50–2.90, 0.86–1.05, 2.21–2.26, 2.21–2.84, 1.12–1.47), IV (3.78–4.55, 1.21–1.38, 3.21–3.91, 3.98–4.97, 1.82–2.21). Pedipalp (1.72, 0.55–0.63, 0.49–0.51, 2.20–2.25), bulbL 1.90–1.96. Female ($N = 1$): CL 3.46, CW 2.70, STL 1.74, STW 1.75. Leg I (3.76, 1.24, 3.32, 3.66, 2.04), II (3.22, 1.18, 2.72, 2.96, 1.63), III (3.14, 1.19, 2.37, 3.07, 1.55), IV (3.99, 1.27, 3.36, 4.28, 1.84). Pedipalp (1.49, 0.63, 0.91, 1.48). EPL 0.51, EPW 0.85, ATL 0.24, ATW 0.26. *Eyes:* PME 0.18, PLE 0.19–0.20, AME 0.14–0.19, ALE 0.19–0.21. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE ≤ 0.5 × PME, PME–ALE 1 × PME, AME–AME < 0.5 × AME, AME–ALE << 0.5 × AME. CLY1 1.5 × AME, CLY2 0.5–1 × ALE.

*Other morphological characters:* All other morphological characters (except some details of the genital morphology) examined lie within the variation presented for *Teg. silvestris*.

*Distribution*

Reported from central to northern Italy and Romania.

*Discussion*

Brignoli (1971a) suggested that most citations of *Teg. silvestris* L. Koch from Italy may refer to *Teg. parvula*. The present study does not support this as both forms occur in Italy.

The synonymy of *Teg. velox* Chyzer with *Teg. parvula* is based on our examination of the female holotype of the former. No additional material, in particular no males, are presently known of this taxon from Romania. No differences could be found between the holotype of *Teg. velox* and Italian material of *Teg. parvula* and the two are therefore synonymized here. Males from Romania will be necessary to confirm this synonymy.

### *TEGENARIA PERCURIOSA* BRIGNOLI, 1972 (FIG. 17W)

*Tegenaria percuriosa* Brignoli, 1972: 176, 177, figs 18, 21, female; Brignoli, 1978b: 44, fig. 11 (grouping information).

*Tegenaria boitanii* Brignoli, 1978c: 518, 519 (only male; see Gasparo, 2007: figs 100, 101).

*Tegenaria bithyniae* Brignoli, 1978c: 515, fig. 97, female, syn. nov.

*Types*

Holotypes and paratypes. Turkey: Isparta: Anamas, 'Grotta Zindan Magarasi', 3 ♀ (MCSN, 543), 11.viii.1967, Brignoli & Sbordoni.

Sub *Teg. boitanii*: Holotype. Turkey: Bolu: Abant, ♂ (female paratype is *Teg. argaeica*, MHNG), 17.vii.1971, Brignoli & Vigna.

Sub *Teg. bithyniae*: Holotypes and paratypes. Turkey: Bolu: Abant, 4 ♀ (holotype: MHNG; paratypes: MCSN, 100, 544), 24.vi.1971, 17.vii.1971, Brignoli & Osella.

*Other material examined*
Turkey (2 ♂, 20 ♀).

*Description*
A redescription with all relevant information was provided by Gasparo (2007).

*Distribution*
Reported from Turkey (Bolu, Isparta, Konya, Sinop, and Tokat) and Bulgaria without detailed data (Deltshev, 1993; see also Gasparo, 2007).

*Discussion*
The taxonomy of *Teg. percuriosa, Teg. bithyniae*, and *Teg. boitanii* is confused. Based on recently collected specimens from the type locality of *Teg. percuriosa*, Gasparo (2007) assigned the male holotype of *Teg. boitanii* to *Teg. percuriosa*.

Our examination of the type material of *Teg. percuriosa* and *Teg. bithyniae* showed that the latter species is a junior synonym of *Teg. percuriosa*. The drawings of *Teg. bithyniae* by Brignoli (1978c: 517, fig. 97) and Deltshev (1993: 169, fig. 1) show the transparent epigyne in an anteroventral view. If viewed from dorsal or ventral, the same structure of the identical specimens looks like pictures presented by Brignoli (1972: 172, fig. 18) and Gasparo (2007: 101, figs 7, 8).

### *TEGENARIA PIEPERI* BRIGNOLI, 1979 (FIG. 17S, T)

*Tegenaria pieperi* Brignoli, 1979b: 194, fig. 27, female.

*Type*
Holotype. Greece: Crete: Sitia, Megalo Katahgi, Ag. Georgios, ♀ (MCSN, 542), 21.v.1977, Pieper.

*Other material examined*
Greece (4 ♀).

*Description*
A description, including measurements, was provided by Brignoli (1979b). Additional drawings also provided by Brignoli (1984: 308, fig. 29).

*Distribution*
Reported from Crete, Greece.

### ***TEGENARIA PINDOSIENSIS* SP. NOV.**
(FIGS 19L, M, 20W–Z)

Male unknown.

*Type*
Holotype. Greece: Epirus, Pindos-Mountains, street between Karpenisi and Agrinio, ♀ (SMF), 28.ii.2006, Schönhofer.

*Etymology*
The species epithet is derived from the name of the mountain range in northern Greece and southern Albania where the only known specimen of this species was collected.

*Diagnosis*
*Tegenaria pindosiensis* sp. nov. is most similar to *Tegenaria regispyrrhi* but differs in the epigyne having a uniformly shaped median plate without transversal rim (strongly sclerotized transversal rim present in *Teg. regispyrrhi*), the distally pointed projections of lateral margin of median region ('pseudo teeth'), and the run of the first part of the CD being strongly convoluted.

*Description*
*Measurements:* Female (holotype): CL 1.86, CW 1.36, STL 0.99, STW 0.95, OL 3.33, OW 2.19. Leg I (1.69, 0.67, 1.45, 1.49, 1.03), II (1.53, 0.67, 1.18, 1.35, 0.84), III (1.47, 0.55, 1.07, 1.30, 0.74), IV (2.38, 0.87, 2.10, 2.42, 1.02). Pedipalp (0.73, 0.33, 0.46, 0.78). EPL 0.36, EPW 0.48, ATL 0.14, ATW 0.35. Eyes: PME 0.10, PLE 0.11, AME 0.07, ALE 0.13. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5 × PME, PME–ALE 0.5 × PME, AME–AME < 0.5 × AME, AME–ALE << 0.5 × AME. CLY1 2–2.5 × AME, CLY2 0.5–1 × ALE.

*Epigyne and vulva:* Epigyne medially with pale area, strongly sclerotized, only laterally separated from epigynal plate. 'Pseudo teeth' present. Posterior sclerite absent. CO lateral of pale median area. Vulva consists of distinguishable CD, RC, and FD. CD hardly detectable, only slightly sclerotized. RC globular and together with FD enclosed in a sclerotized structure. RC separated by 0.5 × their diameter anteriorly. RC and FD distinctly and conspicuously visible through epigynal plate.

*Other important characters:* Cheliceral promargin with three teeth, retromargin with four equally sized teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment shorter than basal segment. Tarsal trichobothria at palp tarsus and cymbium absent. Tarsal trichobothria five to six. Small teeth on paired claws of leg I nine. Leg spination: female palp (2–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–2–0–0, 2–1–1–0, 2–1–1–0, 1–1–1–0), patellae (all 2–0–0), tibiae (1–0–0–1+1p, 2–1–0–1, 2–2–1–1 or 2–2–2–1, 2–2–2–2p+1 or 2–2–2–3+1p), metatarsi (0–0–0–3p+1, 0–1–0–3p+1, 0–2–2–3p+1, 0–3–3–3p+1), tarsi (all 0).

*Coloration:* Margin of carapace narrowly darkened with three crescent-shaped spots, dorsally with two longitudinal symmetrical dark bands, moderately serrated. Sternum with distinct pale median band and laterally three symmetrical pale dots, most posterior pair moderately fused with median band. Opisthosoma dark brownish with yellowish median band and dots (mottled, may partly be caused by alcohol preservation) forming chevrons posteriorly. Legs annulated. Colulus darkened. ALS darkened, PLS with dark basal and pale distal segment.

#### *Distribution*

Reported from Greece.

#### *Discussion*

The morphology of the male genitalia is so distinct that despite the lack of more material the new species is described from a single male only.

### ***TEGENARIA PODOPRYGORAI*** (KOVBLYUK, 2006) **COMB. NOV.**

*Malthonica podoprygorai* Kovblyuk, 2006: 24–26, figs 1–10.

No material examined.

#### *Description*

A detailed description was provided by Kovblyuk (2006).

#### *Distribution*

Reported from Ukraine.

#### *Discussion*

The presence of a colulus, the number of cheliceral teeth, and the genital characters place this species clearly into *Tegenaria*.

### *TEGENARIA RACOVITZAI* SIMON, 1907
(FIG. 17C, F, G, M, N)

*Tegenaria racovitzai* Simon, 1907: 548, 549, fig. 3b, male; Ribera & Barrientos, 1986: 191–193, figs 6, 7, female.

*Tegenaria antrorum* Simon, 1916: 211, female, syn. nov.

#### *Types*

Holotype. Spain: Aragon: Huesca, Hoya de Huesca, Fanlo, 'Cueva abaho de los Gloces', ♂, 1 juv. (MNHN, 1965, 45, 23627), 20.viii.1905, Racovitza & Janel.

Sub *Tegenaria antrorum*: syntypes. France: Pyrénées-Orientales: Prades, Villefranche-de-Conflent, 'Grotte de Villefranche', 2 ♀ (MNHN, 1965, 581), Simon.

#### *Other material examined*

Spain (3 ♂).

#### *Diagnosis*

*Tegenaria racovitzai* can be recognized by the distinct reduced conductor, the distinct epigyne with sharply pointed 'pseudo teeth', and the posterior sclerite having a convex anterior margin.

#### *Description*

*Measurements:* A description of female, including some measurements, was provided by Ribera & Barrientos (1986).

Male ($N = 1$): CL 4.22, CW 2.98, STL 2.16, STW 1.81, OL 4.70, OW 2.78. Leg I (5.24, 1.66, 5.26, 5.55, 3.01), II (5.05, 1.60, 4.82, 5.56, 2.78), III (4.79, 1.49, 4.40, 5.75, 2.60), IV (6.01, 1.84, 5.38, 7.00, 3.40). Pedipalp (1.84, 0.66, 0.92, 1.77), bulbL 1.01. Female ($N = 1$): CL 3.66, CW 2.65, STL 1.92, STW 1.68. Leg I (4.41, 1.28, 3.90, 4.40, 2.36), II (4.25, 1.35, 3.79, 4.27, 2.24), III (3.86, 1.23, 3.36, 4.31, 1.85), IV (4.83, 1.26, 4.39, 5.76, 1.78). Pedipalp (1.51, 0.60, 0.98, 1.61). EPL 0.72, EPW 1.11, ATL 0.22, ATW 0.39. Eyes: PME 0.14–0.15, PLE 0.15–0.16, AME 0.10–0.11, ALE 0.16–0.17. Eye distances: PME–PME 1–1.5 × PME, PME–AME 1 × PME, PME–PLE 1–1.5 × PME, PME–ALE 0.5–1 × PME, AME–AME 0.5–1 × AME, AME–ALE 0.5–1 × AME. CLY1 2.5 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with three branches, ventral branch long, drawn-out bulge with distinct ventral ridge, lateral branch much smaller, protruding and distally pointed, dorsal branch strongly sclerotized, broadly protruding, moderately longer than wide, distally broadly truncated. Filiform embolus length about 1.5 × CB, originating at 8–9 o'clock position, distal tip at 2 o'clock position. Conductor reduced to transparent lamelliform appendage with lateral margin moderately folded. Terminal end simple and moderately pointed. Connection of conductor to tegulum membranous or moderately sclerotized. MA originating at 4–5 o'clock position, moderately protruding, distally with spoon-like sclerite. MA membranously connected to tegulum. Basal part of tegulum clearly visible, with continuous margin.

*Epigyne and vulva:* Epigyne medially with pale, membranous area. Posterior sclerite expressed as sclerotized bulge with anterior margin convex. CO between the membranous median area and the posterior sclerite. Epigynal 'pseudo teeth' present and sharply pointed. Vulva consists of distinguishable CD, RC, and FD. CD very short leading into globular, smoothly sclerotized RC. RC almost touching each other. An additional small globular structure (second pair of RC) attached to the large RC, which are visible through the epigynal plate. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with four to five teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment shorter than basal segment. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria seven to nine. Leg spination: male palp (2–0–0–0 or 3–0–0, 2–0–0, 1–0–2–0), female palp (2–1–0–0 or 3–0–0–0, 2–0–0, 2–2–0–0), leg femora (2–2–2–0 or 2–3–2–0, 2–2–2–0, 2–2–2–0, 2–1–1–0 or 2–2–1–0), patellae (all 2–0–0), tibiae (1–2–0–2p+1 or 1–2–2–2p+1 or 1–2–0–3p, 1–2–2–1+2p or 1–2–2–3p, 1–2–2–2+1p or 1–2–2–3p, 1–2–2–2+1p or 1–2–2–3p), metatarsi (0–2–2–3p+1, 0–3–2–3p+1, 2–3–3–3p+1, 2–3–3–3p+1), tarsi (I & II 0, III & IV 0–0–1–0).

*Coloration:* No coloration pattern visible on the specimens examined.

*Distribution*
Reported from northern Spain and south-west France (Pyrenees region).

*Discussion*
Simon (1907) assigned *Teg. racovitzai* to his *Tegenaria domestica*-group. Later, he described *Teg. antrorum* (Simon, 1916), which he placed near *Teg. racovitzai* within his *Tegenaria armigera*-group. Fage (1931) agreed with this placement, in contrast to Brignoli (1977c) who mentioned that *Teg. racovitzai* does not show close affinities to any of the *Tegenaria domestica*, *atrica*, or *armigera*/*oribata*-groups. In our analyses, the original hypothesis of Simon had most support because *Teg. racovitzai* represents a basal branch of *Tegenaria* (Figs 3, 7).

### ***TEGENARIA RAMBLAE*** BARRIENTOS, 1978, **STAT. REV.** (FIG. 16S–V)

*Tegenaria ramblae* Barrientos, 1978: 217–220, figs 1–3, female; Barrientos & Ribera, 1992: 122–127, figs 1, 2a, b, male.

*Malthonica ramblae*: Deltshev, 2008b: 43.

No type material examined.

*Other material examined*
France (2 ♀); Portugal (13 ♂, 19 ♀).

*Description*
Detailed descriptions, including measurements, were provided by Barrientos (1978, female) and Barrientos & Ribera (1992, male).

*Distribution*
Reported from Portugal and central to west Spain.

### *TEGENARIA REGISPYRRHI* BRIGNOLI, 1976, *SENSU LATO*

Amongst the material referred to *Teg. regispyrrhi*, four female morphotypes are recognized. Only for one morphotype are males available. These include the holotype of *Teg. regispyrrhi*. Here, the remaining three morphotypes lacking males are characterized but not formally described.

### *TEGENARIA REGISPYRRHI* BRIGNOLI, 1976 (FIG. 24A–D)

*Tegenaria regispyrrhi* Brignoli, 1976b: 569–571, figs 54, 56, 58

*Types*
Holotype. Greece: Trikala: Malakasi, ♂ (MCSN, 544), 28.ix.1966, Brignoli.

Paratypes. Same data as for holotype, 2 ♀; Ioannina: Metsovon, 1 ♀ (MCSN, 100), 22.vii.1971, Osella; '3 km après Karies: en direction de Elati', 1 ♀ (MHNG), 26.iv.1973, Mahnert.

*Other material examined*
Greece: Ioannina: 'Passo Katava', 1 ♂ (MSNB), 4.vi.1991, Giachino; 'E Ioannina, near E92', 1 ♀ (SMF), 2.iv.2006, Schönhofer; Kefallonia: 1 ♀ (SMF, coll. Roewer, 5972); Trikala: 'street E92 btw. Panagia and Metsovo', 1 ♂, 1 ♀ (SMF), 2.iv.2006, Schönhofer.

*Description (Teg. regispyrrhi sensu stricto)*
*Measurements:* Male ($N = 1$): CL 2.84, CW 2.14, STL 1.45, STW 1.37. Leg I (2.87, 1.08, 2.67, 2.74, 1.81), II (2.74, 0.99, 2.27, 2.50, 1.62), III (2.59, 0.93, 1.98, 2.54, 1.38), IV (3.21, 1.03, 2.78, 3.46, 1.74). Pedipalp (1.58, 0.58, 0.56, 1.35), bulbL 0.98. Female ($N = 2$): CL 2.11–

3.20, CW 1.54–2.22, STL 1.17–1.59, STW 1.08–1.45. Leg I (2.07–2.75, 0.83–1.01, 1.80–2.41, 1.75–2.47, 1.24–1.48), II (1.92–2.67, 0.76–1.08, 1.49–2.11, 1.61–2.34, 1.02–1.45), III (1.82–2.44, 0.68–1.01, 1.31–1.89, 1.57–2.35, 0.97–1.26), IV (2.23–3.22, 0.71–1.11, 1.80–2.78, 2.28–3.31, 1.13–1.51). Pedipalp (0.87–1.30, 0.41–0.56, 0.58–0.78, 0.88–1.21). EPL 0.32–0.45, EPW 0.52–0.70, ATL 0.14–0.25, ATW 0.36–0.51. Eyes: PME 0.11–0.14, PLE 0.11–0.17, AME 0.07–0.09, ALE 0.12–0.14. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE $\leq 0.5 \times$ PME, PME–ALE 0.5–1 × PME, AME–AME $\leq 0.5 \times$ AME, AME–ALE $<< 0.5 \times$ AME. CLY1 2.5–3 × AME, CLY2 1 × ALE.

*Male palp:* RTA with three branches, ventral branch indistinct, flat, long, drawn-out bulge with distinct ventral ridge, lateral branch strong and straight, protruding, thorn-like, dorsal branch large, leaf-shaped, and strongly protruding, bent and distally pointed. Filiform embolus length about 1.5 × CB, originating at 8–9 o'clock position, distal tip at 4 o'clock position. Conductor irregularly shaped with distal portion strongly elongated and moderately bent, lateral margin completely folded. Terminal end not bifid, indistinctly pointed. Connection of conductor to tegulum membranous. MA originating at 5–6 o'clock position, strongly protruding, distally with bifid plate-like sclerite, one part hook-like and elongated, the other part broadly pointed. MA membranously connected to tegulum. Basal part of tegulum clearly visible, moderately undulated.

*Epigyne and vulva:* Epigyne with distinct atrium (even though the CO are not situated in this atrium), anteriorly separated from the epigynal plate by a prominent triangularly or trapezoidally shaped ridge. Posterior sclerite absent. CO anterolateral of the prominent ridge distinctly visible as gaps. Epigynal 'pseudo teeth' absent. Vulva consists of distinguishable CD, RC, and FD, all structures are fused together into a strongly sclerotized structure. CD long and straight (difficult to observe), leading into globular RC, RC separated by about their diameter. FD long and convoluted, terminally leading into small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with three, retromargin with three to four teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment shorter than basal segment. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria five to seven. Small teeth on paired claws of leg I nine to ten. Leg spination: male palp [2–0–0–0, 2–0–0, 0–2–0–0 (not clear if these are dorsal or prolateral spines)], female palp (2–0–0–0, 2–0–0, 2–1–1–0 or 2–2–0–0), leg femora (2–2–0–0 or 2–2–1–0, 2–1–2–0 or 2–2–0–0, 2–1–1–0 or 2–2–2–0, 1–1–1–0 or 2–1–1–0 or 2–2–1–0), patellae (all 2–0–0), tibiae (0 or 2–0–0–1+1p or 2–0–0–3p or 2–1–0–3p or 2–2–0–3p, 2–1–0–2+1p or 2–1–0–3p or 2–2–0–1+1p or 2–2–0–2+1p, 2–2–2–2+1p or 2–2–2–3p, 2–2–2–2+1p or 2–2–2–3p), metatarsi (0–0–0–3p+1, 0–1–0–3p+1, 0–3–3–3p+1 or 1–3–3–3p+1, 1–3–3–3p+1), tarsi (I & II 0, III & IV 0–0–1–0).

*Coloration:* Margin of carapace with three narrow, crescent-shaped, darkened spots, sometimes connected, dorsally with two symmetrical longitudinal dark bands, serrated. Sternum with distinct pale median band and three symmetrical pairs of pale spots laterally. Opisthosoma dark brownish, laterally with yellowish spots, dorsally with indistinct yellowish chevrons. Legs annulated. Colulus partly darkened, ALS darkened, PLS with basal segment darkened (pale in other specimens, may be a result of alcohol preservation), distal segment pale.

### *Distribution*

Reported from Greece.

## *TEGENARIA* AFF. *REGISPYRRHI* (1) (FIG. 24E, F)

### *Material examined*

Greece: Kefallonia: Sami, 'd'entrée de la grotte Drogarati', 1 ♀ (*Teg. regispyrrhi*, det. Brignoli, MHNG), 6.iv.1970, Hauser.

### *Comments*

Slightly smaller than specimens of *Teg. regispyrrhi* (CL 1.73, CW 1.29). Coloration pattern not visible on specimen at hand; may be a result of ethanol preservation. Differs from *Teg. regispyrrhi* in slightly different spination patterns (e.g. no spines at tarsi) and the epigyne and vulva.

## *TEGENARIA* AFF. *REGISPYRRHI* (2) (FIG. 24G, H)

### *Material examined*

Greece: Corfu: Ipsos, 'pâturages avec oliviers près de l'hôtel Ipsos Beach', 1 ♀ (*Teg. regispyrrhi*, det. Brignoli, MHNG), 9.iv.1972, Hauser.

### *Comments*

Similar in size (CL 2.83, CW 2.16) to *Teg. regispyrrhi*. Coloration pattern similar. Differs from *Teg. regispyrrhi* in the slightly different spination patterns (e.g. no spines at tarsi) and the epigyne and vulva.

### *TEGENARIA* AFF. *REGISPYRRHI* (3) (FIG. 24I, J)

*Material examined*
Greece: Peloponnesos: Achaia, Peristera, 1 ♀ (coll. van Keer: 1967), 13.iv.2000, van Keer & van Keer; Arkadia, Ano Karyes, Oros Likeo, 2 ♀ (coll. van Keer: 1840), 29.v.1998, van Keer & van Keer.

*Comments*
Differs from *Teg. regispyrrhi* in the slightly different spination patterns and the epigyne and vulva.

*Discussion*
The four morphotypes of *Teg. regispyrrhi s.l.* differ in size, spination patterns, and genital structures (e.g. shape of the prominent rim on the epigynal plate, the length of the FD). The four morphotypes are also geographically separated (Fig. 25), except for one specimen of *Teg. regispyrrhi s.s.* collected by Roewer in Kefallonia.

### *TEGENARIA RHODIENSIS* CAPORIACCO, 1948

*Tegenaria rhodiensis* Caporiacco, 1948: 40, 41, fig. 2, male; Brignoli, 1978c: 513, 514, figs 90–93, redescription with female.

No type material available.

*Other material examined*
Turkey (4 ♂, 3 ♀).

*Description*
Based on the seven examined specimens, Brignoli (1978c) provided a redescription of this species.

*Distribution*
Reported from Greece (Rhodes; Caporiacco, 1948) and Turkey (Isparta, Konya; Brignoli, 1978c).

*Discussion*
The type material is not traceable and Di Caporiacco's (1948) description is not diagnostic. Brignoli's concept [Brignoli, 1978c: sub *Tegenaria* (?) *rhodiensis*] is adopted here.

### ***TEGENARIA RILAENSIS*** DELTSHEV, 1993, **STAT. REV.**

*Tegenaria rilaensis* Deltshev, 1993: 171–173, figs 19–23.

*Malthonica rilaensis*: Guseinov *et al*., 2005: 164.

*Types*
Paratypes. Bulgaria: Rila Mountains, Zavrachitsa, 1 ♂, 1 ♀ (NHMW), 2.viii.1993, Deltshev.

*Other material examined*
Bulgaria (1 ♀).

*Diagnosis*
Several details and measurements were provided by Deltshev (1993). All examined characters mentioned for *Teg. campestris* were identical to this species except for slight differences in genital morphology.

*Distribution*
Reported from Bulgaria (Rila Mountains).

*Discussion*
Deltshev (1993: 170, 171, 2008b) mentioned that *Teg. bozhkovi*, *Teg. montana*, and *Teg. rilaensis* are closely related to *Teg. campestris*. To separate them he used (1) the size of the palp organ, the smallest being that of *Teg. montana*; (2) the shape of the 'tegular apophysis' (conductor); (3) the shape of the epigyne and vulva. His concept is difficult to apply to the material at hand and the identification of the female from the Rila Monastery is, therefore, tentative. In our molecular analyses, the genetic distance between *Teg. campestris* and *Teg. rilaensis* was large and the species were clearly separated. Additional material and analyses are necessary to clarify this problem.

### ***TEGENARIA SBORDONII*** BRIGNOLI, 1971, **STAT. REV.** (FIG. 18R, S)

*Tegenaria sbordonii* Brignoli, 1971a: 112–115, figs 70–73; Brignoli, 1977a: 52, fig. 35.

*Malthonica sbordonii*: Guseinov *et al*., 2005: 164.

*Types*
Holotype. Italy: Lazio: Frosinone, Esperia, Grotta dei Serini, ♂ (MCSN, 543), 13.xii.1970, Sbordoni

Paratype. Same data as for holotype, 1 ♀ (MCSN, 543); same location as holotype, 1 ♀ (MCSN, 543), 17.v.1970, Sbordoni; same locality as holotype, 1 ♀ (MCSN, 543), 17.i.1971, Circolo Speleologico Romano.

*Diagnosis*
*Tegenaria sbordonii* belongs to a species group together with *Teg. circeoensis* sp. nov., *Teg. capolongoi*, and *Teg. parmenidis*. The most useful characters for separating these species are the shape of the RTA, the bifid terminal end of the conductor, the presence/absence of pockets on the median plate of the epigyne, and the location of the copulatory openings.

*Description*
A description, including measurements, was provided by Brignoli (1971a). Some additional information is provided here.

*Other important characters:* Cheliceral promargin with three, retromargin with four teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment as long as basal segment. Trichobothria on cymbium and palp tarsus absent.

*Distribution*
Reported from Italy (Lazio).

*Discussion*
Fieldwork in the region of Esperia conducted by A. Bolzern and R. Mühlethaler in May and June 2007 did not provide any specimens of *Teg. sbordonii*. The 'Grotta dei Serini' was not inspected, and it is possible that the species is restricted to caves.

### *TEGENARIA SCHMALFUSSI* BRIGNOLI, 1976
(FIG. 17U)

*Tegenaria schmalfussi* Brignoli, 1976b: 571, 572, fig. 57, female.

*Type*
Holotype. Greece: Crete: Milatos, 'Grotta di Milatos', ♀ (MCSN, 544), 23.viii.1972, Schmalfuss.

*Other material examined*
Greece (1 ♀).

*Diagnosis*
*Tegenaria schmalfussi* has moderately reduced eyes, distal segment of PMS almost 2 × longer than the basal segment, and very distinctly formed epigyne and vulva (Fig. 17U).

*Description*
A description was provided by Brignoli (1976b).

*Distribution*
Reported from Greece (Crete, Milatos cave).

*Discussion*
During a visit to the type locality in 2007, A. Bolzern found only specimens of *Teg. parietina*. At present this species remains represented only by two female specimens.

### ***TEGENARIA SCHOENHOFERI* SP. NOV.**
(FIGS 14K, L, 15V, W)

Female unknown.

*Type*
Holotype. Greece: Corfu, between Acharavi and Portes, ♂ (SMF), 25.iii.2006, Schönhofer.

Material not included in type series. Three subadult ♀ and 1 subadult ♂, same data as holotype.

*Etymology*
Named in honour of the arachnologist Axel Schönhofer (Germany) who has collected many spiders and provided them for this study; genitive singular case.

*Diagnosis*
*Tegenaria schoenhoferi* sp. nov. can be separated from all other species by the distinctive RTA, the very strongly elongated, hook-like MA, and the distinctive conductor.

*Description*
*Measurements: Male* ($N = 2$): CL 2.79, CW 2.13, STL 1.46, STW 1.37, OL 2.93, OW 1.89. Leg I (3.32, 1.11, 3.19, 3.08, 1.58), II (2.85, 0.99, 2.61, 2.68, 1.45), III (2.74, 0.85, 2.09, 2.55, 1.23), IV (3.33, 0.98, 3.00, 3.54, 1.55). Pedipalp (1.38, 0.53, 0.43, 1.14), bulbL 0.91. Eyes: PME 0.13, PLE 0.14, AME 0.08, ALE 0.14. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 0.5–1 × PME, AME–AME 0.5 × AME, AME–ALE < 0.5 × AME. CLY1 2.5–3 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with two distinct branches, ventral branch forming longitudinal ridge reaching three quarters of tibia length, lateral branch broad and strongly protruding, distally with straight, truncated ventral part and strongly elongated, finger-shaped dorsal protuberance. Filiform embolus length about 2–2.5 × CB, originating at 8–9 o'clock position, distal tip at 4–5 o'clock position. Conductor with distal portion distinctly elongated, longer than wide, distally strongly bent and moderately acuminated, lateral margin completely folded. Terminal end distinctly elongated, strongly sclerotized, and narrowly pointed. Connection of conductor to tegulum only partly sclerotized. MA originating at 5 o'clock position, strongly protruding, distally with narrow, elongated, hook-like sclerite. MA membranously connected to tegulum.

*Other important characters:* Cheliceral promargin with three teeth, retromargin with six equally sized teeth. Colulus developed as trapezoidal plate with the distal margin medially notched. PLS with distal segment as long as basal segment. Tarsal trichobothria at palp tarsus and cymbium absent. Distinctly long trichobothria dorsally on palp tibia. Tarsal trichobothria six to eight. Small teeth on paired claws of leg I seven to eight. Leg spination: male palp (2–0–0–0, 2–0–0, 1–0–2–0), leg femora (2–2–0–0, 2–1–1–0 or 2–2–0–0, 2–2–2–0, 2–1–1–0), patellae (all 2–0–0), tibiae (2–0–0–2p, 0–0–0–2 or 2–1–0–3, 2–2–1–

1p+1+1p or 2–2–1–3p, 2–2–2–1p+1+1p or 2–2–2–3p), metatarsi [0–0–0–1p or 0–0–0–3p+1, 0–1–0–3p+1 (one leg with a chaotic pattern of several spines), 0–3–2–3p+1, 1–3–3–3p+1], tarsi (I & II 0, III & IV 0–0–1–0).

*Coloration:* Margin of carapace with four narrow small, symmetrical dark spots, dorsally with two longitudinal symmetrical serrated dark bands, head region with narrow dark median strip. Chelicerae with extensive dark spots. Sternum with distinct pale median band and with three symmetrical pale dots laterally. Opisthosoma dark brownish with pale median band and seven to eight chevrons posteriad. Legs annulated. Colulus darkened. ALS darkened (ventrally more pronounced), PLS with basal segment darkened (dorsally more pronounced), distal segment pale. The subadult females show the same colour patterns.

### *Distribution*

Reported from Greece (Corfu).

### *Discussion*

*Tegenaria schoenhoferi* sp. nov. displays a very characteristic palp morphology and is, therefore, described despite the paucity of material and the lack of females.

## *TEGENARIA SCOPIFERA* BARRIENTOS, RIBERA & PONS, 2002

*Tegenaria scopifera* Barrientos *et al*., 2002: 86–90, figs 1a, b, 2a, b, 3a, b.

No material examined.

### *Description*

A detailed description, including measurements and good drawings, was provided by Barrientos *et al*. (2002).

### *Distribution*

Reported from the Balearic Islands (Mallorca, Cabrera, Tagomago).

## ***TEGENARIA SILVESTRIS*** L. KOCH, 1872, **STAT. REV.** (FIGS 19A–B, D–E, VARIATION C, F–I, 20A–E, VARIATION F–I)

*Tegenaria silvestris* L. Koch, 1872: 288–292; Chyzer & Kulczyński, 1897: 167, pl. 6, figs 24, 27a, b.

*Tegenaria sylvestris*: Müller & Schenkel, 1895: 753, pl. 13, fig. 3.

*Malthonica silvestris*: Guseinov *et al*., 2005: 164.

### *Types*

Probable syntypes. Italy: Trentino-Alto Adige: Schlern, 2 ♂, 1 ♀ (ex. coll. L.Koch, NHMW); Germany: 'Fränkischer Jura', 2 ♀ (ex. coll. L.Koch, NHMW).

### *Other material examined*

Austria (4 ♂, 9 ♀); Bulgaria (1 ♀); France (15 ♂, 33 ♀); Germany (14 ♂, 20 ♀); Italy (37 ♂, 43 ♀); Poland (1 ♀); Romania (1 ♀); Slovenia (1 ♂, 3 ♀); Serbia (1 ♂); Switzerland (8 ♂, 27 ♀).

*Tegenaria* cf. *silvestris* (all sub *Teg. silvestris*, det. Gruber and Thaler) (see discussion). Austria (3 ♂, 8 ♀); Italy (1 ♂, 1 ♀).

### *Description*

*Measurements:* Male ($N = 1$): CL 3.79, CW 3.08, STL 2.01, STW 1.91, OL 4.56, OW 2.84. Leg I (4.71, 1.57, 4.59, 4.87, 2.69), II (4.40, 1.50, 3.91, 4.29, 2.34), III (4.06, 1.37, 3.16, 4.11, 2.11), IV (5.02, 1.48, 4.42, 5.39, 2.17). Pedipalp (2.16, 0.68, 0.60, 2.32), bulbL 1.79. Female ($N = 1$): CL 3.66, CW 2.75, STL 1.91, STW 1.79. Leg I (4.15, 1.42, 3.98, 4.17, 2.41), II (3.83, 1.37, 3.30, 3.73, 2.12), III (3.51, 1.25, 2.77, 3.70, 1.78), IV (4.51, 1.40, 3.96, 4.70, 1.99). Pedipalp (1.55, 0.68, 0.86, 1.80). EPL 0.56, EPW 0.92, ATL 0.40, ATW 0.42. Eyes: PME 0.17–0.19, PLE 0.18, AME 0.15–0.17, ALE 0.18–0.20. Eye distances: PME–PME 0.5–1 × PME, PME–AME 0.5–1 × PME, PME–PLE 0.5 × PME, PME–ALE 0.5–1 × PME, AME–AME $< 0.5 \times$ AME, AME–ALE $\ll 0.5 \times$ AME. CLY1 1.5–2 × AME, CLY2 1 × ALE.

*Male palp:* RTA with three branches, ventral branch extensive, lobe-like with distinct ridge, distally moderately protruding, lateral and dorsal branch strongly sclerotized and with robust apophyses, basally fused together, dorsal branch larger than lateral one, distally moderately pointed. Filiform embolus length about 3.5–4 × CB, originating at 7–8 o'clock position, distal tip at 4 o'clock position. Conductor strongly sclerotized, distal portion strongly elongated and arcuated, lateral margin completely folded. Terminal end bifid, ventral part short, rounded plate-like (or hook-like as in *Teg.* cf. *silvestris*), dorsal part small, bulge-like. Connection of conductor to tegulum distinctly stepped, forming a protruding, bulge-like tegular apophysis. MA originating at 5–6 o'clock position, strongly protruding, distally with claw-like sclerite. MA membranously connected to tegulum. Basal part of tegulum clearly visible, with discontinuous margin.

*Epigyne and vulva:* Epigyne with distinct median plate, anteriomedially continuously connected to strongly sclerotized epigynal plate. Posterior sclerite absent. CO anteriorly of median plate, distinct gaps. Epigynal 'pseudo teeth' absent. Vulva consists of CBD, no distinct RC recognizable. First part (CD) of CBD less sclerotized and moderately convoluted, proximal part strongly convoluted (great variation in length and convolution, e.g. *Teg.* cf. *silvestris*). FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with four, retromargin with four to five teeth. Colulus developed as trapezoidal plate with the distal margin medially slightly notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment shorter than basal segment. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria seven to eight. Small teeth on paired claws of leg I 11. Leg spination: male palp (2–0–0–0, 2–0–0, 1–2–0–0 or 2–2–0–0), female palp (2–0–0–0, 2–0–0, 2–1p+1–0 or 2–2–0–0), leg femora (2–2–1–0 or 2–2–2–0, 2–2–1–0 or 2–2–2–0, 2–2–2–0, 1–1–1–0), patellae (all 2–0–0), tibiae [0–0–0–1+1p or 0–0–0–3p (2 small dorsal spines possible), 2–1–0–1+2p or 2–1–0–2 or 2–1–0–3 or 2–2–0–2 or 2–2–0–3, 2–2–2–1p+1+1p or 2–2–2–2+1p or 2–2–2–3p, 2–2–2–1p+1+1p or 2–2–2–2+1p or 2–2–2–3p], metatarsi (0–0–0–3p+1, 0–1–0–3p+1, 0–3–3–3p+1, 0–3–3–1+3p+1 or 0–3–3–1p+1+2p+1), tarsi (I & II 0, III & IV 0–0–1–0).

*Coloration:* Margin of carapace narrowly darkened (three indistinct, crescent-shaped spots), dorsally with two symmetrical longitudinal dark bands, moderately reduced to triangular dots. Sternum with distinct pattern of narrow pale median band and three pairs of symmetrical pale dots laterally. Opisthosoma dark brownish, anteriorly with three pale bands, continuing in narrow chevrons posteriad. Legs annulated. ALS basally darkened, basal segment of PLS darkened, distal segment pale.

*Distribution*

Reported from nearly all of Europe (Blick *et al*., 2004; van Helsdingen, 2011).

*Discussion*

In the collection of the NHMW several specimens collected in the vicinity of Vienna and one in Italy differ slightly in genital morphology (*Teg.* cf. *silvestris*). The most conspicuous differences are the length and convolution of the CBD and the hook-shaped dorsal part of the terminal conductor end (Figs 19B, C, F–I, 20F–I). More material and analyses are required to decide whether these specimens represent aberrant specimens of *Teg. silvestris* or a separate species.

### *TEGENARIA TAURICA* CHARITONOV, 1947

*Tegenaria taurica* Charitonov, 1947: 47, figs 4, 5; Esyunin & Farzalieva, 2001: 261–263, figs 1–5, redescription.

No material examined.

*Description*

A detailed description, including measurements and spination patterns, was provided by Esyunin & Farzalieva (2001). Information concerning the relationship of this species with *Teg. lapicidinarum* was provided by Kovblyuk (2004).

*Distribution*

Reported from the Ukraine (Autonomous Republic of Crimea; Esyunin & Farzalieva, 2001).

### *TEGENARIA TRIDENTINA* L. KOCH, 1872
(FIG. 23A–D)

*Tegenaria cubicularis* C. L. Koch, 1834: 125, pl. 12; nomen oblitum (Simon, 1897, 1898, 1901, 1903: 251).

*Tegenaria tridentina* L. Koch, 1872: 292–295, male; L. Koch, 1876: 301, 302, female.

*Tegenaria bremii* Pavesi, 1875: 269, 270, male.

*Tegenaria austriaca* Kulczyński, 1898: 100, pl. 2, fig. 78, female; synonymized by Kulczyński (1914) and recognized by Thaler (1963).

*Types*

Syntypes. Italy: Trentino-Alto Adige: 'Trient', 1 ♂, 1 ♀ (NHMW, ex. coll. L. Koch).

*Other material examined*

Austria (2 ♂, 1 ♀); France (2 ♀); Italy (2 ♂, 21 ♀); Slovenia (1 ♂, 1 ♀); Switzerland (3 ♂, 16 ♀).

*Description*

*Measurements:* Male (*N* = 1): CL 3.48, CW 2.49, STL 1.64, STW 1.65. Leg I (4.85, 1.45, 5.02, 5.27, 2.40), II (4.54, 1.41, 4.36, 4.82, 2.15), III (3.95, 1.20, 3.53, 4.32, 1.89), IV (4.90, -, -, -, -). Pedipalp (1.72, 0.59, 0.75, 1.46), bulbL 1.04. Female (*N* = 1): CL 3.78, CW 2.94, STL 2.00, STW 1.86. Leg I (4.72, 1.61, 4.59, 4.80, 2.34), II (4.51, 1.55, 4.02, 4.35, 2.08), III (4.10, 1.29, 3.34, 3.83, 1.49), IV (5.05, 1.50, 4.51, 5.50, 1.99). Pedipalp (1.71, 0.68, 1.15, 1.61). EPL 0.53, EPW 0.85, ATL 0.27, ATW 0.39. Eyes: PME 0.15–0.17, PLE 0.14–0.19, AME 0.11–0.12, ALE 0.15–0.20. Eye distances: PME–PME 1 × PME, PME–AME 1 × PME, PME–PLE 0.5–1 × PME, PME–ALE 1 × PME, AME–AME 0.5–1 × AME, AME–ALE ≤ 0.5 × AME. CLY1 2.5 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with three branches, ventral branch leaf-like shaped, distally and ventrally with distinctly

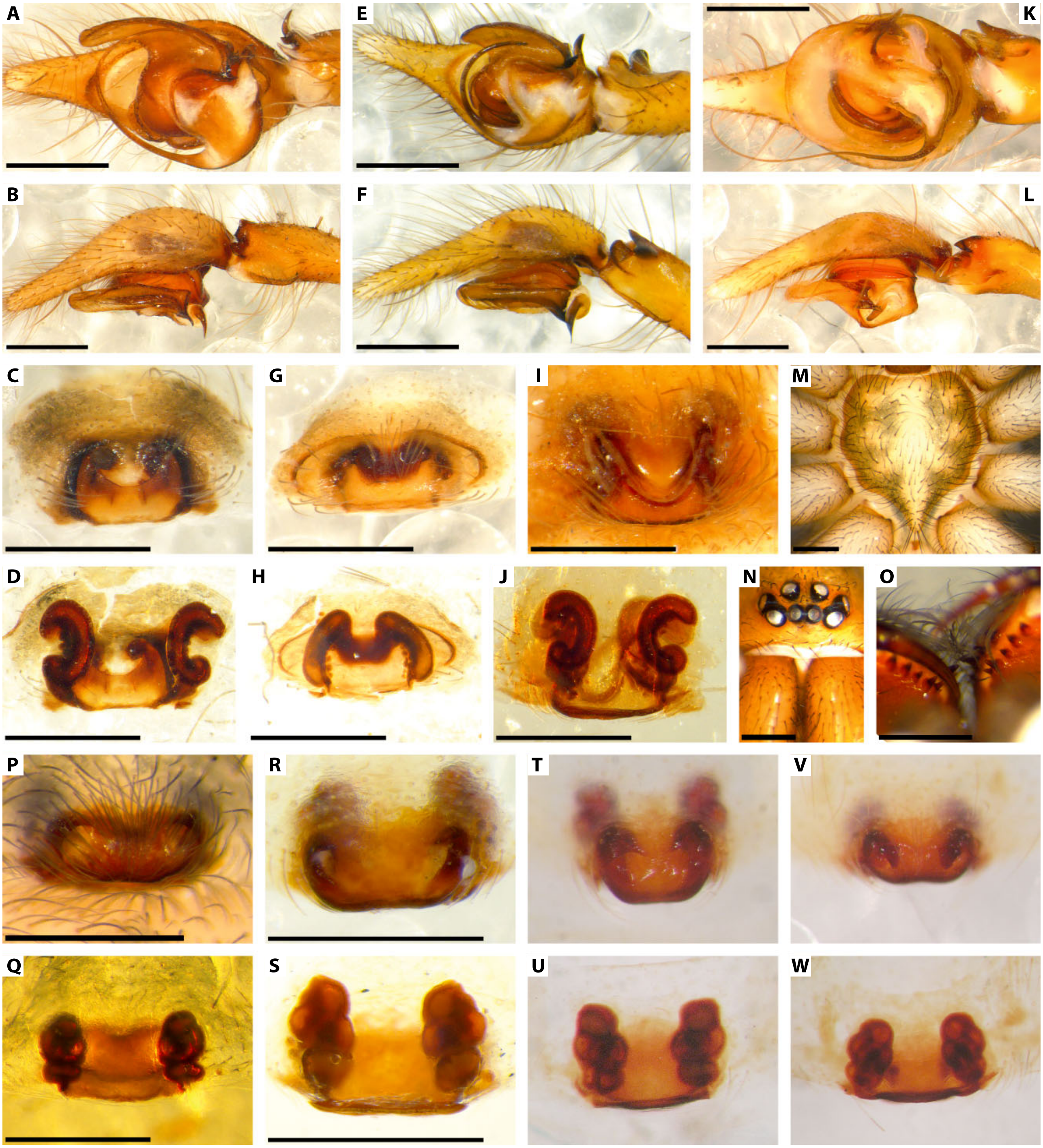

**Figure 23.** A–D, *Tegenaria tridentina*; E–H, *Tegenaria mirifica*; I, J, *Tegenaria levantina*; K–W, *Tegenaria pagana*, including the type specimens of *Tegenaria cerrutii* (R, S), *Tegenaria marinae* (T, U), and *Tegenaria baronii* (V, W). Left male palp in ventral (A, E, K) and retrolateral views (B, F, L); epigyne in ventral (C, G, I, P, R, T, V) and vulva in dorsal view (D, H, J, Q, S, U, W); chelicerae in ventral view (O); face of female in frontal (N) and sternum in ventral view (M). Scale bars = 0.5 mm (T–W without scale).

protruding ridge, distally moderately bent retrolaterad, lateral branch strongly sclerotized, as long as wide, distally broadly pointed or rounded, dorsal branch broad and strongly sclerotized, distally with strongly posteriad bent point. Filiform embolus length about 1.5–1.75 × CB, originating at 8 o'clock position, distinctive formed distal tip at 4 o'clock position. Conductor with distal portion distinctly elongated, lateral margin completely folded. Terminal end bifid, ventral part simple, pointed, dorsal part obtuse (retrolateral view) and with a bent point (ventral view). Connection of conductor to tegulum moderately sclerotized. MA originating at 5–6 o'clock position, strongly protruding, distally with hook- or claw-like sclerite. MA membranously connected to tegulum. Basal part of tegulum clearly visible with undulated margin.

*Epigyne and vulva:* Epigyne medially with small, pale, membranous area. Posterior sclerite expressed as extensively sclerotized bar or plate with anterior margin concave (semicircled). CO between the membranous median area and the posterior sclerite. Epigynal 'pseudo teeth' absent. Vulva consists of CBD, no distinct RC recognizable. First half (CD) of CBD only moderately sclerotized and convoluted, second half strongly sclerotized and moderately convoluted. Ducts are well separated. FD only represented by small, leaf-shaped appendages.

*Other important characters:* Cheliceral promargin with four, retromargin with five teeth. Colulus developed as trapezoidal plate with the distal margin medially moderately notched. Same pattern of distal spigots on PMS (in females) as described for the type species. PLS with distal segment shorter than basal segment. Tarsal trichobothria on cymbium and palp tarsus absent. Tarsal trichobothria seven to eight. Small teeth on paired claws of leg I 13. Leg spination: male palp (2–0–0–0 or 3–0–0–0, 2–0–0, 1–2–0–0), female palp (2–0–0–0, 2–0–0, 2–2–0–0), leg femora (1–2–2–0 or 1–3–2–0, 1–2–2–0 or 1–3–2–0, 1–2–2–0 or 1–3–2–0, 1–1–1–0.), patellae (all 2–0–0), tibiae (0 or 0–0–0–1 or 0–0–0–2, 0–1–0–3, 2–2–1–1+1p or 2–2–1–1p, 2–2–2–2+1p), metatarsi (0–0–0–3p+1, 0–1–0–3p+1, 0–3–2–3p+1 or 0–3–3–3p+1, 0–3–3–1+3p+1), tarsi (I & II 0, III & IV 0–0–1–0).

*Coloration:* Margin of carapace narrow continuously darkened, dorsally with two indistinct symmetrical longitudinal dark bands, reduced to triangular dots. Sternum with distinct pale median band and three symmetrical pairs of pale dots laterally or median band only reaching two thirds of STL, posteriorly with indistinctly separated fourth pair of dots. Opisthosoma brownish, with indistinct yellowish median band, anteriolaterally with symmetrical pale dots, posteriorly with chevrons. Legs annulated, more pronounced ventrally. Colulus basally darkened, ALS and basal segment of PLS darkened, distal segment also with dark pigments, but brighter.

### *Distribution*

Reported from the Alps (Austria, France, Germany, Italy, Slovenia, and Switzerland).

### *Discussion*

As mentioned in the Discussion for *Teg. ferruginea* Brignoli (1971a) confused the females of *Teg. tridentina* with *Teg. ferruginea*. All females in the collection of the Natural History Museum Verona (including the Brignoli collection) identified as *Teg. ferruginea* are in fact *Teg. tridentina*. We think that all records of females published by Brignoli under *Teg. ferruginea* refer to *Teg. tridentina*. Brignoli's drawing (Brignoli, 1971a: 92, fig. 40) shows the vulva of *Teg. tridentina* (see Wiehle, 1964) and not *Teg. ferruginea*. As mentioned by Thaler (1987: 394), Brignoli's drawings referring to *Teg. campestris* (Brignoli, 1971a: 102, figs 52, 54) most likely concern *Teg. tridentina*. As the corresponding specimen could not be traced in the MCSN, this cannot be confirmed. For all three specimens originally labelled as *Teg. campestris*, no further information about either locality or date is provided. In Brignoli's collection, only one specimen could be found, which was determined as *Teg. campestris* and redetermined by Thaler (the year 1984 is indicated on the determination label) as *Teg. tridentina*. Males were correctly determined by Brignoli.

## ***TEGENARIA TYRRHENICA*** DALMAS, 1922, **STAT. REV.** (FIG. 21E–I)

*Tegenaria tyrrhenica* Dalmas, 1922: 94, without any figures; Brignoli, 1971a: 68, figs 5–7; Dresco & Célérier, 1976: 223–228, figs 1–9.

*Malthonica tyrrhenica*: Guseinov *et al*., 2005: 164.

No type material available.

### *Other material examined*

Italy (7 ♂, 16 ♀).

### *Description*

A detailed redescription was provided by Dresco & Célérier (1976). In the same work, the authors presented interesting data about the variation in numbers of cheliceral teeth.

### *Distribution*

Reported from Italy (Liguria and Toscana).

### *Discussion*

Dalmas (1922) placed this species into Simon's '*Tegenaria picta*-group'. Owing to the lack of a good

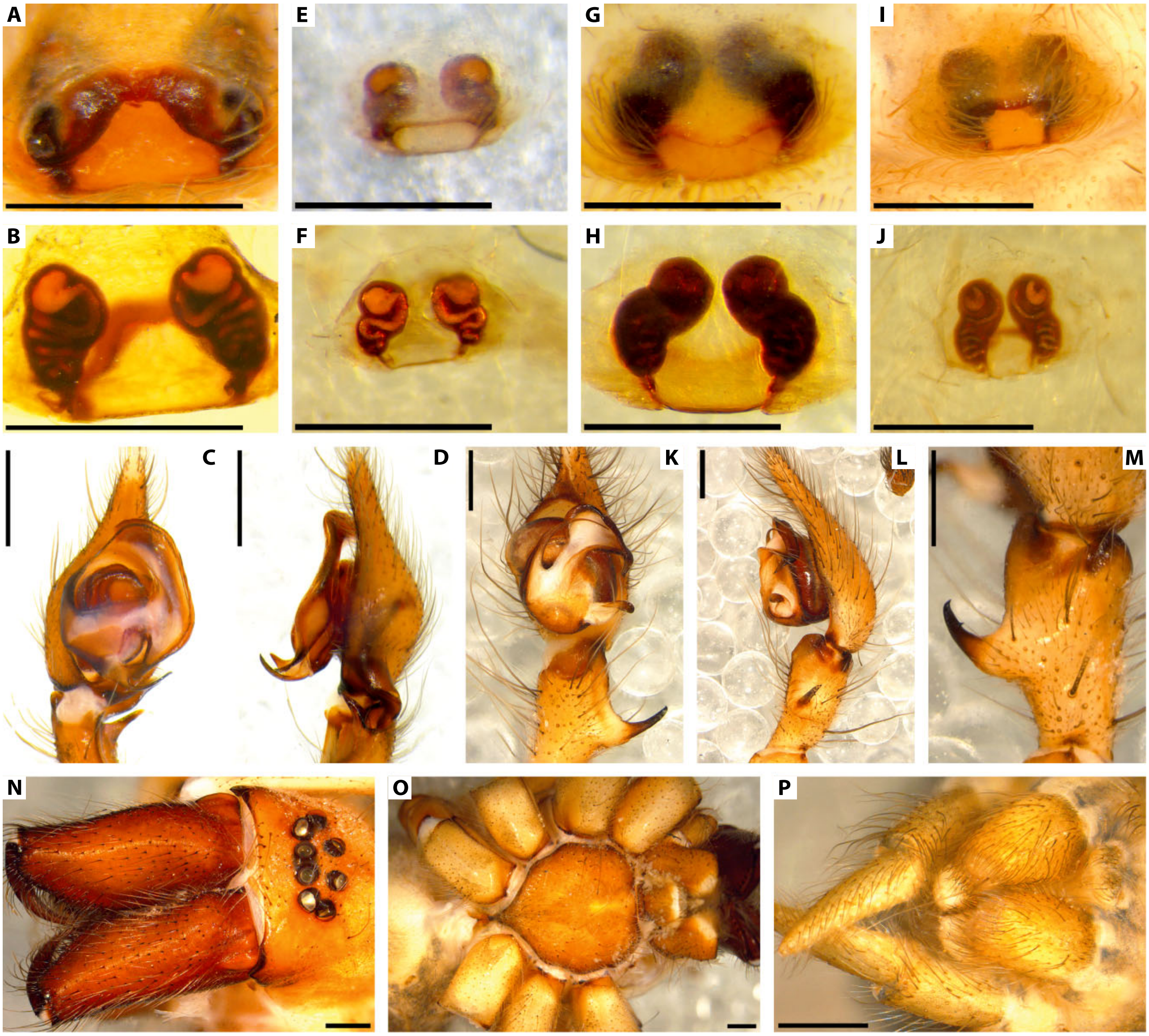

**Figure 24.** A–D, *Tegenaria regispyrrhi*; E, F, *Tegenaria* aff. *regispyrrhi* 1; G, H, *Tegenaria* aff. *regispyrrhi* 2; I, J, *Tegenaria* aff. *regispyrrhi* 3; K–P, ***Tegenaria vankeerorum* sp. nov.** Left male palp in ventral (C, K) and retrolateral views (D, L); retrolateral tibial apophysis of left male palp in dorsal view (M); female epigyne in ventral (A, E, G, I) and vulva in dorsal view (B, F, H, J); face in frontal view (N); sternum (O) and spinnerets (P) in ventral view. Scale bars = 0.5 mm.

description with drawings, some years later, this species was synonymized by Simon (1937) with *Aterigena ligurica* (sub *Tegenaria*). Later, Brignoli (1971a: 68, figs 5–7) doubted this synonymy and provided drawings of his interpretation of *Teg. tyrrhenica*. Dresco & Célérier (1976) agreed with Brignoli. They provided a very detailed redescription and suggested a close affinity to *Teg. henroti* and *Teg. decolorata* (at least in the male palp). The type specimen examined by Dresco & Célérier (1976: 224, 1 ♂) could not be traced in the spider collection at the MNHN.

### *TEGENARIA VANKEERORUM* SP. NOV.
(FIGS 19J, K, 24K–P)

Female unknown.

*Type*

Holotype. Greece: Rhodos: Aghia Nikolaos Fountoukli, 'crevices in caves', ♂ (ex. coll. van Keer: 2617, NMB-ARAN 20683), 9.v.2006, van Keer & van Keer.

*Etymology*

Named in honour of the Belgian arachnologists Johan and Koen van Keer who left many specimens, including the holotype, for examination; genitive singular case.

*Diagnosis*

The RTA of *Teg. vankeerorum* sp. nov. is morphologically similar to *Teg. lenkoranica* Guseinov, Marusik & Koponen, 2005, comb. nov. (Guseinov *et al.*, 2005: 162, fig. 48). *Tegenaria vankeerorum* sp. nov. differs significantly from *Teg. lenkoranica* comb. nov. by a relatively short palp tibia (much longer in *Teg. lenkoranica*) and the shape of the embolus and conductor.

*Description*

*Measurements:* Male (holotype): CL 6.00, CW 4.15, STL 2.6, STW 2.3, OL 6.5, OW 3.9. Leg I (-), II (9.0, 2.2, 8.1, 9.9, 2.9), III (7.3, 2.0, 6.4, 9.1, 2.7), IV (8.7, 2.0, 8.2, 11.7, 3.1). Pedipalp (2.8, 0.9, 1.1, 2.3), bulbL 1.3. Eyes: PME 0.22, PLE 0.24, AME 0.23, ALE 0.27. Eye distances: PME–PME 1 × PME, PME–AME 1 × PME, PME–PLE somewhat less than 1 × PME, PME–ALE 1–1.5 × PME, AME–AME < 0.5 × AME, AME–ALE < 0.5 × AME. CLY1 2 × AME, CLY2 1–1.5 × ALE.

*Male palp:* RTA with two branches, ventral branch distally broad, lobe-like, strongly sclerotized, lateroventral ridge distinct, lateral branch strongly protruding, originating in the middle of palp tibia, finger shaped and distally pointed, with additional short spike originating at the dorsal side of the apophysis. Filiform embolus length about 0.75–1 × CB, originating at 10 o'clock position, distal tip at 1–2 o'clock position. Conductor drop-shaped, distal portion of conductor moderately elongated, lateral margin almost completely folded. Terminal end of conductor strongly sclerotized and pointed, moderately elongated and bent ventrad. Connection of conductor to tegulum sclerotized. MA originating at 4–5 o'clock position, protruding, distally with spoon-like sclerite. MA membranously connected to tegulum. Basal portion of tegulum conspicuously bulky (in prolateral view).

*Other important characters:* Cheliceral promargin with four, retromargin with five teeth, second most proximal smaller and most proximal tooth larger. Colulus developed as trapezoidal bulky plate with the distal margin medially notched. PLS with distal segment longer than basal segment. Tarsal trichobothria on cymbium absent. Tarsal trichobothria nine to ten. Leg spination: male palp (3–0–0–0, 2–0–0, 2–2–0–0), leg femora (-, 1–3–2–0, 1–2–2–0, 1–2–1–0), patellae (-, III & IV with 2–0–0), tibiae (-, 0–1–0–2, 1–1–1–1+1p, 1–1–1–1+1p), metatarsi (-, 0–0–0–3p+1 or 0–1–0–3p+1, 0–2–2–1p+1+2p+1, 0–2–3–1p+1+2p+1), tarsi (all 0).

*Coloration:* The carapace does not show a pattern of coloration (this may be a result of the alcohol preservation). Sternum with distinct pattern of darkened median area with a bright and narrow median band. Opisthosoma dark brownish with yellowish median band and two to three symmetrical lateral spots of white pigmentation anteriorly, continuing in broad chevrons posteriad. Legs not annulated, only coxa and proximal part of femora with darkened spots. ALS and PLS with basal and distal segments darkened.

*Distribution*

Reported from Greece (Rhodos).

### NOMENCLATURAL CHANGES FOR RELATED TAXA OUTSIDE EUROPE

The taxonomic changes are summarized in Appendix 3. Most species are transferred back to or newly placed into *Tegenaria*. Species that are, based on published descriptions and figures, clearly not referable to *Tegenaria* or *Malthonica* and/or lack diagnostic descriptions and type material are treated here as 'incertae sedis'. In the last column of Appendix 3, the reasons for the changes are given.

All species endemic to North America and some species from Asia are not treated here and, therefore, no changes concerning these species are proposed.

## DISCUSSION AND CONCLUSION

The results of both our morphological and molecular analyses strongly support the monophyly of the genera *Aterigena*, *Eratigena* gen. nov., *Malthonica*, and *Tegenaria*, but the relationships amongst them are not resolved (Figs 3–7). The four Ageleninae tribes proposed by Lehtinen (1967) are only partly supported. Textricini constitutes a monophyletic clade supported by several synapomorphies (eye arrangement: char. 10, 12–14; white hairs: char. 24; cheliceral teeth and spination of metatarsi: char. 26, 47; spigots on spinnerets: char. 58) in the morphological analysis and is also well supported in the molecular analyses (Fig. 4). Support for the Agelenini is not as robust as that for Textricini. In the morphological analysis, including only *Agelena labyrinthica* and *Allagelena gracilens*, this clade is supported by five synapomorphies (eye arrangement: char. 13, 15, 'field' of trichobothria on male palp tibia: char. 37, spigots on spinnerets: char. 58, special hairs at anal tubercle: char. 60). However, in the 28S analysis (Fig. 6) *Agelena canariensis* is outside this clade. There, Agelenini is paraphyletic, becoming monophyletic only when *Agelenopsis aperta* and *Hololena* sp. 2 are also included, two species that belong to Lehtinen's (1967) Agelenopsini. Finally, the Tegenariini (*Aterigena*, *Eratigena* gen. nov., *Histopona*, *Malthonica*, and *Tegenaria*), the most relevant in the present context, is probably not monophyletic. Whereas the trees resulting from the single CO1 gene analysis (Bolzern *et al*., 2010) and the combined analyses of mtDNA (Fig. 5, jack-knife support 84, posterior probability 84%) support the monophyly of Tegenariini, all more inclusive analyses and morphology do not.

After the rearrangement of taxa, *Malthonica*, which is well supported in all our analyses, although with uncertain relationships to the other genera, comprises two species (Fig. 3). Four other *Malthonica* species are considered 'incertae sedis' (Appendix 3) and *Malthonica africana* Simon & Fage, 1922 (from Africa) is not treated here.

*Eratigena* gen. nov. comprises a group of spiders supported by four morphological synapomorphies (cheliceral teeth: char. 26, 27; posterior sclerite at epigyne (reduced in some species): char. 95; epigynal teeth: char. 97) and also recovered in all molecular analyses. Within *Eratigena* gen. nov. five well-supported species groups are found: (1) *E. herculea* and *E. hispanica* form a clade of two most probably geographically isolated species; (2) three species, *E. arganoi*, *E. sardoa*, and *E. sicana*, all originally described as *Malthonica* with elongate MA and characteristically shaped female genitalia; (3) *E. vomeroi* and *E. inermis* form a clade of two geographically isolated species; (4) *E. balearica*, an endemic on the Balearic Islands, and *E. picta*, a widely distributed species; (5) the species complex around the well-known *E. atrica* together with *E. agrestis* and *E. fuesslini*. These groups are supported by morphological and molecular characters. The phylogenetic relationships amongst the remaining species and the species groups are not resolved. *Eratigena atrica* may be most closely related to *E. agrestis*, which is important in the context of the possible medical importance of the latter.

The most problematic genus is *Tegenaria sensu stricto*. Even though the morphological and the molecular results suggest the monophyly of this clade, it is only supported by a single morphological synapomorphy [transverse sclerotized ridge at conductor (absent in some species): char. 72, Fig. 3]. At present, the genus is diagnosed by the unique combination of characters. Characters used for the definition of *Tegenaria* and *Malthonica* by Guseinov *et al*. (2005), e.g. the short and thick embolus originating at the subapical part of the tegulum for *Tegenaria*, are highly homoplastic and therefore not useful for phylogenetic reconstructions. Another character, the presence of trichobothria on the cymbium of the female palpal tarsus, is informative, although the phylogenetic implications of this character remain unclear. *Tegenaria* includes numerous species with very high levels of variability in genital character expression. For this variability and the lack of other characters, the relationships amongst *Tegenaria* species remain largely unresolved. For better resolution, more characters are needed in the morphological analysis and more taxa should be included in the molecular analyses. In this study, we were able to detect five species groups (none of them supported by all data sets): (1) four species endemic to Italy, *Teg. capolongoi*, *Teg. circeoensis* sp. nov., *Teg. parmenidis*, and *Teg. sbordonii*. Members of this group show very distinct genital morphology. Whether *Teg. hauseri* belongs to this group is unclear; (2) *Teg. campestris* and three Bulgarian species constitute a group defined by Deltshev (2008b); (3) *Teg. annulata*, *Teg. animata*, *Teg. bayeri*, *Teg. bosnica*, and *Teg. decolorata* and four species; it is not clear why Lehtinen (1967) transferred four of them to *Pseudotegenaria*; (4) *Teg. ferruginea* and *Teg. parietina*; (5) *Teg. silvestris* and *Teg. parvula*. Groupings formed on the basis of the resemblance of a particular genital character in only one sex may be often contradicted by the characters in the other sex and thus lead to artificial classifications. Further investigations are necessary to elucidate the phylogenetic relationships within the genus *Tegenaria*. This is particularly true for many Asian species.

*Tegenaria*, in its present definition, is west Palaearctic in distribution with some species having been introduced by humans to other continents. Species described from India do not belong to *Tegenaria* but without detailed revision their generic placement remains unknown (Appendix 3). Eleven *Tegenaria* species have been described from North America and one species each from Nepal and Myanmar. Without examination of material it is uncertain whether these taxa are congeneric with the European species. About half a dozen of species are widely distributed. The remainder of species has more restricted distributions. Almost 30 species are restricted to the Balkan Peninsula with several narrowly endemic (Fig. 25). By contrast, only five species are restricted to the Iberian Peninsula. About eight species are mostly limited to Italy and adjacent islands. Only two species are endemics of the Alps. There are gradients in increased species numbers from north to south and west to east. Records from Turkey (Brignoli, 1978b; Brignoli, 1978c), Azerbaijan (Guseinov *et al*., 2005),

**Figure 25.** Collection sites of *Tegenaria regispyrrhi s.l.* Triangles, *Tegenaria regispyrrhi* Brignoli, 1976; square, *Tegenaria* aff. *regispyrrhi* (1); circle, *Tegenaria* aff. *regispyrrhi* (2); stars, *Tegenaria* aff. *regispyrrhi* (3). Digital map provided by http://histgeo.ac-aix-marseille.fr.

and the Caucasus (Kovblyuk & Ponomarev, 2008) suggest that *Tegenaria* may be similarly species rich in south-west Asia as it is in the Balkan Peninsula.

*Eratigena* gen. nov. occurs mainly in south-western Europe but four species have been introduced into North America. Eight species are endemic to the Iberian Peninsula and the Balearic Islands whereas only three species are restricted to Italy and adjacent islands. Contrary to *Tegenaria* the gradient of species numbers in *Eratigena* decrease from west to east.

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**Zhang ZS, Zhu MS, Song DX. 2007.** Three new species of the genus *Ambanus* Ovtchinnikov, 1999 from China (Araneae: Amaurobiidae: Coelotinae). *Zootaxa* **1425:** 21–28.

**Zhang ZS, Zhu MS, Sun LN, Song DX. 2006b.** Two new species of the genus *Coelotes* (Araneae: Amaurorobiidae: Coelotinae) from Mt. Shennongjia, China. *Journal of Dali University* **5:** 1–3, 36.

**Zhang ZS, Zhu MS, Wang X. 2005.** *Draconarius exilis*, a new species of coelotine spider from China (Araneae, Amaurobiidae). *Zootaxa* **1057:** 45–50.

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## SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article at the publisher's web-site:

**Appendix S1.** List of additional material examined.
**Appendix S2**. Branch support of large clades under different methods and weighting schemes [posterior probability in % for Bayesian analyses (Bay), jack-knife support values for parsimony analyses (Pars), *K*-value applied during traditional tree search in TNT (0 = equal weight of all characters), Bremer support (BS)].
**Appendix S3.** Branch support of subclades within *Eratigena* and *Tegenaria* under different methods and a few selected weighting schemes [posterior probability in % for Bayesian analyses (Bay), jack-knife support values for parsimony analyses (Pars), *K*-value applied during traditional tree search in TNT (0 = equal weight of all characters), Bremer support (BS)]. Only clades supported by values > 50% and by more than one matrix/scheme are shown.

## APPENDIX 1

Specimens used for molecular analysis with GenBank accession number and storage information.

| Taxon name | Accession no. 28S | NADH1 | CO1 | Specimen origin | Voucher specimen | Comments/reference |
|---|---|---|---|---|---|---|
| *Agelena canariensis* | FR694037 | FN678907 | FN554798 | ES: Gran Canaria | NMB: NTxTeg1 | Bolzern *et al*., 2010 |
| *Agelena labyrinthica* | FR694016 | FN678908 | FN554797 | IT: Sardinia | NMB: AB 424 | Bolzern *et al*., 2010 |
| *Agelena orientalis* | FR694024 | FN678909 | – | GR: Crete | NMB: AB 877 | |
| *Agelenopsis aperta* | FJ607517 | – | DQ628604 | – | – | 28S: Blackledge *et al*., 2009; CO1: Spagna & Gillespie, 2008 |
| *Allagelena gracilens* | – | – | DQ628606 | – | – | Spagna & Gillespie, 2008 |
| *Amaurobius fenestralis* | FR694066 | FN678910 | FN554820 | CH: Solothurn | NMB: AB 1006 | Bolzern *et al*., 2010 |
| *Amaurobius ferox* | FR694065 | FN678911 | FN554819 | CH: Basel-Land | NMB: AB 959 | Bolzern *et al*., 2010 |
| *Amaurobius similis* | – | – | DQ628608 | – | – | Spagna & Gillespie, 2008 |
| *Aterigena aculeata* | FR694018 | FN678912 | FN554790 | CN: Guizhou | NMB: AB 591 | Bolzern *et al*., 2010 |
| *Aterigena aliquoi* | FR694038 | – | FN554791 | IT: Sicily | NMB: AB 720 | Bolzern *et al*., 2010 |
| *Aterigena ligurica* | FR694031 | FN678913 | FN554789 | IT: Calabria | NMB: AB 812 | Bolzern *et al*., 2010 |
| *Barronopsis barrowsi* | – | – | DQ628609 | – | – | Spagna & Gillespie, 2008 |
| *Callobius* sp. | FJ607524 | – | | – | – | Blackledge *et al*., 2009 |
| *Calilena stylophora* | – | FN678914 | – | US: California | NMB: AB 614 | |
| *Coelotes terrestris* | – | – | DQ628627 | – | – | Spagna & Gillespie, 2008 |
| *Cybaeus* sp. | FR694069 | – | FN554818 | US: Oregon | NMB: AB 615 | Bolzern *et al*., 2010 |
| *Draconarius brunneus* | AY633855 | – | – | – | – | Bi *et al*., 2005 |
| *Eratigena agrestis* | FR694009 | FN678915 | FN554804 | DE: Baden-Württemberg | NMB: AB 252 | Bolzern *et al*., 2010; CO1 identical haplotype to a specimen from CZ; 28S identical haplotype to specimen from DE (Schleswig-Holstein); NADH1 identical haplotypes to specimens from DE (Schleswig-Holstein), CZ and US |
| *Eratigena agrestis* | FR694008 | FN678916 | FR714880 | DE: Schleswig-Holstein | NMB: AB 251 | |
| *Eratigena agrestis* | – | FN678917 | FR714881 | CZ: Central Bohemian Region | NMB: AB 558 | |
| *Eratigena agrestis* | – | FN678918 | FN554816 | US: Washington | NMB: AB 880 | Bolzern *et al*., 2010; CO1 identical haplotype to a specimen from DE (Schleswig-Holstein) |
| *Eratigena agrestis* | – | FN678919 | – | FR: Alpes Maritimes | NMB: AB 824 | Female variation (Fig. 10E–F) |
| *Eratigena arganoi* | – | FN678920 | – | IT: Abruzzi | NMB: AB 770 | |
| *Eratigena atrica* | FR694012 | FN678921 | FN554801 | ES: Catalonia | NMB: AB 570 | Bolzern *et al*., 2010; 28S identical haplotype to specimen of *E. saeva* from ES |
| *Eratigena atrica* | – | FN678922 | FN554805 | SE: Uppsala | NMB: AB 610 | Bolzern *et al*., 2010; CO1 identical haplotype to specimens from CH and DE; NADH1 identical haplotypes to specimens from BE, CH, DE, AT, and IT |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Eratigena atrica* | FR694030 | FN678923 | – | PT: Algarve | NMB: AB 656 | |
| *Eratigena atrica* | – | FN678924 | – | FR: Pyrénées-Orientales | NMB: AB 552 | |
| *Eratigena atrica* | – | FN678925 | FR714882 | CH: Basel-Land | NMB: AB 508 | |
| *Eratigena atrica* | – | FN678926 | FR714883 | DE: Hessen | NMB: AB 253 | |
| *Eratigena atrica* | – | FN678927 | – | BE: Brussels | NMB: AB 198 | |
| *Eratigena atrica* | – | FN678928 | – | AT: Salzburg | NMB: AB 265 | |
| *Eratigena atrica* | – | FN678929 | – | IT: Lazio | NMB: AB 566 | |
| *Eratigena balearica* | – | FN678930 | – | ES: Mallorca | NMB: AB 823 | |
| *Eratigena duellica* | FR694062 | FN678931 | – | US: Montana | NMB: AB 888 | |
| *Eratigena feminea* | FR694020 | FN678932 | FN554783 | PT: Algarve | NMB: AB 587 | Bolzern *et al.*, 2010 |
| *Eratigena fuesslini* | – | FN678933 | – | ES: Catalonia | NMB: AB 551 | |
| *Eratigena fuesslini* | – | FN678934 | – | FR: Pyrénées-Orientales | NMB: AB 553 | |
| *Eratigena* aff. *herculea* | – | FN678935 | FN554788 | ES: Andalusia | NMB: AB 576 | Bolzern *et al.*, 2010 |
| *Eratigena incognita* | – | FN678936 | FN554784 | PT: Lisbon | NMB: NMB-2805c | Bolzern *et al.*, 2010 |
| *Eratigena montigena* | – | FN678937 | – | PT: Leiria | NMB: AB 278 | |
| *Eratigena picta* | – | FN678938 | FN554785 | ES: Basque Country | NMB: AB 669 | Bolzern *et al.*, 2010 |
| *Eratigena picta* | FR694022 | FN678939 | – | FR: Finistére | NMB: AB 287 | |
| *Eratigena saeva* | – | FN678940 | FN554782 | FR: Morbihan | NMB: AB 289 | Bolzern *et al.*, 2010 |
| *Eratigena saeva* | FR694041 | FN678941 | FN554813 | ES: Basque Country | NMB: AB 668 | Bolzern *et al.*, 2010; 28S identical haplotype to specimen of *E. atrica* from ES |
| *Eratigena saeva* | – | FN678942 | – | PT: Lisbon | NMB: AB 588 | |
| *Eratigena sardoa* | FR694017 | FN678943 | FN554786 | IT: Sardinia | NMB: AB 580 | Bolzern *et al.*, 2010 |
| *Eratigena sicana* | FR694051 | FN678944 | FN554787 | IT: Sardinia | NMB: AB 841 | Bolzern *et al.*, 2010 |
| *Eratigena vomeroi* | FR694045 | FN678945 | FN554814 | IT: Campania | NMB: AB 734 | 28S and CO1 identical haplotypes to specimen from Calabria |
| *Eratigena vomeroi* | FR694046 | FN678946 | FR714884 | IT: Calabria | NNB: AB 739 | |
| *Histopona hauseri* | – | FN678947 | – | GR: Corfu | SMF: leg. Schönhofer, 2006 | |
| *Histopona torpida* | FR694010 | FN678948 | FN554793 | CH: Basel-Land | NMB: AB 212 | Bolzern *et al.*, 2010 |
| *Hololena* sp. 1 | – | FN678949 | FN554799 | US: California | NMB: AB 613 | Bolzern *et al.*, 2010 |
| *Hololena* sp. 2 | FR694053 | FN678950 | FN554800 | US: Washington | NMB: AB 883 | Bolzern *et al.*, 2010 |
| *Intermocoelotes inermis* | – | – | DQ628628 | – | – | Spagna & Gillespie, 2008 |
| *Lycosoides coarctata* | FR694049 | FN678951 | FR714885 | IT: Campania | NMB: AB 435 | |
| *Lycosoides coarctata* | – | FN678952 | FN554815 | PT: Algarve | NMB: AB 766 | Bolzern *et al.*, 2010; CO1 and NADH1 identical haplotype to a specimen from IT |
| *Maimuna cretica* | – | FN678953 | FN554795 | GR: Crete | NMB: AB 855 | Bolzern *et al.*, 2010 |

APPENDIX 1 *Continued*

| Taxon name | Accession no. | | | Specimen origin | Voucher specimen | Comments/reference |
|---|---|---|---|---|---|---|
| | 28S | NADH1 | CO1 | | | |
| *Mamuna vestita* | – | FN678954 | – | GR: Crete | SMF: leg. Schönhofer, 2007 | |
| *Maimuna* sp. | – | FN678955 | – | TR: Mersin | NMB: AB 796 | |
| *Malthonica lusithanica* | FR694058 | FN678956 | – | PT: Coimbra | NMB: AB 924 | |
| *Malthonica oceanica* | FR694059 | FN678957 | FN554792 | PT: Lisbon | NMB: AB 933 | Bolzern *et al.*, 2010 |
| *Novalena intermedia* | – | – | DQ628618 | – | – | Spagna & Gillespie, 2008 |
| *Tegenaria ariadnae* | FR694052 | FN678958 | FN554769 | GR: Crete | NMB: AB 845 | Bolzern *et al.*, 2010; 28S identical haplotypes within both included specimens |
| *Tegenaria ariadnae* | FR694068 | FN678959 | FN554821 | GR: Crete | NMB: AB 974 | Bolzern *et al.*, 2010 |
| *Tegenaria averni* | FR694044 | – | – | TR: Mersin | NMB: AB 793 | |
| *Tegenaria campestris* | FR694011 | FN678960 | FN554770 | DE: Hessen | NMB: AB 290 | Bolzern *et al.*, 2010 |
| *Tegenaria circeoensis* | FR694040 | – | – | IT: Lazio | NMB: AB 786 | 28S haplotype identical within all analysed specimens of the same species and also to *Teg.* aff. *circeoensis* |
| *Tegenaria circeoensis* | FR694055 | – | – | IT: Lazio | NMB: AB 827 | |
| *Tegenaria circeoensis* | FR694056 | FN678961 | – | IT: Lazio | NMB: AB 832 | |
| *Tegenaria circeoensis* | – | FN678962 | – | IT: Lazio | NMB: AB 463 | |
| *Tegenaria* aff. *circeoensis* | FR694043 | FN678963 | – | IT: Lazio | NMB: AB 747 | |
| *Tegenaria dalmatica* | – | FN678964 | FN554781 | LB: Mount Lebanon | NMB: AB 577 | Bolzern *et al.*, 2010 |
| *Tegenaria dalmatica* | – | FN678965 | FN554806 | IT: Campania | NMB: AB 434 | Bolzern *et al.*, 2010 |
| *Tegenaria dalmatica* | – | FN678966 | – | IT: Lazio | NMB: AB 556 | |
| *Tegenaria dalmatica* | – | – | FN554811 | IT: Sicily | NMB: AB 840 | Bolzern *et al.*, 2010 |
| *Tegenaria domestica* | FR694061 | – | FN554817 | US: Washington | NMB: AB 885 | Bolzern *et al.*, 2010; 28S identical haplotype to specimens from CN and PT |
| *Tegenaria domestica* | – | – | FN554808 | CH: Basel | NMB: AB 217 | Bolzern *et al.*, 2010; identical haplotype to specimens from CN, PT, and US |
| *Tegenaria domestica* | FR694019 | FN678967 | FR714886 | CN: Yunnan | NMB: AB 590 | |
| *Tegenaria domestica* | FR694015 | – | FR714887 | PT: Madeira | NMB: AB 575 | |
| *Tegenaria eleonorae* | – | FN678968 | FN554772 | IT: Sardinia | NMB: AB 428 | Bolzern *et al.*, 2010 |
| *Tegenaria ferruginea* | FR694057 | – | FN554777 | GR: Crete | NMB: AB 894 | Bolzern *et al.*, 2010; 28S same haplotype to *Teg. parietina* from Sicily |
| *Tegenaria ferruginea* | FR694006 | FN678969 | FN554802 | FR: Alsace | NMB: AB 293 | Bolzern *et al.*, 2010; CO1 identical haplotype as a specimen from CH; 28S identical haplotype to a specimen from AT; NADH1 identical haplotypes to specimens from CH, BG, DE, and AT |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Tegenaria ferruginea* | FR694027 | FN678972 | – | DE: Mecklenburg-Vorpommern | NMB: AB 501 | |
| *Tegenaria ferruginea* | FR694026 | FN678970 | – | IT: Lazio | NMB: AB 537 | |
| *Tegenaria ferruginea* | – | FN678971 | – | DE: Brandenburg | NMB: AB 555 | |
| *Tegenaria ferruginea* | – | FN678973 | FR714888 | CH: Basel-Land | NMB: AB 573 | |
| *Tegenaria ferruginea* | FR694025 | FN678974 | – | AT: Salzburg | NMB: AB 266 | |
| *Tegenaria ferruginea* | – | FN678975 | – | BG: Lovech | NMB: AB 260 | |
| *Tegenaria ferruginea* | – | FN678976 | – | DE: Bayern | SMF: AB 572 | |
| *Tegenaria hasperi* | FR694063 | – | FN554780 | BG: Sofia | NMB: AB 242 | Bolzern *et al*., 2010 |
| *Tegenaria hasperi* | – | FN678977 | – | IT: Campania | NMB: AB 443 | |
| *Tegenaria henroti* | FR694021 | – | FN554771 | IT: Sardinia | NMB: AB 584 | Bolzern *et al*., 2010 |
| *Tegenaria henroti* | FR694039 | – | – | IT: Sardinia | NMB: NMB-2791a | |
| *Tegenaria maronita* | FR694060 | – | – | CY | Coll. Russell-Smith | |
| *Tegenaria mirifica* | FR694013 | – | FN554775 | CH: Grisons | NMB: AB 367 | Bolzern *et al*., 2010 |
| *Tegenaria pagana* | FR694067 | – | – | GR: Crete | NMB: AB 901 | |
| *Tegenaria pagana* | – | FN678978 | – | PT: Algarve | NMB: AB 586 | |
| *Tegenaria parietina* | – | FN678979 | – | IT: Sardinia | NMB: AB 574 | Identical haplotypes to specimens from BG and FR |
| *Tegenaria parietina* | – | FN678982 | FR714889 | DE: Nordrhein-Westfalen | NMB: AB 611 | NADH1 with identical haplotype to specimens from IT and BE |
| *Tegenaria parietina* | FR694054 | FN678985 | FN554778 | GR: Crete | NMB: AB 864 | Bolzern *et al*., 2010 |
| *Tegenaria parietina* | FR694035 | – | FN554807 | IT: Sicily | NMB: AB 816 | Bolzern *et al*., 2010; identical haplotype to a specimen from DE |
| *Tegenaria parietina* | – | FN678980 | – | BG: Plovdiv | NMB: AB 244 | |
| *Tegenaria parietina* | – | FN678981 | – | FR: Alpes-Maritimes | SMF | |
| *Tegenaria parietina* | – | FN678983 | – | IT: Marche | NMB: AB 484 | |
| *Tegenaria parietina* | – | FN678984 | – | BE: Antwerpen | Coll. van Keer: 2665 | |
| *Tegenaria parmenidis* | FR694033 | FN678986 | FN554773 | IT: Calabria | NMB: AB 820 | Bolzern *et al*., 2010 |
| *Tegenaria parmenidis* | FR694032 | FN678987 | FN554809 | IT: Campania | NMB: AB 811 | Bolzern *et al*., 2010 |
| *Tegenaria parmenidis* | – | FN678988 | – | IT: Calabria | NMB: AB 450 | |
| *Tegenaria parmenidis* | – | – | FN554810 | IT: Calabria | NMB: AB 732 | Bolzern *et al*., 2010 |
| *Tegenaria parmenidis* | – | FN678989 | FN554812 | IT: Campania | NMB: AB 834 | Bolzern *et al*., 2010 |
| *Tegenaria parvula* | FR694036 | FN678990 | – | IT: Lazio | NMB: AB 819 | 28S with identical haplotype to *Teg. silvestris* from IT, Toscana |
| *Tegenaria ramblae* | FR694064 | – | FN554774 | PT: Lisbon | NMB: AB 589 | Bolzern *et al*., 2010 |
| *Tegenaria rilaensis* | FR694023 | FN678991 | – | BG: Sofiya | NMB: AB 243 | |

APPENDIX 1 *Continued*

| Taxon name | Accession no.<br>28S | <br>NADH1 | <br>CO1 | Specimen origin | Voucher specimen | Comments/reference |
|---|---|---|---|---|---|---|
| *Tegenaria silvestris* | FR694029 | FN678992 | – | DE: Hessen | NMB: AB 549 | NADH1 identical haplotype to a specimen from CH; 28S identical haplotype to specimens from CH (Grisons and Basel-Land) |
| *Tegenaria silvestris* | FR694007 | – | – | IT: Lombardia | NMB: AB 249 | |
| *Tegenaria silvestris* | FR694028 | FN678994 | – | CH: Grisons | NMB: AB 372 | |
| *Tegenaria silvestris* | – | FN678993 | – | CH: Basel-Land | NMB: AB 358 | |
| *Tegenaria silvestris* | FR694034 | – | – | CH: Basel-Land | NMB: AB 821 | |
| *Tegenaria silvestris* | FR694042 | – | – | IT: Toscana | NMB: AB 536 | Identical haplotype to *Teg. parvula* |
| *Tegenaria tridentina* | FR694014 | FN678996 | FN554776 | CH: Grisons | NMB: AB 375 | Bolzern *et al.*, 2010 |
| *Tegenaria vankeerorum* | – | FN678995 | FN554779 | GR: Rhodes | Coll. van Keer: 2617 | Bolzern *et al.*, 2010 |
| *Tamgrinia palpator* | AY633848 | – | – | – | – | Bi *et al.*, 2005 |
| *Textrix caudata* | FR694048 | – | FN554803 | IT: Lazio | NMB: AB 749 | Bolzern *et al.*, 2010 |
| *Textrix caudata* | FR694047 | FN678997 | – | IT: Sicily | NMB: AB 743 | |
| *Textrix caudata* | – | FN678998 | – | IT: Calabria | NMB: AB 488 | |
| *Textrix* cf. *caudata* | FR694050 | FN678999 | FN554796 | IT: Lazio | NMB: AB 467 | Bolzern *et al.*, 2010; 28S identical haplotype to specimen NMB: AB749 |
| *Textrix denticulata* | – | FN679000 | – | IT: Lombardia | NMB: AB 214 | |
| *Textrix denticulata* | – | – | FN554794 | CH: Basel-Land | NMB: AB 216 | Bolzern *et al.*, 2010 |
| *Wadotes dixiensis* | | | DQ628623 | – | – | Spagna & Gillespie, 2008 |

CO1, cytochrome *c* oxidase subunit 1; NADH1, nicotinamide adenine dinucleotide dehydrogenase subunit 1; NMB, Naturhistorisches Museum Basel; SMF, Senckenberg Forschungsinstitut und Naturmuseum.

# APPENDIX 2

Scoring list of morphological characters for included species.

| Species | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Agelena labyrinthica* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 3 | 2 | 2 | 2 | 1 | 0 | 0 | ? | ? | 1 | 3 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 3 | 0 | [12] | 1 | 4 |
| *Allagelena gracilens* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 3 | 0 | [12] | 1 | [34] |
| *Amaurobius ferox* | 0 | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | – | – | 0 | – | 0 | – | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 0 |
| *Aterigena aculeata* | 0 | ? | ? | ? | [01] | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 0 | ? | ? | ? |
| *Aterigena aliquoi* | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 0 | 2 | 2 | 4 |
| *Aterigena aspromontensis* | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 0 | 2 | 1 | 4 |
| *Aterigena ligurica* | 0 | 1 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 0 | 2 | 2 | 4 |
| *Aterigena soriculata* | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 0 | 2 | 1 | 4 |
| *Eratigena agrestis* | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 2 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 4 |
| *Eratigena arganoi* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | – | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Eratigena atrica* | 1 | 0 | 1 | 0 | [12] | 0 | 2 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 2 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 4 |
| *Eratigena atrica* (sub *Tegenaria duellica*) | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 2 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 4 |
| *Eratigena atrica* (sub *Tegenaria saeva*) | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 2 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 4 |
| *Eratigena balearica* | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | [01] | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 4 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Eratigena barrientosi* | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | [23] | 1 | 1 | 1 | 1 | 0 | – | – | 0 | – | 0 | – | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 1 | 1 | 1 | 4 |
| *Eratigena feminea* | 0 | 0 | 0 | 0 | [01] | 0 | 2 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | – | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 1 | 1 | 1 | [34] |
| *Eratigena fuesslini* | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 4 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | [23] |
| *Eratigena herculea* | 0 | ? | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 3 | 2 | 1 | 1 | 1 | 0 | – | – | 1 | 2 | 0 | – | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | ? | ? | ? |
| *Eratigena hispanica* | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 3 | 2 | 1 | 1 | 1 | 0 | – | – | 1 | 2 | 0 | – | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 3 |
| *Eratigena incognita* | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 4 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 1 | 1 | 1 | 4 |
| *Eratigena inermis* | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 4 |
| *Eratigena montigena* | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | – | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | [34] |
| *Eratigena picta* | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 4 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| *Eratigena sardoa* | 1 | 0 | 1 | [01] | 0 | 0 | ? | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 4 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Eratigena sicana* | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | [04] | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Eratigena vomeroi* | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 4 |
| *Histopona hauseri* | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | [12] | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 | 2 | 1 | 2 |
| *Histopona fioni* | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | ? | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 | 2 | 1 | [23] |
| *Histopona torpida* | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | [01] | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 | 2 | 1 | 2 |
| *Maimuna cretica* | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | [01] | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | [01] | 0 | 3 | 0 | [12] | 1 | 4 |
| *Maimuna vestita* | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 2 | 1 | 4 |
| *Malthonica lusitanica* | 0 | 0 | 0 | 1 | 0 | 1 | ? | 0 | [01] | 0 | [23] | 3 | 1 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 3 | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 2 |
| *Malthonica oceanica* | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 3 | 1 | 2 | 1 | 1 | 0 | 0 | 1 | [02] | 1 | 0 | 0 | 1 | [01] | [12] | 3 | 1 | [01] | 0 | 2 | 0 | [12] | 1 | 2 |
| *Tegenaria annulata* | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 2 |
| *Tegenaria argaeica* | [01] | 0 | 1 | 0 | 1 | 0 | ? | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 2 | ? | 2 | 1 | 2 |
| *Tegenaria ariadnae* | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | – | – | 0 | – | 0 | – | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | [12] |
| *Tegenaria armigera* | 1 | 0 | 0 | 0 | 0 | 0 | ? | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | – | – | 1 | 3 | 0 | – | 0 | 1 | 0 | 1 | 0 | 0 | [01] | 0 | 2 | ? | 1 | 1 | 1 |
| *Tegenaria campestris* | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria carensis* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | [12] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | ? | 1 | 1 | 2 |

## APPENDIX 2 *Continued*

| Species | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tegenaria circeoensis* | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | [01] | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria dalmatica* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | [01] | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 2 | 1 | 2 | 1 | 2 |
| *Tegenaria domestica* | 1 | 0 | 1 | 0 | [01] | 0 | 1 | 1 | 0 | 0 | [12] | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria eleonorae* | 1 | 0 | 1 | 0 | 0 | [01] | 1 | 1 | [01] | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 2 |
| *Tegenaria femoralis* | 1 | 0 | 1 | 0 | [01] | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 2 |
| *Tegenaria ferruginea* | 1 | 0 | 1 | 0 | [01] | 0 | 1 | 0 | 0 | 0 | [12] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | [01] | 0 | 2 | 1 | 1 | 1 | 2 |
| *Tegenaria hasperi* | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | [01] | 1 | 0 | 0 | [01] | 0 | 2 | 0 | [12] | 1 | 2 |
| *Tegenaria hauseri* | 1 | 0 | ? | ? | 0 | 0 | 1 | 1 | 0 | 0 | 3 | 1 | 1 | 1 | 1 | 0 | – | – | 0 | – | 0 | – | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria henroti* | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | [12] | 1 | 2 |
| *Tegenaria levantina* | 0 | ? | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | ? | ? | ? |
| *Tegenaria mercanturensis* | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 2 |
| *Tegenaria mirifica* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 2 |
| *Tegenaria montana* | 1 | 0 | 0 | ? | 0 | 0 | ? | 0 | ? | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | ? | 1 | 1 | 0 |
| *Tegenaria pagana* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | [12] | 4 | 0 | 1 | 0 | 2 | 0 | [12] | 1 | 2 |
| *Tegenaria parietina* | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 2 | 1 | 2 | 1 | 3 |
| *Tegenaria parmenidis* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria parvula* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria pasquinii* | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria percuriosa* | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | ? | ? | ? | 0 | – | 0 | – | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria racovitzai* | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | – | – | 0 | – | 0 | – | 0 | 1 | 0 | 1 | 0 | 0 | [01] | 0 | 2 | 0 | [12] | 1 | 2 |
| *Tegenaria ramblae* | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | [23] |
| *Tegenaria regispyrrhi* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | [01] | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria rhodiensis* | 0 | 0 | 1 | 0 | 0 | 0 | ? | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria rilaensis* | 1 | 0 | [01] | 0 | 0 | 0 | 1 | [01] | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 |
| *Tegenaria sbordonii* | 0 | 0 | 1 | 0 | 0 | 0 | ? | 1 | 0 | 0 | 3 | 1 | 1 | 1 | 1 | 0 | – | – | 0 | – | 0 | – | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | ? | 1 | 1 | 2 |
| *Tegenaria silvestris* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 |
| *Tegenaria tridentina* | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | [12] | 1 | 2 |
| *Tegenaria tyrrhenica* | 1 | 0 | 1 | ? | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 2 |
| *Textrix caudata* | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 3 |
| *Textrix denticulata* | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | [01] | 1 | 0 | 0 | 2 | 1 | 3 |
|  | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| *Agelena labyrinthica* | 0 | 1 | 0 | 1 | [12] | 1 | 1 | 1 | 0 | – | 0 | 0 | 1 | 0 | 1 | 2 | 1 | – | 1 | 2 | 0 | – | 7 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 2 | – | 2 |
| *Allagelena gracilens* | 0 | 1 | 0 | 0 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | – | 1 | 2 | 0 | – | 7 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 3 | – | 2 |
| *Amaurobius ferox* | 0 | 0 | 1 | 0 | [02] | 1 | 0 | – | 0 | – | 1 | 0 | 0 | 1 | 1 | 1 | 0 | – | 1 | 0 | 1 | 3 | 1 | 0 | 1 | 0 | 0 | 2 | 2 | 1 | ? | 1 | 1 | 0 | 1 |
| *Aterigena aculeata* | ? | ? | ? | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 1 | 0 | 1 | 2 | 2 | 0 | 1 | [12] | 1 | 1 | 3 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | ? | 0 |
| *Aterigena aliquoi* | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | [02] | 1 | 2 | 1 | 0 | 1 | 2 | 2 | 0 | 1 | 2 | 1 | 1 | ? | ? | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Aterigena aspromontensis* | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 1 | 0 | 1 | 1 | 2 | 0 | 1 | [01] | 1 | 1 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| *Aterigena ligurica* | 0 | 0 | 0 | 1 | [12] | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 0 | 1 | 2 | 2 | 0 | 1 | [12] | 1 | 1 | 4 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Aterigena soriculata* | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 0 | 1 | 2 | 2 | 0 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Eratigena agrestis* | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 3 |
| *Eratigena arganoi* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 0 | [12] | 2 | 0 | 1 | 2 | 1 | 0 | 2 | ? | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 0 | 2 | 1 | 3 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Eratigena atrica* | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 3 |
| *Eratigena atrica* (sub *Tegenaria duellica*) | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | [01] | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | ? | 1 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 3 |
| *Eratigena atrica* (sub *Tegenaria saeva*) | 1 | 0 | 0 | [01] | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 3 |
| *Eratigena balearica* | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 2 | 2 | 1 | 2 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 0 | 0 | ? | 3 |
| *Eratigena barrientosi* | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 3 |
| *Eratigena feminea* | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | [01] | 1 | 1 | 0 | 3 | 1 | 1 | 0 | 1 | 0 | – | 1 | 1 | 0 | 1 | 1 | 3 |
| *Eratigena fuesslini* | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 3 |
| *Eratigena herculea* | ? | ? | ? | 0 | 0 | [01] | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 0 | 2 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | ? |
| *Eratigena hispanica* | 0 | 0 | 0 | 0 | 0 | [01] | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 2 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 1 | 3 |
| *Eratigena incognita* | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | [01] | 1 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 3 |
| *Eratigena inermis* | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | – | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 3 |
| *Eratigena montigena* | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 1 | 3 |
| *Eratigena picta* | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 0 | [01] | 1 | 3 |
| *Eratigena sardoa* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 0 | 1 | 2 | [02] | 1 | 2 | 1 | 0 | 2 | ? | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | ? | 3 |
| *Eratigena sicana* | 0 | 0 | 0 | 0 | 0 | [01] | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 0 | 2 | ? | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 3 |
| *Eratigena vomeroi* | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 3 |
| *Histopona hauseri* | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | – | 1 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | ? | 1 | 0 |
| *Histopona fioni* | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | [01] | 0 | [01] | 0 | 1 | 1 | 1 | – | 1 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 2 | 1 | 0 |
| *Histopona torpida* | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | – | 1 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 0 |
| *Maimuna cretica* | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | – | 0 | 1 | 0 | 0 | 0 | 0 | 1 | – | 1 | 2 | 0 | – | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 3 |
| *Maimuna vestita* | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | – | 0 | 1 | 0 | 0 | 0 | 0 | 1 | – | 1 | 2 | 0 | – | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 3 |
| *Malthonica lusitanica* | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | [01] | 0 | – | 1 | 0 | 1 | 0 | 2 | ? | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| *Malthonica oceanica* | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | [02] | 1 | 0 | 0 | 1 | 0 | 0 | 0 | – | 1 | 0 | 1 | 0 | 2 | ? | 1 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 3 | 0 | 0 |
| *Tegenaria annulata* | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 1 | 1 | 2 | 6 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria argaeica* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | – | 0 | 0 | ? | ? | ? | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Tegenaria ariadnae* | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| *Tegenaria armigera* | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | ? | ? | ? | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Tegenaria campestris* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria carensis* | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 2 | 5 | ? | 1 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria circeoensis* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 2 |
| *Tegenaria dalmatica* | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | [12] | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Tegenaria domestica* | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| *Tegenaria eleonorae* | 0 | 0 | 1 | 0 | 0 | [01] | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Tegenaria femoralis* | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | – | 0 | 0 | 0 | 1 | 1 | [12] | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Tegenaria ferruginea* | 0 | 0 | 1 | 0 | 0 | [01] | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 0 | 0 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria hasperi* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| *Tegenaria hauseri* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | [01] | 2 | 0 | 0 | 1 | ? | ? | ? | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 2 | 0 | 0 |
| *Tegenaria henroti* | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Tegenaria levantina* | ? | ? | ? | 0 | 0 | 1 | 1 | 0 | 0 | – | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | ? | 0 |
| *Tegenaria mercanturensis* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 1 | 0 | 1 | 2 | 5 | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 1 | 0 | 0 |
| *Tegenaria mirifica* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 1 | 0 | 0 |
| *Tegenaria montana* | 0 | ? | ? | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | [01] | 2 | 1 | 0 | 0 | ? | ? | ? | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria pagana* | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Tegenaria parietina* | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |

APPENDIX 2 *Continued*

| | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Tegenaria parmenidis* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 1 | 1 | 0 |
| *Tegenaria parvula* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 2 | 5 | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria pasquinii* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 0 | 1 | 1 | – | 0 | 0 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 0 | ? | 0 |
| *Tegenaria percuriosa* | 0 | ? | 0 | 0 | 0 | [01] | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | ? | 1 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 2 | 1 | 0 |
| *Tegenaria racovitzai* | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | [01] | 2 | [01] | 0 | 0 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| *Tegenaria ramblae* | 0 | 0 | 1 | 0 | 0 | [01] | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria regispyrrhi* | 0 | 0 | 0 | 0 | 0 | [01] | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | [01] | 2 | 1 | 0 | 0 | 1 | 2 | 5 | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 1 | 1 | 0 |
| *Tegenaria rhodiensis* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 1 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 2 | ? | 0 |
| *Tegenaria rilaensis* | 0 | ? | ? | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 2 | 5 | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria sbordonii* | 0 | ? | ? | 0 | 0 | 0 | 1 | 1 | ? | ? | ? | ? | 0 | 1 | 1 | ? | 2 | 1 | 0 | 1 | 1 | 2 | ? | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 1 | 1 | 0 |
| *Tegenaria silvestris* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria tridentina* | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 2 | 5 | 1 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| *Tegenaria tyrrhenica* | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | 1 | [12] | 2 | 1 | 0 | 2 | 1 | 2 | 5 | ? | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 1 | 0 |
| *Textrix caudata* | 0 | 0 | 0 | 1 | [12] | 1 | 1 | 1 | 0 | – | 0 | 1 | 0 | 0 | 0 | 0 | 1 | – | 1 | 2 | 0 | – | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 0 | 1 | 3 |
| *Textrix denticulata* | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | – | 0 | 1 | 0 | 0 | 0 | 0 | 1 | – | 1 | 2 | 0 | – | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 3 |

| | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Agelena labyrinthica* | 0 | – | 0 | – | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | – | 0 | – | 1 | 0 | 0 | – | 0 | – | 0 | – | 1 | 0 | ? | 1 | 1 | 0 |
| *Allagelena gracilens* | 0 | – | 0 | – | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | – | 1 | 0 | 0 | – | 0 | – | 1 | 3 | 1 | 0 | ? | 1 | 1 | 0 |
| *Amaurobius ferox* | 0 | – | 1 | 1 | 0 | 0 | 0 | 1 | – | – | – | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 3 | 0 | – | 0 | 1 | 1 | 1 | 1 | 0 | 0 | – | 1 | 0 | 1 | 0 | – | 1 |
| *Aterigena aculeata* | 0 | – | 0 | – | ? | 3 | 1 | 1 | 0 | – | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | – | 1 | 0 | 0 | – | 1 | 0 | 1 | 0 | – | 1 |
| *Aterigena aliquoi* | 0 | – | 0 | – | 0 | 3 | 1 | 1 | 0 | – | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | – | 1 | 0 | 1 | 0 | – | 1 |
| *Aterigena aspromontensis* | 0 | – | 0 | – | 0 | 2 | 1 | 1 | 0 | – | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | – | 1 | 0 | 1 | 0 | – | 1 |
| *Aterigena ligurica* | 0 | – | 0 | – | 0 | 3 | 1 | 1 | 0 | – | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | – | 1 | 0 | 0 | – | 1 | 0 | 1 | 0 | – | 1 |
| *Aterigena soriculata* | 0 | – | 0 | – | 0 | 3 | 1 | 1 | 0 | – | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | – | 1 | 0 | 1 | 0 | – | 1 |
| *Eratigena agrestis* | 1 | 1 | 0 | – | 0 | 1 | 1 | 0 | 0 | – | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | – | 1 | 0 | 1 | 1 | 1 | 2 | 0 | – | 3 | 0 | 1 | 0 | – | 0 |
| *Eratigena arganoi* | 1 | 1 | 0 | – | 0 | 2 | 1 | 1 | 0 | – | 1 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | 1 | 1 | 3 | 1 | 1 | 1 | 0 | 0 |
| *Eratigena atrica* | 1 | 1 | 0 | – | 0 | 1 | 1 | 0 | 0 | – | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | – | 0 | 0 | 0 | – | 1 | 0 | 0 | – | 3 | 0 | 1 | 0 | – | 0 |
| *Eratigena atrica* (sub *Tegenaria duellica*) | 1 | 1 | 0 | – | 0 | 1 | 1 | 0 | 0 | – | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | – | 0 | 0 | 0 | – | 1 | 0 | 0 | – | 3 | 0 | 1 | 0 | – | 0 |
| *Eratigena atrica* (sub *Tegenaria saeva*) | 1 | 1 | 0 | – | 0 | 1 | 1 | 0 | 0 | – | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | – | 0 | 0 | 0 | – | 1 | 0 | 0 | – | 3 | 0 | 1 | 1 | 0 | 0 |
| *Eratigena balearica* | 1 | 1 | 0 | – | 0 | 2 | 1 | 1 | 0 | – | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | – | 1 | 2 | 0 | – | 3 | 1 | 1 | 0 | – | 0 |
| *Eratigena barrientosi* | 1 | 1 | 0 | – | 0 | 1 | 1 | 0 | 0 | – | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | – | 1 | 2 | 0 | – | 3 | 0 | 1 | 1 | 0 | 0 |
| *Eratigena feminea* | 1 | 1 | 0 | – | 0 | 2 | 1 | 0 | 0 | – | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | 1 | 1 | 3 | 1 | 1 | 0 | – | 0 |
| *Eratigena fuesslini* | 1 | 1 | 0 | – | 0 | 1 | 1 | 0 | 0 | – | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | – | 1 | 0 | 1 | 1 | 1 | 2 | 0 | – | 3 | 1 | 1 | 0 | – | 0 |
| *Eratigena herculea* | ? | ? | 0 | – | ? | 2 | 1 | 1 | 0 | – | 1 | 0 | 0 | 0 | 2 | 2 | ? | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | – | 1 | 1 | 3 | 0 | 1 | 1 | 1 | 0 |
| *Eratigena hispanica* | 1 | 1 | 0 | – | 0 | 2 | 1 | 1 | 0 | – | 1 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 0 |
| *Eratigena incognita* | 1 | 1 | 0 | – | 0 | 1 | 1 | 0 | 0 | – | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | – | 1 | 2 | 0 | – | 1 | 0 | 1 | 1 | 0 | 0 |
| *Eratigena inermis* | 1 | 2 | 0 | – | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | – | 0 | – | 0 | – | 1 | 0 | 1 | 1 | 1 | 0 |
| *Eratigena montigena* | 1 | 1 | 0 | – | 0 | 1 | 1 | 0 | 1 | 3 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | – | 1 | 2 | 0 | – | 3 | 0 | 1 | 0 | – | 0 |
| *Eratigena picta* | 1 | 1 | 0 | – | 0 | 3 | 1 | 1 | 0 | – | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | – | 1 | 2 | 0 | – | 3 | 1 | 1 | 0 | – | 0 |
| *Eratigena sardoa* | 1 | 1 | 0 | – | 0 | 2 | 1 | 1 | 0 | – | 1 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |

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| *Eratigena sicana* | 1 | 1 | 0 | – | 0 | 1 | 1 | 1 | 0 | – | 1 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | – | 1 | 1 | 2 | 1 | 1 | 0 | – | 0 |
| *Eratigena vomeroi* | 1 | 2 | 0 | – | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | – | 0 | – | 0 | – | 1 | 0 | 1 | 1 | 1 | 0 |
| *Histopona hauseri* | 0 | – | 0 | – | 0 | 3 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | – | – | – | – | – | 1 | 0 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 1 | 1 | 0 | 0 | – | 0 |
| *Histopona fioni* | 0 | – | 1 | 3 | 0 | 3 | 1 | 1 | 0 | – | 0 | 0 | 0 | 1 | – | – | – | – | – | 1 | 0 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 1 | 1 | 0 | 0 | – | 0 |
| *Histopona torpida* | 0 | – | 1 | 3 | 0 | 3 | 0 | 1 | 0 | – | 0 | 0 | 0 | 1 | – | – | – | – | – | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 1 | 1 | 0 | 0 | – | 0 |
| *Maimuna cretica* | 1 | 1 | 0 | – | 0 | 1 | 1 | 1 | 1 | 3 | 2 | 0 | 1 | 0 | 2 | 2 | 1 | 1 | 4 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | – | 0 | – | 1 | 0 | ? | 0 | – | 0 |
| *Maimuna vestita* | 1 | 1 | 0 | – | 0 | 1 | 1 | 1 | 1 | 3 | 2 | 0 | 1 | 0 | 1 | 2 | 1 | 1 | 4 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | – | 0 | – | 1 | 0 | ? | 0 | – | 0 |
| *Malthonica lusitanica* | 0 | – | 0 | – | 0 | 3 | 0 | 1 | 0 | – | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | – | 1 | 1 | ? | 0 | – | 0 |
| *Malthonica oceanica* | 0 | – | 0 | – | 0 | 1 | 0 | 1 | 0 | – | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | – | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria annulata* | 1 | 0 | 0 | – | 0 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria argaeica* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | – | 2 | 1 | 1 | 0 | – | 0 |
| *Tegenaria ariadnae* | 1 | 0 | 0 | – | 0 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | – | 0 | – | 0 | – | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria armigera* | 0 | – | 1 | 0 | 1 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria campestris* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria carensis* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria circeoensis* | 1 | 0 | 0 | – | 1 | 2 | 1 | 1 | 1 | 3 | 0 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 1 | 2 | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria dalmatica* | 1 | 0 | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 0 | – | 0 | 1 | 1 | 0 | – | 0 |
| *Tegenaria domestica* | 0 | – | 0 | – | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | – | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria eleonorae* | 1 | 0 | 1 | 0 | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria femoralis* | 1 | 0 | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria ferruginea* | 1 | 0 | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria hasperi* | 0 | – | 0 | – | 0 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | – | 0 | – | 0 | – | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria hauseri* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 1 | 0 | 1 | 0 | 0 | 0 | – | 0 |
| *Tegenaria henroti* | 1 | 0 | 0 | – | 1 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria levantina* | 1 | 0 | 0 | – | ? | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | [12] | 2 | ? | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria mercanturensis* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 0 | – | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria mirifica* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 0 | – | 0 | 0 | 1 | 0 | – | 0 |
| *Tegenaria montana* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria pagana* | 1 | 0 | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 3 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria parietina* | 1 | 0 | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria parmenidis* | 1 | 0 | 0 | – | 0 | 3 | 1 | 1 | 1 | 3 | 0 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 1 | 0 | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria parvula* | 1 | 0 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria pasquinii* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | – | 1 | 1 | 0 | – | 2 | 1 | 1 | 0 | – | 0 |
| *Tegenaria percuriosa* | 0 | – | 0 | – | 1 | 0 | 1 | 1 | 0 | – | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria racovitzai* | 0 | – | 0 | – | 1 | 0 | – | – | – | – | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | – | 2 | 0 | 0 | 0 | – | 0 |
| *Tegenaria ramblae* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria regispyrrhi* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 0 | – | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 1 | 1 | ? | 0 | – | 1 |
| *Tegenaria rhodiensis* | 0 | – | 1 | 2 | 1 | 2 | 1 | 0 | 0 | – | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | – | 0 | 1 | 0 | – | 1 | 1 | 0 | – | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria rilaensis* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria sbordonii* | 1 | 0 | 0 | – | 1 | 3 | 1 | 1 | 1 | 3 | 0 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 1 | 0 | 1 | 0 | 1 | 0 | – | 0 |
| *Tegenaria silvestris* | 1 | 0 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | – | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria tridentina* | 0 | – | 0 | – | 1 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | 0 | 0 | – | 0 |
| *Tegenaria tyrrhenica* | 0 | – | 1 | 0 | 0 | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | – | 0 | – | 0 | 1 | ? | 0 | – | 0 |
| *Textrix caudata* | 1 | 1 | 0 | – | 1 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | – | – | – | – | – | 1 | 0 | 1 | 1 | 1 | 0 | 0 | – | 0 | – | 1 | 1 | 1 | 0 | – | 0 |
| *Textrix denticulata* | 1 | 1 | 0 | – | 1 | 1 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 1 | – | – | – | – | – | 1 | 0 | 1 | 1 | 1 | 0 | 0 | – | 0 | – | 1 | 0 | 0 | 0 | – | 0 |

# APPENDIX 3

All described *Aterigena*, *Tegenaria*, and *Malthonica* species listed in the catalogue of Platnick ( 2012: V. 12.5) and the proposed nomenclatural changes resulting from this work, including new genera and species. Taxa are arranged based on their geographical distribution and then in alphabetical order. New species are given at the end of the table.

| Name in Platnick ( 2012) | Changes | Name in present work | Comments |
|---|---|---|---|
| European taxa | | | |
| *Aterigena aliquoi* (Brignoli, 1971) | – | *Aterigena aliquoi* (Brignoli, 1971) | Bolzern *et al*., 2010 |
| *Aterigena aspromontensis* Bolzern *et al*., 2010 | – | *Aterigena aspromontensis* Bolzern *et al*., 2010 | Bolzern *et al*., 2010 |
| *Aterigena ligurica* (Simon, 1916) | – | *Aterigena ligurica* (Simon, 1916) | Bolzern *et al*., 2010 |
| *Aterigena soriculata* (Simon, 1873) | – | *Aterigena soriculata* (Simon, 1873) | Bolzern *et al*., 2010 |
| *Malthonica annulata* (Kulczyński, 1913) | stat. rev. | *Tegenaria annulata* Kulczyński, 1913 | |
| *Malthonica argaeica* (Nosek, 1905) | stat. rev. | *Tegenaria argaeica* Nosek, 1905 | |
| *Malthonica arganoi* (Brignoli, 1971) | comb. nov. | *Eratigena arganoi* (Brignoli, 1971) | |
| *Malthonica balearica* Brignoli, 1978 | comb. nov. | *Eratigena balearica* (Brignoli, 1978) | |
| *Malthonica bozhkovi* Deltshev, 2008 | comb. nov. | *Tegenaria bozhkovi* (Deltshev, 2008) | |
| *Malthonica campestris* (C. L. Koch, 1834) | stat. rev. | *Tegenaria campestris* (C. L. Koch, 1834) | |
| *Malthonica daedali* Brignoli, 1980 | incertae sedis (inc. sed.) | | Only female described; holotype female examined |
| *Malthonica dalmatica* (Kulczyński, 1906) | stat. rev. | *Tegenaria dalmatica* Kulczyński, 1906 | |
| *Malthonica eleonorae* (Brignoli, 1974) | stat. rev. | *Tegenaria eleonorae* Brignoli, 1974 | |
| *Malthonica ferruginea* (Panzer, 1804) | stat. rev. | *Tegenaria ferruginea* (Panzer, 1804) | |
| *Malthonica lusitanica* Simon, 1898 | – | *Malthonica lusitanica* Simon, 1898 | |
| *Malthonica minoa* (Brignoli, 1976) | inc. sed. | | Only female described; holotype female and three females examined; affiliation highly doubtful; may belong to an separate group (see also *M. paraschiae* Brignoli, 1984 and *M. spinipalipis* Deltshev & Paraschi, 1990) |
| *Malthonica montana* (Deltshev, 1993) | stat. rev. | *Tegenaria montana* Deltshev, 1993 | |
| *Malthonica nemorosa* (Simon, 1916) | syn. nov. | *Tegenaria hasperi* Chyzer, 1897 | |
| *Malthonica oceanica* Barrientos & Cardoso, 2007 | – | *Malthonica oceanica* Barrientos & Cardoso, 2007 | Several specimens examined |
| *Malthonica pagana* (C. L. Koch, 1840) | stat. rev. | *Tegenaria pagana* C. L. Koch, 1840 | |
| *Malthonica pagana urbana* (Simon, 1875) | syn. nov. | *Tegenaria pagana* C. L. Koch, 1840 | |
| *Malthonica paraschiae* Brignoli, 1984 | inc. sed. | | Only female described; holotype female and 1 male, 1 female examined; affiliation highly doubtful; may belong to an separate group (see also *M. minoa* (Brignoli, 1976) and *M. spinipalipis* Deltshev & Paraschi, 1990) |
| *Malthonica parvula* (Thorell, 1875) | stat. rev. | *Tegenaria parvula* Thorell, 1875 | |
| *Malthonica picta* (Simon, 1870) | comb. nov. | *Eratigena picta* (Simon, 1870) | |
| *Malthonica podoprygorai* Kovblyuk, 2006 | comb. nov. | *Tegenaria podoprygorai* (Kovblyuk, 2006) | Revision based on published figures |
| *Malthonica ramblae* (Barrientos, 1978) | stat. rev. | *Tegenaria ramblae* Barrientos, 1978 | |
| *Malthonica rilaensis* (Deltshev, 1993) | stat. rev. | *Tegenaria rilaensis* Deltshev, 1993 | |
| *Malthonica sardoa* Brignoli, 1977 | comb. nov. | *Eratigena sardoa* (Brignoli, 1977) | |
| *Malthonica sbordonii* (Brignoli, 1971) | stat. rev. | *Tegenaria sbordonii* Brignoli, 1971 | |
| *Malthonica sicana* Brignoli, 1976 | comb. nov. | *Eratigena sicana* (Brignoli, 1976) | |
| *Malthonica silvestris* (L. Koch, 1872) | stat. rev. | *Tegenaria silvestris* L. Koch, 1872 | |
| *Malthonica spinipalpis* Deltshev, 1990 | inc. sed. | | No specimen examined; affiliation highly doubtful; may belong to an separate group (see also *M. minoa* (Brignoli, 1976) and *M. paraschiae* Brignoli, 1984) |

| | | | |
|---|---|---|---|
| *Malthonica tyrrhenica* (Dalmas, 1922) | stat. rev. | *Tegenaria tyrrhenica* Dalmas, 1922 | |
| *Malthonica vomeroi* (Brignoli, 1977) | comb. nov. | *Eratigena vomeroi* (Brignoli, 1977) | |
| *Tegenaria achaea* Brignoli, 1977 | – | *Tegenaria achaea* Brignoli, 1977 | Only female described |
| *Tegenaria advena* (C. L. Koch, 1841) | nomen dubium | nomen dubium | Only female described |
| *Tegenaria agrestis* (Walckenaer, 1802) | comb. nov. | *Eratigena agrestis* (Walckenaer, 1802) | |
| *Tegenaria animata* Kratochvíl & Miller, 1940 | – | *Tegenaria animata* Kratochvíl & Miller, 1940 | Bolzern *et al*., 2010 |
| *Tegenaria antrorum* Simon, 1916 | syn. nov. | *Tegenaria racovitzai* Simon, 1907 | |
| *Tegenaria ariadnae* Brignoli, 1984 | – | *Tegenaria ariadnae* Brignoli, 1984 | New male |
| *Tegenaria armigera* Simon, 1873 | – | *Tegenaria armigera* Simon, 1873 | |
| *Tegenaria atrica* C. L. Koch, 1843 | comb. nov. | *Eratigena atrica* (C. L. Koch, 1843) | |
| *Tegenaria baronii* Brignoli, 1977 | syn. nov. | *Tegenaria pagana* C. L. Koch, 1840 | |
| *Tegenaria barrientosi* Bolzern *et al*., 2009 | comb. nov. | *Eratigena barrientosi* (Bolzern *et al*., 2009) | |
| *Tegenaria bayeri* Kratochvíl, 1934 | – | *Tegenaria bayeri* Kratochvíl, 1934 | Bolzern *et al*., 2010 |
| *Tegenaria bithyniae* Brignoli, 1978 | syn. nov. | *Tegenaria percuriosa* Brignoli, 1972 | |
| *Tegenaria bosnica* Kratochvíl & Miller, 1940 | – | *Tegenaria bosnica* Kratochvíl & Miller, 1940 | Bolzern *et al*., 2010 |
| *Tegenaria bucculenta* (L. Koch, 1868) | comb. nov. | *Eratigena bucculenta* (L. Koch, 1868) | Problematic group |
| *Tegenaria capolongoi* Brignoli, 1977 | – | *Tegenaria capolongoi* Brignoli, 1977 | Only female described |
| *Tegenaria carensis* Barrientos, 1981 | – | *Tegenaria carensis* Barrientos, 1981 | New male |
| *Tegenaria cerrutii* Roewer, 1960 | syn. nov. | *Tegenaria pagana* C. L. Koch, 1840 | |
| *Tegenaria chumachenkoi* Kovblyuk & Ponomarev, 2008 | – | *Tegenaria chumachenkoi* Kovblyuk & Ponomarev, 2008 | No specimen examined |
| *Tegenaria decolorata* Kratochvíl & Miller, 1940 | – | *Tegenaria decolorata* Kratochvíl & Miller, 1940 | Bolzern *et al*., 2010 |
| *Tegenaria dentifera* Kulczyński, 1908 | inc. sed. | *Tegenaria dentifera* Kulczyński, 1908 | Only female described |
| *Tegenaria domestica* (Clerck, 1757) | – | *Tegenaria domestica* (Clerck, 1757) | |
| *Tegenaria domesticoides* Schmidt & Piepho, 1994 | syn. nov. | *Tegenaria domestica* (Clerck, 1757) | |
| *Tegenaria duellica* Simon, 1875 | syn. nov. | *Eratigena atrica* (C. L. Koch, 1843) | |
| *Tegenaria faniapollinis* Brignoli, 1978 | – | *Tegenaria faniapollinis* Brignoli, 1978 | New to Europe (Bulgaria, sub *Tegenaria paragamiani* Deltshev, 2008) |
| *Tegenaria feminea* Simon, 1870 | comb. nov. | *Eratigena feminea* (Simon, 1870) | |
| *Tegenaria femoralis* Simon, 1873 | – | *Tegenaria femoralis* Simon, 1873 | |
| *Tegenaria fuesslini* Pavesi, 1873 | comb. nov. | *Eratigena fuesslini* (Pavesi, 1873) | |
| *Tegenaria hasperi* Chyzer, 1897 | – | *Tegenaria hasperi* Chyzer, 1897 | |
| *Tegenaria hauseri* Brignoli, 1979 | – | *Tegenaria hauseri* Brignoli, 1979 | |
| *Tegenaria henroti* Dresco, 1956 | – | *Tegenaria henroti* Dresco, 1956 | |
| *Tegenaria herculea* Fage, 1931 | comb. nov. | *Eratigena herculea* (Fage, 1931) | |
| *Tegenaria hispanica* Fage, 1931 | comb. nov. | *Eratigena hispanica* (Fage, 1931) | |
| *Tegenaria incognita* Bolzern *et al*., 2009 | comb. nov. | *Eratigena incognita* (Bolzern *et al*., 2009) | |
| *Tegenaria inermis* Simon, 1870 | comb. nov. | *Eratigena inermis* (Simon, 1870) | |
| *Tegenaria labyrinthi* Brignoli, 1984 | syn. nov. | *Tegenaria ariadnae* Brignoli, 1984 | |
| *Tegenaria lapicidinarum* Spassky, 1934 | – | *Tegenaria lapicidinarum* Spassky, 1934 | |
| *Tegenaria levantina* Barrientos, 1981 | – | *Tegenaria levantina* Barrientos, 1981 | |
| *Tegenaria maderiana* Thorell, 1875 | syn. nov. | *Eratigena feminea* (Simon, 1870) | |
| *Tegenaria maelfaiti* Bosmans, 2011 | – | *Tegenaria maelfaiti* Bosmans, 2011 | |
| *Tegenaria marinae* Brignoli, 1971 | syn. nov. | *Tegenaria pagana* C. L. Koch, 1840 | |
| *Tegenaria mercanturensis* Bolzern & Hervé, 2010 | – | *Tegenaria mercanturensis* Bolzern & Hervé, 2010 | |

APPENDIX 3 *Continued*

| Name in Platnick ( 2012) | Changes | Name in present work | Comments |
|---|---|---|---|
| *Tegenaria mirifica* Thaler, 1987 | – | *Tegenaria mirifica* Thaler, 1987 | |
| *Tegenaria montigena* Simon, 1937 | comb. nov. | *Eratigena montigena* (Simon, 1937) | |
| *Tegenaria nervosa* Simon, 1870 | syn. nov. | *Eratigena atrica* (C. L. Koch, 1843) | |
| *Tegenaria oribata* Simon, 1916 | – | *Tegenaria oribata* Simon, 1916 | |
| *Tegenaria osellai* Brignoli, 1971 | syn. nov. | *Eratigena agrestis* (Walckenaer, 1802) | |
| *Tegenaria paragamiani* Deltshev, 2008 | syn. nov. | *Tegenaria faniapollinis* Brignoli, 1978 | |
| *Tegenaria parietina* (Fourcroy, 1785) | – | *Tegenaria parietina* (Fourcroy, 1785) | |
| *Tegenaria parmenidis* Brignoli, 1971 | – | *Tegenaria parmenidis* Brignoli, 1971 | New male |
| *Tegenaria percuriosa* Brignoli, 1972 | – | *Tegenaria percuriosa* Brignoli, 1972 | |
| *Tegenaria pieperi* Brignoli, 1979 | – | *Tegenaria pieperi* Brignoli, 1979 | Only female described |
| *Tegenaria racovitzai* Simon, 1907 | – | *Tegenaria racovitzai* Simon, 1907 | |
| *Tegenaria regispyrrhi* Brignoli, 1976 | – | *Tegenaria regispyrrhi* Brignoli, 1976 | Problematic complex (see relevant paragraph) |
| *Tegenaria rhodiensis* Caporiacco, 1948 | – | *Tegenaria rhodiensis* Caporiacco, 1948 | As interpreted by Brignoli ( 1978c) |
| *Tegenaria saeva* Blackwall, 1844 | syn. nov. | *Eratigena atrica* (C. L. Koch, 1843) | |
| *Tegenaria schmalfussi* Brignoli, 1976 | – | *Tegenaria schmalfussi* Brignoli, 1976 | Only female described |
| *Tegenaria scopifera* Barrientos, Ribera & Pons, 2002 | – | *Tegenaria scopifera* Barrientos, Ribera & Pons, 2002 | |
| *Tegenaria taurica* Charitonov, 1947 | – | *Tegenaria taurica* Charitonov, 1947 | |
| *Tegenaria tridentina* L. Koch, 1872 | – | *Tegenaria tridentina* L. Koch, 1872 | |
| *Tegenaria trinacriae* Brignoli, 1971 | syn. nov. | *Eratigena agrestis* (Walckenaer, 1802) | |
| *Tegenaria velox* Chyzer, 1897 | syn. nov. | *Tegenaria hasperi* Chyzer, 1897 | |
| Asian taxa (including Turkey and Cyprus) | | | |
| *Aterigena aculeata* (Wang, 1992) | – | *Aterigena aculeata* (Wang, 1992) | Bolzern *et al*., 2010 |
| *Malthonica anhela* (Brignoli, 1972) | stat. rev. | *Tegenaria anhela* Brignoli, 1972 | Holotype and 1 male, 1 female examined |
| *Malthonica epacris* (Levy, 1996) | stat. rev. | *Tegenaria epacris* Levy, 1996 | Revision based on published figures |
| *Malthonica lehtineni* Guseinov *et al*., 2005 | comb. nov. | *Tegenaria lehtineni* (Guseinov *et al*., 2005) | Only male described; revision based on published figures |
| *Malthonica lenkoranica* Guseinov *et al*., 2005 | comb. nov. | *Tegenaria lenkoranica* (Guseinov *et al*., 2005) | Revision based on published figures |
| *Malthonica lyncea* (Brignoli, 1978) | stat. rev. | *Tegenaria lyncea* Brignoli, 1978 | Holotype male and paratypes (1 male, 1 female) examined |
| *Malthonica maronita* (Simon, 1873) | stat. rev. | *Tegenaria maronita* Simon, 1873 | Holotype male and 1 male, 2 females examined, new record for Cyprus |
| *Malthonica mediterranea* (Levy, 1996) | stat. rev. | *Tegenaria mediterranea* Levy, 1996 | 2 males from Syria (MNHN); the affiliation of male and female is doubted because these 2 males were together with 10 females belonging most probably to *Teg. angustipalpis* Levy, 1996 |
| *Malthonica nakhchivanica* Guseinov *et al*., 2005 | comb. nov. | *Tegenaria nakhchivanica* Guseinov *et al*., 2005 | Revision based on published figures |
| *Malthonica pasquinii* (Brignoli, 1978) | stat. rev. | *Tegenaria pasquinii* Brignoli, 1978 | Holotype female and all paratypes examined |
| *Malthonica pseudolyncea* Guseinov *et al*., 2005 | comb. nov. | *Tegenaria pseudolyncea* (Guseinov *et al*., 2005) | Revision based on published figures |
| *Tegenaria abchasica* Charitonov, 1941 | – | *Tegenaria abchasica* Charitonov, 1941 | No specimen examined |
| *Tegenaria adomestica* Guseinov *et al*., 2005 | – | *Tegenaria adomestica* Guseinov *et al*., 2005 | Only female described; revision based on published figures |
| *Tegenaria agnolettii* Brignoli, 1978 | – | *Tegenaria agnolettii* Brignoli, 1978 | Only female described; holotype female examined |
| *Tegenaria angustipalpis* Levy, 1996 | – | *Tegenaria angustipalpis* Levy, 1996 | 10 females from Syria (MNHN, Nr. 7876); the affiliation of male and female is doubted (see *Teg. mediterranea* Levy, 1996); 1 female aff. *angustipalpis* from Spain (MNHN, 467) |
| *Tegenaria averni* Brignoli, 1978 | – | *Tegenaria averni* Brignoli, 1978 | Only female described; holotype female and 1 female (NMB, AB793) examined |
| *Tegenaria bayrami* Kaya, Kunt, Marusik & Ugurtas, 2010 | – | *Tegenaria bayrami* Kaya, Kunt, Marusik & Ugurtas, 2010 | |

| | | | |
|---|---|---|---|
| *Tegenaria chebana* Thorell, 1897 | inc. sed. | | Only female described; type material not available; no published figures; species is not sufficiently characterized |
| *Tegenaria comnena* Brignoli, 1978 | – | *Tegenaria comnena* Brignoli, 1978 | Only female described; holotype female and paratypes (3 female) examined |
| *Tegenaria comstocki* Gajbe, 2004 | inc. sed. | | Based on the provided drawings (Gajbe, 2004), this species does not belong to either *Tegenaria* or *Malthonica* |
| *Tegenaria concolor* Simon, 1873 | – | *Tegenaria concolor* Simon, 1873 | 1 female examined (MNHN, 478A) |
| *Tegenaria cottarellii* Brignoli, 1978 | – | *Tegenaria cottarellii* Brignoli, 1978 | Only female described; holotype female and paratypes (2 female) examined |
| *Tegenaria elysii* Brignoli, 1978 | – | *Tegenaria elysii* Brignoli, 1978 | Only female described; holotype female and paratypes (10 female) examined |
| *Tegenaria forestieroi* Brignoli, 1978 | – | *Tegenaria forestieroi* Brignoli, 1978 | Only female described; holotype female and paratypes (3 female) examined |
| *Tegenaria halidi* Guseinov *et al*., 2005 | – | *Tegenaria halidi* Guseinov *et al*., 2005 | No specimen examined |
| *Tegenaria hamid* Brignoli, 1978 | – | *Tegenaria hamid* Brignoli, 1978 | Only female described; holotype female examined; very problematic because the specimen is a subadult female (even though the vulva is developed) |
| *Tegenaria hemanginiae* Reddy & Patel, 1992 | inc. sed. | | Based on the published drawings (Reddy & Patel, 1992), this species does not belong to *Tegenaria* or *Malthonica*. They stated that this species is similar to *Tamgrinia chhanguensis* Tikader, 1970 (sub *Tegenaria*) |
| *Tegenaria ismaillensis* Guseinov *et al*., 2005 | – | *Tegenaria ismaillensis* Guseinov *et al*., 2005 | Only female described; no specimen examined |
| *Tegenaria karaman* Brignoli, 1978 | – | *Tegenaria karaman* Brignoli, 1978 | Only female described; holotype female examined |
| *Tegenaria longimana* Simon, 1898 | – | *Tegenaria longimana* Simon, 1898 | Holotype male and 2 male, 4 female examined (MCSN, MHNG) |
| *Tegenaria lunakensis* Tikader, 1964 | inc. sed. | *Tegenaria lunakensis* Tikader, 1964 | Only female described; the description provided by Tikader, 1964, is not diagnostic. The relevant specimens have to be revised. |
| *Tegenaria mamikonian* Brignoli, 1978 | – | *Tegenaria mamikonian* Brignoli, 1978 | Only female described; holotype female examined |
| *Tegenaria melbae* Brignoli, 1972 | – | *Tegenaria melbae* Brignoli, 1972 | Only female described; holotype female and 1 female and probably new male examined (Bolzern A, unpublished) |
| *Tegenaria michae* Brignoli, 1978 | – | *Tegenaria michae* Brignoli, 1978 | Only female described; holotype female and paratypes (2 female) examined |
| *Tegenaria pontica* Charitonov, 1947 | – | *Tegenaria pontica* Charitonov, 1947 | Only female described; no specimen examined |
| *Tegenaria shillongensis* Barman, 1979 | inc. sed. | | Based on the published drawings (Barman, 1979), this species does not belong to either *Tegenaria* or *Malthonica* |
| *Tegenaria talyshica* Guseinov *et al*., 2005 | – | *Tegenaria talyshica* Guseinov *et al*., 2005 | Only female described; no specimen examined |
| *Tegenaria taprobanica* Strand, 1907 | syn. nov. | *Tegenaria parietina* (Fourcroy, 1785) | Type specimen probably lost; based on the very short description without figures (Strand, 1907), the described specimen would match a very large *Teg. parietina* specimen. |
| *Tegenaria tekke* Brignoli, 1978 | – | *Tegenaria tekke* Brignoli, 1978 | Only female described; holotype female examined |
| *Tegenaria vignai* Brignoli, 1978 | – | *Tegenaria vignai* Brignoli, 1978 | Holotype male and paratype female examined; very close to *Teg. longimana* Simon, 1898 |
| *Tegenaria wittmeri* Brignoli, 1978 | inc. sed. | | Holotype and paratypes (1 male, 1 female) examined; species does not belong to either *Tegenaria* or *Malthonica*. |
| *Tegenaria zagatalensis* Guseinov *et al*., 2005 | – | *Tegenaria zagatalensis* Guseinov *et al*., 2005 | Only female described; no specimen examined |

## APPENDIX 3 *Continued*

| Name in Platnick ( 2012) | Changes | Name in present work | Comments |
|---|---|---|---|
| African taxa | | | |
| *Malthonica africana* Simon & Fage, 1922 | – | *Malthonica africana* Simon & Fage, 1922 | Only female described; no specimen examined |
| *Malthonica vallei* (Brignoli, 1972) | stat. rev. | *Tegenaria vallei* Brignoli, 1972 | Holotype male and paratypes (1 male, 1 female) examined |
| *Tegenaria africana* Lucas, 1846 | – | *Tegenaria africana* Lucas, 1846 | Only female described; 1 female examined (MNHN) |
| *Tegenaria longipalpis* Lucas, 1846 (nomen dubium) | syn. nov. | *Tegenaria pagana* C. L. Koch, 1840 | Only female described; type material of Lucas could be found in the collection of the MNHN |
| *Tegenaria maroccana* Denis, 1956 | – | *Tegenaria maroccana* Denis, 1956 | Only female described; types not traceable in the collection of the MNHN |
| North American taxa | | | |
| *Tegenaria xenophontis* Brignoli, 1978 | syn. nov. | *Tegenaria cottarellii* Brignoli, 1978 | Only female described; holotype female and paratypes (5 female) examined |
| *Tegenaria blanda* Gertsch, 1971 | Not treated | *Tegenaria blanda* Gertsch, 1971 | Only female described; no specimens examined; no published figures |
| *Tegenaria caverna* Gertsch, 1971 | Not treated | *Tegenaria caverna* Gertsch, 1971 | No specimens examined |
| *Tegenaria chiricahuae* Roth, 1968 | Not treated | *Tegenaria chiricahuae* Roth, 1968 | No specimens examined |
| *Tegenaria decora* Gertsch, 1971 | Not treated | *Tegenaria decora* Gertsch, 1971 | Several female examined |
| *Tegenaria flexuosa* F. O. P.–Cambridge, 1902 | Not treated | *Tegenaria flexuosa* F. O. P.–Cambridge, 1902 | Only male described; no specimens examined |
| *Tegenaria florea* Brignoli, 1974 | Not treated | *Tegenaria florea* Brignoli, 1974 | Only female described; holotype female and 2 female examined |
| *Tegenaria gertschi* Roth, 1968 | Not treated | *Tegenaria gertschi* Roth, 1968 | Only male described; no specimen examined |
| *Tegenaria mexicana* Roth, 1968 | Not treated | *Tegenaria mexicana* Roth, 1968 | Paratypes (4 male) and 7 female examined |
| *Tegenaria rothi* Gertsch, 1971 | Not treated | *Tegenaria rothi* Gertsch, 1971 | 3 male, 3 female examined (AMNH) |
| *Tegenaria selva* Roth, 1968 | Not treated | *Tegenaria selva* Roth, 1968 | 1 male, 3 female examined (AMNH) |
| *Tegenaria tlaxcala* Roth, 1968 | Not treated | *Tegenaria tlaxcala* Roth, 1968 | |
| Taxa not in the catalogue of Platnick (2012) | | | |
| *Tegenaria boitanii* Brignoli, 1978 (only female) | Misidentified | *Tegenaria argaeica* Nosek, 1905 | Male belongs to *Teg. percuriosa* Brignoli, 1978 (synonymized by Gasparo, 2007) |
| *Tegenaria vidua* Cárdenas & Barrientos, 2011 | comb. nov. | *Eratigena vidua* (Cárdenas & Barrientos, 2011) | Only female described |
| | sp. nov. | *Tegenaria annae* | |
| | sp. nov. | *Tegenaria circeoensis* | |
| | sp. nov. | *Tegenaria croatica* | Only female described |
| | sp. nov. | *Tegenaria montiszasensis* | Only female described |
| | sp. nov. | *Tegenaria pindosiensis* | Only female described |
| | sp. nov. | *Tegenaria schoenhoferi* | Only male described |
| | sp. nov. | *Tegenaria vankeerorum* | Only male described |