

SALVATORE BELLA

CONTRIBUTION TO THE KNOWLEDGE OF THE PTEROPHORIDAE
FROM PANTANO LONGARINI (SOUTH-EASTERN SICILY)
(*Lepidoptera*)

RIASSUNTO

L'Autore rende noti i risultati di due anni di ricerche sui Lepidotteri Pterophoridae del Pantano Longarini (Sicilia sud-orientale). Vengono citate 13 specie, di cui 2, *Agdistis hartigi* Arenberger, 1973 e *Agdistis protai* Arenberger, 1973, sono nuove per la fauna siciliana.

SUMMARY

The Pterophoridae from Pantano Longarini (South-eastern Sicily) (Lepidoptera). The author report the results of a two-year field research on Lepidoptera Pterophoridae from Pantano Longarini (Sicily). Thirteen species are recognized; two of them, *Agdistis hartigi* Arenberger, 1973 and *Agdistis protai* Arenberger, 1973, are new for Sicilian fauna.

INTRODUCTION

The species of Pterophoridae known for Sicily and circumsicilian islands are 48 over nearly one hundred present in Italy (ARENBERGER *et al.*, 1995; ROMANO & ROMANO, 1995; BELLA & FERRAUTO, 2005; TREMATERRA *et al.*, 2006; BELLA & MARCHESI, 2007). For the Sicilian fauna only one endemic species belonging to the genus *Capperia* Tutt. is known.

The results of a two year field research on Lepidoptera Pterophoridae from Pantano Longarini (South-eastern Sicily), following three previous specific contributions (BALDIZZONE *et al.*, 1999; BASSI *et al.*, 1999; TREMATERRA

et al., 1999), are here reported. The survey was based on monthly observations directly conducted by the author; some specimens collected by dr Ole Karsholt in 2002 and 2006 are also mentioned. To attract the moths 160/250 W ML-lamps were used.

Pantano Longarini (UTM co-ordinates WA0163), is included in the Regional Nature Reserve called “Pantani della Sicilia sud-orientale”; this salt marsh area of 1,358 hectares is situated between Pachino, in the province of Syracuse, and Ispica, in the province of Raguse.

The vegetation of this environment is halophilous and psammophilous (BRULLO & FURNARI, 1971).

In this paper, for each species, collecting date, the bibliographic sources for general and Italian distribution, the diffusion in Sicily, the months or periods of flight of the adult, as well as some notes regarding the biology are provided.

The identification of the material was made through the examination of the genital structures of all specimens. The specimens are stored in the author’s collection.

The systematic account is based on the one followed by ARENBERGER *et al.* (1995) in the Checklist of the species of the Italian fauna.

LIST OF SPECIES

Merrifieldia malacodactyla (Zeller, 1847)

Material examined: 1 ♂, 14.VIII.1996.

Distribution: Canary Islands, Portugal, Spain, France, Corsica, Switzerland, Italy, Malta, Slovenia, Croatia, Bosnia, Montenegro, Serbia, Macedonia, Slovakia, Albania, Poland, Bulgaria, Hungary, Romania, Ukraine, kazakistan, Greece, Crete, Cyprus, Turkey, Israel, Lebanon, Syria, Iraq, Iran, Afghanistan, Arabia, Tunisia, Algeria, Morocco (ARENBERGER, 1995; BIGOT & PICARD, 1996).

Presence in Italy: Piedmont, Lombardy, Veneto, Val d’Aosta, Friuly Venetia-Julia, Trentino-Alto Adige, Tuscany, Latium, Umbria, Abruzzo, Molise, Campania, Lucania, Apulia, Calabria, Sardinia, Sicily.

Biology: larvae feed on *Calamintha nepeta* (L.), *Lavandula stoechas* L., *L. angustifolia* Miller, *L. latifolia* Medicus, *Mentha pulegium* L., *Nepeta nepetella* L., *Origanum vulgare* L., *Rosmarinus officinalis* L., *Thymus herba-barona* Loisel (GIELIS, 1996; TREMATERRA *et al.*, 2006). Adults belonging to different generations are present from April till October.

Hellinsia carphodactyla (Hübner, 1813)

Material examined: 1 ♂, 10.XI.1996.

Distribution: Europe (except for Scandinavia) extending into Asia Minor and North Africa.

Presence in Italy: Piedmont, Friuly Venetia-Julia, Trentino-Alto Adige, Latium, Molise, Lucania, Sicily (PROLA & RACHELI, 1984; TREMATERRA *et al.*, 2006).

Biology: larvae feed on *Inula bifrons* L., *I. conyza* C.D., *I. montana* L., *I. birta* L., *Bupthalamum salicifolium* L., *Carlina vulgaris* L. Adults fly from May to September.

Hellinsia inulae (Zeller, 1852)

Material examined: 1 ♂, 1 ♀, 7.V.1995; 2 ♂♂, 2 ♀♀, 29.X.1995; 2 ♂♂, 28.XI.1995; 1 ♀, 25.III.1996; 1 ♂, 1 ♀, 23.IV.1996; 3 ♂♂, 10.XI.1996.

Distribution: Canary Islands, Portugal, Spain, France, Corsica, Italy, Malta, Austria, Germany, Czech Republic, Slovakia, Croatia, Serbia, Macedonia, Bulgaria, Hungary, Poland, Greece, Crete, Cyprus, Turkey, Lebanon, Israel, Jordan, Uzbekistan, Russia, Libya, Tunisia, Algeria, Morocco (ARENBERGER, 1995; BIGOT & PICARD, 1996).

Presence in Italy: Veneto, Trentino-Alto Adige, Tuscany, Latium, Abruzzo, Lucania, Apulia, Sardinia, Sicily (PROLA & RACHELI, 1984).

Biology: the host-plants are *Inula viscosa* (L.) Ait. (= *Dittrichia v.* (L.) Greut.), *I. britannica* L., *I. salicina* L. (GIELIS, 1996); the larva starts feeding on flower-buds, then eats unripe seeds and it may also enter the stem. Adults fly from March to November.

Stenoptilia arida (Zeller, 1847)

Material examined: 2 ♂♂, 29.X.1995; 1 ♀, 23.IV.1996.

Distribution: Spain, France, Corsica, Italy, Yugoslavia (before 1990), Greece, Crete, Turkey, Egypt, Algeria, Tunisia, Morocco; its presence in Austria, Switzerland, Albania, Bulgaria, Hungary, Canary Islands and Balearic Islands needs confirmation for the great confusion between this taxon and other *Stenoptilia* Hb., such as *S. bipuntidactyla* (Scopoli, 1763) and *S. grisescens* Schawerda, 1933.

Presence in Italy: the presence in Liguria, Trentino-Alto Adige, Sardinia, Sicily is certain (PROLA & RACHELI, 1984), while its diffusion in other regions needs to be investigated.

Biology: larvae feed on *Succisa pratensis* Moench, *Erinus alpinus* L., *Chaenorbinum origanifolia* (L.) Fourr. (= *Linaria o.* DC.), *Antirrhinum oruntium* L. (= *Misopates o.* (L.) Rafin.), *Coris monspeliensis* L., etc. (GIELIS, 1996). Adults fly from April to October.

Stenoptilia zophodactyla (Duponchel, 1840)

Material examined: 1 ♂, 29.X.1995.

Distribution: Western, Central and South-East Europe, the Mediterranean area extending into Asia Minor and North Africa; moreover South Africa, India, Australia and Neotropical and Nearctic regions.

Presence in Italy: Veneto, Tuscany, Latium, Abruzzo, Lucania, Apulia, Sardinia, Sicily.

Biology: the host-plants are *Centaureum erythraea* Rafn. (= *C. minus* Mönch), *C. umbellatum* Gilib., *C. littoralis* (D. Turner), *Blackstonia perfoliata* (L.) Hudson, *Gentianella germanica* Willd., *Erythraea venusta* A. Gray. The larva feeds on the flowers and seeds of these plants, the moth flies in Europe from April to November.

Amblyptilia acanthadactyla (Hübner, 1813)

Material examined: 1 ♀, 23.IV.1996.

Distribution: Europe, North Africa, Asia Minor, North America.

Presence in Italy: Lombardy, Piedmont, Veneto, Trentino-Alto Adige, Emilia Romagna, Tuscany, Latium, Abruzzo, Molise, Lucania, Apulia, Calabria, Sardinia, Sicily.

Biology: larva polyphagous on young leaves and flowers of *Teucrium scorodonia* L., *Calluna*

vulgaris L., *Erica tetralix* L., *Geranium robertianum* L., *Lavandula stoechas* L., *Vaccinium oxycoccus* L., *Calamintha nepeta* (L.) Savi, *Stachys* spp., *Ononis* spp., *Mentha* sp., *Salvia* sp., *Euphrasia* sp., *Bartsia* sp., *Chenopodium* sp., *Carlina* sp., *Jurinea* sp., etc. (GIELIS, 1996). Adults belonging to different generations are present from April till November.

Agdistis frankeniae (Zeller, 1847)

Material examined: 1 ex., 12.IX.2002, O. Karsholt et coll. leg.

Distribution: Canary Islands, Balearic Islands, Portugal, Spain, France, Corsica, Italy, Malta, Albania, Greece, Crete, Poland, Romania, Bulgaria, Russia, kazakistan, Cyprus, Turkey, Israel, Jordan, Iran, Arabia, Tunisia, Algeria, Libya, Morocco, Egypt.

Presence in Italy: Tuscany, Apulia, Sardinia, Sicily.

Biology: host-plants are *Frankenia* spp., and *Limonium minutum* (L.) Fourr. Adults fly from April to September.

Agdistis hartigi Arenberger, 1973

Material examined: 1 ♂, 28.VIII.1995 (Fig. 1); 1 ex., 12.IX.2002, O. Karsholt et coll. leg.

Distribution: Southern Spain, Italy, Greece, Tunisia (ARENBERGER, 1995; GIELIS, 1996).

Presence in Italy: Sardinia.

Biology: host-plant unknown; adults fly in June-July and September-October.

Remarks. Species new for Sicilian fauna.



Fig. 1 — *Agdistis hartigi* Arenberger: male genitalia (aedeagus removed), slide 37, S. Bella Lepidoptera Collection (Sicily, Pantano Longarini, 28.VIII.1995, S. Bella leg.).

Agdistis melitensis Amsel, 1954

Material examined: 1 ♂, 5 ♀♀, 7.V.1995; 3 ♂♂, 2 ♀♀, 4.VI.1995; 2 ♂♂, 3 ♀♀, 6.VII.1995; 1 ♀, 1.VIII.1995; 1 ♀, 17.XII.1995; 1 ♂, 18.V.1996; 2 ♀♀, 15.VI.1996; 1 ♀, 20.VII.1996; 1 ♂, 2 ♀♀, 7.VIII.1996 (e. l.); 1 ♀, 10.XI.1996; 1 ex., 12.IX.2002, O. Karsholt et coll. leg.

Distribution: Spain, Italy, Malta, Tunisia.

Presence in Italy: Sardinia, Tuscany, Latium (PROLA & RACHELI, 1984; BIGOT & PICARD, 1996); only recently recorded from Sicily (TREMATERRA *et al.*, 2006).

Biology: host-plant unknown; in the Pantano Longarini some larvae were found feeding on leaves of *Inula crithmoides* L. (Compositae). Adults fly in May-June and September-October.

Remarks. Interesting findings during winter months.

Agdistis meridionalis (Zeller, 1847)

Material examined: 7 ♂♂, 1 ♀, 7.V.1995; 4 ♂♂, 3 ♀♀, 4.VI.1995; 1 ♂, 1 ♀, 6.VII.1995; 1 ♂, 2 ♀♀, 1.VIII.1995; 1 ♂, 29.X.1995; 1 ♀, 28.XI.1995; 1 ♂, 3 ♀♀, 17.XII.1995; 1 ♂, 23.IV.1996; 1 ♀, 18.V.1996; 1 ♂, 1 ♀, 15.VI.1996; 1 ♂, 1 ♀, 20.VII.1996; 1 ♂, 1 ♀, 14.VIII. 1996; 1 ♀, 15.IX.1996; 2 ♂♂, 2 ♀♀, 10.XI.1996; 1 ♂, 12.I.1997; 1 ♀, 6.VII.1997.

Distribution: Great Britain, Canary Islands, Portugal, Spain, France, Corsica, Italy, Croatia, Albania, Romania, Greece, Cyprus, Turkey, Tunisia, Algeria, Morocco (ARENBERGER, 1995; BIGOT & PICARD, 1996).

Presence in Italy: Friuli Venetia-Julia, Tuscany, Latium, Apulia, Sardinia, Sicily (PROLA & RACHELI, 1984; TREMATERRA *et al.*, 2006).

Biology: larvae feed on *Limonium serotinum* (Rchb.) Pign., *L. binervosum* (G.E.Sm.) Salmon., *L. obtusifolium* (Rouy) Erben, *L. virgatum* (Willd.) Fourr., *L. cordatum* Miller, *L. pontium* Pign. (PROLA & RACHELI, 1984; GIELIS, 1996). Adults fly from April till September.

Remarks. Interesting findings during winter months.

Agdistis paralia (Zeller, 1847)

Material examined: 3 ♂♂, 1 ♀, 7.V.1995; 2 ♀♀, 4.VI.1995; 3 ♀♀, 6.VII.1995; 1 ♂, 1 ♀, 1.VIII.1995; 1 ♀, 28.VIII.1995; 1 ♀, 24.IX.1995; 1 ♀, 29.X.1995; 2 ♀♀, 14.VIII.1996; 1 ♂, 15.IX.1996; 1 ex., 24.IV.2006, O. Karsholt et coll. leg.

Distribution: Spain, France, Italy, Malta, Greece, Israel, Turkmenistan, Tunisia, Algeria, Morocco (ARENBERGER, 1995; GIELIS, 1996).

Presence in Italy: Sardinia, Sicily.

Biology: larvae feed on *Limonium serotinum* (Rchb.) Pign. and *L. densissimum* (Pign.) Pign. Adults fly from April till September.

Agdistis protai Arenberger, 1973

Material examined: 1 ♀, 6.VII.1995 (Fig. 2).

Distribution: Italy, Cyprus, Turkey.

Presence in Italy: Tuscany, Sardinia.

Biology: host-plant unknown. Adults fly in July and August.

Remarks. Species new for Sicilian fauna.

Agdistis satanas Millière, 1875

Material examined: 1 ♀, 15.VI.1996; 1 ex., 12.IX.2002, O. Karsholt et coll. leg.

Distribution: Balearic Islands, Portugal, Spain, France, Corsica, Italy, Malta, Germany, Alba-

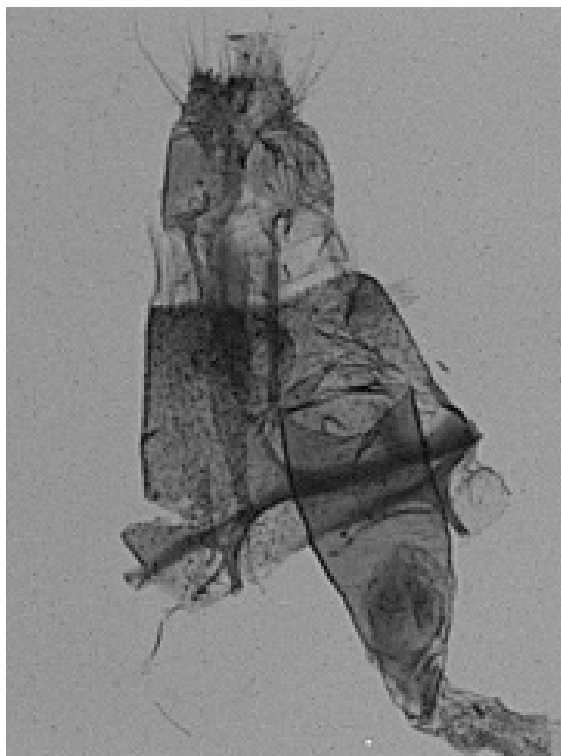


Fig. 2 — *Agdistis protai* Arenberger: female genitalia, slide 44, S. Bella Lepidoptera Collection (Sicily, Pantano Longarini, 6.VII.1995, S. Bella leg.).

nia, Romania, Bulgaria, Greece, Crete, Turkey, Israel, Algeria, Tunisia, Libya, Morocco (ARENBERGER, 1995; BIGOT & PICARD, 1996).

Presence in Italy: Piedmont, Val d'Aosta, Latium, Apulia, Sardinia, Sicily.

Biology: larvae feed on *Scabiosa candicans* Jordan, *S. pyrenaica* All., *Scleranthus* sp., and *Limonium monopetalum* (L.) Boissier (GIELIS, 1996). Adults fly from April till September.

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Author's address — S. BELLA, PhD student, Dipartimento di Scienze e Tecnologie Fitosanitarie (Di.S.Te.F.). Università di Catania. Via S. Sofia, 100 - 95123 Catania (I); e-mail: sbella@unict.it

