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The genus *Haplodrassus* Chamberlin, 1922 in the Mediterranean and the Maghreb in particular (Araneae: Gnaphosidae)

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Abstract

The *Haplodrassus* species of the the Maghreb are revised. Six new species are described: *H. dentifer* Bosmans & Abrous, **sp. n.** (♂♀, Algeria, Morocco, Tunisia, Spain), *H. longivulva* Bosmans & Hervé, **sp. n.** (♂♀, Algeria, Morocco), *H. lyndae* Abrous & Bosmans, **sp. n.** (♂♀, Algeria, Morocco, Spain), *H. ovatus* Bosmans & Hervé, **sp. n.** (Tunisia, Algeria), *H. securifer* Bosmans & Abrous, **sp. n.** (♂♀, Algeria, Morocco, Tunisia, Portugal, Spain, France, Italy, Belgium) and *H. triangularis* Bosmans, **sp. n.** (♂♀, Morocco, Tunisia). The following new synonyms are proposed. *Drassus corticalis* Lucas, 1846, **syn. n.** and *Drassus similis* C.L. Koch, 1866, **syn. n.** were found to be junior synonyms of *Drassus rufipes* Lucas, 1846. *Drassus parvulus* L. Koch 1882, *Drassodes acrotirius* Roewer, 1928, *Drassodes seditiosus* Caporiacco, 1928, *Drassodes parvicorpus* Roewer, 1951 and *Haplodrassus maroccanus* Denis, 1956 are junior synonyms of *Drassus omissus* O.P.-Cambridge, 1872 **syn. n.** and this species is transferred to *Haplodrassus* **comb. n.** (taken out of the synonymy with *H. morosus* (O.P.-Cambridge, 1872, contra Levy, 2004). *Drassodes nigroscripatus deminutus* Simon, 1909 and *Drassodes nigroscripatus* Simon, 1909 are synonyms and the species is transferred to *Haplodrassus* **comb. n.** *Haplodrassus isaevi* Ponomarev & Tsvetkov, 2006 is a junior synonym of *Haplodrassus orientalis* (L. Koch), 1866 **syn. n. comb. n.** *H. macellinus hebes* (O.P.-Cambridge, 1874) is a synonym of *Haplodrassus macellinus* (Thorell, 1871) **syn. n.** *Haplodrassus vignai* Di Franco, 1996 is a synonym of *H. macellinus* (Thorell, 1871) (taken out of the synonymy of *H. invalidus* O.P.-Cambridge, 1872, contra Levy, 2004). *H. gridellii* Caporiacco, 1949 is taken out of the synonymy with *H. pugnans* (Simon, 1880) and synonymized with *H. rufipes* (Lucas, 1846) **syn. n.** (contra Levy, 2004). The following new combinations are proposed. *Drassodes rhodanicus*

Simon, 1914 = *Haplodrassus rhodanicus* (Simon, 1914), **comb. n.** *Drassus crassipes* Lucas, 1846 = *Haplodrassus crassipes* (Lucas, 1846) **comb. n.** The following new status is proposed: *Haplodrassus typhon* (Simon, 1878) is removed from the synonymy of *H. macellinus* Thorell, 1871, is declared a valid species, a female lectotype is designated and the unknown male is described. *Drassodes severus* L. Koch, 1839 and *Drassodes spinicrus* Caporiacco, 1928 are declared *nomina dubia*. The female of *H. rhodanicus* is described for the first time, and the male illustrated for the first time. All *Haplodrassus* species occurring in the Maghreb are redescribed as well as *Haplodrassus macellinus* (Thorell, 1871), only occurring in S.W. Europe and deleted from the North African list. New distribution data and photos of other European *Haplodrassus* species are presented.

Key words: *Drassodes*, *Drassus*, systematics, revision, new species, new combination, new synonyms, Northern Africa.

Introduction

In previous papers on the Gnaphosidae of the Maghreb, the genera *Setaphis* Simon, 1893, *Micaria* Westring, 1851 and *Castanilla* Caporiacco, 1936 were studied (Bosmans & Janssen, 1999; Bosmans & Blick, 2000; Haddad & Bosmans, 2013). In the present contribution, the genus *Haplodrassus* Chamberlin, 1922 is treated. This is the name-giving genus for the informal *Haplodrassus* group of Gnaphosidae of Murphy (2007) sharing the presence of notched trochanters in the legs and the absence of a scutum in males. The species of this group have generally uniformly coloured abdomens, rarely with paler aligned chevrons.

Haplodrassus species are further medium to large sized spiders having a great affinity with the genus *Drassodes* Westring, 1851. Apart from the indented trochanters, species differ by the much stronger tibial apophyses in the male palp, and by the strongly chinitised plate with median, more membranous median depression in the female epigyne. The genus currently comprises 72 species, the majority in the Palaearctic region (62), a minority in the Nearctic (6) and Oriental (5) regions (World Spider Catalog 2017). The species of the Palaearctic region are wide-spread over the region and the temperate and the oriental part is well known, in contrast to the Mediterranean part. Simon's (1914) work is very important for the western part of the European Mediterranean region, but this work is updated. The studies of Chatzaki *et al.* (2002) on Crete, Levy (2004) on Israel and Kovblyuk *et al.* (2012) on the Krim are excellent contributions for the arachnofauna of the eastern part of the Mediterranean. There are no global studies on any part of North Africa.

History of the genus *Haplodrassus* in the Maghreb

In his remarkable work on the Algerian arachnofauna, *Exploration scientifique de l'Algérie*, Lucas (1846) described 158 new spider species collected all over Algeria. The genus *Haplodrassus* was not yet defined in that time, and the descriptions of species listed as *Drassus* or *Clubiona* must be carefully examined to clear they are possibly *Haplodrassus* species. Candidates are species that are considered *nomina dubia* at the moment: *Drassus corticalis* Lucas, 1846, *Drassus crassipes* Lucas, 1846, *Drassus obscurus* Lucas, 1846, *Drassus rufipes* Lucas, 1846 and *Clubiona rufipes* Lucas, 1846. European species cited in the Maghreb are *Haplodrassus dalmatensis* (L. Koch, 1866), *H. macellinus* (Thorell, 1871), *H. severus* (C. L. Koch, 1839) and *H. signifer* (C. L. Koch, 1839). *Drassodes nigroscriptus* and *D. nigroscriptus deminutus* were described by Simon (1909). They were never redescribed and even never illustrated. In his description, Simon (op. cit.) states that the species is related to *Drassodes* (= *Haplodrassus*) *macellinus*, but a transfer to that genus has never been made. Caporiacco (1928a, 1949) described some species from Libya in the genera *Drassodes* and *Haplodrassus* and these must be considered here. *Drassodes seditiosus* Caporiacco, 1928 was already transferred to *Haplodrassus* by Caporiacco himself (1934). *Drassodes spinicrus* Caporiacco, 1928 is still in the genus *Drassodes* in catalogues, but in the description the author states the species is closely related to *Haplodrassus signifer*, and hence the species must be transferred to *Haplodrassus* as well. A third species described by Caporiacco in 1949, *Haplodrassus gridellii* was synonymised with *Haplodrassus pugnans* (Simon, 1880) by Levy (2004). Denis (1956) described one new species of *Haplodrassus* from Morocco, *Haplodrassus maroccanus* Denis. Bosmans & Van Keer (2012) pointed out this is a junior synonym of *Drassodes parvulus* L. Koch, 1882, a preoccupied name that was given the replacement name *Haplodrassus parvicorpus* by Roewer (1951). Concluding, 8 species and 1 subspecies of *Haplodrassus* have until now been cited in the Maghreb: *H. dalmatensis*, *H. macellinus*, *H. nigroscriptus*, *H. nigroscriptus deminutus*, *H. pugnans* (as *H. gridellii*), *H. severus*, *H. signifer*, *H. spinicrus* and *H. seditiosus*. But as mentioned above, also the species described in *Drassus* or *Drassodes* before the creation of the genus *Haplodrassus* Chamberlin in 1922 have to be considered.

Material and methods

The spiders studied in this revision were mainly obtained by the senior author during a stay in Algeria of four years, and during several collecting trips to Morocco and Tunisia. Material collected by N. Bouragba, O. Kherbouche-Abrous and S. Benhalima was also used. Position and elevation of localities were recorded by use of <http://geonames.org>. Type material is deposited in the RBINS, in some cases also in the MNHN and in the IRSM, as indicated in the text. Non-type material is deposited in the collections of S. Benhalima, R. Bosmans, O. Kherbouche-Abrous or Johan Keer.

Species were examined using a Nikon SMZ1270 stereo microscope. Details of male palps and female epigynes were studied with an Olympus CH-2 microscope with drawing tube. Left palps are illustrated. Somatic measurements were made with a scaled eye piece in the stereo microscope and are expressed in mm and presented in the format minimum–maximum. Male palps were detached and transferred to glycerol for examination under microscope. Female epigynes were excised using sharpened needles. These were then transferred to clove oil for examination under the microscope. Later, palps and epigynes were returned to 70% ethanol.

Abbreviations:

CJVK: Collection Johan Van Keer;
CKHK: Collection Karl-Hinrich Kielhorn;
CMH: Collection Michael Hadjiconstantis;
CMJ: Collection Mark Janssen;
CNB: Collection Nadia Bouragba;
COA: Collection Ourida Kherbouche-Abrous;
CPO: Collection Pierre Oger;
CPP: Collection Philip Ponel;
CRB: Collection Robert Bosmans;
CSB: Collection Souâd Benhalima;
CSL: Collection Sylvain Lecigne;
CYA: Collection Youcef Alioua;
CYG: Collection Yannis Gavalas;
HECO: Hope entomological Collection, Oxford;
HUI: Hebrew University of Jerusalem;
ISRM: Institut Scientifique, Rabat, Morocco;
MCSG: Museo civico di Storia Naturale, Genova;
MCSNB: Museo civico di Scienze naturali E. Cafi, Bergamo;
MNHN: Muséum national d'Histoire naturelle de Paris;
MNCN: Museo Nacional de Ciencias Naturales de Madrid;
MSNF: Museo di Storia Naturale, Firenze;
MZUR: Museo di Zoologia dell'Università di Roma;
NHML: Natural History Museum, London;
NHRS: Natural History Museum, Stockholm;
NUAM: Arachnology Museum of the Niğde University;
RBINS: Royal Belgian Institute for Natural Sciences, Brussels;
SMF: Natur-Museum und Forschungsinstitut Senckenberg, Frankfurt;
SSCR: Southern Scientific centre of RAS, Rostov on Don;
TNU: Zoology Department, V.I. Vernadsky Taurida National University, Simferopol, Ukraine;
ZMB: Zoologisches Museum, Berlin;
Eyes: AME, ALE, PME, PLE: anterior median, anterior lateral, posterior median and posterior lateral eyes;
Legs: Fe: femur; Pa: patella; Ti: tibia; Mt: metatarsus; Ta: tarsus;
Spination: d, pl, rl, pv, rv, pd, rd: dorsal, prolateral, retrolateral, proventral, retroventral, prodorsal, retrodorsal; (): group of spines.

Survey of species occurring in the Maghreb

Genus *Haplodrassus* Chamberlin, 1922

Type species: *Haplodrassus hiemalis* (Emerton, 1909).

Diagnosis. Kovblyuk *et al.* (2012) provided an excellent diagnosis of the genus. It actually counts 72 species (World Spider Catalog 2017), of which 8 have been cited in the Maghreb.

Diagnostic characters of the species of the genus *Haplodrassus*. Size. Small to medium-sized, often robust gnaphosids. This is a very variable character in *Haplodrassus*. Size categories are small (2.3–5 mm), medium-sized (4–7 mm) or medium sized to large 6–15 mm. The largest species are the most variable in size. Variation in size of the different species of the Maghreb is listed in Table 1.

TABLE 1. Variation in total size and carapace length in *Haplodrassus* species. Smallest species are listed in top of the table.

	Male		Female	
	Total length	Carapace length	Total length	Carapace length
<i>H. rhodanicus</i>	2.3–5.2	1.20–2.12	2.9–3.4	1.14–1.33
<i>H. longivulva</i> sp. n.	2.5–3.6	1.53–1.94	4.0–6.6	1.44–2.79
<i>H. triangularis</i> sp. n.	2.9–3.1	1.23–1.46	3.1–4.8	1.31–1.6
<i>H. lyndae</i> sp. n.	2.9–5.7	1.4–2.7	3.7–6.4	1.7–2.7
<i>H. dalmatensis</i>	3.8–6.5	1.61–2.32	3.7–8.0	1.62–2.89
<i>H. typhon</i>	4.7–6.0	2.18–2.70	6.2–8.2	2.10–2.90
<i>H. signifer</i>	4.7–7.4	2.1–3.4	5.1–11.8	2.1–5.5
<i>H. securifer</i> sp. n.	5.2–6.5	2.1–2.6	6.0–10.0	2.8–2.9
<i>H. dentifer</i> sp. n.	5.6–9.6	1.22–2.02	7.6–9.6	1.96–2.44
<i>H. nigroscriptus</i>	5.6–7.2	2.68–3.76	4.8–10.4	2.4–4.22
<i>H. crassipes</i>	6.1–10.3	2.8–5.9	10.2–16.4	3.4–6.4
<i>H. rufipes</i>	6.1–8.9	2.7–3.9	7.2–10.0	2.4–4.4
<i>H. ovatus</i> sp. n.	6.2–8.0	2.66–3.44	6.8–8.8	2.16–3.14
<i>H. omissus</i>	6.6–7.5	2.9–3.3	4.9–6.7	2.0–2.8

Spinulation. Generally, the spinulation of the legs is as in Table 2 (grouped spines between brackets):

TABLE 2. General pattern of spination of *Haplodrassus* species.

	Femur	Tibia	Metatarsus
I	2d-pl	-	(pv-rv)
II	2d-pl	-	(pv-rv)
III	2d-(pl-rl)	(pl-rl-pv-rv)-(pl-rl-pv-rl)	(pl-rl-pv-rl)-(pd-rl-pl-rl-pvrv)
IV	2d-(pl-rl)	(pl-rl-pv-rv)-(pl-rl-pv-rl)-(pv-rv)	(pl-rl-pv-rl) (pl-rl-pv-rl)-(pd-rl-pl-rl-pv-rv)

Femora I–II with 2 dorsal and 1 prolateral spines, femora III–IV with supplementary pro- and retrolateral spines. Tibia I–II spineless, tibiae III–IV with numerous spines. Metatarsi I–II with 1 proventral and 1 retroventral spine, metatarsi III–IV with abundant spines. It appeared that even in the same population, variations can occur. The ventral spines on Mt I–II are often absent, some additional spines can be present on Tii-II and there is variation in the number and disposition of the spines on Tibiae III–IV and Metatarsi III–IV. Spinulation thus cannot be used to separate species, *H. nigroscriptus* being the only exception with additional spines present on the palpi (see diagnosis of this species).

Genital organs. The morphological characters of male and female copulatory organs are the most important diagnostic characters, as in most other spiders. The most important ones are shown in Figs 13–14 in the male palp and Figs 16–17 in the epigyne and vulva. The nomenclature follows Omelko & Marusik (2012). The **retrolateral tibial apophysis (RTA)** of the male palp is a very important character. The relative length, the presence of dorsal or ventral concavities at pro- or retrolateral side, the presence of keels and the shape of the tip are important. The tegulum always carries a **median apophysis (MA)** at its prolateral side. It is connected to the bulbus by a membrane. Its orientation can therefore be variable and can depend on the fixation conditions of the spider. Its general shape is hook-like and it shows practically no variation throughout the genus. The **embolic apophysis (EA)**—Simon’s “lame sigmoïde” (1914)—has a medio-distal position in the palp and is another very important diagnostic character. It is an elongated, more or less curved sclerite with pro- or retrolateral concavities, eventually provided with teeth or keels and with a more or less pointed tip. At its prolateral side, the embolic apophysis is connected to the embolus. The **embolus (E)** is a gently curved sclerite at the retrolateral side of the bulbus, often partly covered by the embolic apophysis. A basal tooth can be present and at its retrolateral margin, subterminal denticles can be present. A detailed study of the embolus is not included in this work.

Females have an epigyne with a plate that can be as wide as long or longer than wide, expressed as the ratio length/width. The **anterior margin** can be well sclerotized or poorly sclerotized, and can be straight or curved; it covers a **hood (H)** of variable size. The epigyne has a large **atrium** which is divided into an unchitinised upper or anterior part which is laterally in open connection with the integument of the abdomen, called **pro-fovea (PF)** here, and a well-defined basal or posterior part, **the fovea (F)**, and its ratio can be relevant. The upper part is whitish and can be wrinkled, the basal part is a generally pale depression with lateral margins which can be denticulate. Laterally, the fovea is flanked by a brown to dark brown area, the **areola (A)**—Simon’s “pièce en fer-à-cheval”—that can be denticulate. The vulva consists of basal **receptacles (Re)**, **lateral pockets (LP)** bordering the median fovea and copulatory and fertilisation ducts. The presence of an exudate in the lateral part of the fovea can deform the whole appearance of the epigyne and vulva. It can have the same colour of the areola and may obscure teeth or denticles, often leading to misidentifications.

Key to the *Haplodrassus* species of the Maghreb region

MALES

- | | | |
|--------|---|-----------------------------------|
| 1 | Cymbium with abundant, strong spines (fig. 71) | <i>nigroscripatus</i> |
| - | Cymbium with few, less strong spines (fig. 32) | 2 |
| 2(1) | Embolic apophysis hooked (fig. 190) | <i>triangularis</i> sp. n. |
| 2 | Embolic apophysis sigmoid or nearly straight (Figs 4, 14, 35...) | 3 |
| 3(2) | Embolic apophysis small, occupying only one third of tegulum (Figs 122, 136); tibial apophysis slender, with narrow base (Figs 120, 137) | <i>rhodanicus</i> |
| - | Embolic apophysis large, occupying at least half of tegulum (Figs 4, 14, 35...); tibial apophysis voluminous, with broad base (Figs 5, 12, 33...) | 4 |
| 4(3) | Embolic apophysis with dorsal keel (Figs 158, 169) | <i>signifer</i> |
| - | Embolic apophysis without dorsal keel (Figs 4, 14, 35...) | 5 |
| 5(4) | Embolic apophysis with 2 prolateral teeth (Figs 14, 26, 93, 110) | 6 |
| - | Embolic apophysis without (Figs 4, 35, 103...) or at most with 1 prolateral tooth (Figs 62, 129) | 7 |
| 6(5) | Embolic apophysis slender, elongated and with pointed tip (Figs 93, 108) | <i>omissus</i> |
| - | Embolic apophysis compact, robust, with blunt tip (Figs 14, 25) | <i>dalmatensis</i> |
| 7(6) | Embolic apophysis with one prolateral tooth (Figs 62, 77, 129, 140) | 8 |
| - | Embolic apophysis without prolateral tooth (Figs 4, 35, 103...) | 9 |
| 8(7) | Teeth on embolic apophysis equal, apophysis appearing bifid (Figs 62, 79) | <i>lyndae</i> sp. n. |
| - | Teeth on embolic apophysis not equal (fig. 129, 142) | <i>rufipes</i> |
| 9(8) | Embolus with a strong retrolateral tooth at its base (Figs 49, 51) | <i>dentifer</i> sp. n. |
| - | Embolus without retrolateral tooth at base (Figs 4, 45, 103...) | 10 |
| 10(9) | Tibial apophysis nearly symmetric (Figs 100, 114) | <i>ovatus</i> sp. n. |
| - | Tibial apophysis strongly asymmetric (Figs 5, 43, 147, 186) | 11 |
| 11(10) | Tibial apophysis terminally strongly pointed (Figs 186, 195) | <i>typhon</i> |
| - | Tibial apophysis bluntly pointed (Figs 5, 43, 147) | 12 |
| 12(11) | Tibial apophysis gradually narrowing, with subterminal concavity (Figs 43, 55) | <i>longivulva</i> sp. n. |
| - | Tibial apophysis not gradually narrowing, with basal concavity (Figs 5, 147) | 13 |
| 13(12) | Embolic apophysis terminally with pointed nipple (Figs 6, 20) | <i>crassipes</i> |
| - | Embolic apophysis terminally blunt (Figs 149, 164) | <i>securifer</i> sp. n. |

FEMALES

1	Tarsus and tibia of palp with more than 20 ventral spines (fig. 73)	<i>nigroscripius</i>
-	Tarsus of palp with less than 10 ventral spines (fig. 37)	2
2(1)	Fovea triangular (Figs 178, 192)	<i>triangularis</i> sp. n.
-	Fovea oval or rounded (Figs 7, 16, 38...)	3
3(2)	Epigyne at least twice as long as wide (Figs 47, 64, 124)	4
-	Epigyne less elongate, at most 1.7 times as long as wide (Figs 7, 16, 38)	6
4(3)	Fovea narrow anteriorly, widening distinctly to the back (Figs 64, 81)	<i>lyndae</i> sp. n.
-	Fovea more or less rectangular (Figs 47, 124)	5
5(4)	Lateral margin of fovea with median angularity (Figs 47, 56)	<i>longivulva</i> sp. n.
-	Lateral margin of fovea with parallel margins (Figs 124, 138)	<i>rhodanicus</i>
6(5)	Fovea with postero-median septum (Figs 16, 95)	7
-	Fovea without postero-median septum (Figs 7, 38, 105)	8
7(6)	Fovea distinctly longer than wide (Figs 17, 28)	<i>dalmatensis</i>
-	Fovea as long as wide (Figs 95, 111)	<i>omissus</i>
8(7)	Foveal margin with distinct median tooth in lateral margin, dividing fovea into a trapezoid or rectangular anterior part and a rounded posterior part (Figs 40, 132)	9
-	Foveal margin without such tooth, fovea oval or rounded (Figs 7, 105, 151, 160, 187)	10
9(8)	Areola anteriorly truncate (Figs 132, 143)	<i>rufipes</i>
-	Areola anteriorly gradually narrowing (Figs 40, 52)	<i>dentifer</i> sp. n.
10(9)	Fovea longer than wide (Figs 105, 187)	11
-	Fovea as long as wide (Figs 7, 151, 160)	12
11(10)	Fovea oval, anterior margins converging (Figs 105, 116)	<i>ovatus</i> sp. n.
-	Fovea not oval, anterior margins diverging (Figs 187, 196)	<i>typhon</i>
12(11)	Areola elongated, anteriorly continuing into a chitinised crest (Figs 160, 170)	<i>signifer</i>
-	Areola less elongated, anteriorly rounded (Figs 7, 151)	13
13(12)	Epigyne as long as wide (Figs 151, 165), lateral pockets nearly rounded (Figs 152, 166)	<i>securifer</i> sp. n.
-	Epigyne longer than wide, (Figs 7, 22), lateral pockets more oval (Figs 9, 23)	<i>crassipes</i>

Survey of species occurring in the Maghreb

Genus *Haplodrassus* Chamberlin, 1922

Haplodrassus crassipes (Lucas, 1846), **comb. n.**

Figs 1–9, 18–23, map 1

Drassus crassipes Lucas, 1846: 217, pl. 13 fig. 4 (♂♀).

Drassus macellinus: Pavesi 1884: 467; Simon 1885: 39 (misidentifications).

Drassodes macellinus: Simon 1908: 52; Simon 1914: 139; Denis 1937: 1035 (misidentifications).

Haplodrassus macellinus: Di Franco 1994: 206 (misidentification).

Haplodrassus macellinus hebes: Denis 1948: 146 (misidentification).

Types. Lectotype ♂ (MNHN AR14576), paralectotype ♀ (MNHN AR14577) of *Drassus crassipes*, by present designation, from Algeria, La Calle (= El Kala); MNHN, Coll. Lucas; examined.

Remarks. Type material of *Drassus crassipes* was discovered in the collection of the MNHN and could be compared with our material. It appears to be one of the most abundant *Haplodrassus* species in the Maghreb, in the past confused with *H. macellinus*.

Diagnosis. *Haplodrassus crassipes* is the largest *Haplodrassus* species in North Africa, with males up to 10 mm and females up to 16 mm. Small specimens overlap however with other species, so size cannot be used as a sole diagnostic character. It differs from all other species in males by the S-shaped embolic apophysis with nearly parallel margins, terminally with a small dorsal tooth (Figs 4, 6, 19–20). Females are most close to *H. securifer* **sp. n.** but differ by the epigyne being longer than wide (Figs 7, 22), as wide as long in *H. securifer* **sp. n.** (Figs. 145, 165).

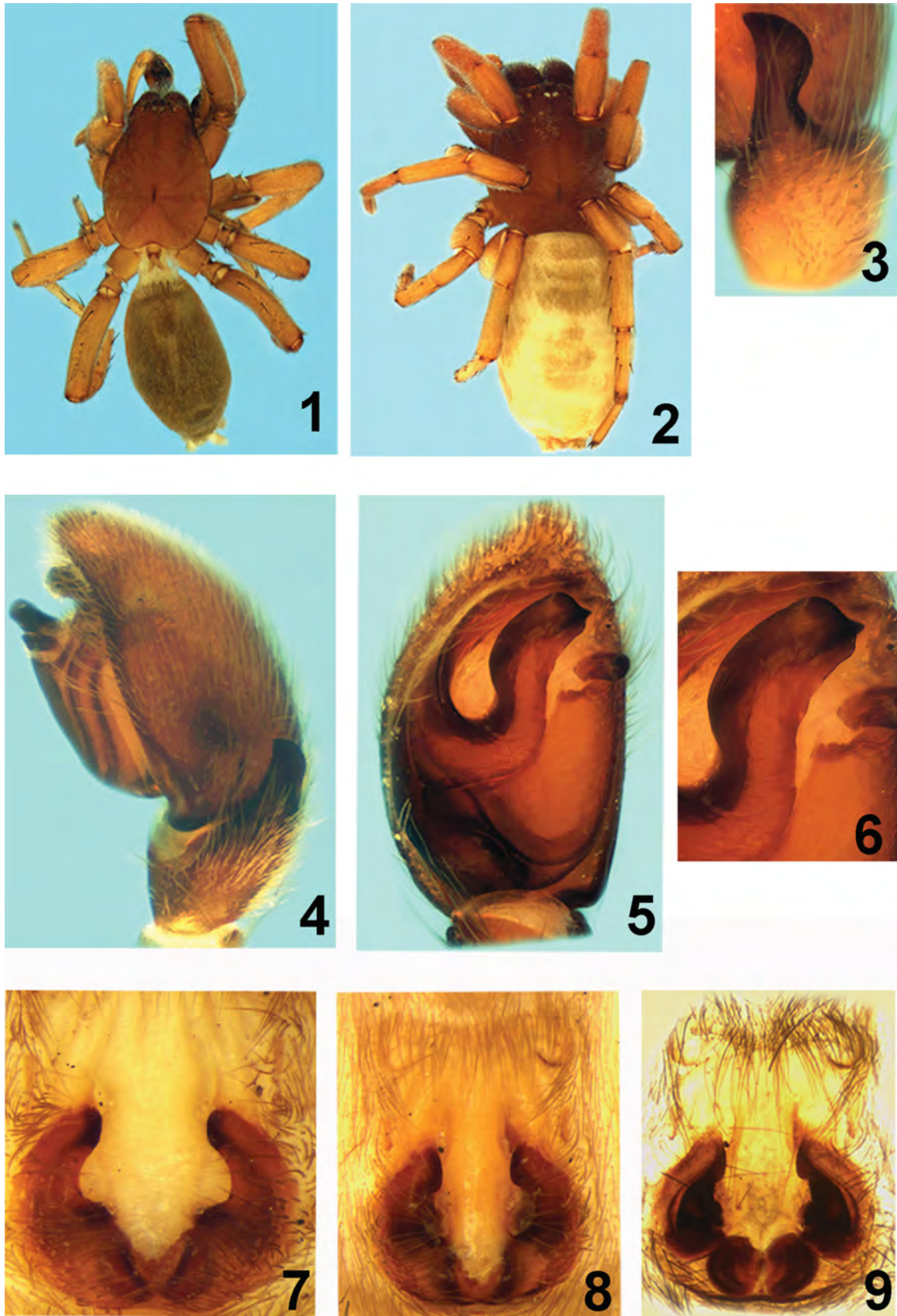
Description. Measurements: Male 5 (n=20): Total length 6.1–10.3; carapace 2.8–5.9 long, 2.2–4.4 wide. Female (n=20): Total length 10.2 – 16.4; carapace 3.4 –6.4 long, 2.2–4.6 wide. Colour: Carapace brown to dark reddish brown, cephalic part infuscate; chelicerae dark brown; legs yellowish brown to dark reddish brown; abdomen dark brownish to dark greyish, venter pale. Spinulation: General pattern, but ventral spines on MII and II sometimes missing and without prolateral spines on TiIV in all specimens examined.

Male palp (Figs 3–6, 18–21): Tibial apophysis nearly twice as long as its diameter, distinctly constricted basally, distal part strongly asymmetric, with truncate dorsal margin; embolic apophysis S-shaped, with nearly parallel margins, terminally with a small dorsal nipple.

Epigyne (Figs 7–9, 22–23): Distinctly longer than wide (1.3x); hood slightly narrower than areola, posterior margin nearly straight, with strongly recurved lateral parts; pro-fovea relatively large, as long as fovea, laterally with some longitudinal folds; fovea wider than long, elevated in the middle, antero-laterally with obtuse tooth, in most specimens hidden by concretions (compare Figs 7 & 8); areola oval, wider than long; receptacles large, touching; lateral pockets wide, semi-circular.

Citations. ALGERIA, *Annaba*, Monts de l'Edough (36°55'38" E7°43'11") (Di Franco 1994, as *H. macellinus*), *El Tarf*, El Kala (N36°53'44" E8°26'36") (Lucas 1846), *Jijel*, Djébel Daya (N36°35'00" E6°11'00") (Denis 1937, as *D. macellinus*), *Souk-Ahras*, Souk-Ahras (N36°17'11" E7°57'04") (Simon 1885, as *D. macellinus*). TUNISIA, *Beja*, Aïn Draham (N36°46'43" E8°41'14") (Simon 1908, as *D. macellinus*), *Gabes*, Gabes (N33°52'53" E10°05'54") (Simon 1885, as *D. macellinus*), *Tunis*, Hammam-el-Lif (Simon 1885, as *D. macellinus*), Tunis, Porto Farina (N37°10'10" E10°11'26") (Pavesi 1884, as *D. macellinus*).

Further material examined. "Algeria: Saïda! Djebel Maadid! Ouarsenis! Bône! (=Annaba) (E. Simon leg.), Theniet-el-Had (L. Bedel leg.). Tunisia", 1♂ 12♀, labelled *D. macellinus*, Coll. Simon 2916 (MNHN AR9216). ALGERIA, **Alger**, Bab Ezzouar (N36°42'45" E3°10'54"), 25m, 1♀, pitfalls in wasteland at University Campus, 29.IV.1987, 1♀, 15.III.1988, R. Bosmans leg. (CRB), 4♂ 6♀, 7.VII.2008–22.V.2009 (COA), **Aïn Defla**, Miliana, Djébel Zaccar (N36°20'0" E2°13'00"), 1000m, 1♂, stones in *Quercus ilex* forest, 23.IV.1989, R. Bosmans leg. (CRB), **Blida**, Atlas Blidéen, Chréa, 1300m, 10♂, pitfalls in *Cedrus atlantica* forest, 27.VI.1989, R. Bosmans leg. (CRB), Chréa, Djébel Ferroukha, Ghellaï (N36°28'10" E2°56'18"), 1350m, 1♂, sieving litter in *Cedrus atlantica* plantation, 20.X.1987, R. Bosmans leg. (CRB), Chréa, Pic E. Abdelkader (N36°24'14" E2°50'6"), 1520m, 1♂, pitfalls in *Cedrus atlantica* forest, 27.V.1989, R. Bosmans leg. (CRB), S. Meftah, Djébel Zerouela (N36°36'0" E3°15'00"), 1♂, stones in grassland, 7.IV.1987, R. Bosmans leg. (CRB), **Bouira**, Er Rich (N36°25'28" E3°51'19"), 450m, 1♂, under stones, 15.IV.1990, R. Bosmans leg. (CRB), Massif du Djurdjura, Tikjda (N36°26'54" E4°7'44"), 1510m, 1♀, pitfalls in *Cedrus atlantica* forest, 11.VI.1988 and 1♂, 24.IV.1982, R. Bosmans leg. (CRB), Massif du Djurdjura, Tizi Bousouil (N36°27'37" E4°9'57"), 1720m, 4♂ 1♀, pitfalls in stony and spiny grassland, VIII.1990, O. Abrous leg. (COA, CRB), Massif du Djurdjura, Col de Tizi 'n Kouillal (N36°28'26" E4°14'9"), 1520m, 1♂, pitfalls in *Amphelodesmus* grassland, III.1990, R. Bosmans leg. (CRB), Saharidj, 650m, 1♂, pitfalls in dense *Pistacea lentisca* maquis, 1.VI.1988, R. Bosmans leg. (CRB), **Boumerdes**, between Larba and Col des 2 Bassins (N36°31'33" E3°13'30"), 800m, 5♀, stones in open *Quercus ilex* forest, 21.V.1987, R. Bosmans leg. (CRB), between Toulmout and Keddara (N36°37'17" E3°27'46"), 500m, 2♀, stony grassland near Ifri Nziri cave, 27.IV.1989, R. Bosmans leg. (CRB), **Chlef**, Forêt de Tacheta, 850m, 2♂, pitfalls in *Quercus faginea* forest, 29.IX.1989, R. Bosmans leg. (CRB), **Sétif**, Djébel Babor, N. slope (N31°30'35" E5°29'15"), 1600m, 1♂, stones in open *Cedrus atlantica* forest, 21.IV.1982, R. Bosmans leg. (CRB), Monts du Hodna, Djébel Bouthaleb (N35°43'25" E5°21'8"), 1450m, 1♀, pitfalls in *Cedrus atlantica* forest, 20.IV.1989, R. Bosmans leg. (CRB), **Tissemsilt**, 5 km N. Théniet-el-Had (N35°53'38" E2°3'11"), 880m, 1♀, litter in irrigated garden, 20.IV.1984, R. Bosmans leg. (CRB), **Tizi Ouzou**, Chabet-el-Ameur (N36°37'17" E3°43'46"), 250m, 2♂, stones bordering fields, 20.IV.1990 (CRB), Mazer, 5 km E. Tigzirt (N36°53'38" E4°2'5"), 50m, 1♂, litter in *Pistacea lentisca* maquis, 27.IV.1990, R. Bosmans leg. (CRB), 5 km E. Tizi Ouzou, (N36°42'26" E4°10'20"), 180m, 1♂, herbs on damp slope, 25.I.1990, R. Bosmans leg. (CRB), forêt de Mizrana (N6°52'5" E4°4'5"), 300m, 1♀, stones in *Quercus suber* forest, 26.I.1990, R. Bosmans leg. (CRB), Massif du Djurdjura, Aït Ouabane (N36°28'1" E4°17'1"), 1♂, 1410m, pitfalls in *Cedrus atlantica* forest, 1.VI.1988, R. Bosmans leg. (CRB), Massif du Djurdjura, Tala Guilef (N36°28'36" E3°59'48"), 1420m, 29♂ 11♀, pitfalls in grassland, XI.1992–XI.1993, O. Abrous leg. (COA, CRB), Tirourda (N36°28'33" E4°20'9"), 1300m, 1♀, herbs at entrance of Maccabée cave (Ifri Megath), 27.IV.1989, R. Bosmans leg. (CRB), Tizi Ouzou (N36°42'42" E4°2'37"), 195m, 1♂, stones near hotel Amraoua, 25.I.1990, R. Bosmans leg. (CRB), **Tlemcen**, Mansourah, plateau de Lalla Setti (N36°4'52" E4°27'42"), 975m, 5♂ 3♀, litter in *Pinus halepensis* forest, 6.V.1984, R. Bosmans leg. (CRB). MOROCCO, **Fès-Meknès**, N. Timahdite (N33°14'11" W5°3'31"), 1800m, 1♂ 1♀, stones in grassland, 7.II.1996, R. Bosmans leg. (CRB), **Marrakech-Safi**, Marakech, Amizmiz (N31°13'26" W8°15'2"), 1♀, 7.II.1962, J. Malhomme leg. (ISR). SPAIN, **Melilla**, 1♀, as *Drassodes ariasi* Simon *nomen nudum*, Arias leg., Coll. Simon 24784 (MNHN AR15691).



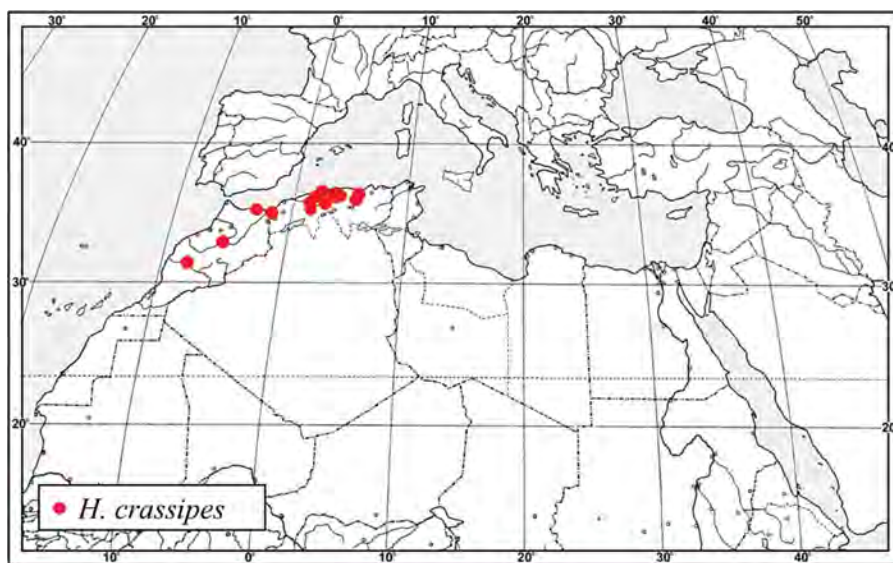
FIGURES 1–9. *Haplodrassus crassipes* (Algeria, 1,3–6: male from Mansourah, 2: female from Djébel Babor; 7: female from Djébel Bouthaleb; 8–9: female from Djébel Ouarsenis). 1. Male, dorsal aspect; 2. Female, dorsal aspect; 3. Male left palp, retrolateral view; 4. Idem, ventral view; 5. Male palpal tibia, dorsolateral view; 6. Embolic apophysis of male palp, ventral view; 7. Epigyne, ventral view, specimen without mating plugs; 8. Idem, specimen with mating plugs; 9. Vulva, ventral view.



FIGURES 10–17. *Haplodrassus dalmatensis* (France, male from Saint-André, female from Île de Bagaud). 10. Male, dorsal aspect; 11. Female, dorsal aspect; 12. Male palpal tibia, dorsolateral view; 13. Male left palp, retrolateral view; 14. Idem, ventral view; 15. Idem, prolateral view; 16. Epigyne, ventral view; 17. Vulva, ventral view. Male palp (Fig. 14): E=Embolus; MA=Median apophysis; RTA: Retrolateral tibial apophysis; EA=Embolic apophysis. Epigyne (Figs 16, 17): A=Areola; F=Fovea; H=Hood; LP=Lateral pocket; PF=Pro-fovea; S=Septum; Sp=Spermatheca.

Ecology. The species was mostly collected in forests at higher altitudes in the humid and subhumid climate zones of the Maghreb. Males were collected from September to June, females from January to June.

Distribution. Tell Atlas in Algeria, Rif and Middle Atlas in Morocco (map 1).



MAP 1. Distribution of *Haplodrassus crassipes* (Lucas).

Haplodrassus dalmatensis (L. Koch, 1866)

Figs 10–17, 24–29

Drassus dalmatensis L. Koch, 1866: 89 (♀).

Drassus minusculus L. Koch, 1866: 110, pl. 5, fig. 70 (♀).

Drassus denotatus O. Pickard-Cambridge, 1874: 398, pl. 52, fig. 24 (♀).

Drassus delinquens O. Pickard-Cambridge, 1875: 245 (♀).

Drassodes carinatus Strand, 1906: 609 (♂♀).

Drassodes palaestinensis Strand, 1915: 137 (♂).

Drassodes lithobius Roewer, 1928: 101, pl. 1, f. 7 (♀).

Drassodes dalmatensis; Simon 1914: 137, 209, f. 237–239.

Haplodrassus dalmatensis; Grimm 1985: 138, figs 156, 164–165; Levy 2004: 24, fig. 60 (“common form”, not figs 57–59, 61 = *H. omissus*).

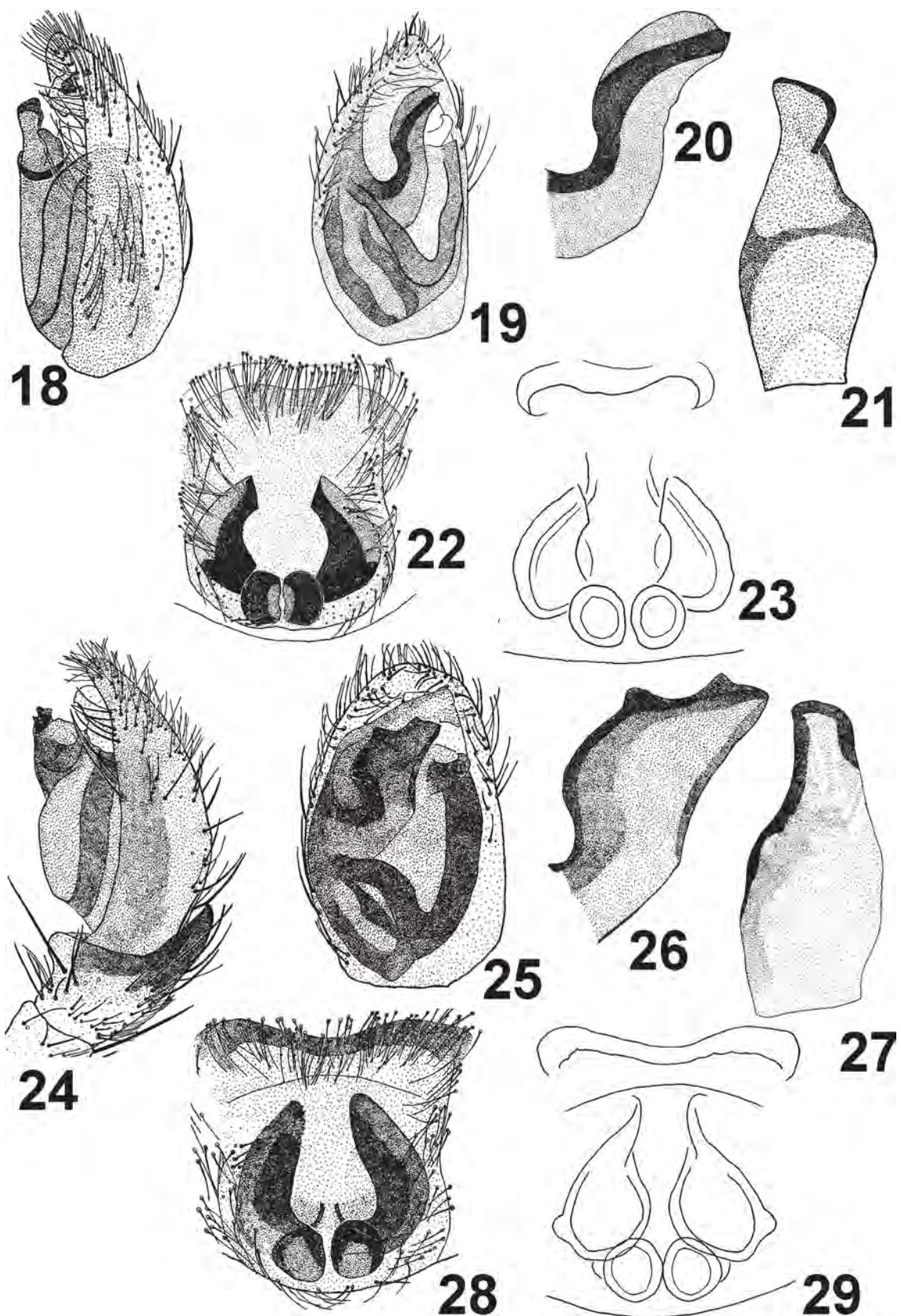
Types. Female holotype of *Drassus dalmatensis* L. Koch from Croatia; not examined, depository unknown.

Remarks. Levy (2004) redescribed *Haplodrassus dalmatensis* based on specimens from Israel. In the female, he distinguished ‘two forms’, a ‘common form’ (Figs 59 and 61) and ‘a variation’ (fig. 60). In fact, these forms are two separate species, the ‘common form’ corresponding with *Haplodrassus dalmatensis*, and the ‘variation’ with *Drassus omissus* Cambridge, 1872, a forgotten species described from Hebron, Israel. The male described by Levy is the male of *Haplodrassus omissus* **comb. n.** (see below).

Diagnosis. Males of *H. dalmatensis* are easily separated by the robust embolic apophysis with two blunt teeth (Figs 14, 25–26), elongated and with two sharp teeth in *H. omissus* (Figs 93, 108, 110). Females are very similar but can mostly be differentiated by the wider fovea and wider median septum (Figs 16, 28 versus 95–111).

Description. Measurements: Male (n=20): Total length 3.8–6.5; carapace 1.61–2.32 long, 1.42–2.11 wide. Female (n=20): Total length 3.7–8.0; carapace 1.62–2.89 long, 1.29–2.34 wide. Colour: Carapace yellowish brown, cephalic part darkened; legs yellowish brown; abdomen dark grey, spotted towards the back. Spinulation: General pattern, but ventral spines on Mtl and prolateral spine on FeIV mostly absent, retrolateral spine on Fe IV often absent.

Male palp (Figs 12–15, 24–27): Tibia nearly twice as long as wide, apophysis gradually narrowing with rounded dorsal margin and concave ventral margin (Figs 12, 27); embolic apophysis with narrow base and wider distal part, with two blunt teeth at retrolateral side, terminally bluntly pointed (Figs 14, 26).



FIGURES 18–29. Figs 18–23. *Haplodrassus crassipes* (Algeria, 18–21: male from Mansourah, 22–23: female from Djébel Bouthaleb). 18. Male left palp, retrolateral view; 19. Idem, ventral view; 20. Embolic apophysis of male palp, ventral view; 21. Male palpal tibia, dorsolateral view; 22. Epigyne, ventral view; 23. Vulva, ventral view. Figs 24–29. *Haplodrassus dalmatensis* (Algeria, Chréa). 24. Male left palp, retrolateral view; 25. Idem, ventral view; 26. Embolic apophysis of male palp, ventral view; 27. Male palpal tibia, dorsolateral view; 28. Epigyne, ventral view; 29. Vulva, ventral view.

Epigyne (Figs 16–17, 28–29): Hood distinctly wider than areola; pro-fovea short, much shorter than fovea; fovea with small postero-median septum; lateral pockets wide, nearly rounded, with small baso-lateral rounded extensions (Figs 17, 29).

Citations in the Maghreb. ALGERIA, *Laghouat*, between Laghouat and Metlili (Simon 1899). MOROCCO, *Fès-Meknès*, Ifrane, Cascade des Vierges (Jocqué 1977), Nzala des Beni Ammar (Di Franco 1994); *Marrakech-Safi*, Mogador (= Essaouira) (N31°30'47" W9°46'11") (Simon 1909).

Further material examined. AFRICA: ALGERIA, *Alger*, El Harrach (N36°42'46" E3°8'56"), 25m, 1♂, pitfalls in garden, 2.V.1985, idem, 1♂, pitfalls in wheat fields, 10.V.2001, O. Abrous leg. (COA) *Béchar*, Taghit (N30°55'12" W2°1'47"), 630m, 1♂, gardens of palm yard, 3.IV.1989, and 1♂, 18.XI.2013, O. Abrous leg. (CRB), *Blida*: Atlas Blidéen, E. of Chréa, Pic Fertasse (N36°28'10" E2°56'18"), 1450m, 1♂, pitfalls in *Cedrus* forest, 23.V.1987, R. Bosmans leg. (CRB), Chréa E., Pic E. Abdelkader (N36°24'14" E2°50'6"), 1520m, 3♂, pitfalls in *Cedrus* forest with undergrowth of *Berberis*, 20.VI.1987–9.V.1988, R. Bosmans leg. (CRB), *Bouira*, Massif du Djurdjura, Tikjda, 1750m (N36°27'27" E4°6'22"), 1♂, stones in alpine grassland, 11.VI.1984, R. Bosmans leg. (CRB), idem, Tizi Boussouil (N36°27'37" E4°9'57"), 1720m, 1♂, pitfall in stony grassland, 15.III.1990, O. Abrous leg. (COA), *El Bayadh*, NE. Aflou (N34°8'32" E2°8'39"), 1450m, 1♂ 1♀, stones in abandoned fields, 22.V.1990, R. Bosmans leg. (CRB), *El Tarf*, E. El Kala, Cap Rosa (N36°56'53" E8°14'25"), 50m, 1♂, pitfalls in dune maquis, 29.III.1988, R. Bosmans leg. (CRB), *M'sila*, Aïn Oghrab (N35°0'52" E4°6'24"), 1♀, Coll. Simon 12794 (MNHN AR15692), *Tamanrasset*, Tit n'Afara (N23°44'6" E7°3'51"), 1♀, stones along oued bordered with *Acacia*, 13.III.2005, K. De Smet leg. (CRB), *Tébessa*, Tébessa, forêt de Bekkaria (N35°21'20" E8°14'40"), 1100m, 2♂, pitfalls in *Pinus halepensis* forest, 15.VI.1989, R. Bosmans leg. (CRB), E. Tébessa, plain of the Merdja (N35°26' 0" E8°6'0"), 960m, 1♂, along an oued, 2.III.1989, R. Bosmans leg. (CRB), *Tipasa*, Zeralda (N36°43'19" E2°52'16"), 15m, 1♂ 2♀, pitfalls in pear garden, 17.IV.2009, O. Abrous leg. (COA), *Tizi Ouzou*, Massif du Djurdjura, Tala Guilef (N36°28'36" E3°59'48"), 1420m, 39♂ 25♀, pitfalls in montane grassland, XI.1992–XI.1994, O. Abrous leg. (COA), idem, Tala Guilef (N36°28'36" E3°59'48"), 2100m, 1♂, stones in montane grassland, 30.IV.1984, R. Bosmans leg. (CRB), *Tlemcen*, Ghazaouet (=Nemours) (N35°6'8" W1°51'24"), 2♀, Coll. Simon 11829 (MNHN AR15693), Mansourah, plateau de Lalla Setti (N36°4'52" E4°27'42"), 975m, 1♂, stones and litter in *Pinus halepensis* forest, 6.V.1984, R. Bosmans leg. (CRB). MOROCCO, *Casablanca-Settat*, Mechra Bennabou (32°41'26" E9°19'14"), 400m, 1♀, stones in young *Pinus* plantation, 9.II.1996, R. Bosmans leg. (CRB), *Drâa-Tafilalet*, Timiderte, Oued Drâa (N30°40'16" E6°19'47"), 880m, 1♀, litter in sandy river border, 22.IV.2012, R. Bosmans leg. (CRB), *Fès-Meknès*, road Ifrane-Michlifén (N33°30'34" E5°6'12"), 1750m, 1♂, stones in grassland along rivulet, 18.IV.2012, R. Bosmans leg. (CRB), Missouri (N33°2'24" W3°59'52"), 1♂, pitfalls in steppe, 7.III.2002, R. Bosmans leg. (CRB), *Guelmim-Oued Noun*, Tan Tan plage 10 km S. (N28°26'38" W11°22'17"), 1♀, stones in grassland, 11.II.2007, R. Bosmans leg. (CRB). EUROPE: SPAIN, *Albacete*, Los Yesares (N39°8'37" W1°45'50"), 620m, 1♀, stones in degraded *Quercus suber* forest, 8.IV.1997, R. Bosmans leg. (CRB), Tarazona de la Mancha S. (N39°12'44' W1°56'56"), 600m, stones in degraded *Quercus ilex* forest along Rio Valdemembra, 8.IV.1997, R. Bosmans leg. (CRB), *Alicante*, Aspe (N38°19'47" W0°46'29"), 250m, 2♀, under stones and waste in maquis, 4.IV.1996, R. Bosmans leg. (CRB), *Almería*, Cabo de Gata (N36°44'5" W2°12'22"), 1♂, pitfalls in coastal dunes, 9.IV.1998, R. Bosmans leg. (CRB), Cuevas del Almanzora (N37°17'36" W1°50'28"), 90m, 2♂, stones in dry river bed, 4.IV.1996, R. Bosmans leg. (CRB), *Badajoz*, Zafra SW (N38°18'26" W6°33'6"), 1♂, stones in small valley of Rio Bodión, 2.IV.1997, R. Bosmans leg. (CRB), *Baleares*, Mallorca, Arta NW, Pas de Mellerà (N39°44'14" E3°18'41"), 1♂, stones in *Ampelodesma* grassland, 6.IV.2004, P. Selden leg. (NHML), Embassament de Cuber (N39°46'49" E2°46'58"), 850m, 3♂, stones in grassland, 2.IV.2003, R. Bosmans leg. (CRB), *Burgos*, E. Posa del Sal (42°39'29" W3°28'54"), 1050m, 1♂, 8.VII.1985, R. Bosmans leg. (CRB), *Ciudad Real*, Laguna del Camino de Villa Franca, 1♂, 3♀, grassland along a lake, 13.IV.1998, R. Bosmans leg. (CRB), *Granada*, Sierra Elvira (N37°13'54" W3°43'24"), 1♀, 17.VI.1908, E. Simon leg., Coll. Simon 21738 (MNHN AR15694), *Madrid*, Robledo de Chavela (N40°29'28" W4°14'14"), 1♀, Mazarredo leg., Coll. Simon 6059 (MNHN AR15695), *Málaga*, Campillos E., Laguna Dulce (N37°03'08" W4°50'04"), 450m, 1♀, stones in wasteland, 11.IV.1999 (CRB), *Murcia*, Cartagena (N37°36'18" W0°59'10"), 1♀, Coll. Simon 13414 (MNHN AR15706), *Palencia*, Fuentes de Nava, Laguna de la Nava (N39°2'58" W3°41'47"), 1♂, U. Stengele leg. (CRB), *Toledo*, El Pinar de Almorox (N40°14'58" W4°23'2"), 600m, 1♀, stones in *Pinus halepensis* forest, 13.IV.1999, R. Bosmans leg. (CRB), *Zaragoza*, Escatron, Monasterio de Rueda (N41°19'23" W0°20'37"), 225m, 1♂, stones in open *Pinus halepensis* forest, 1.IV.1996, R. Bosmans leg. (CRB). FRANCE, *Corse-du-Sud*, Col de Vizzanova (N42°07'29" W9°8'00"), 1170m, 2♂, stones in *Fagus* forest, 28.V.1995, R. Bosmans leg. (CRB), *Haute-Corse*, Porri, Col de St.

Agostino (N42°26'58" E9°25'5"), 600m, 2♂, stones in *Castanea sativa* forest, 22.V.1995, R. Bosmans leg. (CRB). ITALY, **Sardinia**, Sassari, Monte Limbara (N40°51'12" E9°10'1"), 1250m, 1♂, stones in clearing in *Pinus* forest, 11.IV.2014, R. Bosmans leg. (CRB). GREECE, **Attiki**, Oros Imittos (N37°56'47" E23°50'0"), above Peania, 1♀, stones in maquis, 20.IV.2000 (CRB), Schinias, 1♂, pitfalls in *Phragmites* marsh, 8–16.V.2001 (CRB), **Crete**, Chania, Elafonisi (N35°16'24" E23°32'26"), 10m, 3♂ 3♀, stones in degraded dunes, 6.IV.2002, R. Bosmans leg. (CRB), **Evvoia-Voroies Sporades**, Evvoia, Paralia Aghia Anna (N38°50'57" E23°27'7"), 10m, 1♀, litter in *Pinus* forest, 12.V.2001, R. Bosmans leg. (CRB), Stira-Marmari road (N38°06'08" E24°15'33"), 500m, 1♀, stones in grassland, 14.V.2001 (CRB), **Kyklades**: Iraklia (N36°50'15" E25°27'21"), 50m, 1♂, on walls of house, 17.III.2016, Y. Gavallas (CYG); Milos, Plaka (N36°44'30" E24°25'21"), 1♂, stones around amphitheatre, 28.IV.2010, R. Bosmans leg. (CRB), **Makedonia**, Florina, N. Lake Mikri Prespa, NE. Pili (N40°46'35" E21°3'3"), 800m, 1♂ 1♀, slopes to the lake, 12.VI.1997, R. Bosmans leg. (CRB), Halkidiki, Armenistis (N40°9'27" E23°54'54"), 2♂, pitfalls in dry *Pinus* forest, 8.V–17.VI.2004, L. Provoost leg. (CRB), between Fourka and Skala Fourkas (N40°0'15" E23°24'18"), 50m, 1♂ 1♀, pitfalls in dry river bed, 22.III–12.VI.2004, L. Provoost leg. (CRB), around Vourvourou (N40°10'59" E23°47'19"), 2♂, 14.V–12.VI.2004, L. Provoost leg. (CRB), **Peloponnisos**, Argolis, Thermissa (N37°24'43" E23°19'28"), 1♀, pitfalls in maquis, 25.VI.1993, N. Chatelet leg. (CRB), Arachneo S. (N37°38'57" E22°55'2"), 1♀, stones in grassland, 24.V.1998, R. Bosmans leg. (CRB), **Stereia Elada**, Voiotia, Moscopodi, 1♂ 1 subadult♀, 1998, L. Picard leg. (CRB), **Thessalia**, Trikala, Kastraki (N39°43'21" E21°37'38"), 250m, 1♀, near fountain in *Fagus* forest 11.IV.1997, R. Bosmans leg. (CRB).

Ecology. The species occurs in all kinds of habitats at different altitudes.

Distribution. Europe except the north, Atlantic Islands, North Africa, Turkey, Israel. Earlier citations of *H. dalmatensis* in the Mediterranean region cannot be trusted due to confusion with its sibling species *H. omissus*. In this region, verified material comes from Spain, France, Italy, Greece, Morocco and Algeria.

***Haplodrassus dentifer* Bosmans & Abrous, sp. n.**

Figs 30–40, 49–53, map 2

Types. Holotype ♂, paratypes 1♂ 2♀ from Morocco, Souss-Massa, between Aoulouz and Tallliouine (N30°34'41" W8°3'11"), 600m, stones in steppe, 4.II.1996, J. Van Keer leg.; deposited in RBINS.

Etymology. The species name is derived from the Latin noun *dens* (tooth) and the verb *ferre* (to wear) and refers to the presence of a tooth at the base of the embolus.

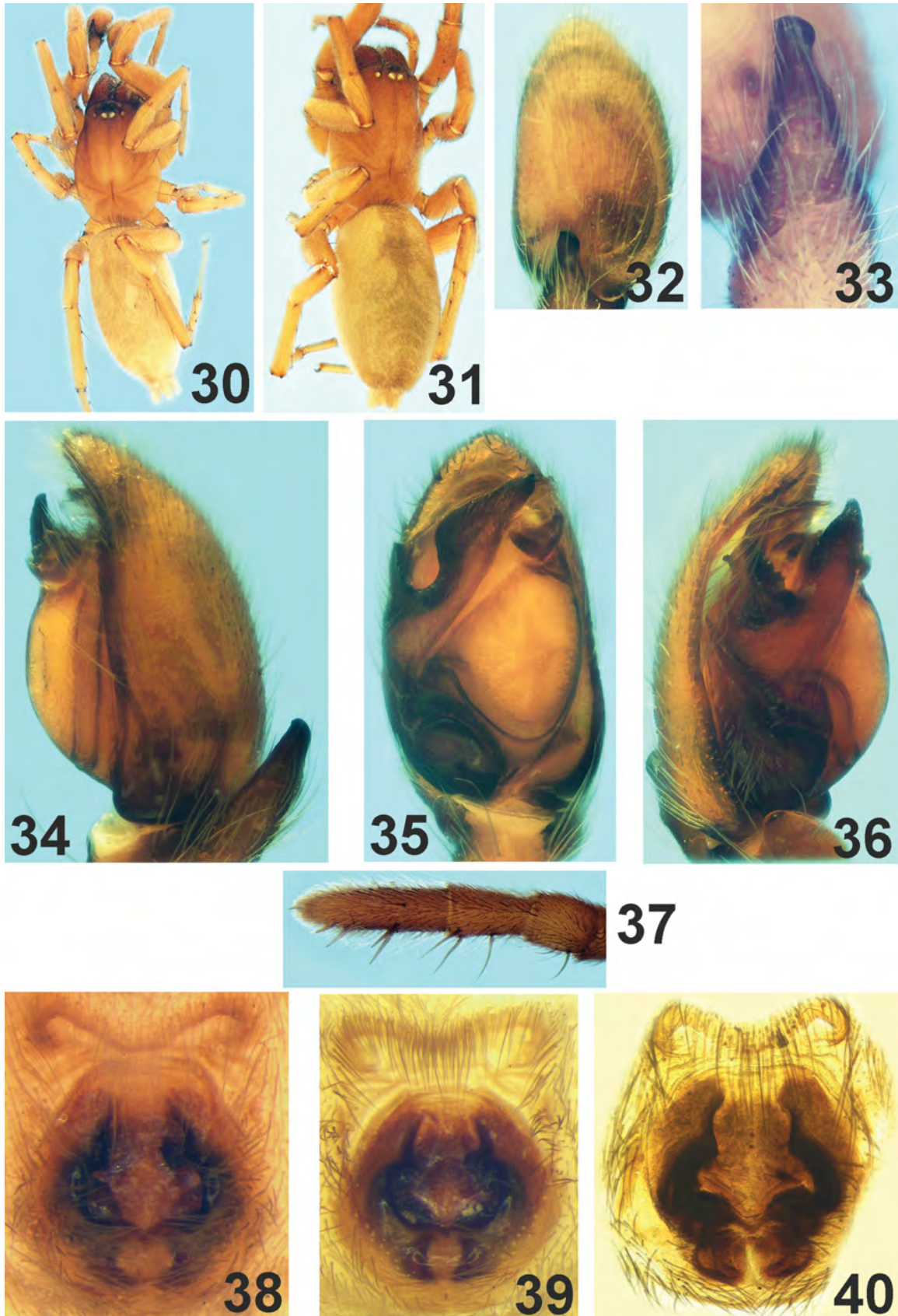
Diagnosis. *Haplodrassus dentifer* sp. n. is closely related to *H. rufipes*. Males are at once recognized by the presence of a subterminal tooth at the prolateral margin of the embolic apophysis in *H. rufipes* (Figs 131, 142), absent in *H. dentifer* (Figs 35, 51), females by the converging, gradually narrowing antero-lateral branches of the areola (Figs 40, 52), straight and truncate in *H. rufipes* (Figs 132, 143).

Description. Measurements: Male (n=5): Total length 5.6–9.6 mm; carapace 1.22–2.02 long, 0.99–1.58 wide. Female (n=11): Total length 7.6–9.6 mm; carapace 1.96–2.44 long, 2.44–3.12 wide. Colour: Carapace yellowish brown with darkened eye region; chelicerae dark brown; sternum and legs yellowish brown; abdomen grey.

Male palp (Figs 32–36, 49–51): Tibia 2.5 times as long as wide, gradually narrowing, slightly widened before the rounded tip (Figs 33, 50); embolic apophysis nearly straight, without denticulations, with pointed tip; base of embolus with strong denticulate keel (Figs 36).

Epigyne (Figs 38–40, 52–53): Anterior margin nearly as wide as areola; pro-fovea short, less than half the length of the fovea; foveal border marked by a strong medio-lateral tooth, but often obscured by the presence of concretions (compare Figs 39 and 40).

Further material examined. AFRICA: ALGERIA, **Laghouat**, 20 km south of Laghouat (N33°38'41" E2°55'51"), 740m, 1♂, pitfalls under *Zizyphus* bushes in a daya, 14.V.1990, R. Bosmans leg. (CRB), **Ghardaia**: Ksar el Atteuf (N32°28'30" E3°44'57"), 1♂, pitfalls in alfalfa cultures, 25.III.2015, Y. Alioua & A. Hadj Mhammed leg. (CYA), **Tamanrasset**, Issek (N22°34'35" E6°01'54"), 1200m, 1♀, II.1988, K. De Smet leg. (CRB). MOROCCO, **Draâ-Tafilalet**, Col de Tagalm, SE Zebzat, 1930m, 2♀, stone field, 19.IV.2012, R. Bosmans & J. Van Keer leg. (CJVK, CRB), Tinerhir 20 km E. (N31°30'36" W5°31'48"), 1350m, 1♂, litter in small palm yard, 6.II.1996, J. Van Keer leg. (CJVK), Tizi 'n Ikhsane (N30°26'56" W7°31'24"), 1650m, 1♀, stones in steppe, 6.II.1996, J. Van Keer leg. (CJVK), **Fès-Meknès**, Missouri (N33°2'56" W3°59'22"), 1♀, 7.XII.2001, 1♀, 7.III.2002, 2♀, 27.IV.2002, pitfalls in steppe, R. Bosmans leg. (CRB), **Guelmim-Oued Noun**, 10 km W. Taghijit



FIGURES 30–40. *Haplodrassus dentifer* sp. n. (paratypes from Morocco, Aoulouz). 30. Male, dorsal aspect; 31. Female, dorsal aspect; 32. Cymbium of male palp, dorsal view; 33. Male palpal tibia, dorsolateral view; 34. Male left palp, retrolateral view; 35. Idem, ventral view; 36. Idem, retrolateral view; 37. Distal part of female palp, lateral view; 38–39. Epigyne, ventral view, two different specimens; 40. Vulva, ventral view.

(N29°04'02" W9°17'52"), 650m, 1♀, stones in steppe, 13.II.2007, R. Bosmans leg. (CRB), Tata (N29°45'35"N7°58'57"E), 1♀, litter in palm yards, 14.II.2007, R. Bosmans leg. (CRB), *Lâayoune-Saguia al Hamra*, Tarfaya 40 km S., (N27°35'53" W12°57'11"), 2♀, stony desert, 11.II.2007, R. Bosmans & J. Van Keer leg. (CRB), *Marrakech-Safi*, Imi n'Tanoute (N31°10'16" W8°50'43"), 1♀, Coll. Simon 25299 (MNHN AR15687). TUNISIA, *Sousse*, Hergla S. (N35°59'17" W10°30'41"), 10m, 1♂, pitfalls in salt marsh, 27.II–8.III.2005, J. Van Keer leg. (CJVK). EUROPE: SPAIN: **Cádiz**: Sierra de los Pinos, Villalengua del Rosario (N36°37'55" W5°22'33"), 1400m, 1♀, under stones in the crest of a limestone mountain, 16.II.2016, I. Sánchez leg. (CIS).

Ecology. The specimens were collected in steppe vegetation, salt marshes, stony fields, dunes with scarce vegetation and palm yards, situated in the arid, semi-arid and desert climate zones of the Maghreb. Males and females were found from December to May.

Distribution. This species occurs in Algeria, Morocco and Tunisia and was once collected in the South of Spain (map 2).

Haplodrassus longivulva Bosmans & Hervé, sp. n.

Figs 41–48, 54–57, map 3

Types: Holotype ♂, paratypes 2♀ from Algeria, Naama, Mecheria, Coll. Simon 6294 (MNHN AR15688); deposited in MNHN.

Etymology. The name is a noun in apposition and refers to the shape of the vulva which is distinctly longer than wide.

Diagnosis. Males of *Haplodrassus longivulva* sp. n. differ from other species by the absence of teeth on the slightly sigmoid embolic apophysis (Figs 45, 54) and by the gradually narrowing tibial apophysis with subterminal concavity (Figs 43, 55). Females are much easier distinguished by the elongated epigyne with large anterior hood (Figs 47, 56).

Description. Measurements: Male (n=2): total length 2.5–3.6; carapace 1.53–1.94 long, 0.86–1.14 wide. Female (n=5): total length 4.0–6.6; carapace 1.44–2.79 long, 0.96–1.88 wide. Colour (based on recently collected material): Carapace pale yellowish, cephalic part brown to reddish brown, less so in females; chelicerae reddish brown; sternum yellowish red in male, pale yellowish in female; legs pale yellowish grey; abdomen pale grey.

Male palp (Figs 43–46, 54–55): Tibial apophysis short, ventral margin straight, dorsal margin with small subterminal concavity at base, terminally slightly widening and bluntly pointed; embolic apophysis slightly sigmoid, with narrow base, shorter than embolus, terminally with rounded tip.

Epigyne (Figs 47–48, 56–57): Distinctly longer than wide (ratio 1.4–1.6), anteriorly with marked hood; pro-fovea and fovea elongated, fovea rectangular, anterolaterally with an oblique groove continuing in the pro-fovea; lateral pockets reniform, with lateral chambers.

Further material examined. MOROCCO, *Fès-Meknès*: Missouri (N33°2'24" W3°59'52"), 1♂, 22.XII.2002, 1♀, 3.IV.2002, pitfalls in steppe, R. Bosmans leg. (CRB), *Marrakech-Safi*, Mogador (= Essaouira) (N31°30'47" W9°46'11"), 1♀, Martinez de la Escalera leg., 1907, Coll. Simon 13417 (MNHN AR15689), *Rabat-Salé-Kénitra* Forêt de Maâmora, Sidi Allal Bahraoui (N34°2'41" W6°35'25"), 1♀, litter in *Quercus suber* forest, 5.XII.1989, S. Benhalima leg. (CSB), *Souss-Massa*, between Aoulouz and Taliouine (N30°34'41" W8°3'11"), 600m, 1♂, stones in steppe with scattered *Argania spinosa* trees, 4.II.1996, R. Bosmans leg. (CRB).

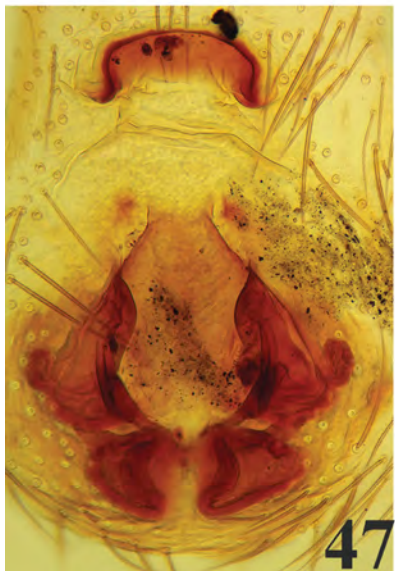
Ecology. The species was found in steppe vegetation as well as in dry *Quercus* forest. Males were collected in December and February, females in December and April.

Distribution. Central and South Morocco, NW Algeria (map 3).

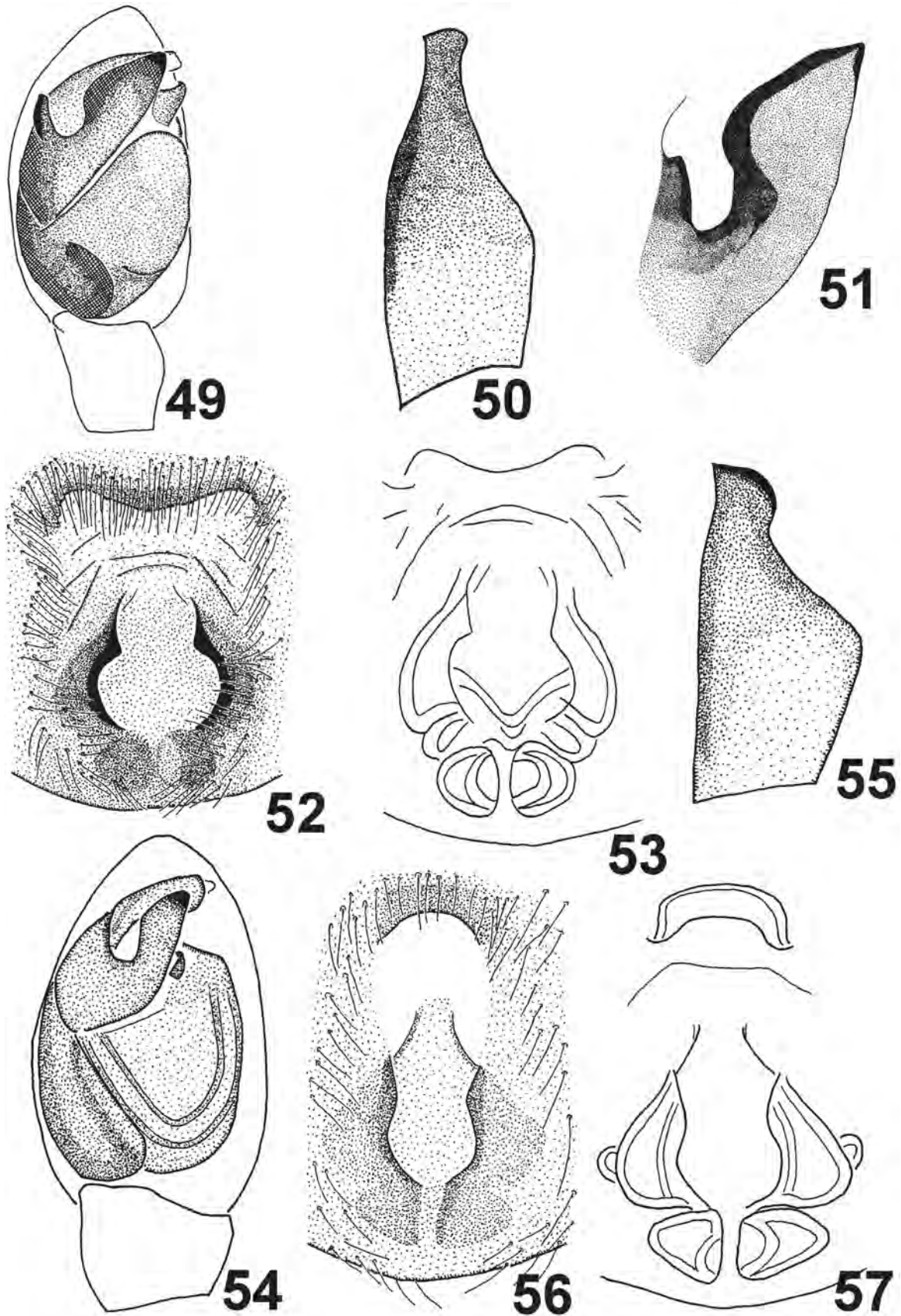
Haplodrassus lyndae Arous & Bosmans, sp. n.

Figs 58–66, 77–82, map 2

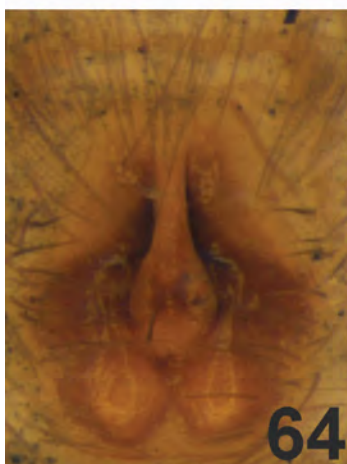
Types: Holotype ♂, paratypes 4 ♂ and 4♀ from Algeria, wilaya Djelfa, Djébel Séalba (N34°33'50" E3°2'9"), 1310–1400m, pitfalls in *Pinus halepensis* forest, 1990–1991, N. Bouragba & R. Bosmans leg.; holotype, 2♂ and 2♀ paratypes deposited in RBINS, 2♂ 2♀ paratypes deposited in MNHN (MNHN AR15696).



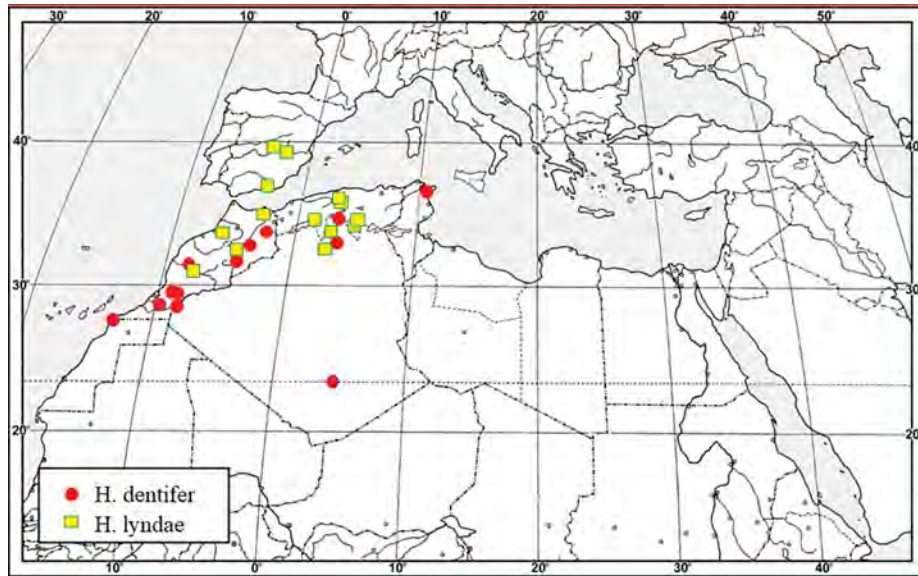
FIGURES 41–48. *Haplodrassus longivulva* sp. n. (Morocco, Missouri). 41. Male, dorsal aspect; 42. Female, dorsal aspect; 43. Male palpal tibia, dorsolateral view; 44. Male left palp, retrolateral view; 45. Idem, ventral view; 46. Idem, prolateral view; 47. Epigyne, ventral view; 48. Vulva, dorsal view.



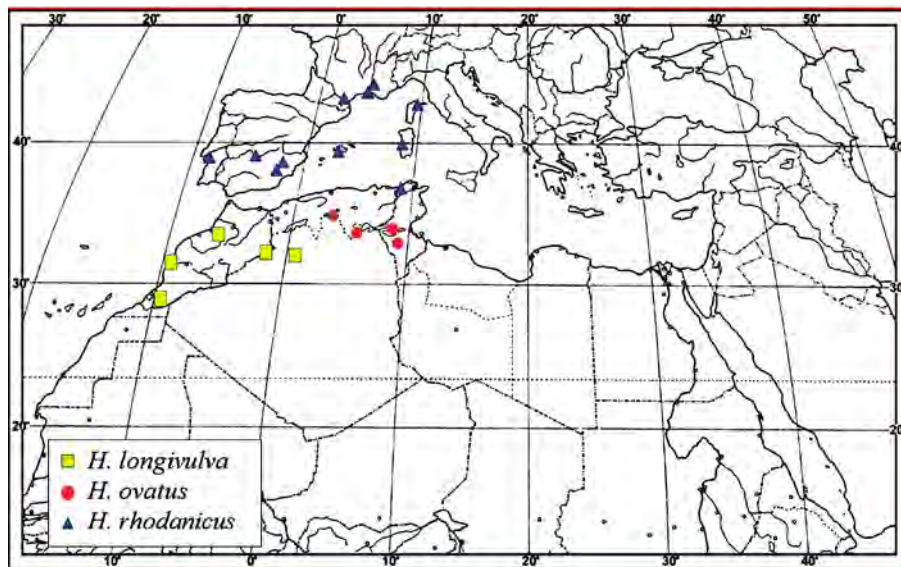
FIGURES 49–57. Figs 49–53. *Haplodrassus dentifer* **sp. n.** (paratypes from Morocco, Aoulouz). 49. Male left palp, ventral view; 50. Male palpal tibia, dorsolateral view; 51. Embolic apophysis of male palp and base of embolus, ventral view; 52. Epigyne, ventral view; 53. Vulva, ventral view. Figs 54–57. *Haplodrassus longivulva* **sp. n.** (Morocco, Missouri). 54. Male left palp, ventral view; 55. Male palpal tibia, dorsolateral view; 56. Epigyne, ventral view; 57. Vulva, ventral view.



FIGURES 58–66. *Haplodrassus lyndae* sp. n. (Algeria, Col Telmet). 58. Male, dorsal aspect; 59. Female, dorsal aspect; 60. Male palpal tibia, dorsolateral view; 61. Male left palp, retrolateral view; 62. Idem, ventral view; 63. Idem, prolateral view; 64. Epigyne, ventral view; 65. Vulva, ventral view; 66. Vulva, dorsal view.



MAP 2. Distribution of *Haplodrassus dentifer* sp. n. (circles) and *H. lyndae* sp. n. (squares).



MAP 3. Distribution of *Haplodrassus longivulva* sp. n. (squares), *H. ovatus* sp. n. (circles) and *H. rhodanicus* sp. n. (triangles).

Diagnosis. This species is easily distinguished from other *Haplodrassus* species of the Maghreb, in the male by the 2 blunt, widely separated terminal teeth of the embolic apophysis (Figs 62, 79), in the female by the narrow fovea, the hood being 3 times as wide as the fovea (Figs 64, 81).

Etymology. The species is dedicated to our friend Lynda Beladjal, in recognition of her precious aid during this study.

Description. Measurements: Male (n=10): total length 2.9–5.7; carapace 1.4–2.7 long, 0.9–1.6 wide. Female (n=10): total length 3.7–6.4; carapace 1.7–2.7 long, 1.3–1.9 wide. Colour: Carapace yellowish brown, cephalic part slightly darkened; legs yellowish brown; abdomen pale grey, rarely with indications of whitish chevrons. Spination: General pattern.

Male palp (Figs 60–63, 77–80): Tibial apophysis as long as the tibia's diameter, gradually narrowing, terminally widened and asymmetric; embolic apophysis with parallel margins, slightly bent, terminally with two blunt teeth.

Epigyne (Figs 64–66, 81–82): Longer than wide (ratio 1:1.5), pro-fovea very narrow; fovea elongated, narrow anteriorly, dilated in the posterior half; lateral pockets oval, with small lateral pouch.

Further material examined. AFRICA, ALGERIA, *Batna*: Forêt de S'Gag (N35°26'1" E6°14'38"), 1650m, 2♂, pitfalls in *Cedrus atlantica* forest, 5.XI.1987–9.IV.1988, Massif de l'Aurès, Belezma, Col Telmet (N35°35'11" E6°2'50"), 1800m, 3♂ 8♀, pitfalls in *Cedrus atlantica* forest, 28.II.1988 (CRB), *Blida*: Atlas Blidéen, Chréa, les Glacières (N36°26'44" E2°56'22"), 1045m, 1♂, pitfalls in dense *Quercus ilex* forest, 20.X.1987, idem, 1520m, Pic Abdelkader (N36°24'14" E2°50'6"), 1♀, pitfalls in *Cedrus atlantica* forest, 20.VI.1987 (CRB), Chréa, south slope (N36°23'38" E2°48'24"), 3♂, pitfalls in dense *Cedrus atlantica* forest, 15.II.1987–21.VI.1987 (COA), *Djelfa*: Djébel Sénalba (N34°33'50" E3°2'9"), 1220–1450m, 2♂ 8♀, pitfalls in *Pinus halepensis* forest, 1990–1991, (CNB, CRB), idem, 1310–1400m, 3♂ 4♀, 1990–1991 (CNB, CRB), *M'sila*: Aïn Oghrab (N35°0'52" E4°6'24"), 650m, 1♀, pitfalls in *Pinus halepensis* forest, 20.III–23.IV.1990 (CRB), *Tiaret*: between Rosfa and Aïn el Hadid (N34°58'59" E0°48'52"), 900m, 1♂, pitfalls in dry *Pinus halepensis* forest, 22.V.1990 (CRB). MOROCCO, *Draâ-Tafilalet*, Bouldjoul N., Col du Zad (N33°0'36" W5°3'36"), 2280m, 1♀, under stones in degraded *Cedrus atlantica* and *Quercus ilex* forest, 7.II.1996, J. Van Keer leg. (CJVK), *Marrakech-Safi*, Marrakech N., Oued Tensift (N31°41'33" W7°59'17"), 370m, 1♀, stones in dry river bed, 9.II.1996, J. Van Keer leg. (CJVK), *Rabat-Salé-Kénitra*, Forêt de Maâmora, Sidi Allal-Bahraoui (N34°2'41" W6°35'25"), 175m, 1♂ 2 subadult♀, 2.X.1989, 1♂, 6.XI.1989, 2♀, 5.XII.1989, litter in *Quercus suber* forest, S. Benhalima leg. (CSB), idem, 2♀, 8.II.1996, R. Bosmans leg. (CRB), *Tanger-Tetouan-Al Hoceima*, Issaguen S. (N34°53'25" W4°34'59"), 1450m, 1♀, stones in *Cedrus atlantica* forest, 15.XII.2013 (CRB). EUROPE, SPAIN, *Cuenca*: Molina de Aragon (N40°51'39" W1°49'58), 1050m, 1♀, stones in *Pinus* forest, 14.IV.1998 (CRB), *Jaen*: Jaen S., Jabalruz (N37°43'52" W3°48'33"), 700m, 1♀, stones in *Pinus* forest, 12.IV.1998 (CRB), *Madrid*: El Escorial (N40°35'29" W4°08'51"), 1♀, as *Drassodes virens* L. Koch *nomen nudum*, Coll. Simon 2049 (MNHN AR9375).

Remark. The following material possibly belongs to *H. lyndae* sp. n., but the capture of males should confirm this: ITALY, *Sicilia*, Terrasini, Riserva Naturale Orientata Capo Rama (N38°8'22" E13°3'38"), 2♀, pitfalls in grassland, 14–24.IV.2012, C. Cusimano leg. (MCSNB).

Ecology. The species is common in the *Cedrus* and *Quercus* forests at higher altitudes of Algeria and Morocco. Males were collected from November to May, females from December to June.

Distribution. Central and North Morocco, North Algeria, Central and South Spain and possibly Italy (see above; map 2). It is remarkable the species is present in some Algerian stations of high altitudes (Atlas Blidéen, Aurès Massif, Djébel Sénalba), but absent from others (Massif du Djurdjura, Djébel Ouarsenis and Djébel Babor), where also collections were made at regular intervals.

Haplodrassus nigroscripatus (Simon, 1909), comb. n.

Figs 67–76, 83–86, map 4

Drassodes nigroscripatus Simon, 1909: 16 (♂♀).

Drassodes nigroscripatus deminutus Simon, 1909: 17 (♂♀), **syn. n.**

Types. Type series of *Drassodes nigroscripatus* from Morocco, Marrakech-Safi, Mogador (=Essaouira) (N31°30'47" W9°46'11"), containing 4♂ and 3♀, Martinez de la Escalera leg., 1907, Coll. Simon 23869 (MNHN AR14581); examined. Type series of *Drassodes nigroscripatus deminutus* from Morocco, Marrakech-Safi, Mogador (=Essaouira; N31°30'47" W9°46'11"), containing 4♂ and 1 subadult♀, Martinez de la Escalera leg., 1907, Coll. Simon 12232 (MNHN AR14582); MNHN, Coll. Simon; examined.

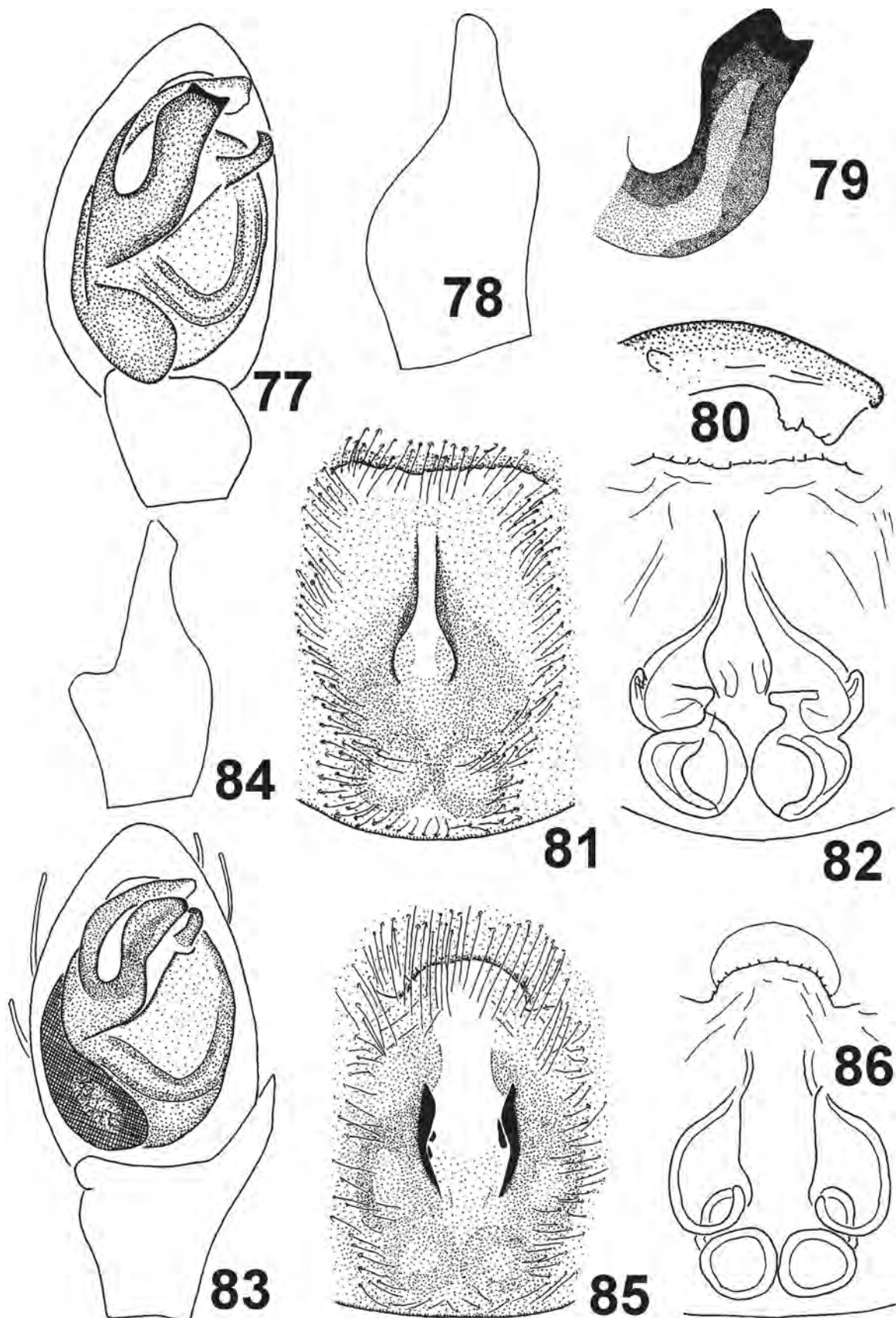
Etymology. Simon (1909) obviously gave this name as a reference to the speckled abdomen of the species.

Diagnosis. *Haplodrassus nigroscripatus* can at once be recognized by the speckled abdomen (Figs 67, 68). It is further remarkable in the male by the presence of abundant, strong spines on the cymbium (fig. 71), in the female by the more than 20 thick spines on the female palpal tarsus (fig. 73). The species can therefore not be confused with any other *Haplodrassus* species. Males can further be distinguished by the relatively small embolic apophysis (Figs 70, 83), females by the rounded anterior hood and the fovea with nearly parallel margins (Figs 74, 85).

Remarks. There are no differences in the copulatory organs of the syntypes males and females of *H. nigroscripatus nigroscripatus* and *H. nigroscripatus deminutus*. They were collected at the same locality. Simon (1909) distinguished the two subspecies only by differences in size, colour and spinulation, but these are no diagnostic characters. We consider them synonyms.



FIGURES 67–76. *Haplodrassus nigroscriptus* (type series from Morocco, Essaouira). 67. Male, dorsal aspect; 68. Female, dorsal aspect; 69. Male left palp, retrolateral view; 70. Idem, ventral view; 71. Male cymbium, dorsal view; 72. Male palpal tibia, dorsolateral view; 73. Female palp, lateral view; 74. Epigyne, ventral view; 75. Vulva, ventral view; 76. Idem, dorsal view.



FIGURES 77–86. Figs 77–82. *Haplodrassus lyndae* sp. n. (Algeria, Col Telmet). 77. Male left palp, ventral view; 78. Male palpal tibia, dorsolateral view; 79. Embolic apophysis of male palp, ventral view; 80. Embolus, dorsal view; 81. Epigyne, ventral view; 82. Vulva, ventral view. Figs 83–86. *Haplodrassus nigroscriptus* (type series from Morocco, Essaouira). 83. Male left palp, ventral view; 84. Male palpal tibia, dorsolateral view; 85. Epigyne, ventral view; 86. Vulva, ventral view.

Description. Measurements: Male (n=8): total length 5.6–7.2; carapace 2.68–3.76 long, 2.12–2.72 wide. Female (n=9): total length 4.8–10.4; carapace 2.40–4.22 long, 1.64–3.32 wide.

Colour: Carapace yellowish brown, cephalic part brown; chelicerae dark brown; sternum yellowish brown with darkened margins; legs pale yellowish brown; abdomen pale grey speckled with abundant, small dark grey spots or short stripes, rarely not present (Figs 67, 68). Spinulation: General pattern.

Male palp: Tibia with 3 distinct spines at prolateral side; cymbium dorsally with about 20, scattered strong spines (fig. 71); tibial apophysis elongated, slightly curved with truncate tip (Figs 72, 84); embolic apophysis narrow and elongated, small relatively to the tegulum, without denticles and with rounded tip (Figs 70, 83).

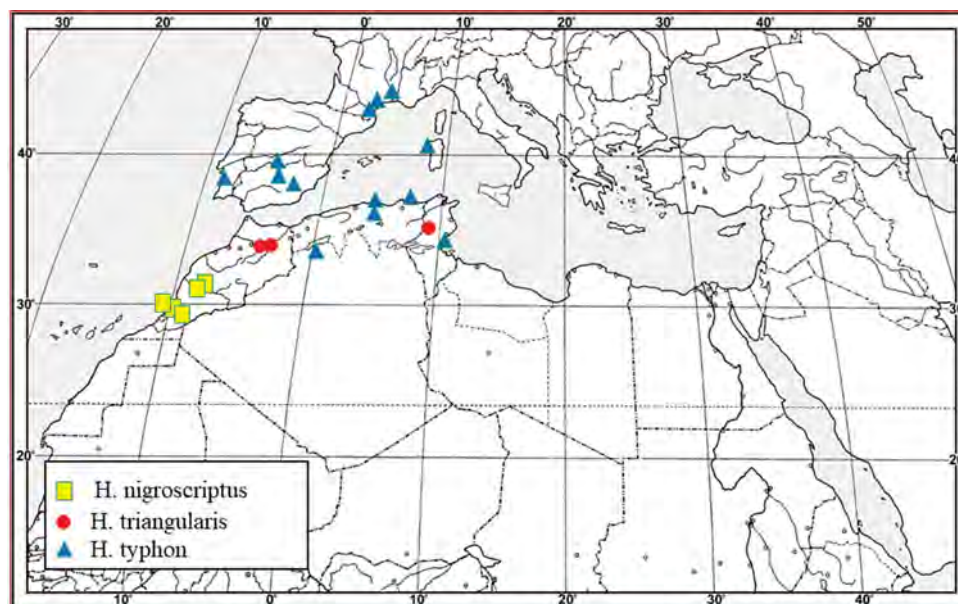
Epigyne: Almost twice as long as wide, with semi-circular anterior hood (Figs 74, 85); fovea with nearly parallel margins, without denticles; lateral pockets semi-circular (Figs 75–76, 86).

Citations in the Maghreb. MOROCCO, *Marrakech-Safi*, Asni (N31°10'03" W7°54'45") (Caporiacco 1932).

Further material examined. MOROCCO, *Marrakech-Safi*: Amizmiz (N31°13'26" W8°15'2"), 1♀, 28.III.1952, J. Malhomme leg. (ISRM), *Souss-Massa*: N. Agadir, road Tamri—Tamanar, N. Tamri estuary (N30°44'20" E9°50'6"), 90m, 5♀, pitfalls in dunes with scarce vegetation, 5–28.IV.2012, R. Bosmans & J. Van Keer leg. (CJVK, CRB), idem, Tamri estuary (N30°42'35" E9°51'16"), 5m, 1♀, pitfalls in *Tamarix* marsh, 5–28.IV.2012, R. Bosmans leg. (CRB).

Ecology. The species was collected in spring in an estuary and in neighbouring dunes.

Distribution. Only known from a limited area in the south of Morocco (map 4).



MAP 4. Distribution of *Haplodrassus nigroscripatus* (Simon) (squares), *H. triangularis* sp. n. (circles) and *H. typhon* (Simon) (triangles).

***Haplodrassus omissus* (O.P.-Cambridge, 1872), stat. n.**

Figs 87–97, 108–112, map 5

Drassus omissus O.P.-Cambridge, 1872: 239, pl. 15 (♀).

Drassus parvulus L. Koch, 1882: 632, pl. 20 figs 10–11 (♂), **syn. n.**

Drassodes acrotirius Roewer, 1928: 102, pl. 1, fig. 8 (♀); Chatzaki, Thaler & Mylonas 2002: 587, figs 62A–B (♀), **syn. n.**

Drassodes seditiosus Caporiacco, 1928a: 83, fig. 1 (♀), **syn. n.**

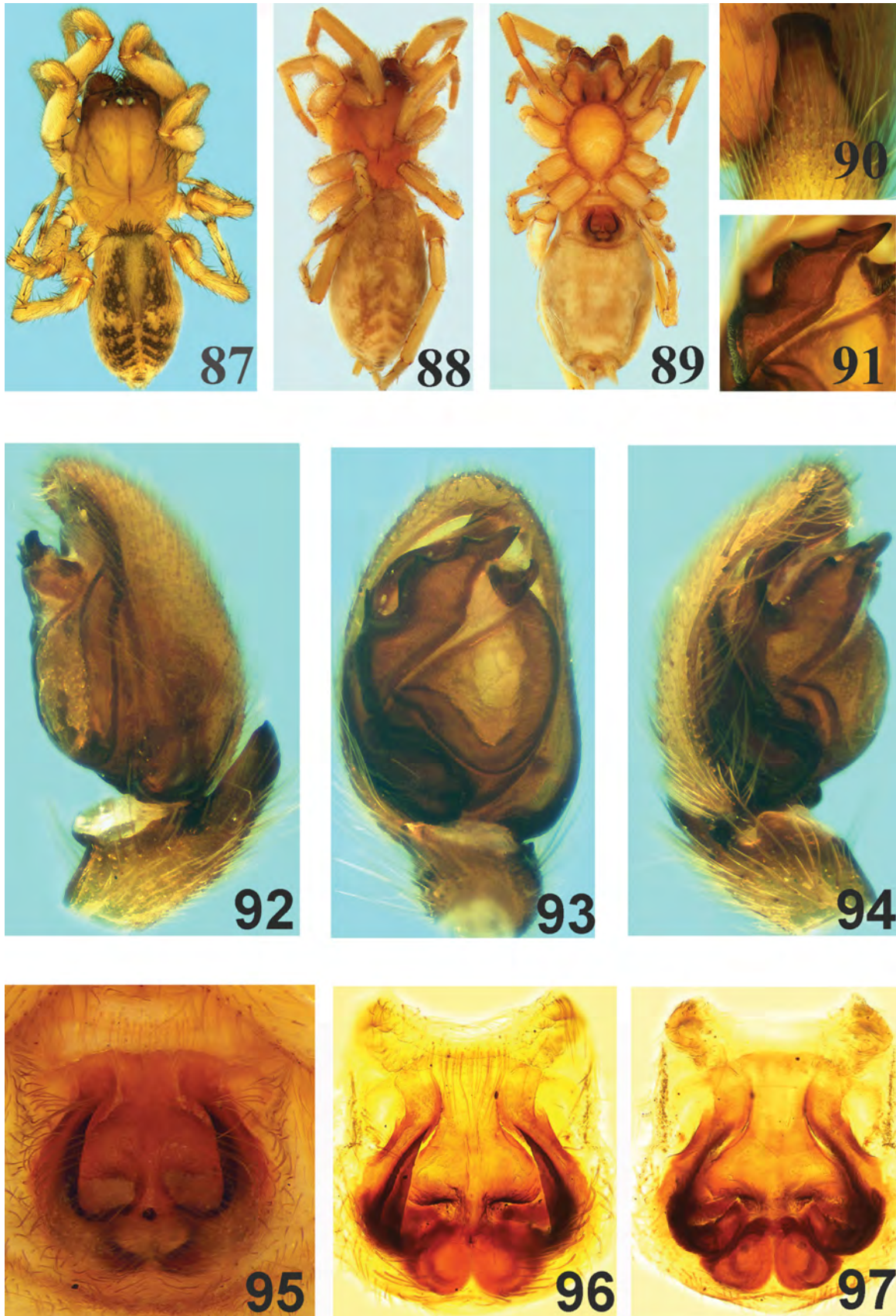
Haplodrassus seditiosus; Caporiacco 1934: 9, fig. 3 (♂, transfer).

Drassodes parvicorpus Roewer, 1951: 443 (superfluous replacement name for *Drassus parvulus*).

Haplodrassus maroccanus Denis, 1956: 196, figs 4–6 (♂♀).

Haplodrassus dalmatensis; Levy 2004: 24, figs 57–59, 61 (misidentification).

Haplodrassus parvicorpus; Bosmans & Van Keer 2012: 11, figs 27–28 (♂; synonymy with *H. dalmatensis* rejected).

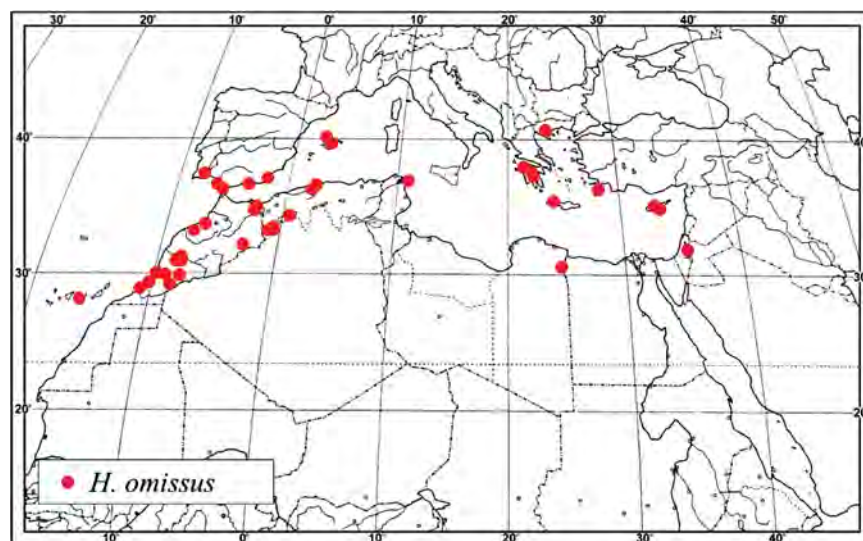


FIGURES 87–97. *Haplodrassus omissus* (Algeria, male from Chr ea, female from A in Oghrab). 87. Male, dorsal aspect; 88. Female, dorsal aspect; 89. Female, ventral aspect; 90. Embolic apophysis of male palp, ventral view; 91. Male palpal tibia, dorsolateral view; 92. Male left palp, retrolateral view; 93. Idem, ventral view; 94. Idem, prolateral view; 95. Epigyne, ventral view; 96. Vulva, ventral view; 97. Vulva, dorsal view.

Types. Holotype ♀ of *Drassus omissus* O.P.-Cambridge from Palestine, Hebron; HECO, Coll. O.P.-Cambridge; examined. Holotype ♂ of *Drassus parvulus* from Spain, Baleares, Mallorca, Rivera near Palma, 22.IV.1882, Schmalzfűsz leg., examined; ZMB 7913. Holotype ♀ of *Drassodes seditiosus* from Lybia, Giarabub, XII.1926; MCSG, examined. Type series of *Haplodrassus maroccanus* from Morocco, Souss-Massa, Ouled Teima, according to Denis (1956) containing 1♂, 3 subadult♂, 1♀ and 1 subadult♀, 21.II.1954 and 1 subadult female from Amzou; not examined, not trackable in the MNHN. Holotype ♀, 1 subadult♂ of *Drassodes acrotirius* Roewer, 1928 from Greece, Crete, Akrotiri; examined; SMF Coll. Roewer 581.

Diagnosis *Haplodrassus omissus* and *H. dalmatensis* are two closely related sibling species, both recognised by the presence of two retrolateral teeth on the embolic apophysis in the male and of a median septum in the epigyne of the female. In *H. omissus* males, the embolic apophysis is more elongated and terminally pointed (Figs 93, 108), more compact and terminally rounded in *H. dalmatensis* (Figs 14, 25). Females are separated by the fovea as long as wide in *H. omissus* (Figs 95, 111), longer than wide in *H. dalmatensis* (Figs 16, 28).

Remarks. Levy (2004) considered *Drassus omissus* a junior synonym of *D. morosus*. According to him, the type is not in the Oxford Museum, where Cambridge normally deposited his specimens. However, one of us (CH) searched the collection of the Oxford Museum and discovered the missing types of several species, among them the type of *Drassus omissus* [also those of *Drassus unicolor* O. Pickard-Cambridge, 1872 and *Hecarerge opiniosa* (O. Pickard-Cambridge, 1872)]. Both *Drassus omissus* and *D. unicolor* were reported to be missing in the Oxford collection (Levy 2004). Although he apparently did not see the type, Levy considered *Drassus omissus* O.P.-Cambridge, 1872 a junior synonym of *Drassus morosus* O.P.-Cambridge, 1872. Examination of the holotype now shows this is incorrect and *Drassus omissus* is a valid species. Cambridge's figure 17 shows the typical cross-like structure in the fovea of the epigyne that is also present in the fovea of *Drassus parvulus*, a junior synonym. This name was used for three different species in the past: *Drassus parvulus* Blackwall, 1833, *Drassus parvulus* Lucas, 1846 and *Drassus parvulus* L. Koch, 1882. Blackwall's name is a synonym of *Dictyna arundinacea* (Linnaeus, 1758), Lucas' species appeared to belong to *Setaphis* and was given the replacement name *Setaphis lucasi* by Roewer (1951), which action Platnick & Murphy (1996) in his turn called superfluous. Finally, L. Koch's species appears to be a *Haplodrassus* species which was given the replacement name *H. parvicorpus* by Roewer (1951). Also, this name has no longer to be used, as it now appears to be a junior synonym of *Haplodrassus omissus* (O.P.-Cambridge, 1872). Caporiacco (1928a) described *Drassodes seditiosus* in a paper on the spiders of the Giarabub region in Lybia. Examination of the holotype female shows it is identical to *H. omissus* and *H. seditiosus* thus becomes a junior synonym of *H. omissus*. In a paper on the *Haplodrassus* species of Israel, Levy (2004) gave an excellent description of specimens he thought to be *Haplodrassus dalmatensis*. In the female, he distinguished two forms. Fig. 59 of the 'common' form corresponds with *H. dalmatensis*, fig. 60 of the 'variation' figures the epigyne of *H. omissus*. Figure 57 of the male palp clearly shows an elongated, terminally pointed embolic apophysis, as in *H. omissus*.



MAP 5. Distribution of *Haplodrassus omissus* (O.P.-Cambridge).

Description. Measurements: Male (n=20): Total length 6.6–7.5; carapace 2.9–3.3 long, 2.3–2.7 wide. Female (n=20): Total length 4.9–7.2; carapace 2.01–2.84 long, 1.52–2.36 wide. Colour: Carapace brown, cephalic part dark brown; legs pale yellowish; abdomen pale grey, with grey antero-median stripe and postero-dorsal chevrons. Spinulation: General pattern.

Male palp (Figs 90–94, 108–110): Tibial apophysis shorter than the diameter of the segment, almost straight, gradually tapering, with antero-lateral concavity and truncate tip (Figs 91, 109); embolic apophysis oblique, elongated, with two strong teeth along its retrolateral margin, terminally sharply pointed (Figs 90, 110); embolus with short subdistal denticle.

Epigyne (Figs 95–97, 111–112): Hood wider than fovea, protruding in the middle; pro-fovea relatively short, only 1/3 the length of fovea; fovea twice as wide in basal part as in median part, posteriorly with median septum; lateral pockets relatively narrow.

Citations in the Maghreb. LIBYA, *Shabiyat al Butnan*, Al Jaghub (as Giarabub) (N29°44'33" E24°31'0") (as *Drassodes seditiosus*, Caporiacco 1928a, 1934). MOROCCO, *Souss-Massa*, Amzou, Ouled Teima (N30°23'40" W9°12'32") (as *H. maroccanus* Denis 1956).

Further material examined. AFRICA: ALGERIA, *Alger*, Bab Ezzouar (N36°42'45" E3°10'54"), 20m, 2♀, pitfalls in grassland near university, 9.V.1988, R. Bosmans leg. (CRB), *Blida*, Atlas Blidéen, Chréa, Pic Abdelkader (N36°24'14" E2°50'6"), 1520m, 2♀, sieving litter in *Cedrus atlantica* forest, 9.V.1988, 1♂, pitfalls in *Cedrus atlantica* forest, 20.VI.1997–8.V.1998, R. Bosmans leg. (CRB), *Djelfa*, Hassi Babbah, El Mesrane (N34°54'59" E3°3'6"), 900m, 1♀, pitfalls in fixed dunes, 28.III.1989, 1♂, 3.XI.1989, R. Bosmans & N. Bouragba leg. (CRB), *El Bayadh*, Le Kreider (N34°8'41" E0°4'9"), 1♀, E. Simon leg., Coll. Simon 11933 (MNHN AR15697), *M'sila*, S. E. Bou Saada, Oued Temsa (35°9'34" E3°54'25"), 600m, 1♀, stones in dry river bed, 22.V.1988, R. Bosmans leg. (CRB), between Aumale (= Sour-El Ghozlane) and Bou Saada (N35°20'36" E6°4'46"), Aïn Oghrab (N35°0'52" E4°6'24"), 2♀, E. Simon leg., Coll. Simon 12988 (MNHN AR15698), Aïn Oghrab (N35°0'52" E4°6'24"), 3♀, E. Simon leg., Coll. Simon 12794 (MNHN AR15699). MOROCCO, *Casablanca-Settat*, Mechra Benabou (32°41'26" E9°19'14"), 400m, 1♀, stones in recent *Pinus* plantation, 9.II.1996, R. Bosmans leg. (CRB), *Drâa-Tafilalet*, Timiderte, between Sidi Ifni and El Arba del Mesti (N29°19'45" W10°7'51"), 1♂, stones bordering fields, 10.II.2007, R. Bosmans leg. (CRB), *Fès-Meknès*, S. E. Taza, near gouffre de Friouatou (N34°6'15" W4°4'20"), 1550m, 1♀, stones in open *Quercus ilex* forest, 8.V.1984, R. Bosmans leg. (CRB), SW Aïn Taoujdate (N33°56'8" W5°12'41"), 480m, 2♂, pitfalls in wheat fields, 30.IV.1997, S. Bokschi leg. (CRB), Missouri (N33°2'24" W3°59'52"), 1♂, pitfalls in steppe, 5.II.2002 (CRB), S. El Herri (N32°51'17" E5°36'52"), 850m, 2♀, stones bordering fields, 17.IV.2012, J. Van Keer leg. (CJVK), *Guelmim-Oued Noun*, Guelmim, Station Abeino (N29°5'41" W10°1'5"), 1♂, 20.II.1954, G. Pasteur & J. B. Panouse leg. (ISRM), *Marrakech-Safi*, Essaouira, Aïn El Hayar, 1♂, as *Drassodes nigropictus* Simon *nomen nudum*, Coll. Simon 25076 (MNHN AR9368), surroundings of Marrakech (N31°31'3" W7°59'59"), 1♂, 02.I.1962 (ISRM), My Brahim, SE barrage Lala Takerkouste, Plateau du Kik (N31°15' W8°50'), 1450m, 1♀, 29.IV.1962, J. Malhomme leg. (ISRM), *Rabat-Salé-Kénitra*, Forêt de Mamora, Sidi Allal Bahraoui (N34°2'41" W6°35'25"), 1♀, 29.V.1962 (ISRM), *Souss-Massa*, Agadir (N30°25'50" W9°37'24"), 220m, 1♂, 1♀, stones around old Kasbah, 28.IV.2012, J. Van Keer leg. (CJVK), Igherm E. (N30°8'11" W8°23'38"), 1790m, 1♀, stony steppe, 24.IV.2012, J. Van Keer leg. (CJVK), Sebt-Guerdane (N30°29'24" W9°37'48"), 200m, 1♂ 1♀, stones in abandoned fields, 4.II.1996, J. Van Keer leg. (CJVK); Taourirt E., Irhahi (N36°35'00" W4°56'00"), 500m, 1♂ 1♀, stones in steppe, 23.IV.2012, J. Van Keer leg. (CJVK), Sebt-Guerdane (N30°29'24" W9°37'48"), 200m, 1♂ 1♀, stones in abandoned fields, 4.II.1996, J. Van Keer leg. (CJVK). TUNISIA, *Nabeul*, El Haouaria (36°41'36" E10°52'9"), 5♂ 1♀, litter in dunes, 19.IV.1993, K. De Smet leg. (CRB). EUROPE: SPAIN, *Almería*, Padules (37°0'20" W2°46'4"), 1♂, stones on a humid slope, 9.IV.1998, J. Van Keer leg. (CJVK); *Cádiz*, Bolonia (36°5'20" W5°46'27"), 1♀, 8.V.1993, P. Poot leg., Tarifa (N36°0'50" W5°36'25"), 2♂ 5♀, IV.1992, P. Poot leg. (CRB), *Baleares*, Mallorca, Puig de Randa (N39°43'45" E2°57'23"), 520m, 1♂, stones in maquis, 5.IV.2003, R. Bosmans leg. (CRB), Ses Salines, salines des Calobrar (N39°21'11" E3°0'51'), 30m, 1♂, stones and litter in salt marsh, 5.IV.2003, and 1♀, 31.III.2010, K. H. Kielhorn leg. (CKHK), *Canary Islands*, Gran Canaria, 4♂ 2♀ 3 juveniles, C. Alluaud leg., 1898, Coll. Simon 10285 (MNHN AR15700), *Málaga*, Málaga, 2♀, as *Drassodes ictericus* L. Koch *nomen nudum*, E. Simon leg., Coll. Simon 2050 (MNHN AR9444). PORTUGAL, *Algarve*, Albufeira (N37°5'0" W8°15'41"), 1♂, 9.III.1992, P. Poot leg. (CRB). GREECE, *Dodekanisa*, Rhodos, Ladiko Bay (N36°19'28" E28°12'52"), 1♀, stones in dunes, 15.V.1996, R. Bosmans leg. (CRB), *Peloponnisos*, Achaia: Kalogria (N38°08'06" E21°22'34"), 5m, 1♂ 1♀, 27.IV.2006, P. Povel leg. (CPP), Arkadia, Megalopoli, Thersileiou (N37°24'50" E22°7'35"), 385m, 1♀, G. Delmastro leg. (CRB), Ilia,

Simopoulo E. (N37°51'2" E21°36'14"), 350m, 1♀, litter in old *Quercus* forest, 30.V.1998, R. Bosmans leg. (CRB), **Macedonia**, Thessaloniki, Epanoumi (N40°25'15" E22°53'33"), 10m, 1♀, stones in camping site, 13.VI.1997, R. Bosmans leg. (CRB). **CYPRUS: Famagusta**, Cape Greko, 1♀, *Juniperus phoenicea* forest, 1.V.2016 (CMH), **Lefkosia**: Lakamatia, 3♂ 1♀, olive groove and fields, 1.I–1.X. 2016 (CMH, CRB).

Distribution. The Mediterranean region from the Canary Islands to Israel (map 5).

***Haplodrassus ovatus* Bosmans & Hervé, sp. n.**

Figs 98–107, 113–117, map 3

Types: Holotype ♂, 3♂ 3♀ paratypes from Tunisia, Kebili, Nefzaoua (N33°23'0" E7°48'0"), Vibert leg., Coll. Simon 12687 (MNHN AR15685); deposited in MNHN.

Etymology. The species name refers to the oval form of the epigynal fovea.

Diagnosis. Males of *H. ovatus* sp. n. differ from other species by the sickle-shaped embolic apophysis in the male (Figs 101, 115), females by the oval epigynal fovea, much more elongated than in the related *H. signifer* and *H. pseudosignifer* (Figs 105, 116).

Description. Measurements: Male (n=4): Total length 6.2–8.0; carapace 2.66–3.44 long, 2.22–2.44 wide. Female (n=3): Total length 6.8–8.8 carapace 2.16–3.14 long, 2.08–2.36 wide. Colour: Carapace yellowish brown, eye region infuscate; chelicerae, labium and maxillae dark reddish brown; sternum orange brown with darker margins; legs yellowish brown; abdomen pale grey. Spinulation: General pattern, with metatarsi I spineless in all specimens examined and metatarsi II spineless in 1 female.

Male palp (Figs 100–104, 113–115): Tibial apophysis as long as the tibia's diameter, with nearly symmetric margins, with obtuse tip (Figs 100, 114); embolic apophysis with nearly straight retrolateral margin and strongly curved prolateral margin, at its base half as wide as in the middle, with subterminal prolateral angularity, terminally pointed (Figs 101, 115).

Epigyne (Figs 105–106, 116–117): Hood much wider than fovea, weakly sclerotized, with protruding median margin; pro-fovea narrow; fovea oval (Figs 105, 116), basal margin with an angularity; lateral pockets elongated, at its base with supplementary pocket (Figs 106, 117).

Further material examined. ALGERIA, **Biskra**, Biskra (N34°51'1" E5°43'41"), 1♂, Coll. Simon 22881 (MNHN AR15686); idem, 1♂, Coll. Simon 25542 (MNHN AR15701), **M'sila**, Baniou S., Chott el Hodna (N35°24'55" E4°20'39"), 1♀, 1.VII.1988, R. Bosmans leg. (CRB). TUNISIA, **Kairouan**, Oglet Tarfa (N35°45'49" E9°57'21"), 60m, 1♀, stones in dry river bed, 23.I.1995 (CRB).

Ecology. The species was captured in chotts (inland salt marshes) and in a dry river bed in the semi-arid and arid climate zones of the Maghreb.

Distribution. The species is known from two localities in the Nord East of Algeria, and two localities in central and southern Tunisia (map 3).

***Haplodrassus rhodanicus* (Simon, 1914), comb. n.**

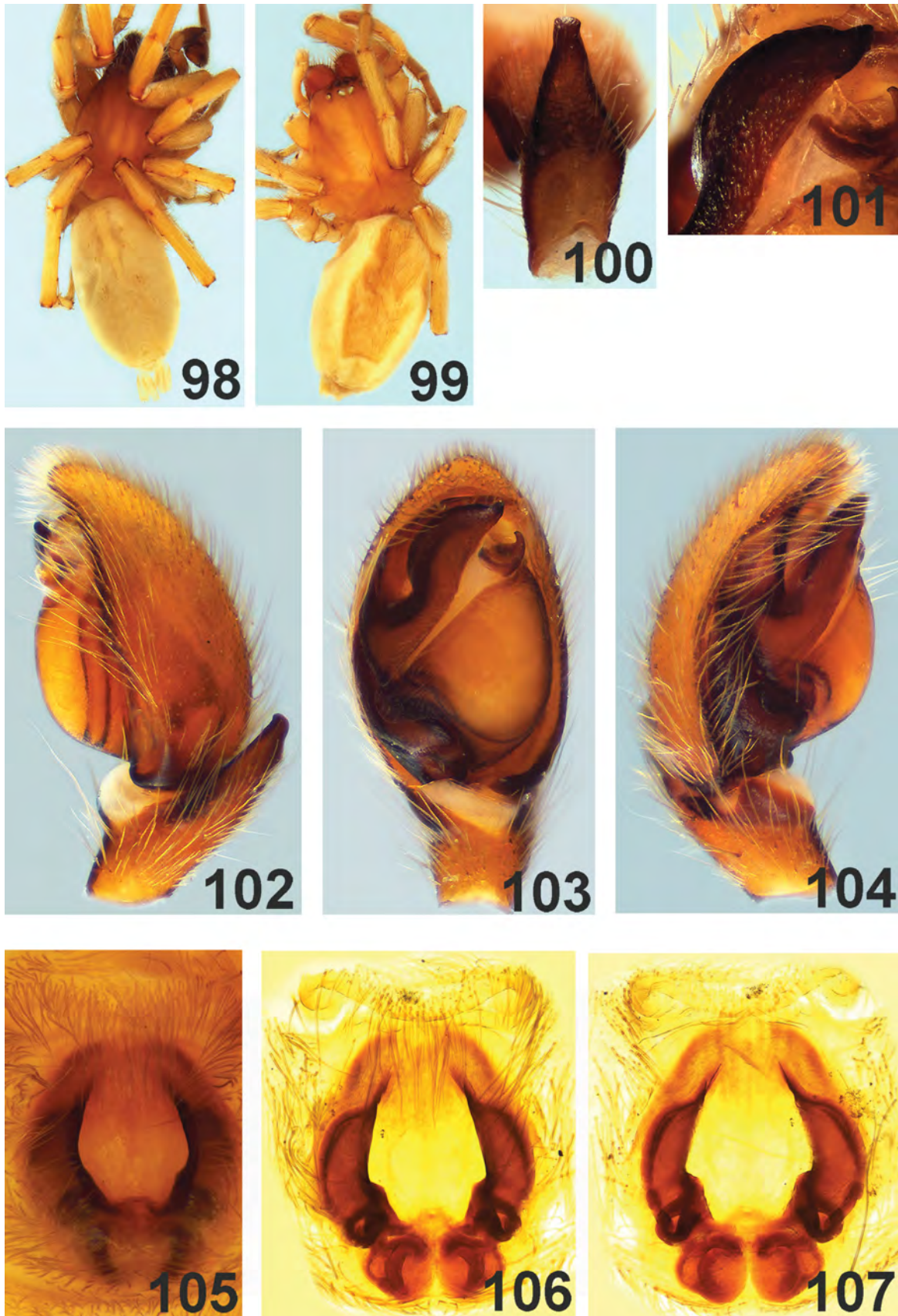
Figs 118–125, 136–139, map 3

Drassodes rhodanicus Simon, 1914: 122, 134, 208 (♂).

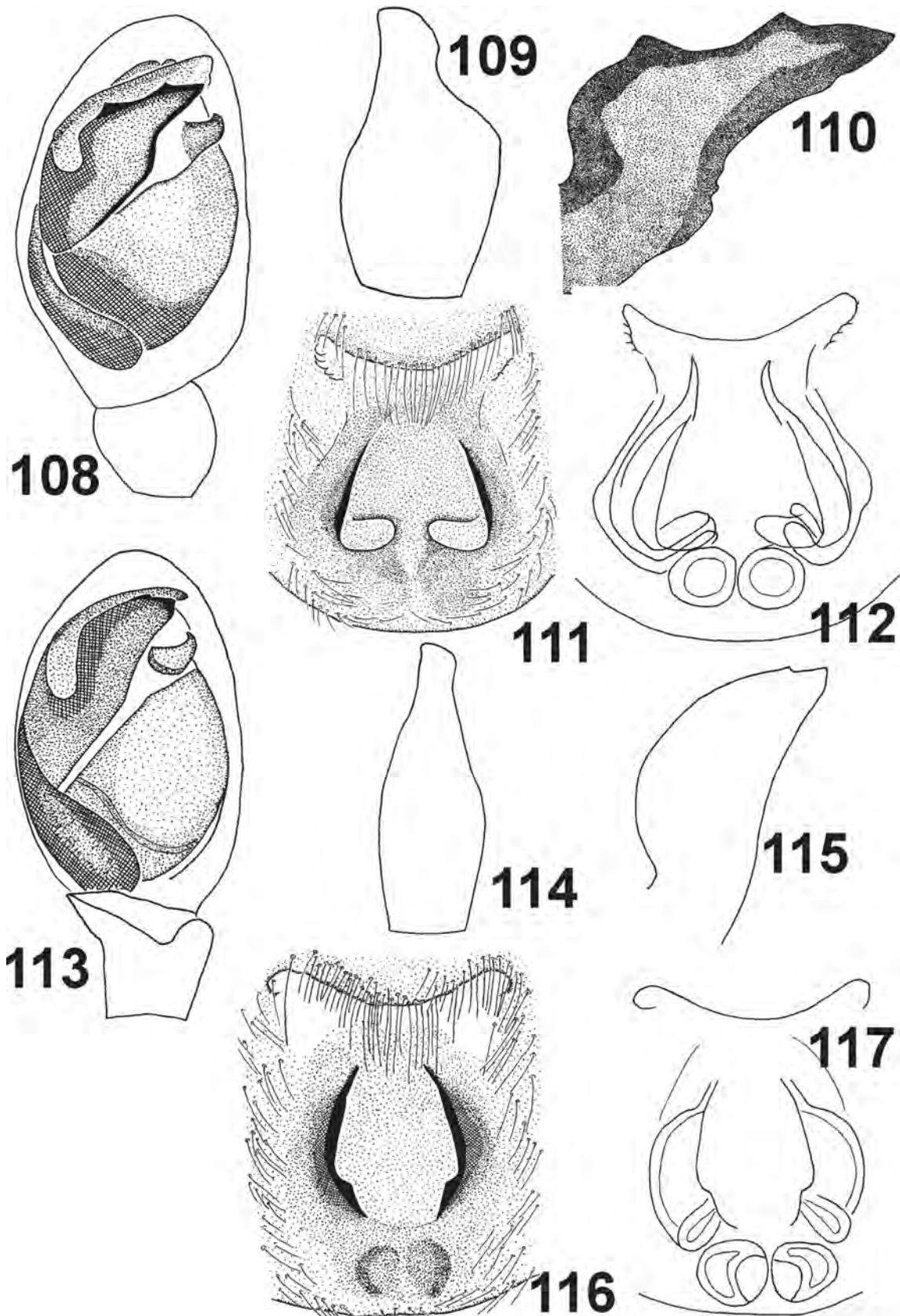
Types. Male syntypes from France, Ardèche, Bourg St.-Andéol (N44°22'32" E4°38'33") and Gard, Pont-St-Esprit (44°15'17" E4°38'50"); not examined, missing in MNHN where the type material normally should be hosted.

Remark. The male of this species is illustrated for the first time, and the female is described for the first time.

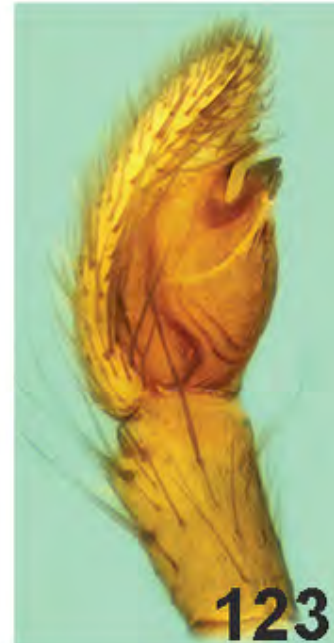
Diagnosis. This species is easily recognised in the male by the narrow, truncate tibial apophysis (Figs 120, 137) and the narrow embolic apophysis and embolus (Figs 122, 136). The female is recognized by the elongate epigyne and is clearly related to *Haplodrassus longivulva* sp. n., from which it differs by the straight lateral margins of the fovea (Figs 124, 138).



FIGURES 98–107. *Haplodrassus ovatus* sp. n. (male from Algeria, Biskra, female from Tunisia, Nefzana). 98. Male, dorsal aspect; 99. Female, dorsal aspect; 100. Male palpal tibia, dorsolateral view; 101. Embolic apophysis of male palp, ventral view; 102. Male left palp, retrolateral view; 103. Idem, ventral view; 104. Idem, prolateral view; 105. Epigyne, ventral view; 106. Vulva, ventral view; 107. Vulva, dorsal view.



FIGURES 108–117. Figs. 108–112. *Haplodrassus omissus* (Algeria, male from Chr ea, female from A n Oghrab). 108. Male left palp, ventral view; 109. Male palpal tibia, dorsolateral view; 110. Embolic apophysis, ventral view; 111. Epigyne, ventral view; 112. Vulva, ventral view. Figs 113–117. *Haplodrassus ovatus* sp. n. (male from Algeria, Biskra, female from Tunisia, Nefzana). 113. Male left palp, ventral view; 114. Male palpal tibia, dorsolateral view; 115. Embolic apophysis, ventral view; 116. Epigyne, ventral view; 117. Vulva, ventral view.



FIGURES 118–125. *Haplodrassus rhodanicus* (male from Portugal, Alcochete, female from France, Leucate). 118. Male, dorsal aspect; 119. Female, dorsal aspect; 120. Male palpal tibia, retrolateral view; 121. Male left palp, retrolateral view; 122. Idem, ventral view; 123. Idem, prolateral view; 124. Epigyne, ventral view; 125. Vulva, dorsal view.

Description. Measurements: Male (n=12): Total length 2.3–5.2; carapace 1.20–2.12 long, 0.96–1.73 wide. Female (n=3): Total length 2.9–3.4; carapace 1.14–1.33 long, 0.91–0.98 wide. Colour: Carapace yellowish brown with darkened eye region; chelicerae brown to dark brown; sternum yellowish brown with brown margins; legs yellowish brown; abdomen grey, anterior half often with three pairs of drop-like spots. Spinulation: General pattern, but all metatarsi spineless and lateral spines on Fe III–IV missing.

Male palp (Figs 120–123, 136–137): Tibia much longer than wide (ratio 2.6), apophysis shorter than tibia's diameter (ratio 0.6), narrow from its base, terminally truncate with blunt tip (Figs 120, 137); embolic apophysis small and elongated, terminally bluntly pointed; embolus narrow, with subterminal denticle (Figs 122, 136).

Epigyne (Figs 124–125, 138–139): Strongly elongated, nearly twice as wide as long, with rounded anterior hood; fovea rectangular, with straight margins (Figs 124, 138); receptacles small and touching, with anterolaterally directed ducts (Figs 125, 139).

Further material examined. AFRICA, TUNISIA, *Jendouba*, Hammam Bourguiba (N36°46'32" E8°36'35"), 350m, 1♂, stones in *Quercus suber* forest, 9.V.2006, R. Bosmans leg. (CRB). EUROPE, PORTUGAL, *Setubal*, Alcochete NW (N38°45'37" W8°56'6"), 5m, 5♂, pitfalls in salt marsh, 14–22.IV.2013, R. Bosmans leg. (CRB). SPAIN, *Baleares*, Mallorca, Sa Rapita W., Punta Negra (N39°21'22" E2°54'43"), 10m, 1♀, stones in small lagoon near the sea, 5.IV.2003, R. Bosmans leg. (CRB), *Málaga*, Málaga (N36°43'12" W4°25'13"), 2♂ 1♀, as *Drassus scenicus* L. Koch *nomen nudum*, E. Simon leg., Coll. Simon 2051 (MNHN AR9377), *Palencia*, Laguna de la Nava (N39°2'58" W3°41'47"), 670m, 2♂, 24.VI.1996, U. Stengele leg. (CRB), *Valencia*, Embalse de Cofrentes (N39°14'31" W1°3'37"), 375m, 2♂ 1♀, in *Tamarix* and *Phragmites* litter near the water, 3.IV.1996, R. Bosmans leg. (CRB). FRANCE, *Aude*, La Palme near Leucate (N42°58'53" E3°1'01"), 1♀, stones in salt marsh, 9.V.2015, J. Van Keer leg. (CJVK), Leucate, Chemin de Las Pichinos (N42°56'10" E3°1'8"), 4♂, pitfalls in salt marsh, 9–26.V.2015 (CJVK), *Bouches-du-Rhone*, Petite Camargue (N43°30'0" E4°19'0"), 1♂ 1♀, 15.V.1989, P. Poot leg. (CRB), *Haute-Corse*: Etang de Biguglia near Borgo (N42°38'23" E9°26'39"), 15m, 1♀, pitfalls in *Phragmites* stand bordering the lake, 28.V.1995, R. Bosmans leg. (CRB). ITALY, *Sardinia*, Medio Campidano, Montevecchio, Piccalinna (N39°33'24" E8°34'6"), 1♂, pitfalls in garrigue, 3.VI.2009, M. Verdinelli & A. Sassu leg. (MCSNB).

Ecology. The species was mostly collected in marshy areas: lagoons near the sea, inland salt marshes, along inside lakes and reservoirs. Males were found from April to June, females in April and May.

Distribution. *Haplodrassus rhodanicus* was first described from the south of France (Simon 1914) and later only cited from Croatia, Dubrovnik-Pobrezje (Nikolic & Polenec 1981). The species now appears to have a much larger distribution area, with first records in Tunisia, Spain, Portugal and Italy. It was mostly collected in marshes (map 3).

***Haplodrassus rufipes* (Lucas, 1846), comb. n.**

Figs 126–135, 140–144, map 6

Drassus rufipes Lucas, 1846: 215, pl. 13, fig. 2 (♀).

Drassus corticalis Lucas, 1846: 216, pl. 13, fig. 3 (♀), **syn. n.**

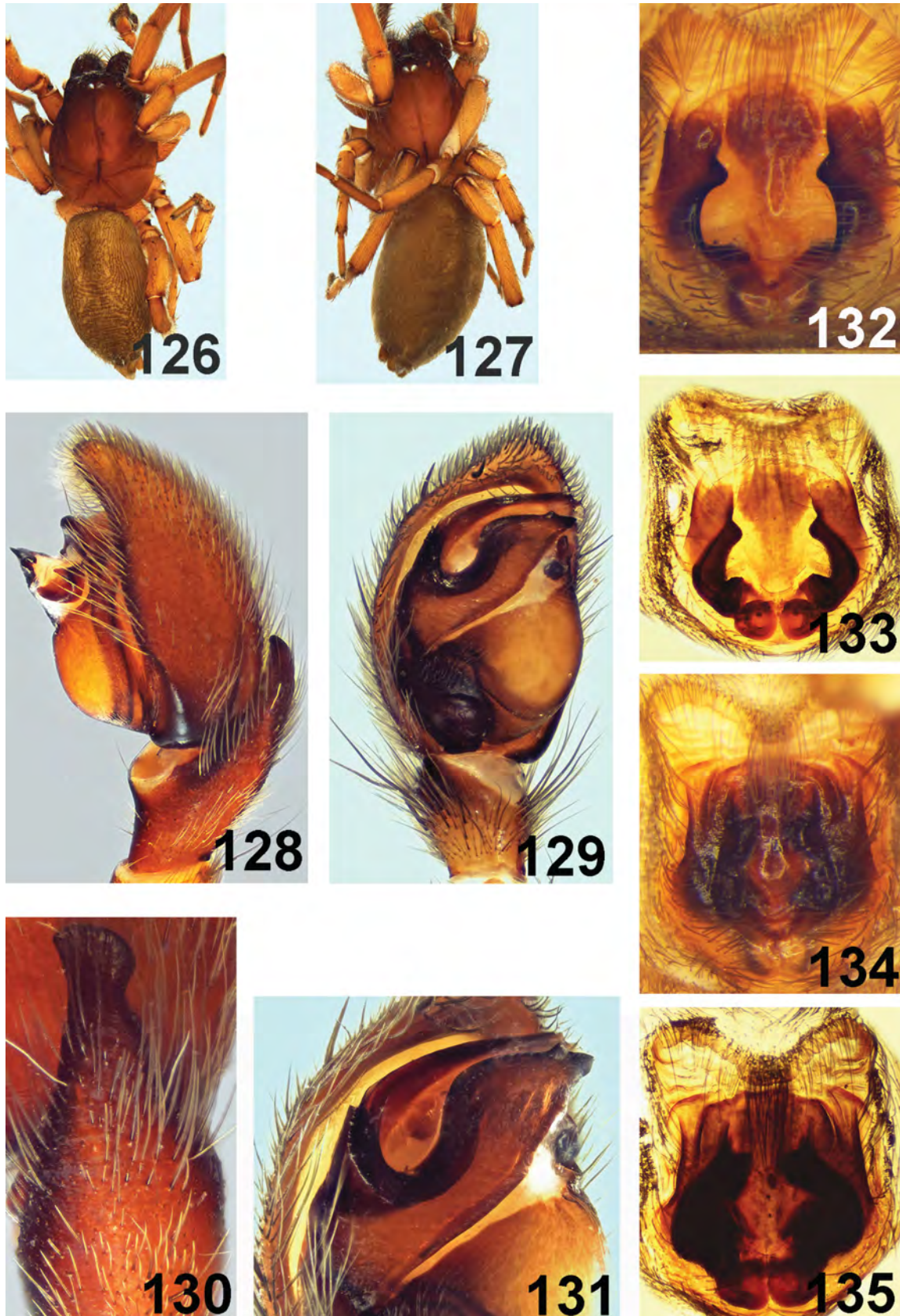
Drassus severus C. L. Koch, 1843: 126, fig. 838 (not *Drassus severus* C. L. Koch, 1839 from Greece; misidentification of material from Italy).

Drassus similis L. Koch, 1866: 103, pl. 4, fig. 67 (♂♀, from Italy), **syn. n.**

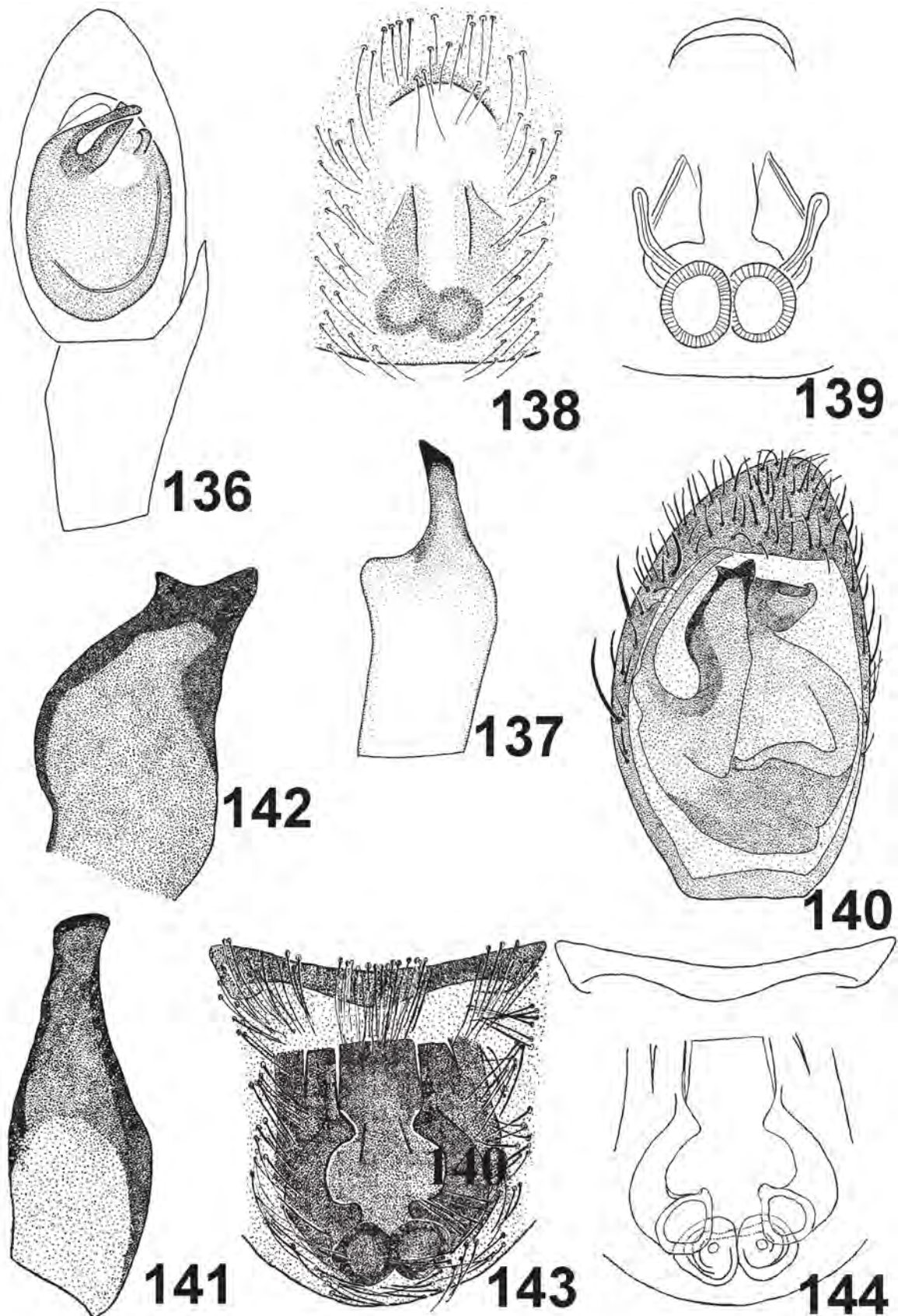
Haplodrassus gridellii Caporiacco, 1949: 117 (♀), **syn. n.**

Types. Holotype ♀ of *Drassus rufipes* Lucas from Algeria, Constantine (N36°21'54" E6°36'53") (MNHN AR14588); MNHN, Coll. Lucas; examined. Type series of *Drassus corticalis* Lucas from Algeria, La Calle (= El Kala) 1♂ (MNHN AR14571), 1♂ (MNHN AR14752), 1♂ (MNHN AR14753), 1♀ (MNHN AR14754) 4♂ (MNHN AR14755), Coll. Lucas; examined. Syntypes ♂ and ♀ of *Drassus similis* from Italy, Sicilia; not examined.

Diagnosis. Medium to large species. Males are recognised by the terminal and subterminal denticles of the embolic apophysis and the basal tooth of the embolus (Figs 129, 131, 140, 142). Females are recognised by a combination of characters, the wide hood, the fovea wider than long and the denticulate margin (Figs 132, 143), but this character is only visible in virgin females (compare Figs 132 and 134).



FIGURES 126–135. *Haplodrassus rufipes* (male from France, Saint-André, females from Spain, Torremolinos). 126. Male, dorsal aspect; 127. Female, dorsal aspect; 128. Male left palp, retrolateral view; 129. Idem, ventral view, embolus partly broken off; 130. Male palpal tibia, dorsolateral view; 131. Embolic apophysis of male palp, ventral view, embolus partly broken off; 132. Epigyne, ventral view, specimen without concretions; 133. Vulva, dorsal view; 134. Epigyne, specimen with concretions; 135. Idem, vulva, ventral view.



FIGURES 136–144. Figs 136–139. *Haplodrassus rhodanicus* (male from Portugal, Alcochete, female from France, Leucate). 136. Male left palp, ventral view; 137. Male palpal tibia, dorsolateral view; 138. Epigyne, ventral view; 139. Vulva, ventral view. Figs. 140–144. *Haplodrassus rufipes* (Lucas) (male from France, Saint-André, female from Spain, Torremolinos). 140. Male left palp, ventral view; 141. Male palpal tibia, dorsolateral view; 142. Embolic apophysis, ventral view; 143. Epigyne, ventral view; 144. Vulva, ventral view.

Remarks on synonymy. C. L. Koch (1839) described the female of *Drassus severus* from Nafplio in Greece, and somewhat later (1843), also the male. The descriptions are accompanied by drawings of the general habitus of male and female, but not of the copulatory organs. On the drawings, spines on tibiae I and II are clearly visible and these are always absent in *Haplodrassus* species. Hence, the transfer to *Haplodrassus* cannot be justified. Furthermore, Simon (1914) states that the male and female were incorrectly matched: “C. Koch a plus tard (Ar. X, p. 126, fig. 838) attribué au *D. severus* un mâle très différent, beaucoup plus voisin de *D. lapidosus*”. C. L. Koch (1843) writes indeed: “Die taster ziemlich wie bei *D. lapidicola*”. The taxonomic position of *Drassus severus* is retained in the genus *Drassodes* and declared a *nomen dubium*.

The holotype female of *Drassus rufipes* Lucas, 1846 was examined and appears to be a subadult specimen with the epigyne completely developed under the integument. Abundant material of *Drassus corticalis* Lucas, 1846 was also found in the MNHN and this is considered to be the type series as well. All female specimens are identical to *Drassus rufipes* and by page priority *D. corticalis* becomes a junior synonym. C. L. Koch's son (L. Koch 1866) described *Drassus similis* from Italy and was the first to present drawings of the male palp. Again, this is identical to the one of *D. corticalis* and *D. similis* also becomes a junior synonym of *H. rufipes*. Later, several authors cited *H. severus* from different localities (Simon 1885, 1899, 1909, 1914; Di Franco 1994), and these are all attributed to *H. rufipes*. The distribution of the species is visualised on map 8 and the type locality of *Drassus severus* in Greece falls out of the actually known distribution area of *H. rufipes*, another evidence this is another species.

Without examining the type material, Levy (2004) synonymised *Haplodrassus gridellii* Caporiacco, 1949 with *H. pugnans* (Simon, 1880). However: (1) according to Caporiacco's description of *H. gridellii*, the type specimen is 10.6 mm long, whereas *H. pugnans* has a maximal length of 9 mm (Levy 2004; Kamura 2007) (2) The type locality of *H. gridellii* in Libya falls out of the distribution area of *H. pugnans* (Sinai to Japan) (3) *H. pugnans* is not present in our abundant material from the Maghreb. There are two large *Haplodrassus* species in the Maghreb: *Haplodrassus severus* and *H. signifer* (table 1). Since Caporiacco (1949) states *H. gridellii* is related to *H. signifer*, and he never found *H. severus*, *H. gridellii* is considered a junior synonym of that species.

Description. Measurements: Male (n=20): Total length 6.1–8.9 mm; carapace 2.7–3.9 long; 2.3–2.7 wide. Female (n=20): Total length 7.2–10 mm; carapace 2.4–4.4 long, 2.2–3.3 wide. Colour: Carapace dark reddish brown, cephalic part darkened; chelicerae dark brown, legs reddish brown; abdomen grey to dark grey, posterior part often with traces of 4–5 paler chevrons. Spinulation: General pattern, but variable in tibiae and metatarsi III and IV.

Male palp (Figs 128–131, 140–142): Tibial apophysis robust, somewhat dilating to the rounded top (Figs 130, 141); embolic apophysis elongated, curved, terminally pointed and with subterminal denticle (Figs 131, 142); embolus with basal tooth at prolateral margin (fig. 131).

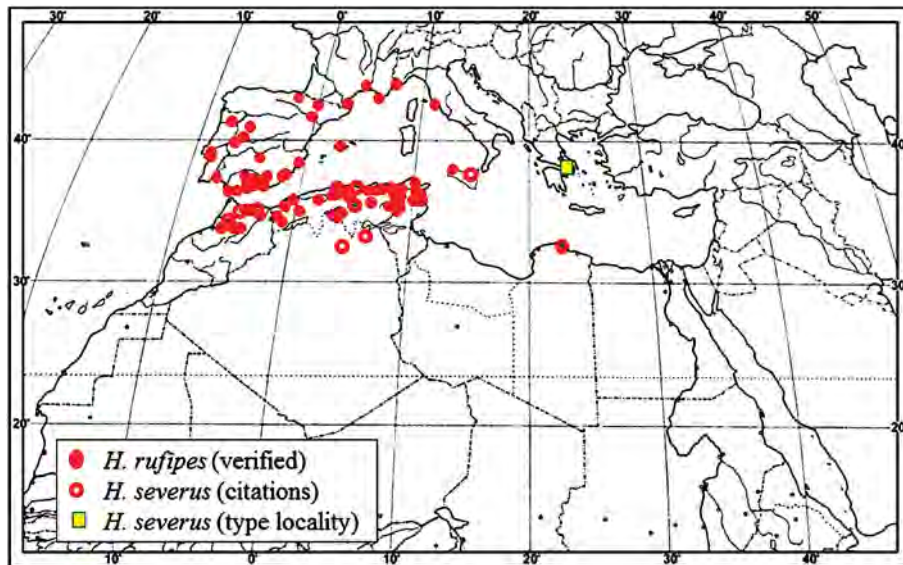
Epigyne (Figs 132–135, 143–144): Large, somewhat longer than wide; hood and pro-fovea wide, the latter with some transverse folds and narrower in the middle by the protruding hood; fovea as long as wide, antero-lateral margin with strong tooth (fig. 132) but mostly completely filled by a mating plug in mated females (fig. 134); areola deep dark-brown, elongated, anteriorly truncate and with two oblique grooves; lateral pockets semi-circular, with basal chamber (Figs 133, 144).

Citations in the Maghreb (all as *H. severus*). ALGERIA, *Batna*, Timgad (N35°29'34" E6°28'11") (Di Franco 1994), *Boumerdes*, Cap Matifou (N36°48'42" E3°13'23") (Simon 1899), *Constantine*, surroundings of Constantine (N36°21'54" E6°36'53") (type locality of *Drassus rufipes* Lucas, 1846), *Djelfa*, Takersane (N34°24'44" E2°54'16") (Simon 1899), *Jijel*, Texenna, Mont M'sid Ech Cheta (N36°40'53" E5°48'17") (Di Franco 1994), *M'sila*, surrounding of Baniou (N35°24'55" E4°20'39") (Di Franco 1994), *Tizi Ouzou*, Massif du Djurdjura, Bou Adenane (N26°30'10" E4°14'57") (Di Franco 1994), Yakouren (N36°45'44" E4°24'57") (Di Franco 1994). LYBIA, *Shahhat*, Wadi Ben Gadir near Cyrene (Caporiacco 1949, as *H. gridellii*). MOROCCO, without precise locality (Simon 1909), *Beni Mellal-Khénifra*, Oued Sefrou (N32°33'0" E6°9'0") (Simon 1911), *Fès-Meknès*, Nzala Beni Ammar (N34°07'24" W5°25'54") (Di Franco 1994), *Tanger-Tétouane-Al Hoceima*, Bab Berred (Di Franco 1994), Ketama (Di Franco 1994), road Ketama-Bab Besen (N34°57'53" W4°39'29") (Di Franco 1994). TUNISIA, *Jendouba*, Aïn Draham, Col des Ruines (N36°47'30" E8°41'5") (Di Franco 1994), Aïn Draham (N36°46'43" E8°41'14") (Simon 1885), *Siliana*, Maktar (N35°51'2" E9°12'03") (Di Franco 1994).

Further material examined. AFRICA: ALGERIA, *Alger*, Bab Ezzouar, universitiy campus (N36°42'45" E3°10'54"), 25m, 1♂, pitfalls in rough grassland, 28.IV.1987, R. Bosmans leg. (CRB), idem, 1♂ 3♀, 7.VII.2008–22.V.2009 (COA), El Harrach (N36°42'46" E3°8'56"), 25m, 7♂, pitfalls under *Juniperus* in garden of I.N.A., 7.III–11.IV.1984, R. Bosmans leg. (CRB), Oued Smar (N36°41'21" E3°8'58"), 30m, 1♂, pitfalls in wheat fields,

12.IV.2008, I. Feriel leg. (CRB), *Aïn Témouchent*, Aïn Tolba (N35°14'56" W1°15'11"), 250m, 1♂, stones in dry grassland, 19.I.1990 (CRB), *Annaba*, Chetaibi (N37°2'42" E7°21'59"), 810m, 2♀, stones in grassland, 1.III.1990, R. Bosmans leg. (CRB), Hippône N., Edough National park (36°55'38" E7°43'11"), 820m, 1♂, sieving litter in *Quercus faginea* forest, 23. XI.1989, R. Bosmans leg. (CRB), *Batna*, Djébel Chélia (N35°21'52" E6°38'43"), 1600m, 1♂, pitfalls in *Cedrus atlantica* forest, 1.VII.1988, R. Bosmans leg. (CRB), *Blida*, Atlas Blidéen, Chréa, Pic Abdelkader (N36°24'14" E2°50'6"), 1550m, 2♂, stones in grassland, 15.II.1987, R. Bosmans leg. (CRB), Atlas Blidéen, Djébel Ferroukha, Ghellaï (N36°28'10" E2°56'18"), 1350m, 1♂, pitfalls in *Cedrus atlantica* plantation, 29.IV.1987, idem, 1600m, 1♂, 27.VI.89, R. Bosmans leg. (CRB), Djébel Mouzaïa (36°22'0" E2°41'45"), 1250m, 8♂ 2♀, stones around lake, 14.V.1988, R. Bosmans leg. (CRB), Meurdja (N36°29'59" E3°8'54"), 955m, 1♂, stones in recent *Cedrus atlantica* plantation, 1.IV.1982, R. Bosmans leg. (CRB), *Bordj Bou Arreridj*, Sidi Embarek (N36°6'5" E4°54'30"), 900m, 1♂, stones in fields, 27.II.1990, R. Bosmans leg. (CRB), *Boumerdes*, between Toulmout and Keddara (N36°37'17" E3°27'46"), 500m, 1♂ 1 subadult♀, stones in grassland, 27.IV.1989, R. Bosmans leg. (CRB), *Djelfa*, Djébel Sénalba (N34°33'50" E3°2'9"), 1330m, 1♂, pitfalls in *Pinus halepensis* forest, 28.III.1989, 1♂, 9.IV.1991, N. Bouragba leg. (CRB), Djébel Djellal (N34°23'32" E2°58'42"), 1350–1450m, 1♂, pitfalls in *Pinus halepensis* plantation, III.1989–IV.1990, N. Bouragba leg. (CRB), *El Tarf*, El Kala, west side of lake Tonga (N36°52'35" E8°29'28"), 10m, 1♀, wet grassland along the lake, 27.III.1988, R. Bosmans leg. (CRB), E. El Kala, Lac Melah (N36°52'55" E8°20'37"), 3m, 1♀, litter in *Quercus suber* forest, 6.IV.1982, R. Bosmans leg. (CRB), *Medea*, Col de Beni Chicao (N36°12'12" E2°53'0"), 1230m, 1♂, litter in small *Quercus ilex* forest, 21.XII.1987, R. Bosmans leg. (CRB), *Mostagenem*, Stidia (N35°48'39" W 03'0"), 25m, 1♂, pitfalls in *Pistacea lentisca* maquis in dunes, 25.V.1990, R. Bosmans leg. (CRB), *M'sila*, S. Aïn Oghrab (N35°0'52" E4°6'24"), 650m, 1♂, pitfalls in *Pinus halepensis* forest, 20.III–23.VI.1990, R. Bosmans leg. (CRB), between Aumale (= Sour-El Ghozlane) and Bou Saada (N35°20'36" E6°4'46"), Aïn Oghrab (N35°0'52" E4°6'24"), 1♂, E. Simon leg., Coll. Simon 12988 (MNHN AR15702), *Saida*, Tircine (N34°54'4" E0°33'16"), 900m, 1♀, stones bordering fields, 4.IV.1989, R. Bosmans leg. (CRB), *Sétif*, Djébel Babor, south slope (N31°30'35" E5°29'15"), 1300m, 1♀, liter in irrigated garden, 19.IV.1982, R. Bosmans leg. (CRB), *Skikda*, Ben Azouz, 200m, 2♂ 2♀, open *Eucalyptus* plantation, 2.III.1990, R. Bosmans leg. (CRB), Bouchata, 400m, 2♂, stones in grassland, 12.III.1990, R. Bosmans leg. (CRB), *Tébessa*, Tébessa, forêt de Bekkaria (N35°21'20" E8°14'40"), 1300m, 1♂, pitfalls in *Pinus halepensis* forest, 1.V.1989, R. Bosmans leg. (CRB), *Tissemsilt*, Massif de l'Ouarsenis, Bou Caïd (N35°53'2" E1°37'49"), 1400m, 2♀, sieving litter in *Cedrus atlantica* forest, 24.III.1988, R. Bosmans leg. (CRB), Djébel Ouarsenis, Théniet-el-Had, 1550m (N35°52'15" E1°56'41"), 1♀, stones in grassland, 3.V.1984 (CRB), *Tizi Ouzou*, Massif du Djurdjura, Tala Guilef (N36°28'36" E3°59'48"), 1400m, 6♂, stones in grassland, 23.V.1984, R. Bosmans leg. (CRB), idem, 1♂, litter in *Cedrus atlantica* forest, 29.IV.1984, R. Bosmans leg. (CRB), idem, 1420m, 35♂ 27♀, pitfalls in grassland, XI.1992–XI.1993, O. Abrous leg. (CRB), Djébel Heizer, 1800m, 2♂, stones in montane grassland, 17.IV.1989, R. Bosmans leg. (CRB), Col de Tizi N'Kouïlal (N36°28'26" E4°14'9"), 1510m, 1♂, pitfalls in grassland, 1.XII.1991, R. Bosmans leg. (CRB), *Tlemcen*, N. Sebdou, source de l'Oued Tafna (N34°41'30" W1°18'48"), 1700m, 1♂, under stones, 18.I.1990, R. Bosmans leg. (CRB), S. Tlemcen, Terny plain (N34°48'16" W1°22'1"), 1175m, 1♂, stones in grassland, 18.I.1990, R. Bosmans leg. (CRB). MOROCCO, *Béni Mellal-Khénifra*, Moulay Bouazza, Oued Tarralha (N33°15'23" W6°7'54"), 1♀, 8.III.1952, J. B. Panouse leg. (ISRM), *Fès-Meknès*, plaine du Saïss, Aïn Taoujdate (N33°56'8" W5°12'41"), 480m, 4♂ 4♀, pitfalls in wheat fields, 30.IV.1997, S. Bokschi leg. (CRB), Azrou NE. (N33°28'00" E5°9'49"), 1400m, stones in *Quercus ilex* forest, 18.IV.2012, R. Bosmans leg. (CRB), Azrou N. (N33°28'1" W5°12'8"), 1400m, 3♂, stones in grassland, 7.II.1996, R. Bosmans leg. (CRB), road Azrou-Khénifra (N33°12'53" W5°35'52"), 1200m, 1♂ 1 subadult♀, 18.II.1952, J. B. Panouse leg. (ISRM), N. Timahdite (N33°14'11" W5°3'31"), 1800m, 1♂ 1♀, stones in grassland, 7.II.1996, R. Bosmans leg. (CRB), *Rabat-Salé-Kénitra*, Oulmès (N33°25'25" W 6°00'10), 1♂, 11.III.1955, J. B. Panouse leg. (ISRM), *Tanger-Tetouan-Al Hoceïma*, 10 km E. Bab Berred (N34°59'40" W4°50'43"), 1525m, 1♂ 1 subadult♀, stones in *Quercus faginea* forest, 15.V.1984, R. Bosmans leg. (CRB), Issaguen S. (N34°53'25" W4°34'59"), 1450m, 4♂, stones in *Cedrus atlantica* forest, 15.XII.2013, R. Bosmans leg. (CRB). TUNISIA, *Bizerte*, Fejja-Aïn Guellal road (N37°2'25" E9°55'17"), 1♂, stones bordering fields, 29.I.2003, R. Bosmans leg. (CRB), Lake Ichgeul (N37°6'48" E9°42'8"), 1♂ 1♀, stones in the plains, 25.I.1995, R. Bosmans & J. Van Keer leg. (CJVK, CRB), 1♂, 29.I.2003, R. Bosmans leg. (CRB), *Jendouba*, Aïn Sebaa E., Oued Titria (N36°57'00" E8°56'00"), 200m, 6♂, stones in open *Quercus suber* forest, 28.II.2005, R. Bosmans & J. Van Keer leg. (CJVK, CRB), Esaouani, 300m, 10♂, 6.III.2005, R. Bosmans & J. Van Keer leg. (CJVK, CRB), Chemtou ruins (N36°29'40" E8°34'16"), 250m, 3♂, stones in Roman ruins, 6.III.2005, J. Van Keer leg. (CJVK), Forêt de Feidja (N36°26'27" E8°22'55"), 600m, 1♂, stones in

Quercus ilex forest, 5.II.2005, R. Bosmans leg. (CRB), Fernana N. (N36°42'21" E8°40'47"), 450m, 1♂, stones in maquis, 6.III.2005, J. Van Keer leg. (CJVK), Ghardimaou W. (N36°27'27" E8°24'54"), 250m, 1♂, stones in grassland, 5.III.2005, J. Van Keer leg. (CJVK), **Kasserine**, Haidra S. (N35°32'41" E8°27'27"), 950m, 1♂, stones in pine forest, 4.III.2005, R. Bosmans leg. (CRB), Haidra (N35°36'01" E8°23'53"), roman ruins, 8♂ 3♀, stones in ruins, 4.III.2005, R. Bosmans & J. Van Keer leg. (CJVK, CRB), Thala S. (N35°33'37" E8°40'39"), 950m, 5♂, stones in steppe, 4.III.2005, R. Bosmans & J. Van Keer leg. (CJVK, CRB), **Le Kef**, Le Kef, bifurcation to Ben Hazen, 1♂, 21.IV.1981, B. Valle leg. (MCSNB), Hammam Mellègue (N36°6'59" E8°29'23"E), 800m, 1♂, stones bordering small *Pinus* forest, 4.III.2005, R. Bosmans leg. (CRB), Touiref SE (N36°16'44" E8°27'3"), 650m, Oued Mellègue, 3♂, 5.III.2005 (CJVB, CRB), **Nabeul**, Aïn Tebournok (N36°34'47" E10°28'3"), 100m, 1♂, stones bordering a river, 28.I.2003, R. Bosmans leg. (CRB), Tazerka (N36°38'30" E10°54'34"), 1♂, in litter in salt marsh, 26.I.2003, R. Bosmans leg. (CRB), **Siliana**, Kesra N. (N35°49'27" E9°21'36"), 1050m, 1♂, stones bordering *Pinus* forest, 27.I.2003, R. Bosmans leg. (CRB), **Tunis**, La Goulette (N36°9'51" E10°18'8"), 25m, 2♂, stones in *Pinus* plantation, 30.I.2003, R. Bosmans leg. (CRB), **Zaghouan**, Djébel Zaghouan (N36°23'21" E10°8'12"), 500m, 1♂, stones in *Pinus halepensis*, forest, 24.I.1995, R. Bosmans leg. (CRB), Zriba Village (N36°21'52" E10°14'47"), 100m, 2♂ 1 subadult♀, stones along Oued El Hammam, 24.I.1995, R. Bosmans leg. (CRB). **EUROPE: PORTUGAL**, **Faro**, Tavira (N37°6'57" W7°37'37"), 5m, 3♂, stones in salt marsh, 7.II.2006, R. Bosmans leg. (CRB), **Santarém**, Porto Alto S. (38°45'48"N8°54'18"W), 30m, 2♂, pitfalls in a *Quercus suber* forest, 14–22.IV.2013, R. Bosmans leg. (CRB), **Setúbal**, Alcochete NW (38°45'37"N8°56'6"W), 2m, 1♀, pitfalls in salt marsh, 14–22.IV.2013, R. Bosmans leg. (CRB), Gambia, Mourisca (N38°32'59" W8°45'28"), 2m, 2♂, pitfalls in salt marsh, 14–22.IV.2013, R. Bosmans leg. (CRB), **Vila Real**, Mondim de Basto, road to Nuestra Sierra de Gracia (N41°25'22" W7°55'32"), 480m, 1♂, stones in grassland, 14.XI.2016, R. Bosmans leg. (CRB). **SPAIN**, **Alicante**, Aspe, 250m, 1♀, stones in dry maquis, 4.IV.1996, R. Bosmans leg. (CRB), **Avila**, Monbeltran (40°15'35"N5°1'2"), 1♂, P. Poot leg. (CRB), **Baleares**, Mallorca, Embassement de Cuber (N39°46'49"N2°46'58"E), 850m, 4♂ 1♀, stones in grassland, 2.IV.2003, R. Bosmans leg. (CRB), **Caceres**, Monfragüe (N9°49'31" W5°56'55"), 250m, 1♀, pitfalls near a spring, 15.IV.1994, R. Bosmans leg. (CRB), **Cádiz**, Algeciras (N36°7'59" W5°27'1"), 1♂ 5♀, without date or collector (NHML), Tarifa (N36°0'50" W5°36'25"), 2♂ 1♀, III.1983, 2♂ 1♀, IV.1990, P. Poot leg. (CRB), **Ciudad Real**, Laguna del Camino de Villafranca (N39°24'48" W3°48'33"), 1♂, grassland around lake, 13.IV.1998, R. Bosmans leg. (CRB), **Granada**, Sierra de la Contreviesa, Puerta Camacho (N36°50'6" W3°21'10"), 1230m, 1♀, stones in *Pinus* forest, 6.IV.1997, R. Bosmans leg. (CRB), Lacallahora (N37°11'3" W3°3'50"), 1200m, 1♀, stones on slopes to castle, 5.IV.1996, R. Bosmans leg. (CRB), **Huesca**, Ontiñena S. (N41°38'35" E0°5'21"), 300m, 3♀, stones in dry river bed, 1.IV.1996, R. Bosmans leg. (CRB), **Jaen**, Puerto de las Palomas (N37°57'11" W2°56'17"), 1290m, 3♀, stones in wasteland, 12.IV.1999, R. Bosmans leg. (CRB), **Málaga**, Alosaina N. (N36°44'53" W4°50'33"), 250m, 1♀, litter in *Quercus suber* forest, 11.IV.1998, R. Bosmans leg. (CRB), Archidona E. (N37°6'34" W4°20'49"), 2♂, stones in grassland, 18. XII.1997, R. Bosmans leg. (CRB), Archidona E., La Pena (N37°3'43" W4°28'50"), 750m, 1♀, stones in grassland, 11.IV.1998, R. Bosmans leg. (CRB), Benalmadena N. (N37°3'43" W4°28'50"), 1♂, stones and litter near the beach, 20.XII.1997, R. Bosmans leg. (CRB), Casares (N36°26'44" W5°16'13"), 650m, 1♂ 1♀, pitfalls in *Quercus suber* forest, V.1986, J. De Beir leg. (CRB), Coin (N36°40'37" W4°45'57"), 150m, 2♂, stones along Rio Seco 19.XII.1997, R. Bosmans leg. (CRB), El Torcal de Antequera (N36°57'50" W4°32'36"), 900m, 1♀, stones in grassland, 11.IV.1998, R. Bosmans leg. (CRB), Torremolinos (36°37'13" W4°29'59"), 1♂ 2♀, IV.1975, P. Hillyard leg. (NHML), **Murcia**, Cartagena (N37°36'18" W0°59'10"), 1♀, E. Simon leg., Coll. Simon 13414 (MNHN AR15703), Totana E., Sierra de la Tercia (N37°44'29" W1°33'20"), 300m, 2♀, stones in maquis, 4.IV.1996, R. Bosmans leg. (CRB), **Rioja**, Navarrete (N42°25'41" W2°33'49"), 420m, 1♀, pitfalls in grassland, 7.IV.1992, R. Bosmans leg. (CRB), **Salamanca**, Ciudad Rodrigo N. E. (N40°38'10" W6°29'12"), 650m, 1♂ 1♀, stones in maquis, 10.IV.1996, R. Bosmans leg. (CRB), **Zaragoza**, Escatron, Monasterio Rueda (N41°19'23" W0°20'37"), 225m, 1♂, stones in open *Pinus* forest, 1.IV.1996, R. Bosmans leg. (CRB). **FRANCE**, mixed unknown localities ('Gallia Meridionalis'), one of them **Alpes-Maritimes**, Menton, 1♂ 2♀, as *Drassodes macellinus hebes*, Coll. Simon 2083 (MNHN AR15707), **Bouches-du-Rhône**, Graveson (N43°51'4" E4°46'18"), 1♀, 14.IV.1989, P. Poot leg. (CRB), **Pyrénées-Orientales**, Saint-André, 1♂, in swimming pool, 3.XII.15, G. Melotti leg. (CPO). **ITALY**, **Lazio**, Viterbo, Tarquinia, Sant'Agostino, Foce Mignone (N42°15'15" E11°45'23"), 1♂, 8.I.2004, 1♂, 17.III.2004, pitfalls, L. Pavesi & D. Mariotti leg. (MCSNB), **Sicilia**, Palermo, Terrasini, Riserva Naturale Orientata Capo Rama (N38°8'22" E13°3'38"), 2♂, 17–27.II, 3♂ 13–30.III, 2♂ 1♀, 14–24.IV.2012, pitfalls in palm grove, C. Cusimano leg. (MCSNB).



MAP 6. Distribution of *Haplodrassus rufipes* (Lucas) (closed red circles: verified localities; open red circles: unverified citations of *H. severus* from literature; yellow square : type locality of *H. severus*).

Ecology. The species occurs in all kind of habitats at low and high altitudes, even in cultivated land. In the Maghreb it is confined to the humid and subhumid climate zones.

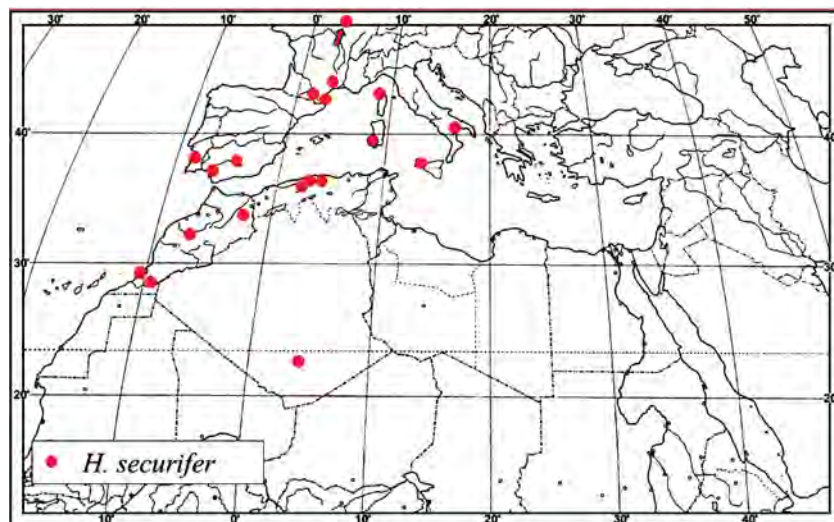
Distribution. The species occurs in the north of Algeria, Tunisia and Morocco, and in Portugal, Spain, France and Italy (map 6).

***Haplodrassus securifer* Bosmans & Arous, sp. n.**

Figs 145–153, 162–166, map 7

Drassodes invalidus: Simon 1914: 138, 210, fig. 243 (only ♂, non ♀ = *D. mediterraneus*; misidentification).

Haplodrassus macellinus hebes: Denis 1948: 146; Denis, 1967: 35 (misidentifications).



MAP 7. Distribution of *Haplodrassus securifer* sp. n.



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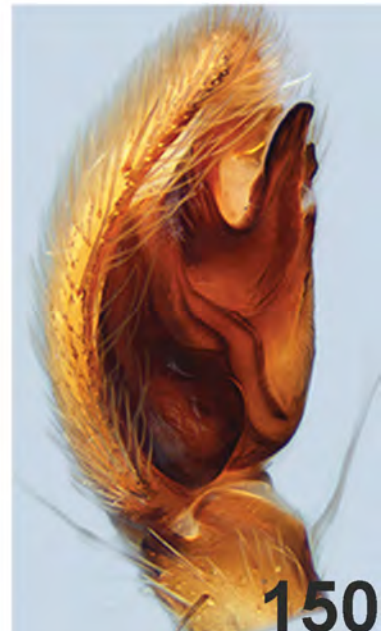
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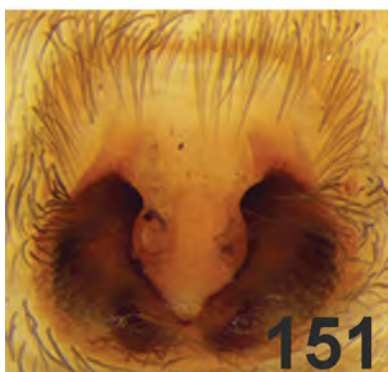
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FIGURES 145–153. *Haplodrassus securifer* sp. n. (Tunisia, Gafsa). 145. Male, dorsal aspect; 146. Female, dorsal aspect; 147. Male palpal tibia, dorsolateral view; 148. Male left palp, retrolateral view; 149. Idem, ventral view; 150. Idem, prolateral view; 151. Epigyne, ventral view; 152. Vulva, ventral view. 153. Vulva, dorsal view.

Types. Holotype ♂, 3♂ paratypes from Algeria, Atlas of Blida, slopes to the gorge of Oued Chiffa (N36°23'38" E2°48'24"), 1000m, pitfalls in irrigated orchard, 27.VI.1989; ♂ holotype, 1 paratype: RBINS; 2 paratypes: MNHN (MNHN AR15709); 3♂ 2♀ paratypes from Algeria, Tamanrasset, Gara de l'Assekrem (N23°17'1" E5°36'32"), de Peyerimhoff leg., 3–7.IV.1939 (Denis 1948, as *Haplodrassus macellinus hebes*) (MNHN AR9226).

Diagnosis. *Haplodrassus securifer* sp. n. is closely related to *H. macellinus* Thorell, 1871. In males of *H. macellinus* the tibial apophysis is more elongate and more rounded terminally (fig. 237 versus Figs 147, 163). The length and shape of the embolic apophysis is more elongate in *H. macellinus* than in *H. securifer*, and as long as the embolus in *H. securifer* sp. n. (Figs 149, 162), much shorter than the embolus in *H. macellinus* (fig. 236). Females are distinguished by the hood as wide as the areola in *H. securifer* sp. n. (Figs 151, 165), half as wide in *H. macellinus* (Figs 238, 239).

Etymology. The species name is derived from the Latin noun *securis* (axe) and the verb *ferre*, to wear, and refers to the shape of the tibial apophysis resembling an axe. It also reminds the species names *H. dentifer* sp. n. and *H. signifer*.

Description. Measurements: Male (n= 20): Total length 5.2–6.5; carapace 2.1–2.6 long, 1.7–2.0 wide. Female (n= 10): Total length 6.0–10.0; carapace 2.8–2.9 long, 2.0–2.2 wide. Colour: Carapace chestnut brown with darker eye region; chelicerae dark brown; legs yellowish brown; abdomen grey to pale grey, often dorsally pale grey with a darker grey pattern of stripes and chevrons: anteriorly with 3–4 pairs of oblique stripes, posteriorly with 5–6 chevrons; venter pale. Spination: Basal spination but ventral spines on Mt I and prolateral spines on Fe IV mostly missing.

Male palp (Figs 147–151, 162–164): Tibial apophysis slightly curved, as long as the tibia's diameter, very asymmetrical, dorsal margin strongly truncate in distal half (Figs 147, 163); median apophysis with relatively long hook; embolic apophysis curved a bit at base only, then almost straight, directed anteriorly, terminally pointed (Figs 149, 164); embolus hidden by large embolic apophysis.

Epigyne: Epigyne slightly longer than wide, pro-fovea as long as fovea, anterior margin straight, poorly marked (Figs 151, 165); fovea somewhat longer than wide, pointed posteriorly; areola semi-circular, with antero-medial angularity; large and rounded lateral pockets, double the size of the receptacles (Figs 152–153, 166).

Further material examined. AFRICA: ALGERIA, *Alger*, Birtouta (N36°38'2" E2°56'56"), 1♂ 1♀, pitfalls in orange garden, V.2012, S. Bouseksou leg. (COA), *Blida*, Atlas Blidéen, Pic Abdelkader (N36°24'14" E2°50'6"), 1650m, 1♂, pitfalls in *Cedrus atlantica* forest, 27.VI.1989, idem, 1000m, 6♂, pitfalls in grassland in orchard, 27.VI.1989, O. Abrous leg. (CRB), *M'sila*, Aïn Oghrab (N35°0'52" E4°6'24"), 1♂, E. Simon leg., Coll. Simon 12794 (MNHN AR15710), *Tizi Ouzou*, Chabet El Aneur (N36°37'4" E3°44'9"), 250m, 1♂, stones in fields, 20.IV.1990, R. Bosmans leg. (CRB). MOROCCO, *Béni Mellal-Khénifra*, Beni Mellal, Khemis des Oulad Ayad (N32°11'04" E6°55'45"), 400m, 2♂, stones in irrigated fields, 16.IV.2012, J. Van Keer leg. (CJVK), *Fès-Meknès*, Missouri (N33°2'24" W3°59'52"), 1♂, pitfalls in steppe, 24.IV.2002, R. Bosmans leg. (CRB), *Souss-Massa*, Agadir (N30°25'50" W9°37'24"), 220m, 1♂ 1♀, stones around old Kasbah, 28.IV.2012, J. Van Keer leg. (CJVK), Igherm E. (N30°8'11" W8°23'38"), 1790m, 1♀, stony steppe, 24.IV.2012, J. Van Keer leg. (CJVK), TUNISIA, *Beja*, Nefza, road to Zouaraa beach (N36°59'30" E8°58'2"), 1♂, in maquis, 1.V.2006, P. Pantini & A. Sassu leg. (MCSNB), *Gafsa*, Djébel Biada, S. Sened (N34°24'44" E9°13'56"), 1100m, 1♂ 2♀, stones in steppe, 9.V.2006, R. Bosmans leg. (CRB). EUROPE: PORTUGAL, *Algarve*, Castelo de Aljezur (N37°19'0" W8°48'47"), 1♂ 1♀, stones in grassland near castle, 22.V.2007, R. Bosmans leg. (CRB). GIBRALTAR (N36°7'34" W5°20'43"), 2♂, E. Simon leg., Coll. Simon 14200 (MNHN AR15704). SPAIN, *Málaga*, Alozaina (N36°44'53" W4°50'33"), 200m, 1♂, stones in small *Quercus suber* forest, 9.IV.1999, R. Bosmans leg. (CRB). ITALY, *Puglia*, Valenzano (N41°2'46" E16°53'1"), 1♂, pitfalls in olive grove, 5.VI.2003, R. Addante leg. (MCSNB), *Sardinia*, Sant'Antioco (N39°4'12" E8°27'8"), 1♂, 1970 (MCSNB), *Sicilia*, Palermo, Terrasini, Riserva Naturale Orientata Capo Rama (N38°8'22" E13°3'38"), 2♂ 1♀, 15–25.V.2012, pitfalls in palm grove, C. Cusimano leg. (MCSNB). BELGIUM, *Limburg*, Waterschei (N51°0'36" E5°33'6"), 1♂, pitfalls on old mine slag-heap, 23.VIII.1992, M. Janssen leg. (CMJ). FRANCE, *Haute-Corse*, Scandola Reserve, Île de Gargalu, 42°21'25" E8°34'0"), 1♂, under stones, 2–16.V.2014, P. Ponel leg. (CPO), *Hérault*: Clermont l'Hérault (N43°38'59" E3°23'26"), 175m, 1♂, stones in open grassland, 13.V.2015, P. Oger leg. (CPO), *Pyrénées-Orientales*, Banyuls-sur-Mer (42°28'54" E3°7'42"), 3♂ 1♀, as *D. macellinus*, Coll. Berland (MNHN AR9225), Corneilla de Conflent, Mas Forges, (N42°33'59" E2°22'50"), 750m, 1♂, pitfalls in deciduous forest, 8.VI–8.VII.1982, R. Bosmans leg. (CRB).

Distribution. *Haplodrassus securifer* sp. n. appears to have a large distribution area: Portugal, Spain, Algeria,

Morocco, Tunisia, France, Belgium and Italy (map 7). In Algeria, it was recorded in the Central North but also in the Hoggar in the South, in Morocco in the North and in the South, in Spain in Andalucía, in France in the South and in Italy in Puglia, Sardinia and Sicilia. The only record in Belgium is remarkable and is probably an introduction. The species was found on an old slag-heap of charcoal enjoying an exceptional warm microclimate. Some other rare Belgian species were found there, such as *Agroecina lineata* (Simon, 1878) and *Gnaphosa opaca* Herman, 1879 (Janssen 1994). Although pitfalls traps were used during two consecutive years, only one male was found.

***Haplodrassus signifer* (C.L. Koch, 1839)**

Figs 154–161, 167–171

Drassus signifer C. L. Koch, 1839: 31, fig. 452 (♀).

Drassodes troglodytes: Simon 1914: 122, 140, 209, Figs 249–250.

Haplodrassus signifer: Grimm 1985: 147, figs 146–148, 170–171; Levy 2004: 19, figs 46–52.

Types. Holotype female of *Drassus signifer* from Bohemia; not examined.

Diagnosis. Males of this species are easily recognized by the presence of a distinct crest on the sigmoid embolic apophysis of the palp (Figs 158, 164) and the rounded dilatation of the tibial apophysis (Figs 159, 168). Females resemble *H. securifer* sp. n. but can be distinguished by the straight anterior margin of the pro-fovea (Figs 151, 165), curved in *H. signifer* (Figs 160, 170) and the more rounded lateral pockets (Figs 166 versus 171).

Description. Measurements: Male (n=20): Total length 4.7–7.4; carapace 2.1–3.4 long, 1.7–2.7 wide. Female (n=20): Total length 5.1–11.8; carapace 2.1–5.5 long, 2.1–5.5 wide.

Colour: Carapace reddish brown with darker cephalic part and radiating striae; legs yellowish brown; abdomen dark grey to black, often with obscure paler chevrons. Spinulation: General pattern, but ventral spines on Mt I often absent.

Male palp (Figs 156–159, 167–169): Tibial apophysis distinctly constricted distally, then widening into a rounded knob (Figs 159, 168); embolic apophysis S-shaped, distal part with a distinct crest (Figs 158, 164).

Epigyne (Figs 160–161, 170–171): As long as wide; hood strongly recurved laterally; pro-fovea short by the prolonged anterior margin of the areola, half the length of the fovea (Figs 160, 170); fovea often with median groove; lateral pockets reniform (Figs 161, 171).

Citations in the Maghreb. TUNISIA, *Tunis*, La Mohammedia (Pavesi 1880), Tunis (Pavesi 1884), *Kairouan*, Kairouan (Pavesi 1880).

Further material examined. AFRICA, ALGERIA, *Tébessa*, Tébessa, 1300m, forêt de Bekkaria (N35°21'20" E8°14'40"), 2♂, pitfalls in *Pinus halepensis* forest, 1.V.1989 (CRB). MOROCCO, *Béni Mellal-Khénifra*, Aguelmane Azigza, 1♂ 1♀, 6.IV.1950, Ch. Alluau leg. (ISRM); *Rabat-Salé-Kénitra*, Oulmès S., ravin de l'Oued Assellalou (N33°25'25" W 6°00'10), 1♀, 11.III.1955, J. B. Panouse leg. (ISRM). EUROPE, SPAIN, *Alava*, Salvatierra (N42°51'5" W2°23'28"), 1♂ 2♀, stones in low maquis, 6.IV.1992 (CRB), *Avila*, Puerto del Pico (N40°19'16" W5°0'46"), 1300m, 1♀, 15.V.1992, P. Poot leg. (CRB), Puerto de Menga (N40°28'36" W5°0'42"), 1570m, 1♀, stones in grassland, 1.IV.1997 (CRB), *Burgos*, Puerto de la Brugula (N42°25'49" W3°30'11"), 990m, 2♀, stones in *Pinus* forest, 31.III.1997 (CRB), *Cantabria*, Puerto de San Glorio (N43°41" W4°45'51"), 1500m, 1♂ 2♀, pitfalls in wasteland, 17.VII.1985 (CRB), *Ciudad Real*, Pozuelo de Calatrava (N38°53'6" W3°50'53"), 2♀, J. M. de la Fuente leg, Coll. Simon 24235 (MNHN AR15705), *Gerona*, Collada de Toses (N42°19'50" E2°2'10"), 1800m, 3♂, pitfalls in dry *Pinus* forest, 10.VII.1991 (CRB), *Málaga*, Casares (N36°26'48" W5°17'8"), 2♀, V.1986, J. De Beir leg. (CRB), *Palencia*, Fuentes de Nava, Laguna de la Nava (N39°2'58" W3°41'47"), 1♂ 1♀, IV.–XI.1996, U. Stengele leg. (CRB), *Rioja*, Navarrete (N42°25'41" W2°33'49"), 420m, 1♂ 1♀, stones in grassland, 7.IV.1992 (CRB), *Segovia*, 10 km E. Casla (N41°7'20" W3°41'52"), 1100m, 1♀, stones in grassland, 31.III.1997 (CRB), *Toledo*, Talavera la Nueva (N39°55'11" W4°52'22"), 370m, 1♂, litter in forest along Rio Tajo, 1.IV.1997 (CRB). FRANCE, mixed unknown localities ('Gallia Meridionalis'), one of them *Alpes-Maritimes*, Menton, 2♂ 1♀, as *Drassodes macellinus hebes*, Coll. Simon 2083 (MNHN AR15708), *Haute-Corse*, Calacuccia, Lozzi, road to Monte Cinto (N42°20'46" E9°0'25"), 1200m, 2♀, stones in maquis, 25.V.1995 (CRB), 10 km from Calvi (N42°33'57" E8°45'25"), 1♂ 2♀, pitfalls in maquis, 15. V.1982 (CRB), Col de Vergio (N42°17'24" E8°52'39"), 1460m, 3♂ 1♀, stones in *Juniperus* forest, 24.V.1995 (CRB), Gorges de Restonica (N42°14'28" E9°10'52"), 1300m, 1♂, stones in



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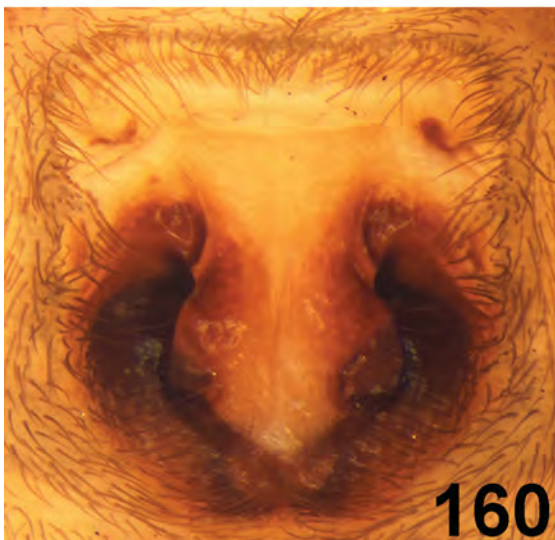
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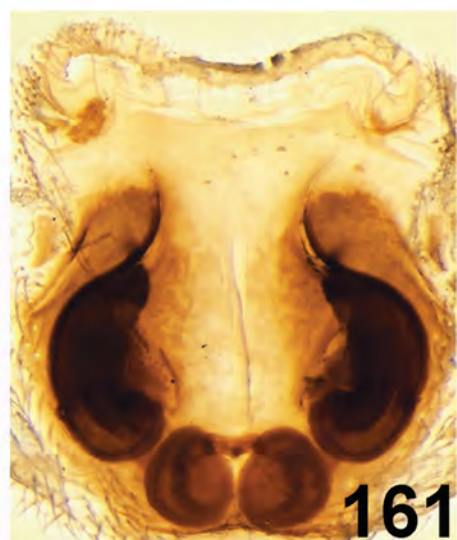
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FIGURES 154–161. *Haplodrassus signifer* (male from Crete, Nida Plateau, female from France, Corse). 154. Male, dorsal aspect; 155. Female, dorsal aspect; 156. Male left palp, retrolateral view; 157. Idem, ventral view; 158. Embolic apophysis, ventral view; 159. Male palpal tibia, dorsolateral view; 160. Epigyne, ventral view; 161. Vulva, dorsal view.

Pinus laricio forest, 26.V.1995 (CRB), E. Urtaca (N42°35'40" E9°9'57"), 1♂, stones in garrigue, 23.V.1995 (CRB), **Haute-Savoie**, Saint Julien-Mont-Denis (N45°14'48" E6°25'30"), 750m, 1♀, pitfalls in grassland, 6.VI.1986 (CRB), **Pyrénées-Orientales**, Mont Canigou, Escala de l'Ours (N42°32'58" E2°29'40"), 1400m, 1♂, 5.VII.1991 (CRB), Col de Puymorens, 1850m, 2♂ 1♀, pitfalls in dry grassland, 11. VI.1991 (CRB). ITALY, **Sardinia**, Carbonia-Iglesias, Fluminimaggiore S. (N39°24'38" E8°29'26"), at entrance of Grotta su Manua, 200m, 1♂, sieving *Quercus* litter, 15.IV.2014 (CRB), Nuoro, Orgosolo N. (N40°13'6" E9°22'47"), 610m, 1♀, sieving *Quercus* litter, 18.IV.2014 (CRB), Sassari, Alghero W., Parco di Porto (N40°36'59" E8°9'51"), 1♂ 1♀, 10.IV.2014 (CRB). GREECE, **Attiki-Saronic Islands**, Attiki, Marathon, Enoee ruins (N38°9'28" E23°56'1"), 80m, 1♂ 1♀, stones in phrygana, 19.IV.2000 (CRB), Oros Imittos, W. Peania (N37°56'47" E23°50'0"), 450m, 1♀, 20.IV.2000 (CRB), **Crete**, Sitia, 2♀, as *H. severus*, Grimm det. (MCSNB), **Ipeiros**, Ioannina, Vikos-Aoos national park, Astraka (N39°57'54" E20°47'31"), 1910m, 2♀, pitfalls in grassland, 12.VII.2007, B. Vandenberghe leg. (CRB), **Evvoia-Voroies Sporades**, Evvoia, Papades, Aghia Anna (N38°55'44" E23°21'51"), 550m, 1♀, stones in grassland, 12.V.2001 (CRB), Evvoia, Prokopi-Nea Pagontas road (N38°42'38" E23°30'57"), 700m, 1♂, stones in grassland, 10.V.2001 (CRB), **Kyklades**: Iraklia (N36°50'15" E25°27'21"), 50m, 1♀, on walls of house, 6.III.2016, 1♀, 9.IV.2017, 1♂, in pitfalls in phrygana, 20.IV.2017, Y. Gavalas leg. (CYG); **Makedonia**, Halkidiki, Monopigado (N40°26'4" E23°8'5"), 400m, 1♂, pitfalls in *Quercus* forest, 22.III–12.VI.2004, L. Provoost leg. (CRB), Thessaloniki, NE. Thessaloniki (N40°42'20" E22°58'58"), 200m, 1♂, pitfalls in dry *Pinus* forest, 7.II–6.VI.2004, L. Provoost leg. (CRB), **Peloponnisos**, Argolis, Achladokambos (N37°32'44" E22°31'10") 1000m, 2♀, under stones, 26.IV.2016 (CRB), Korinthia, Lake Stymphalia, (N37°50'39" E22°27'15"), 615m, 1♂, pitfalls under *Quercus* bushes on slope to lake, 20.IV–27.IV.2016 (CRB), **Sterea Elada**, Etolio-Akarnania, Paleros S., Agios Dimitriou (N38°46'6" E20°53'6"), 50m, 2♀, stones in quarry, 17.IV.2000 (CRB), Stanos S., lake Amvrakia (N38°46'51" E21°11'17"), 20m, 1♂, stones in olive groove, 15.IV.2000 (CRB), Fokida, Lake Mornou (N38°31'06" E22°09'06"), 440m, 1♀, 25.IV.2015, P. Ponel leg. (CPP), Voiotia, Oros Parnassos, Kalivia Arachovas (N38°31'24" E22°32'49"), 900m, 1♀, pitfalls in grassland, 18.IV.2000 (CRB), Thiva (N38°19'30" E23°19'08"), 200m, 1♀, 1998, L. Picard leg. (CRB). CYPRUS, **Famagusta**, Büyükkonuk (Konik) (N35°24'32" E33°59'28"), 150m, 1♂, pitfalls in *Pinus* forest, III–V.2011 (CRB), Yenibogaziçi (Agios Sergios) (N35°12'3" E35°53'43"), 30m, 1♂, stones in phrygiana, 17.III.2011, 1♂, in pitfalls at same site, 15–27.V.2011 (CRB), **Kyrenia**, Kalkani (Kalo Chorio) (N35°15'27" E33°2'22"), 100m, 1♀, stones in grassland, 20.III.2011 (CRB), Vouni ruins (N35°10'11" E32°46'24"), 250m, 1♀, under stones, 20.III.2011 (CRB), **Pafos**, Kouklia-Pissoura road (34°40'27" E32°37'06"), 150m, 1♀, stony slope to the sea, 22.III.2011 (CRB), **Nicosia**, Prodromos E., near Prodromos dam (N34°56'58" E32°50'39"), 1550m, 1♀, stones in *Pinus* forest, 23.V.2001 (CRB).

Distribution. Holarctic. In the Nearctic it is known from southern Canada, to central-S Mexico, in the Palaearctic up to 70°. In the Maghreb, the species appears to be rare. It is known from the NE of Algeria, Morocco, Tunisia and Libya.

***Haplodrassus spinicrus* (Caporiacco, 1928), nomen dubium**

Drassodes spinicrus Caporiacco, 1928a: 84.

Types. Holotype subadult male from Libya, Shabīyat al Buṭnān, Porto Bardia, XI.1926; MCSG, examined.

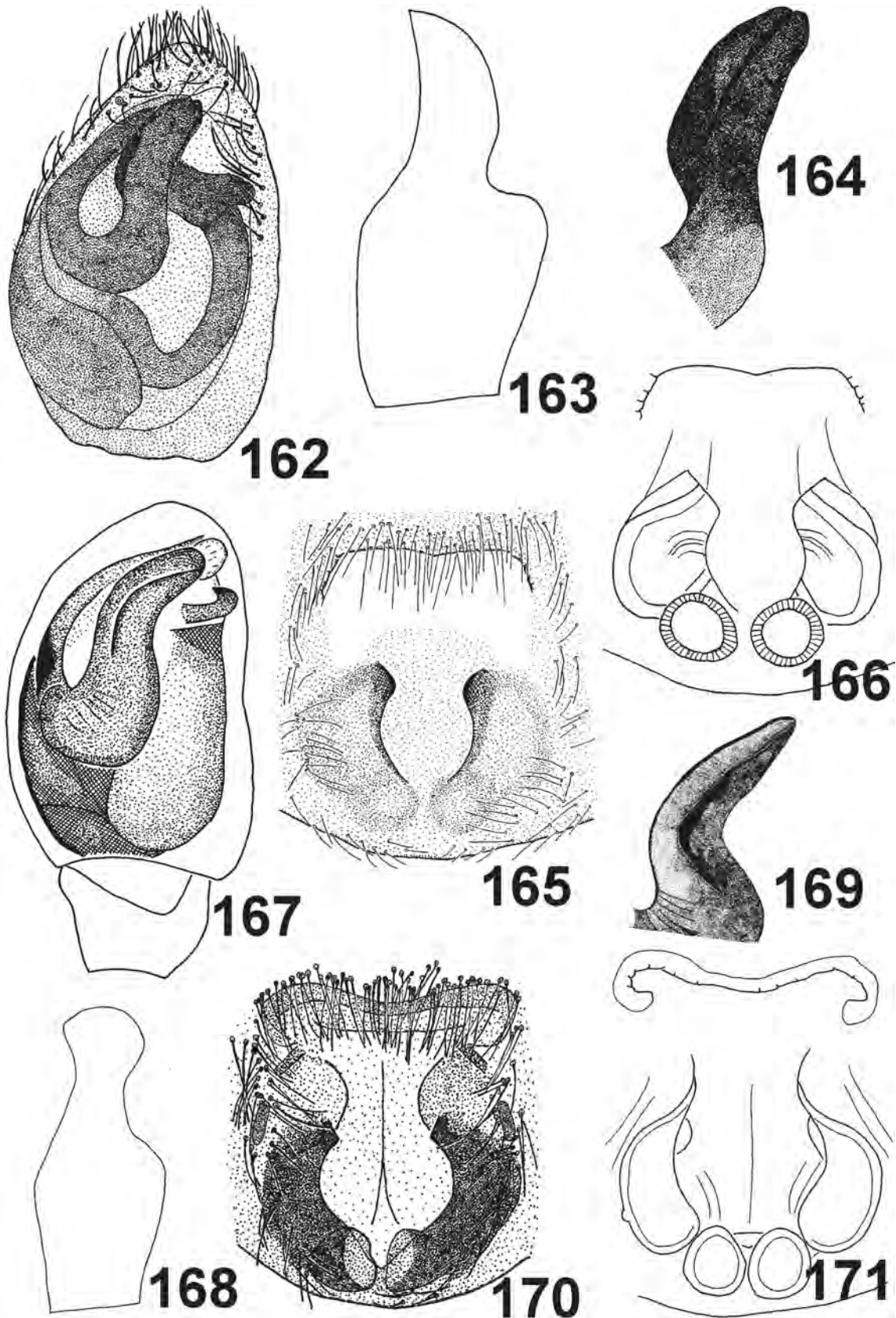
Remarks. According to the World Spider Catalogue (2017), only the male of this species is known but is not indicated it is not adult. In his original description, Caporiacco (1928a) indeed states the holotype is not yet adult (“nondum adultum sit”) and related to *Drassodes signifer* (“ab omnibus speciebus *D. signifero* similibus”), so the species must be transferred to *Haplodrassus*. A description at species level is not possible and *H. spinicrus* is declared a *nomen dubium*.

***Haplodrassus triangularis* Bosmans, sp. n.**

Figs 172–180, 190–193, map 4

Types: Holotype ♂, paratype ♀ from Morocco, Fès-Meknès, Sidi Harazem (N34°1'38"W4°53'00"), 250m, pitfalls in wheat fields, 23.VI.1997, S. Boksch leg.; deposited in RBINS.

Etymology. The species name refers to the triangular shape of the fovea.



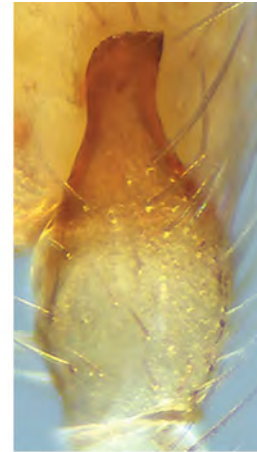
FIGURES 162–171. Figs 162–166. *Haplodrassus securifer* sp. n. (Tunisia, Gafsa). 162. Male left palp, ventral view; 163. Male palpal tibia, dorsolateral view; 164. Embolic apophysis, ventral view; 165. Epigyne, ventral view; 166. Vulva, ventral view. Figs 167–171. *Haplodrassus signifer* (male from Crete, Nida Plateau, female from France, Corse). 167. Male left palp, ventral view; 168. Male palpal tibia, dorsolateral view; 169. Embolic apophysis, ventral view; 170. Epigyne, ventral view; 171. Vulva, ventral view.



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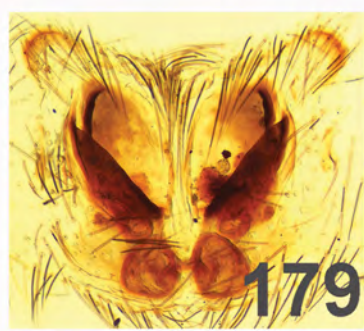
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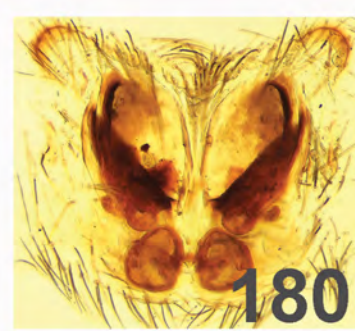
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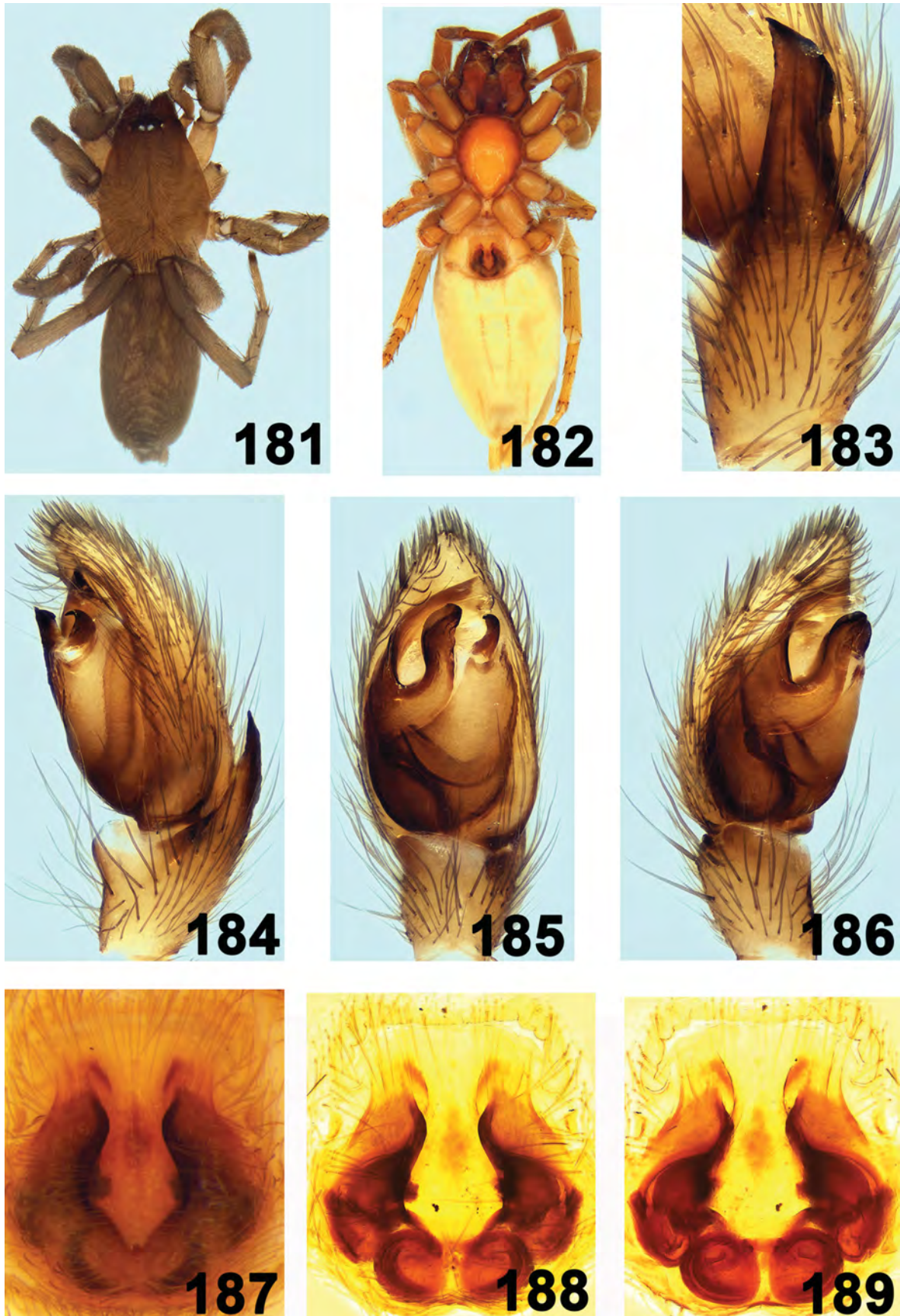


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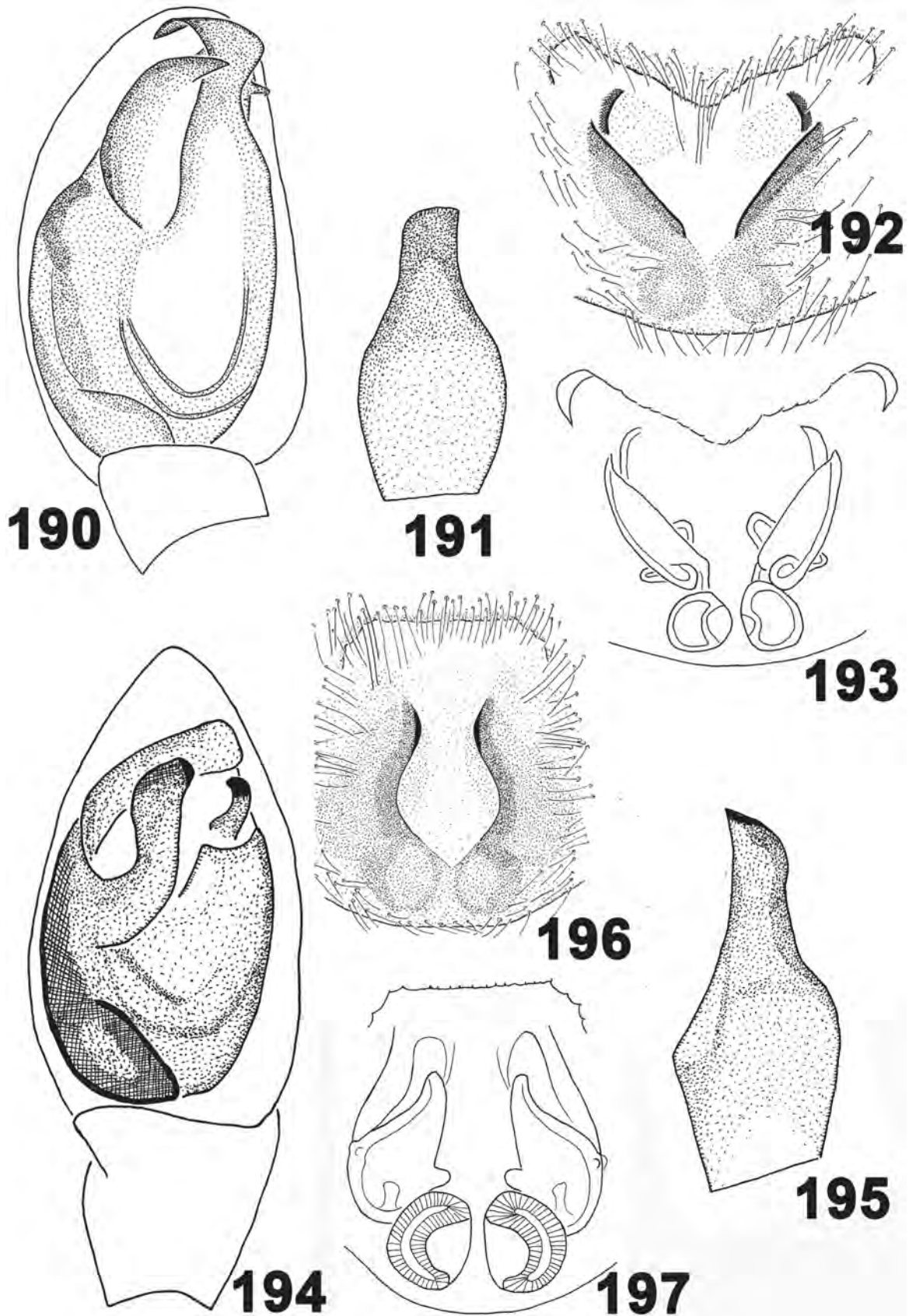


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FIGURES 172–180. *Haplodrassus triangularis*, sp. n. (Morocco, Sidi Harazem). 172. Female, dorsal aspect; 173. Idem, ventral aspect; 174. Male left palp, retrolateral view; 175. Idem, ventral view; 176. Idem, prolateral view; 177. Male palpal tibia, dorsolateral view 178. Epigyne, ventral view 179. Vulva, ventral view; 180. Idem, dorsal view.



FIGURES 181–189. *Haplodrassus typhon* (male from France, Bouches-du-Rhône, female from Spain, Granada). 181. Male, dorsal aspect; 182. Female, ventral aspect; 183. Male left palp, retrolateral view; 184. Idem, ventral view; 185. Idem, prolateral view; 186. Male palpal tibia, dorsolateral view; 187. Epigyne, ventral view 188. Vulva, ventral view; 189. Idem, dorsal view.



FIGURES 190–197. Figs. 190–193. *Haplodrassus triangularis* sp. n. (Morocco, Sidi Harazem). 190. Male left palp, ventral view; 191. Male palpal tibia, dorsolateral view; 192. Epigyne, ventral view; 193. Vulva, ventral view. Figs 194–197. *Haplodrassus typhon* (male from France, Bouches-du-Rhône, female from Spain, Granada). 194. Male left palp, ventral view; 195. Male palpal tibia, dorsolateral view; 196. Epigyne, ventral view; 197. Vulva, ventral view.

Diagnosis. This species is easily distinguished from all other species by the J-shaped embolic apophysis (Figs 175, 190) in the male and the triangular fovea in the female (Figs 178, 192).

Description. Measurements: Male (n=2): Total length 2.9–3.1; carapace 1.23–1.46 long, 0.94–1.12 wide. Female (n=2): Total length 3.1–4.8; carapace 1.31–1.60 long, 1.01–1.26 wide.

Colour: The type material is decoloured, with pale yellowish-brown carapace and legs and abdomen nearly white. In the recently collected male from Tunisia, the carapace has the thoracic part yellowish brown, the cephalic part brown, the foveal region and radiating striae greyish, the legs yellowish brown and the abdomen grey with a row of paired chevrons in its distal two third. Spinulation: General pattern, but femora I without prolateral spine.

Male palp (Figs 174–177, 190–191): Tibial apophysis as long as the tibia's diameter, terminally truncate, top rounded at retrolateral side, angular at proventral side; embolic apophysis very peculiar, J-shaped; embolus nearly semi-circular;

Epigyne (Figs 178–180, 192–193): Hood and pro-fovea much wider than fovea; fovea triangular, much narrower than pro-fovea; areola oblique; lateral pockets with some basal pouches; receptacles separated by 0.25 diameters.

Further material examined. MOROCCO, *Fès-Meknès*, Ain Taoujdate (N33°56'8"W5°12'41"), 480m, 1♀, pitfalls in wheat fields, 30.IV.1997, S. Boksch leg. (CRB). TUNISIA: *Kasserine*, Haidra S. (N35°36'1"E8°23'53"), 950m, 1♂, stones in *Pinus* forest, 4.III.2005 (CRB).

Distribution. The Northern part of Morocco and Tunisia (map 4).

***Haplodrassus typhon* (Simon, 1878), comb. n. stat. n.**

Figs 181–189, 194–197, map 4

Drassus typhon Simon, 1878: 128, pl. 16, fig. 20 (♂♀).

Drassodes macellinus: Simon, 1914: 209 (synonymy, here rejected).

Types: Female lectotype from France, without further locality, Coll. Simon (MNHN AR9224); examined.

Remarks. *Drassus typhon* was described on the male and female sex by Simon in 1878. Later, he placed it in the synonymy of *D. macellinus*, considering it “une variété non constante” (Simon 1914). The only material of this species in the MNHN is a female labelled “AR9224 *Drassodes typhon* Simon E. Simon det.”. It fits with the description of the epigyne given by Simon (1878) (“vide médian en ovale plus allongé”), which is one of the main differences to distinguish *H. macellinus* from *H. typhon*. We designate here this specimen as lectotype. The other examined material attributed by us to this species (see below) shows some variation but is treated here as the same species. The male and female described below were collected only once at the same site in Portugal by A. Grabolle and are considered conspecific. One further male was collected in the Bouches-du-Rhône department in France and several females without males in Algeria, Morocco, Spain and Italy.

Diagnosis. Males of *Haplodrassus typhon* are easily distinguished by the elongated, pointed tibial apophysis (Figs 186, 195) and the nearly straight embolic apophysis (Figs 184, 194). Females are closely related to *H. dentifer* sp. n., *H. ovatus* sp. n. and *H. rufipes*. They differ from *H. ovatus* by the converging anterior margin of the fovea in *H. ovatus* (Fig. 105), diverging in *H. typhon* (Fig. 187), from *H. dentifer* and *H. rufipes* by the denticulate margin of the fovea (Figs 40, 132).

Description. Measurements: Male (n=3): Total length 4.7–6.0; carapace 2.18–2.70 long, 2.0 wide. Female (n=9): Total length 6.2–8.2; carapace 2.10–2.90 long, 1.48–2.30 wide.

Colour: Thoracic part of carapace yellowish brown, cephalic part reddish brown; legs yellowish brown; sternum reddish brown; abdomen pale brown, some specimens with traces of dorsal chevrons.

Male palp (Figs 183–186, 194–195): Tibial apophysis elongated, strongly asymmetric, with pointed tip; embolic apophysis nearly straight, shorter than embolus, with rounded top.

Epigyne (Figs 187–189, 196–197): Hood weakly sclerotized, separated from pro-fovea by a straight line; pro-fovea much shorter than the elongated fovea, with anterior margins diverging; areola wide, with large lateral pockets.

Further material examined. AFRICA, ALGERIA, *Annaba*, Bône (=Annaba), 1♀, *Bordj Bou Arreridj*, 1♀, E. Simon leg., Coll. Simon 6073 (MNHN AR15715), *El Bayadh*, Le Kreider (N34°8'41"E0°4'9"), 1♀, E. Simon leg., Coll. Simon 11933 (MNHN AR15716), *M'sila*, Chott el Hodna, S. Baniou (N35°24'55"E4°20'39"), 400m, 2♀,

pitfalls in dunes in salt marsh, 1.VII.1988 (CRB). TUNISIA, *Medenine*, Djerba, 1♀, Coll. Simon 12475 (MNHN AR15711). EUROPE, FRANCE, *Bouches-du-Rhône*, St-Antonin-sur-Bayon, Réserve Naturelle de Sainte Victoire (N43°31'44" E5°32'22"), 1♂, stones in low maquis, 4.V.2015 (CJVK), *Hérault*, Brenas, La Lieude (N43°37'54" E3°16'10"), 1♀, stones in maquis, 13.V.2001, P. Oger leg. (CPO). SPAIN, *Ciudad Real*, Pozuelo de Calatrava (N38°53'6" W3°50'53"), 1♀, J. M. de la Fuente leg., Coll. Simon 24173 (MNHN AR15712), *Granada*, Sierra Elvira (N37°13'54" W 3°43'24"), 3♀, 17.VI.1908, E. Simon leg., Coll. Simon 21738 (MNHN AR15713), *Murcia*, Cartagena (N37°36'18" W0°59'10"), 3♀, E. Simon leg., Coll. Simon 13414 (MNHN AR15714). PORTUGAL, *Algarve*, Pereiro (N37°26'54" W7°35'46"), 2♂ 1♀, stones in dry, open grassland, 21.IV.2012, A. Grabolle leg. (CAG). ITALY, *Sardinia*, Oristano, Sinis (N39°53'5" E8°26'8"), 1♀, Marcialis leg. (MCSNB).

Distribution. N. Algeria, Tunisia, Spain, Portugal, S. France and Italy (map 4).

Additions to the knowledge of European *Haplodrassus* species

Haplodrassus bohemicus Miller & Buchar, 1977

Figs 198–204

Haplodrassus bohemicus Miller & Buchar, 1977: 163, pl. II, figs 1–6 (♂♀); Stefanovska *et al.* 2008: 37, figs 10–15 (♂♀); Kovblyuk *et al.* 2012: 62, figs 1–6, 10–12 (♂♀).

Types: Holotype female, paratype male from Czech Republic, Bohemia, Raná, near Louny, Buchar leg.; not examined.

Comments. Our specimens are tentatively identified as *H. bohemicus* and are described hereunder, because the existing drawings of the species by Miller & Buchar (1977), Stefanovska *et al.* (2008) and Kovblyuk *et al.* (2012) don't seem to belong to the same species. The embolic apophysis is gradually narrowing in figs 1–2 of Miller & Buchar, and in figs 10–11 of Stefanovska *et al.*, whereas it has a step-like prodorsal margin in figs 2–3, 5–6 of Kovblyuk *et al.* Further studies are required to solve this problem.

Description. Measurements: Male (n=7): Total length 5.2–7.8 mm; carapace 2.2–2.8 long, 1.7–2.2 wide. Female (n=11): Total length 7.6–8.6 mm; carapace 2.8–3.2 long, 2.1–2.4 wide.

Colour: Carapace yellowish brown to brown, in some specimens with darkened striae and margin; legs yellowish brown; abdomen greyish black, anterior part with 3 pairs of small longitudinal stripes, in females mostly followed by 6–7 pairs of chevrons.

Male palp (Figs 200–203): Tibial apophysis relatively short, slightly widened before rounded tip; embolic apophysis thick, only slightly bent, gradually narrowing, distal part with slightly elevated crest, tip pointed.

Epigyne (Fig. 204): Slightly longer than wide, with hood distinctly narrower than areola; fovea nearly rectangular, posterior margin poorly expressed; areola very wide.

Material examined. GREECE, *Ipeiros*, Ionnana, Vikos-Aoos National Park, Astraka (N39°57'54" E20°47'31"), 1910m, 3♂ 7♀, pitfalls in stony grassland, 30.IV–12.VII.2007, B. Vandenberghe leg. (CRB), *idem*, 4♂ 4♀, stones in grassland, 30.IV.2007, B. Vandenberghe leg. (CRB).

Distribution. Czech Republic (Miller & Buchar 1977), S. of European Russia (Ponomarev & Tsvetkov 2006), FYR Macedonia (Stefanovska *et al.* 2008), Greece (Van Keer *et al.* 2010) and Ukraine (Kovblyuk *et al.* 2012).

Haplodrassus concertor (Simon, 1878)

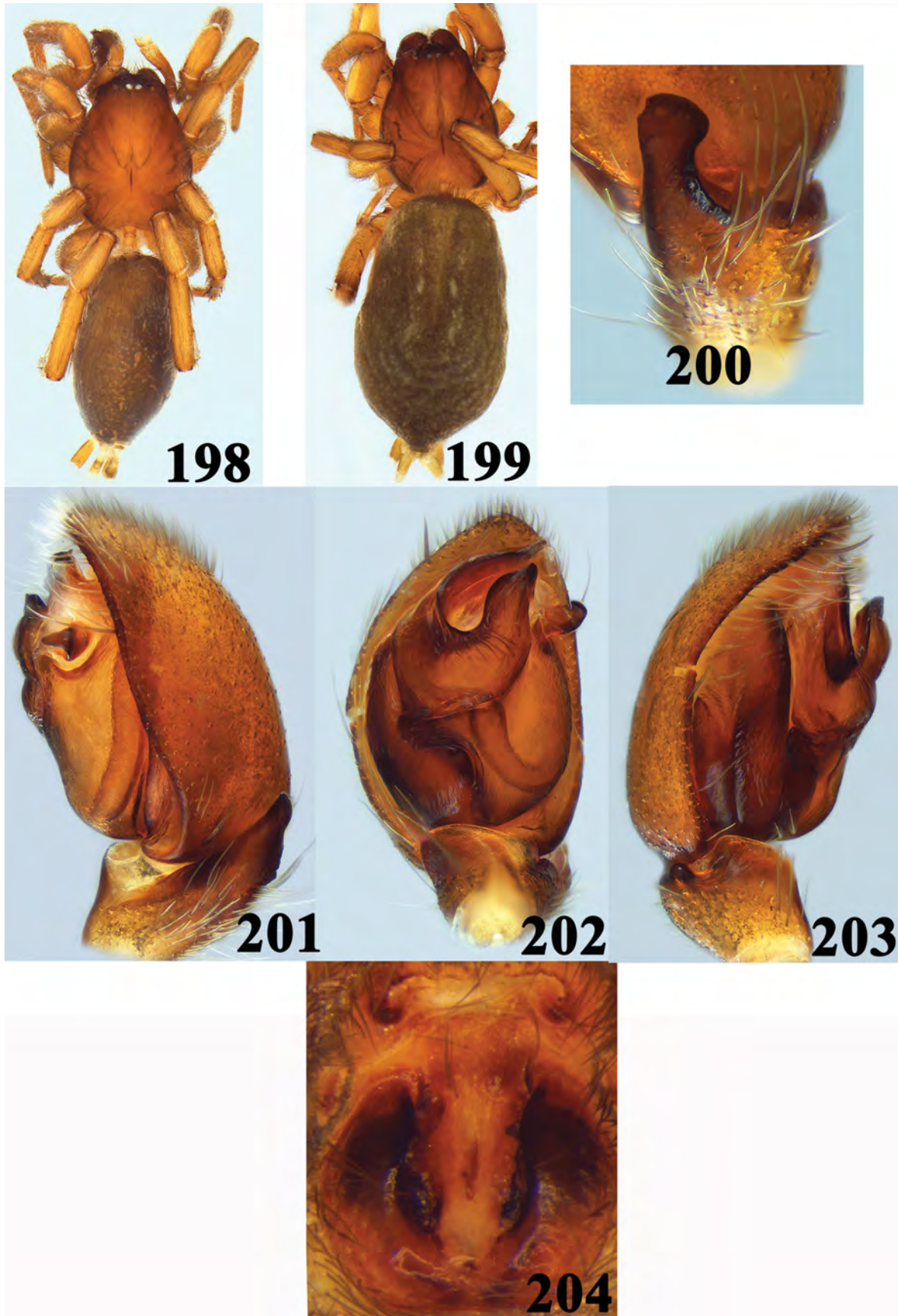
Figs 205–213

Drassus concertor Simon, 1878: 129, pl. 16, fig. 24 (♂♀).

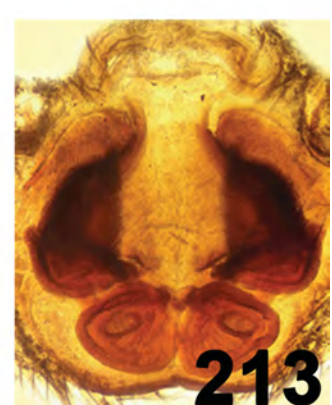
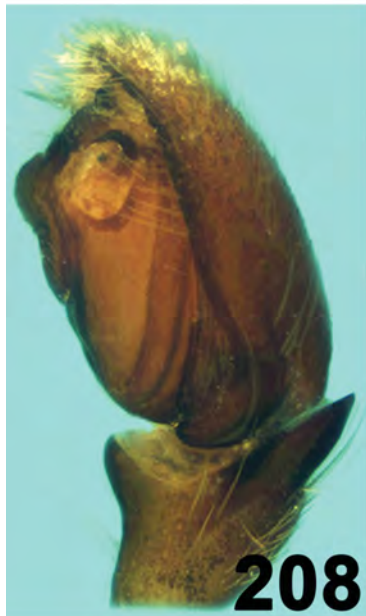
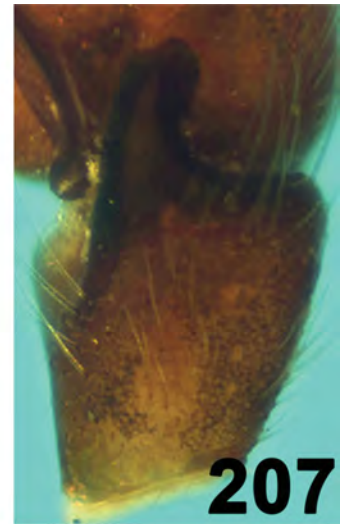
Drassodes concertor: Simon 1914: 140, 210, fig. 251 (♀), non fig. 249 (♂) = *H. signifer*.

Haplodrassus concertor: Denis 1958: 248, figs 1–2 (♀).

Types: Lectotype ♂ 3♂ 67♀ paralectotypes by present designation, labelled "Auvergne, Pyrénées, Aigoual AR9209"; MNHN, Coll. Simon; examined.



FIGURES 198–204. *Haplodrassus bohemicus* (Greece, Aaos National Park). 198. Male, dorsal aspect. 199. Female, dorsal aspect; 200. Male palp, retrolateral view; 201. Idem, ventral view; 202. Idem, prolateral view; 203. Male palpal tibia, dorsolateral view; 204. Epigyne, ventral view.



FIGURES 205–213. *Haplodrassus concertor* (France, Mont Canigou). 205. Male, dorsal aspect; 206. Idem, ventral aspect, with expanded palp; 207. Male palp, retrolateral view; 208. Idem, ventral view; 209. Idem, prolateral view; 210. Male palpal tibia, dorsolateral view; 211. Epigyne, ventral view; 212. Vulva, ventral view; 213. Idem, dorsal view.

Comments. *Haplodrassus concertor* was described by Simon (1878) from one locality, Vernet-les-Bains in the Pyrénées-Orientales. Material from this locality could not be traced, so a large series of specimens labelled Auvergne, Pyrénées, Aigoual AR9209 is indicated here as type series. The available illustrations of the epigyne of *H. concertor* appear to be Simon's simple sketches (1878, fig. 24; 1914, fig. 251) in "Les Arachnides de France" and the drawings by Denis (1958, figs 1–2). The females collected by us in the Pyrénées agree with these figures. For the male, Simon (1914) presents a figure of the male palp in his identification table, line 8, and this line finally leads to two species: *H. concertor* and *H. signifer*. It is nowhere precised if it is the palp of either of the two. According to the World Spider Catalogue (2017), fig. 249 represents the palp of *H. concertor*. According to Simon (1914), males of *H. concertor* and *H. signifer* are very similar ("Les mâles des deux espèces sont souvent très difficiles à distinguer, tandis que les caractères des femelles sont beaucoup plus nets"). In our material, the male of *H. concertor* is clearly different from *H. signifer*. The conclusion must be that Simon mistook a male of *H. signifer* for a male of *H. concertor*, which is clearly different as proved by our newly collected material. In the World Spider Catalogue, the attribution of figure 249 to *H. concertor*, must be deleted and changed to *H. signifer*.

Material examined. FRANCE, *Ariège*, Goulier, La Prade (N42°45' E1°30'), 1400m, 1♀, C. Jacquet leg. (CPO), *Hautes-Pyrénées*, Réserve naturelle du Néouvielle, Turon du Néouvielle (N42°49'30" E0°7'46"), 3131m, 1♀, J. Denis leg. (MNHN AR9211), Pic du Midi de Bigorre (N42°56'12" E0°8'28"), 2♀, L. Fage leg., VIII.1917 (MNHN AR9213), *Pyrénées-Atlantiques*, Larrau, Pic d'Orhy (N42°58'26" W0°59'38), 1400m, 1♀, montane grassland, 5.VII.1981, P. Poot leg. (CRB), *Pyrénées-Orientales*, Font-Romeu (N42°29'52" E2°02'02"), 1800m, 3♀, L. Fage leg. (MNHN AR9208), Mont Canigou (N42°32'20" E2°28'25"), 2000m, 4♂ 2♀, pitfalls in short montane grassland, 8.VII.1982 (CRB), Mont Canigou (N42°32'20" E2°28'25"), 1♂ 5♀, VIII.1912, Coll. Berland (MNHN AR9212).

Description. Measurements: Male (n=4): Total length 5.4–5.8 mm; carapace 2.08–2.82 long, 1.71–2.01 wide. Female (n=2): Total length 6.6–7.7 mm; carapace 2.62–2.86 long, 2.01–2.24 wide.

Colour: Carapace reddish brown with grey striae, margin and eye region blackish; chelicerae and sternum dark reddish brown; legs yellowish brown; abdomen grey to dark grey, dorsally sometimes with slight indications of pale grey stripes and chevrons.

Male palp (Figs 207–210): Tibial apophysis shorter than the tibia's diameter, terminally rounded; embolic apophysis slightly bent, relatively short, much shorter than embolus.

Epigyne (Figs 211–213): Hood wide, with straight posterior margin, slightly wider than fovea but much narrower than areola; fovea elongated, 1.5 x as long as wide, with parallel margins.

Distribution. Certified material has been seen from the French departments Ariège, Hautes-Pyrénées, Pyrénées-Atlantiques and Pyrénées-Orientales. It was furthermore cited in Gran Paradiso in Italy (Caporiacco 1928b), but this record needs confirmation.

***Haplodrassus creticus* (Roewer, 1928)**

Figs 214–222

Drassodes creticus Roewer, 1928: 104, pl. 1, fig. 9 (♂).

Scotophaeus walteri Roewer, 1928: 107, pl. 1, fig. 18 (♀).

Haplodrassus creticus: Chatzaki *et al.* 2002: 585, figs 55–60 (♂♀; transfer to *Haplodrassus*).

Types: Holotype ♂ and paratype ♂ of *Drassodes creticus* from Crete, Knossos; deposited in SMF; examined by Chatzaki *et al.* (2002).

Material examined. GREECE, *Crete*, Chania, Agriles (N35°17'57" E23°47'24'), 1♀, stones around spring, 7.IV.2002, J. Van Keer leg. (CJVK), Archondiko N. (N35°19'41" E23°39'14'), 785m, 2♀, stones in maquis, 5.IV.2002, R. Bosmans & J. Van Keer leg. (CJVK, CRB), Elafonisi (N35°16'24" E23°32'26"), 10m, 1♀, stones in degraded dunes, 6.IV.2002 (CRB), Imbros Gorge (N35°14'26" E24°10'00"), 770m, 1♀, stones in grassland, 9.IV.2002, J. Van Keer leg. (CJVK), Omalos (N35°18'36" E23°53'53"), 2♀, open *Juniperus* forest, 8.IV.2002 (CJVK), Sougia (N35°14'58" E23°48'36"), 100m, 1♀, 12.IV.2000, K. De Smet leg. (CRB), Iraklio: Lentas (N34°55'49" E24°55'24"), 1♂ 1♀, stony slope near coast, 18.V.1994, J. Van Keer leg. (CJVK), Rethimno: Agia Galini (N 35°05'49" E 24°41'17"), 25m, 1♂, 15.III.1978 (CRB), Rethimno (N35°22'06" E24°28'42"), 10m, 1♀, litter on the high beach, 11.IV.2002, J. Van Keer leg. (CJVK).

Description. See Chatzaki *et al.* (2002).

Distribution. An endemic species of Crete.

***Haplodrassus ibericus* Melic, Silva & Barrientos, 2016**

Haplodrassus ibericus Melic *et al.*, 2016: 108, figs 1a–g (♂♀).

Types: Holotype ♂, paratype ♂ of *Haplodrassus ibericus* from Portugal, Alentejo, Póvão de São Miguel, 1 ♀ paratype from Portugal, Alentejo, Moura, 1 ♀ paratype from Spain, Murcia, Laguna Costera el Mar Menor; deposited in MNCN; not examined.

Material examined. PORTUGAL, *Algarve*, Barragem de Beliche, 1 ♀, marshy area with *Typha*, 18.II.2006 (CRB). SPAIN, *Cadiz*, Tarifa, 1 ♂ 3 ♀, V.1994, P. Poot leg. (CRB).

Diagnosis and description. See Melic *et al.* (2016).

Distribution. Only known from the Iberian Peninsula.

***Haplodrassus invalidus* (O.P.-Cambridge, 1872)**

Figs 223–231

Drassus invalidus O.P.-Cambridge, 1872: 237 (♂); Simon 1878: 135, figs 19, 19a (♂♀); Simon 1914: 138, fig. 243 (♂, not ♀ = *H. mediterraneus*).

Haplodrassus invalidus; Levy 2004: 31, figs 70–73 (♂♀); Kovblyuk *et al.* 2012: 68, figs 32–34 (♂).

Types: Holotype ♂ of *Drassus invalidus* from the plain of the Jordan; HECO, B. 243, tube 54; examined by Levy (2004).

Material examined. CYPRUS, *Famagusta*, Karpasia Peninsula, Moni Apostolou Andreas (N35°39'28" E34°34'23"), 50m, 1 ♂, stones in wasteland, 16.V.2011 (CRB), Mersinlik (Flamouda) W. (N35°24'31" E33°49'38"), 25m, 1 ♂ 1 ♀, pitfalls in short montane grassland, 25.V.2011 (CRB), *Larnaca*, Kornos picnic site (N34°55'25" E33°24'19"), 350m, 1 ♂, stones in pine forest, 28.V.2011 (CRB), *Pafos*, Mavrokolymnos Dam, Potima NE (N34°51'31" E32°24'26"), 150m, 1 ♂, stones along lake, 22.V.2011 (CRB).

Remark. The synonymy of *H. invalidus* (O.P.-Cambridge, 1872) with *H. vignai* Di Franco, 1996 proposed by Levy (2004) is rejected (see under *H. macellinus*).

Description. See Kovblyuk *et al.* 2012.

Distribution. Egypt (O. P.-Cambridge 1872), Israel (Levy 2004), Azerbaijan (Kovblyuk *et al.* 2012) and Cyprus (new record). Citations of *H. invalidus* in Italy (Di Franco 2001), Spain (Barriga *et al.* 2006; Lecigne, 2012) are considered to be incorrect, those in Greece (Chatzaki 2008; Schröder *et al.* 2011) need confirmation.

***Haplodrassus macellinus* (Thorell, 1871)**

Figs 232–240, map 8

Drassus macellinus Thorell, 1871: 185 (♂♀).

Drassus occidentalis Thorell, 1871: 184 (♀) synonymy by Simon (1914).

Drassus nyctalicus Thorell, 1871: 185 (♀) synonymy by Simon (1878).

Drassus hebes O.P.-Cambridge, 1874: 390, pl. 51, fig. 15 (♂), **syn. n.**

Drassus vicarius Simon, 1878: 132 (♀), synonymy with *D. macellinus hebes* by Simon (1914).

Drassodes macellinus hebes: Simon 1914: 140, 209, fig. 248 (♂♀).

Haplodrassus vignai Di Franco, 1996: 173, figs 1–4 (♂♀), **syn. n.**

Types: Type series of *Drassus macellinus* from France, Nice, containing 7 ♂ and 8 juveniles; NHRS 179a; examined. Holotype ♀ 1 subadult ♀ paratype of *Drassus nyctalicus* from France, Nice; NHRS 179b; examined. Holotype ♀ of *Drassus vicarius* from Corsica; not examined, unavailable. Holotype ♂ of *Drassus hebes* from France, Menton, J.T. Moggridge leg., II.1874; HECO; not examined. Holotype ♂, paratype ♀ of *H. vignai* from Italy, Lazio, Tuscolo; deposited at MZUR; not examined.

Diagnosis. Males are closely related to *H. securifer* **sp. n.** but are easily distinguished by the much shorter and wider embolic apophysis (Figs 237 versus 128). Females are distinguished by the elongated epigyne with rounded, narrow hood, a relatively small areola and a longitudinal internal sclerite accompanying laterally the pro-fovea (Figs 238–240, LS). However, this lateral sclerite was found to be absent in a few specimens.



FIGURES 214–222. *Haplodrassus creticus* (Greece, Crete, male from Agia Galini, female from Elafonisos). 214. Male, dorsal aspect. 215. Female, dorsal aspect. 216. Idem, ventral aspect; 217. Male palpal tibia, dorsolateral view; 218. Male palp, retrolateral view; 219. Idem, ventral view; 220. Idem, prolateral view; 221. Epigyne, ventral view; 222. Vulva, ventral view.



FIGURES 223–231. *Haplodrassus invalidus* (Cyprus, Mercinlik). 223. Male, dorsal aspect; 224. Female, dorsal aspect. 225. Idem, ventral aspect. 226. Male palp, retrolateral view; 227. Idem, ventral view; 228. Idem, prolateral view; 229. Male palpal tibia, dorsolateral view; 230. Epigyne, ventral view; 231. Vulva, ventral view.



FIGURES 232–240. *Haplodrassus macellinus* (France, male from Crozes-Hermitage, female from La Ciotat) 232. Male, dorsal aspect; 233. Female, dorsal aspect; 234. Idem, ventral aspect; 235. Male palp, retrolateral view; 236. Idem, ventral view; 237. Male palpal tibia, dorsolateral view; 238. Epigyne, ventral view; 239. Vulva, ventral view; 240. Idem, dorsal view. LS = Lateral sclerite.

Remarks. According to the World Spider Catalog (2017), *Haplodrassus macellinus* is a West Mediterranean species. Various authors cited it frequently in France and Italy, and in the Maghreb (Denis 1937; Di Franco 1994; Pavese 1884; Simon 1885, 1908). There are also two citations from Greece and Turkey (Caporiacco 1948; Karol 1966). One can wonder however how these specimens were identified, when the only available figure of *H. macellinus* is a simple sketch of a part of the male palp by Simon (1914), and the epigyne has never been figured at all. Simon (1914) already stated that the species is very variable, when he declared *Drassus hebes* O.P.-Cambridge, 1874, *D. nyctalicus* Thorell, 1871, *D. occidentalis* Thorell, 1871, *D. typhon* Simon, 1878 and *D. vicarius* Simon, 1878 all simple variations of *D. macellinus* (“des formes très variables”). The descriptions of all these species were carefully analysed by us and if possible, the type material was examined.

The type material of *H. macellinus* from Nice, France, was found in the NHRS, which undoubtedly fixes the identity of the species. Thorell (1871) described the male and a juvenile female (“onne omnino adulta?”). The type series indeed contains adult males and only subadult females. In the same paper, Thorell described *Drassus nyctalicus* and *D. occidentalis*, of both only females and also from Nice. Examination of the type material of *D. nyctalicus* confirms it is the female of *H. macellinus*, as proposed by Simon (1878). Later, Simon (1914) considers *D. occidentalis* a simple variation of *H. macellinus* (“forme de *D. macellinus*”). Type material of this species was not available, and Simon’s view is followed here.

Drassus hebes O.P.-Cambridge, 1874, described from France, Menton, at 20 km from the type locality of *H. macellinus*, is another problematic species. Simon (1878) considered the species a synonym of *H. macellinus* and a subspecies in 1914. Type material was not available, but Cambridge’s figure 15 of the male palpal tibia of *D. hebes* agrees well the elongated palpal tibia of *H. macellinus*. Also the material of *D. macellinus hebes* examined in the MNHN is identical to *H. macellinus*. The evident conclusion is *D. hebes* is a junior synonym of *H. macellinus*. *Drassus vicarius* Simon, 1878 was described on a female from Corse. Simon (1914) considered it a synonym of *D. macellinus hebes*. Since the type material is not available, Simon’s vision is followed here and *Drassus vicarius* enters into the synonymy of *H. macellinus*.

Drassus typhon Simon, 1878 was described on the syntypes male and female from the Pyrénées-Orientales. Simon (1914) considered it another synonym of *H. macellinus*. An adult female identified by Simon shows it is a distinct species and it is taken out of the synonymy of *H. macellinus*. It is described above.

The synonymy of *H. invalidus* (O.P.-Cambridge, 1872) from Israel, Turkey and Azerbaijan with *H. vignai* Di Franco, 1996 from Italy as proposed by Levy (2004) is here rejected. Material of recently collected *H. invalidus* in Cyprus compared with material collected in Italy near the type locality of *H. vignai* shows clearly they are two different species. In *H. invalidus*, the tibial apophysis has a claw-like tip, and the embolus has an inner spur-like process, as excellently shown by Kovblyuk *et al.* (2012). These are both absent in *H. vignai*, as shown in Di Franco’s figures 1–4 of *H. vignai*. Although the type material of *H. vignai* was not examined, *H. vignai* is considered here a junior synonym of *H. macellinus*.

Description. Measurements: Male (n=7): Total length 4.4–8.2; carapace 2.38–3.74 long, 1.68–2.69 wide. Female (n=1): Total length 11.0; carapace 3.71 long, 2.98 wide.

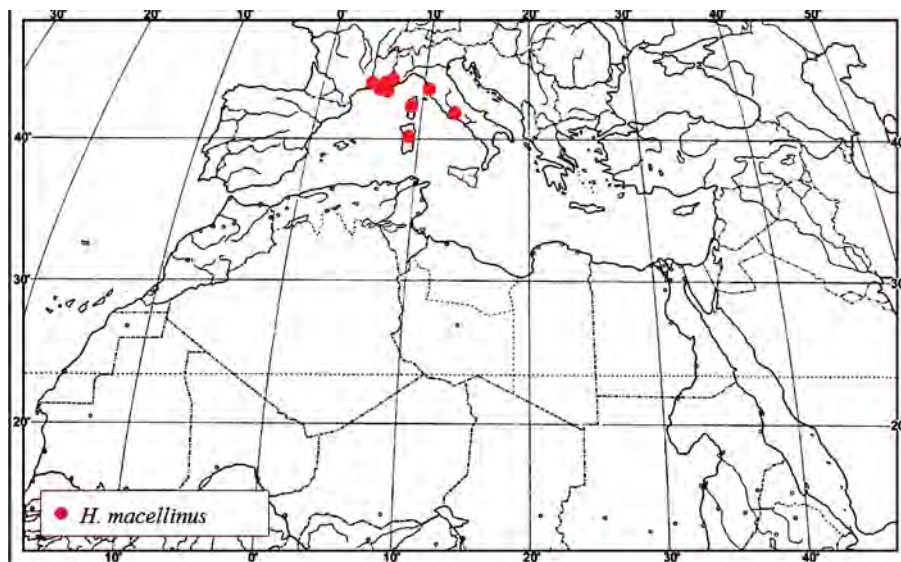
Colour: Carapace brown to dark reddish brown, cephalic part infuscate; chelicerae dark brown; sternum yellowish to reddish brown, darkened to the margins; legs yellowish brown to reddish brown; abdomen grey to brown with paler venter.

Male palp (Figs 235–237): Tibial apophysis slender, as long as its diameter, constricted in the middle, with broadly truncate tip; embolar apophysis much shorter than embolus, with only slightly bent margins, getting somewhat broader distally, terminally bluntly pointed.

Epigyne (Figs 238–240): Elongated, 1.4 x longer than wide, with rounded hood, which is much narrower than the total epigyne; pro-fovea somewhat longer than fovea; lateral pockets sac-like.

Further material examined. FRANCE, mixed unknown localities (‘Gallia Meridionalis’), one of them *Alpes-Maritimes*, Menton, 13♂ 16♀, as *Drassodes macellinus hebes*, Coll. Simon 2083 (MNHN AR9228), mixed unknown localities (‘Gallia Meridionalis, Corsica’), 20♂ 7♀, as *Drassodes macellinus hebes*, Coll. Simon 2058 (MNHN AR9229), unknown locality (‘France S.E.’), 2♂, as *Drassodes macellinus*, Coll. Dalmas M.150 (MNHN AR9230), *Alpes-Maritimes*, Cannes, île de Saint-Honorat, 8.IV.2013, 1♂, P. Ponel leg. (CPO), Menton (N43°46’35” E7°30’15”), 1♀, L. Fage leg. (MNHN AR9223), Nice (43°42’11” E7°15’57”), 7♂, 8 juveniles (NHRS 179a), Nice, 1♀ 1 subadult♀ (as *Drassus nyctalicus*; NHRS 179b), *Bouches-du-Rhône*, La Ciotat, île Verte, 1♀, P. Ponel leg. (CPO), Vauvenargues, La Citadelle (N43°33’14” E5°36’13”), 1♂♀, 19.V.2013, P. Ponel leg. (CPO), Drôme, Crozes-

Hermitage, Plan d'eau de la Lône, stones in dry grassland, 13.II.2013, P. Dubois leg. (CPO), *Var*, Callian (N43°33'0" E6°50'0"), 1♀, Coll. Berland (MNHN AR9227), Ollières, Basses Selves (N43°28'58" E5°49'47"), 540m, dry grassland, 17.05.2012, P. Ponel leg. (CPP), Pontrève, 1♂, under stones, 2.V.2015, P. Oger leg. (CPO), Rians, 1♂, under stones, 1.V.2015, P. Oger leg. (CPO), Roquebrune-sur-Argens, 1♂, stones in maquis, 12.IV.2016, S. Lecigne leg. (CSL); Saint-Cyr-sur-Mer, Calanque de Port d'Alon (N43°8'48" E5°42'36"), 1♀, 6.VIII.1997 (NHML), Valcros (43°14'7"6°2'10"), 1♀, 22.III.1989, P. Poot leg. (CRB). ITALY, *Toscana*, Livorno, Isola di Capraia (N43°3'1" E9°48'52"), 1♂, 26.XI.1992, Pantini & Valle leg. (MCSNB).



MAP 8. Distribution of *Haplodrassus macellimus* (Thorell).

Distribution. According to the literature and the World spider Catalog (2017), the species occurs in the West European and African Mediterranean region. All material from the Maghreb identified as *H. macellimus* that could be examined appeared to be misidentified, and the species is not present in our abundant material. Only the records from France including Corsica, and Italy including Sicilia are confirmed here (map 8). Citations from Portugal and Spain are possibly correct but should be confirmed. Citations from Rhodes by Caporiacco (1948) and from Turkey by Karol (1966) are considered misidentifications.

Haplodrassus mediterraneus Levy, 2004

Figs 241–251

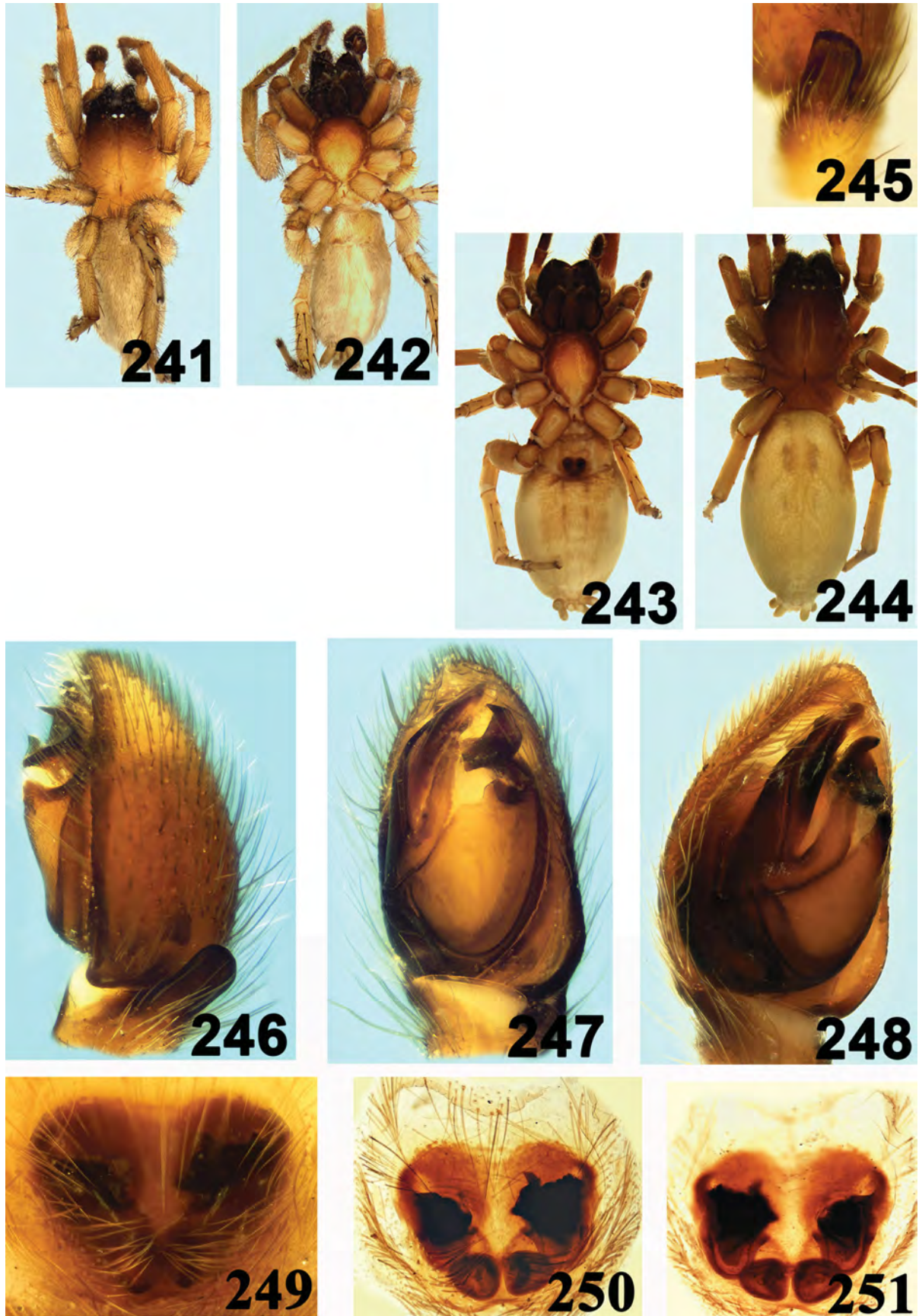
Haplodrassus mediterraneus Levy, 2004: 28, figs 66–69 (♂♀); Seyyar 2011: 126, figs 1–6 (♂♀).

Types: Holotype ♂, ♀ paratype from Israel, Sede Boqer, 6.I.1990, Y. Lubin leg.; HUJ, not examined.

Material examined. JORDAN, *Al Karak*: Sjhawbak castle (N30°31'56" E35°33'39"), 1♂, stones on slope to the castle, 17.XI.2007, R. Bosmans leg. (CRB), *Madaba*: El Alia airport W. (N31°43'21" E35°59'5"), 1♂, under stones, 12.XI.2007, R. Bosmans leg. (CRB). "SYRIA", without precise locality, 1♂ 1♀, C. Piochard de La Brûlerie leg., Coll. Simon 12885 (MNHN AR15690). LEBANON, *Béqaa*, Qoussaya, 1♂ 1♀, pitfalls, 8–15.XI.1983, F. Assi leg. (MNHN Coll. Ledoux).

Diagnosis and description. See Levy (2004).

Distribution. Israel (Levy 2004), Turkey (Seyyar 2011) and here recorded for the first time in Jordan, Lebanon and Syria.



FIGURES 241–251. *Haplodrassus mediterraneus* (Syria). 241. Male, dorsal aspect; 242. Idem, ventral aspect; 243. Female, dorsal aspect; 244. Idem, ventral aspect; 245. Male palpal tibia, dorsolateral view; 246. Male palp, retrolateral view; 247. Idem, ventral view; 248. Idem, prolateral view; 249. Epigyne, ventral view; 250. Vulva, ventral view; 251. Vulva, dorsal view.

Haplodrassus minor (O.P.-Cambridge, 1879)

Figs 252–256

Drassus minor O.P.-Cambridge, 1879: 192 (♀).

Haplodrassus minor: Grimm 1985: 144, figs 176–178 (♂♀); Kovblyuk *et al.* 2012: 43–49, 52–65 (♂♀).

Types: 1 ♀, 2 immature ♀ syntypes of *Drassus minor* from United Kingdom, Dorset, Portland, Chesil Beach, 6.VI.1879; not examined.

Material examined. FRANCE, *Haute-Corse*: Etang de Biguglia near Borgo (N42°38'23" E9°26'39"), 15m, 4♂, pitfalls in *Phragmites* stand bordering the lake, 28.V.1995, R. Bosmans leg. (CRB). GREECE, *Attiki*, Rhamnous W. (N38°13'24" E24°1'37"), 50m, 1♀, stones in maquis, 8.V.2001, R. Bosmans leg. (CRB).

Diagnosis and description. See Kovblyuk *et al.* 2012.

Distribution. Central and southern Europe, but not yet found in Spain, Belgium, the Netherlands, Bosnia-Herzegovina, Albania, FYR Macedonia and Turkey (Nentwig *et al.* 2017). It is rarely captured and mentioned here for the first time in France.

Haplodrassus orientalis (L. Koch, 1866), comb. n.

Figs 262–270

Drassus orientalis L. Koch, 1866: 106, pl. 6 fig. 68 (♀).

Haplodrassus isaevi Ponomarev & Tsvetkov, 2006: 9, figs 12–14 (♂♀); Piterkina & Ovtsharenko 2007: 1426, figs 1–6 (♂♀);

Kovblyuk *et al.* 2012: 70 (♂♀), **syn. n.**

Types: Holotype ♀ of *Drassus orientalis* from Russia, Volgogradskaya Oblast, labelled “Sarepta (=Volgograd), 1890 7.1 788–789, Keyserling leg.”; NHML, examined. Holotype ♂, 3♂ 1♀ paratypes of *Haplodrassus isaevi* from Russia, Orlovsky, Rostov reserve, 6.X.2002, A.V. Ponomarev leg.; deposited in SSCR and TNU; examined by Kovblyuk & Tsvetkov (2006).

Diagnosis and description. See Kovblyuk *et al.* 2012, as *H. isaevi*.

Remarks. *Haplodrassus orientalis* is a forgotten species described in 1866 from the Russian Federation. It has never been mentioned since. The type material could be examined and be compared with material of *Haplodrassus isaevi* Ponomarev & Tsvetkov, 2006 collected by us in Greece. Photos of the holotype female of *Haplodrassus orientalis* and the female from Greece are given in Figs 262–270. The shape and the relative dimensions of the hood, the fovea and the areola are the same and *H. isaevi* is therefore considered a junior synonym of *H. orientalis*. The type localities of *Haplodrassus orientalis* and *H. isaevi* are about 390 km apart.

Material examined. GREECE, *Stereia Elada*, Voiotia, between Kiriaki and Agia Anna, Oros Elikonas (N38°20'20" E22°49'49"), 1000m, 2♀, stones in *Abies* forest, 28.X.1999, R. Bosmans leg. (CRB).

Distribution. First described from the Rostov Area in the Russian Federation (L. Koch 1866), and further mentioned from West Kazakhstan ((Piterkina & Ovtsharenko 2007), Ukraine (Crimea) (Kovblyuk *et al.* 2012), and the north of Greece (Macedonia) (Van Keer *et al.* 2010). A second locality in Central Greece is presented here.

Haplodrassus ponomarevi Kovblyuk & Seyyar, 2009

Figs 257–261

Haplodrassus ponomarevi Kovblyuk & Seyyar, in Kovblyuk *et al.*, 2009: 177, figs 51–62 (♂♀).

Types: ♂ holotype from Turkey, Adana, Saembeyli, Obruk waterfall, 1♂ 1♀ paratype from Turkey, Adana, Aladag, Meydan Plateau; NUAM; not examined.

Material examined. GREECE: *Peloponnisos*, Achaia, Mesorougi (N38°1'10" E22°14'18"), 1200m, 1♂, stones on abandoned terraces along river Styx, 13.IV.2000, R. Bosmans leg. (CRB).

Diagnosis and description. See Kovblyuk *et al.* (2009).

Distribution. Until now, this species was only known from the Adana province in the Asian part of Turkey (Kovblyuk *et al.* 2009). It is here cited for the first time in Greece and Europe.



FIGURES 252–261. Figs 252–256. *Haplodrassus minor* (France, Etang de Biguglia). 252. Male, dorsal aspect; 253. Male palp, retrolateral view; 254. Idem, ventral view; 255. Idem, prolateral view; 256. Male palpal tibia, dorsolateral view. Figs 257–261. *Haplodrassus ponomarevi* (Greece, Mesorougi). 257. Male, dorsal aspect; 258. Male palp, retrolateral view; 259. Idem, ventral view; 260. Idem, prolateral view. 261. Male palpal tibia, dorsolateral view.



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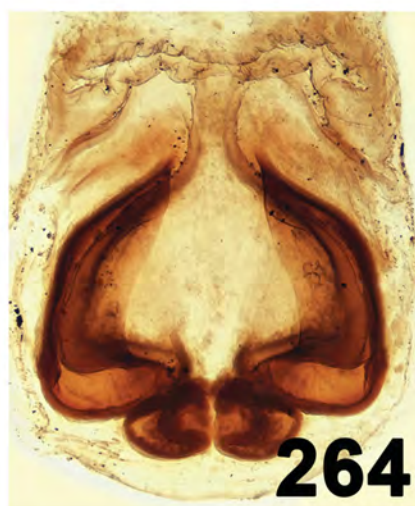
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FIGURES 262–270. *Haplodrassus orientalis*. Figs 262–265. Holotype female. 262. Female, dorsal aspect; 263. Epigyne, ventral view; 264. Vulva, ventral view; 265. Idem, dorsal view. Figs 266–270. Female (Greece, Oros Elikonas). 266. Female, dorsal aspect; 267. Idem, ventral aspect; 268. Epigyne, ventral view; 269. Vulva, ventral view; 270. Idem, dorsal view.

***Haplodrassus pugnans* (Simon, 1880)**

Drassus pugnans Simon, 1880: 118, pl. 3 figs 20–21 (♂♀).

Haplodrassus pugnans: Levy 2004: 20, figs 53–56; Kovblyuk *et al.* 2012: 64, figs 7–9, 13–14.

Types: 2♂ and 1♀ syntypes from China, Beijing, V. Collin de Plancy leg., Coll. Simon 363 (MNHN AR12808); MNHN, examined. The excellent description of Kovblyuk *et al.* (2012) corresponds clearly with the syntypes.

Diagnosis and description. See Kovblyuk *et al.* (2012).

Distribution. From Israel in the West to China and Japan in the East.

***Haplodrassus umbratilis* (L. Koch, 1866)**

Drassus umbratilis L. Koch, 1866: 113, pl. 5, fig. 71 (♀).

Haplodrassus umbratilis: Grimm 1985: 156, figs 150, 158–159; Kovblyuk *et al.* 2012: 84, figs 79–83.

Types: Females syntypes from Germany, Bavaria, Nürnberg; not examined, deposition unknown.

Material examined. SPAIN, *Gerona*, Collada de Tosas (N42°19'50" E2°2'10"), 1800m, 1♂ 1♀, pitfalls in *Pinus* forest, 10.VII.1991, R. Bosmans leg. (CRB).

Description. See Kovblyuk *et al.* (2012).

Distribution. Europe, Turkey, Caucasus, South Siberia (Kovblyuk *et al.* 2012).

Conclusions

Totally, 14 *Haplodrassus* species appear to occur in the Maghreb. Six are new to science: *H. dentifer* Bosmans & Abrous, **sp. n.**, *H. longivulva* Bosmans & Hervé, **sp. n.**, *H. lyndae* Abrous & Bosmans, **sp. n.**, *H. ovatus* Bosmans & Hervé, **sp. n.**, *H. securifer* Bosmans & Abrous, **sp. n.** and *H. triangularis* Bosmans, **sp. n.** Three of them, *H. dentifer* Bosmans & Abrous, **sp. n.**, *H. lyndae* Abrous & Bosmans, **sp. n.** and *H. securifer* Bosmans & Abrous **sp. n.** are not limited to the Maghreb, but occur in Europe as well. *H. longivulva* Bosmans & Hervé, **sp. n.**, *H. ovatus* Bosmans & Hervé, **sp. n.** and *H. triangularis* Bosmans, **sp. n.** appear to be restricted to the Maghreb. *Haplodrassus crassipes*, until now considered a *species inquirenda*, appears to be one of the commonest species in the Maghreb, previously erroneously identified as *H. macellinus*. *Haplodrassus omissus* is the sister species of *H. dalmatensis* and appears to have a circum-Mediterranean distribution. Not all *Haplodrassus* material of the Maghreb could be identified to species level. We prefer to leave some females with unknown males undescribed. The Mediterranean part of Europe also appeared to be insufficiently studied. The first pictures of *Haplodrassus macellinus* finally fixes the status of this species.

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