

# Diversity of the Macrolepidoptera from a “Bosco Palazzi” area in a woodland of *Quercus trojana* Webb., in southeastern Murgia (Apulia region, Italy) (Insecta: Lepidoptera)

S. Bella, P. Parenzan & P. Russo

## Abstract

This study summarises the known records of the Macrolepidoptera species of the “Bosco Palazzi” area near the municipality of Putignano (Apulia region) in the Murgia mountains in southern Italy. The list of species is based on historical bibliographic data along with new material collected by other entomologists in the last few decades. A total of 207 species belonging to the families Cossidae (3 species), Drepanidae (4 species), Lasiocampidae (7 species), Limacodidae (1 species), Saturniidae (2 species), Sphingidae (5 species), Brahmaeidae (1 species), Geometridae (55 species), Notodontidae (5 species), Nolidae (3 species), Euteliidae (1 species), Noctuidae (96 species), and Erebidae (24 species) were identified. *Cyclophora quercimontaria* (Bastelberger, 1897) (Geometridae) is reported for the first time from Apulia region and in southern Italy. With this research, the authors highlight the importance of conservation of the remaining areas wooded with *Quercus trojana* Webb. in southern Italy.

KEY WORDS: Insecta, Lepidoptera, *Quercus trojana*, faunistics, conservation, Apulia region, Italy.

**Diversità dei Macrolepidotteri dell’area di “Bosco Palazzi”, foresta a *Quercus trojana* Webb.  
nelle Murge di sud-est (regione Apulia, Italia)  
(Insecta: Lepidoptera)**

## Riassunto

Nel presente lavoro vengono riassunte le conoscenze sui Macrolepidotteri dell’area denominata “Bosco Palazzi”, nel comune di Putignano (Bari, regione Apulia), nel complesso montuoso delle Murge, in Italia meridionale. Sono stati accorpati e studiati i dati storici desunti dalla bibliografia, con quelli di nuovo materiale proveniente da raccolte effettuate nell’area nelle ultime decadi. In totale sono state rinvenute 207 specie, appartenenti alle famiglie: Cossidae (3 specie), Drepanidae (4 specie), Lasiocampidae (7 specie), Limacodidae (1 specie), Saturniidae (2 specie), Sphingidae (5 specie), Brahmaeidae (1 specie), Geometridae (55 specie), Notodontidae (5 specie), Nolidae (3 specie), Euteliidae (1 specie), Noctuidae (96 specie), ed Erebidae (24 specie). *Cyclophora quercimontaria* (Bastelberger, 1897) (Geometridae) è segnalata per la prima volta in Apulia e in Italia meridionale. Questa ricerca evidenzia l’interesse dell’ecosistema studiato e l’importanza della conservazione delle aree rimanenti boschive con *Quercus trojana* Webb. in Italia meridionale.

PAROLE CHIAVE: Insecta, Lepidoptera, *Quercus trojana*, faunistica, conservazione, regione Apulia, Italia.

**Diversidad de los Macrolepidópteros del área de “Bosco Palazzi” en un bosque de *Quercus trojana* Webb.,  
en el sudeste de Murgia (región de Apulia, Italia)  
(Insecta: Lepidoptera)**

## Resumen

Este estudio resume los registros conocidos de los Macrolepidópteros del “Bosco Palazzi” área cercana de la municipalidad de Putignano (región de Apulia) en las montañas de Murgia en el sur de Italia. La lista de especies está basada en los datos bibliográficos históricos, al mismo tiempo con el nuevo material colectado por otros entomólogos en

las últimas décadas. Se identificaron un total de 207 especies pertenecientes a las familias Cossidae (3 especies), Drepanidae (4 especies), Lasiocampidae (7 especies), Limacodidae (1 especie), Saturniidae (2 especies), Sphingidae (5 especies), Brahmaeidae (1 especies), Geometridae (55 especies), Notodontidae (5 especies), Nolidae (3 especies), Euteliidae (1 especie), Noctuidae (96 especies) y Erebidae (24 especies). *Cyclophora quercimontaria* (Bastelberger, 1897) (Geometridae) se cita por primera vez de la región de Apulia y en sur de Italia. Los autores, tienen la esperanza de que esta investigación colaborará en la protección del medio ambiente de las áreas arboladas con *Quercus trojana* Webb. en el sur de Italia.

**PALABRAS CLAVE:** Insecta, Lepidoptera, *Quercus trojana*, faunística, conservacion, región de Apulia, Italia.

## Introduction

This research was carried out as part of a larger project for a better understanding of the faunistics, zoogeography, and distribution of the Lepidoptera of southeastern Italy. The fauna of the Apulia region is of considerable interest for its paleogeographic history and its position next to the Balkan Peninsula. In this paper, we summarised the knowledge of the Macrolepidoptera Heterocera species of the “Bosco Palazzi”, an interesting area in the Apulia region in southern Italy, for the presence of *Quercus trojana* Webb. woodland.

The Macedonian oak *Quercus trojana* is native to southeastern Europe and southwestern Asia, from southeastern Italy through the southern Balkans towards western Turkey. In Italy, the Macedonian oak, Fragno in Italian, is present only in two very limited areas, in the Apulia and Basilicata regions on limestone hills in the Murge mountains (FRANCINI-CORTI, 1967). This species grows on land with particularly thermophilic conditions, and presence in the southeastern Italy is the result of the gradual withdrawal of the species during the last ice age from a much larger territory (BOZZANO & TUROK, 2002). Protection of habitats with the Italian populations of *Q. trojana* is still insufficient, and we strongly suggest concrete future actions by the local administration for the conservation of the species.

Due to the research on Lepidoptera carried out in Apulia by the second author in the last three decades, the knowledge of Heterocera has increased significantly (PARENZAN, 1994, 1995, 2002; PARENZAN & SCALERCIO, 1996; PARENZAN & PORCELLI, 2007; PARENZAN *et al.*, 2006), even though many aspects are certainly yet to be discovered.

## Materials and methods

Samplings were carried out in the Apulia region (southern Italy), in a *Quercus trojana* woodland, the Bosco Palazzi, in the municipality of Putignano, in Bari province, 380 m a.s.l.

The list of species is based on material collected in the years 1985-1987, historical bibliographic data and data ineditis.

Moths were collected at mercury light traps (160 W), positioned approximately 1.50 m above the ground. The data have been compared with available published records of regional presence. The bibliographic data on the moths included in this study are those referring to the site called “Bosco Petruzzi”, adjacent to “Bosco Palazzi”. Species were identified based on the morphology of adults and when necessary on an examination of the genitalia. Reported specimens are stored in the author’s collection. In each species the number of specimens collected/observed is reported in brackets. The presence/absence in the different months of the year, bibliographic sources for the Italian distributions, and the occurrence in Apulia are included for the most interesting species. The treatment of families and nomenclature follow van NIEUKERKEN *et al.* (2011), that of the Noctuoidea follow ZAHIRI *et al.* (2011, 2012); the species are listed in alphabetical order (KARSHOLT & NIEUKERKEN, 2013).

## Results

### List of species

Clade Macroheterocera Chapman, 1893

Superfamily Coccoidea Mosher, 1916

Family Cossidae Leach, 1815

Subfamily Cossinae Leach, 1815

*Cossus cossus* (Linnaeus, 1758)

New records: 11-14-VII-1986 (2).

*Parahypopota caestrum* (Hübner, 1808)

New records: 17-21-IX-1985 (1); 6-10-VI-1986 (4), 16-22-VI-1986 (3), 13-16-IX-1986 (1); 21-22-VI-1987 (1), 3-7-VII-1987 (4), 12-16-VII-1987 (3), 17-19-VII-1987 (1), 20-22-VII-1987 (1).

Subfamily Zeuzerinae Boisduval, 1828

*Zeuzera pyrina* (Linnaeus, 1761)

New records: 14-15-VI-1985 (1), 2-4-VII-1985 (1), 19-21-VII-1985 (1), 26-29-VII-1985 (1), 10-12-VIII-1985 (4), 13-15-VIII-1985 (1); 16-22-VI-1986 (1), 23-27-VI-1986 (2), 11-14-VII-1986 (1), 28-VI-2-VII-1986 (2); 3-4-VI-1987 (3), 12-16-VII-1987 (8), 17-19-VII-1987 (1).

Superfamily Drepanoidea Boisduval, 1828

Family Drepanidae Boisduval, 1828

Subfamily Drepaninae Boisduval, 1828

*Cilix glauacata* (Scopoli, 1763)

New records: 2-4-VII-1985 (2), 19-21-VII-1985 (1), 13-16-IX-1985 (1); 27-IV-2-V-1986 (1), 6-10-VI-1986 (5), 23-27-VI-1986 (2), 11-14-VII-1986 (2), 8-12-IX-1986 (1), 17-19-IX-1986 (1); 24-30-V-1987 (1), 3-7-VII-1987 (2).

*Watsonalla uncinula* (Borkhausen, 1790)

New records: 11-14-VII-1986 (3).

Subfamily Thyatirinae Smith, 1893

*Cymatophorina diluta* (Denis & Schiffermüller, 1775)

IX-X-1985; IX-X-1986 (Parenzan, 1995).

Remark: in Apulia region known only from Quasano, and Bosco Palazzi (Bari province) (PARENZAN, 1995).

*Polyptoca ridens* (Fabricius, 1787)

New records: 24-31-III-1986 (1), 10-IV-1986 (2).

Superfamily Lasiocampoidea Harris, 1841

Family Lasiocampidae Harris, 1841

Subfamily Pinarinae Kirby, 1892

Tribe Pinarini Kirby, 1892

*Pachypasa otus* (Drury, 1773)

22-24-VII-1986 (PARENZAN & PORCELLI, 2007).

Tribe Gastropachini Neumoegen & Dyar, 1893

*Gastropacha quercifolia* (Linnaeus, 1758).

New records: 16-22-VI-1986 (2), 11-14-VII-1986 (4).

Subfamily Lasiocampinae Harris, 1841

*Lasiocampa quercus* (Linnaeus, 1758)

New records: 3-6-IX-1985 (3), 10-12-IX-1985 (1); 8-12-IX-1986 (1).

*Lasiocampa trifolii* (Denis & Schiffermüller, 1775)

17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

New records: 7-9-IX-1985 (2), 10-12-IX-1985 (1), 13-16-IX-1985 (2), 17-21-IX-1985 (1); 8-12-IX-1986 (1), 13-16-IX-1986 (2), 20-24-IX-1986 (3).

Subfamily Malacosomatinae Aurivillius, 1927

*Malacosoma neustria* (Linnaeus, 1758)

5-7-VII-1996 (PARENZAN & PORCELLI, 2007).

New records: 12-13-VI-1985 (83), 18-20-VI-1985 (85), 26-28-VI-1985 (24), 2-4-VII-1985 (2); 6-10-VI-1986 (87), 11-15-VI-1986 (33), 16-22-VI-1986 (96), 23-27-VI-1986 (33), 28-VI-2-VII-1986 (5), 23-25-IX-1986 (25); 1-10-VI-1987 (19), 22-25-VI-1987 (145), 3-7-VII-1987 (78), 12-16-VII-1987 (3), 17-19-VII-1987 (2).

Subfamily Poecilocampinae Tutt, 1902

*Poecilocampa alpina* (Frey & Wullslegel, 1874)

17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

New records: 24-30-XI-1985 (4); 3-11-I-1986 (2), 20-25-I-1986 (2), 27-I-2-II-1986 (1).

*Trichiura crataegi* (Linnaeus, 1758)

8-18-X-1985 (PARENZAN & PORCELLI, 2007).

Superfamily Zygaenoidea Latreille, 1809

Family Limacodidae Duponchel, 1845

Subfamily Limacodinae Duponchel, 1845

*Apoda limacodes* (Hufnagel, 1766)

New records: 22-23-V-1985 (2), 3-4-VI-1985 (3); 6-10-VI-1986 (2), 11-22-VI-1986 (2).

Superfamily Bombycoidea Latreille, 1802

Family Saturniidae Boisduval, 1837

Subfamily Saturniinae Boisduval, 1837

*Saturnia pavoniella* (Scopoli, 1763)

3-IV-1989 (PARENZAN & PORCELLI, 2007).

*Saturnia pyri* (Denis & Schiffermüller, 1775)

New records: 20-21-V-1985 (1); 27-IV-2-V-1986 (2); 24-30-V-1987 (2).

Family Sphingidae Latreille, 1802

Subfamily Sphinginae Latreille, 1802

*Agrius convolvuli* (Linnaeus, 1758)

New records: 10-11-VI-1985 (1); 27-IV-2-V-1986 (6).

Subfamily Macroglossinae Harris, 1839

Tribe Macroglossini Harris, 1839

*Macroglossum stellatarum* (Linnaeus, 1758)

New records: 28-VI-02-VII-1986 (5).

*Hemaris fuciformis* (Linnaeus, 1758)

11-V-1983 (PARENZAN *et al.*, 2006).

Remarks: this is the only locality known for the Apulia region. In Italy it is present in the central-northern regions, and in Calabria, Sicily and Sardinia.

Subfamily Smerinthinae Grote & Robinson, 1865

*Laothoe populi* (Linnaeus, 1758)

New records: 16-17-V-1985 (1), 19-21-VII-1985 (3).

*Marumba quercus* (Denis & Schiffermüller, 1775)

5-7-VII-1996 (PARENZAN & PORCELLI, 2007).

New records: 27-29-V-1985 (2), 10-13-VI-1985 (4), 14-17-VI-1985 (5), 21-22-VI-1985 (1), 26-28-VI-1985 (4); 6-10-VI-1986 (1), 16-22-VI-1986 (2), 23-27-VI-1986 (1), 28-VI-02-VII-1986 (1), 23-25-IX-1986 (2); 03-07-VII-1987 (2), 12-16-VII-1987 (1).

Family Brahmaeidae Swinhoe, 1892

*Lemonia taraxaci* (Denis & Schiffermüller, 1775)

3-13-X-1985; 30-IX-1986 (PARENZAN & PORCELLI, 2007).

New records: 25-28-IX-1987 (3).

Superfamily Geometroidea Leach, 1815

Family Geometridae Leach, 1815

Subfamily Alsophilinae Herbule, 1962

*Alsophila aescularia* (Denis & Schiffermüller, 1775)

New records: 16-22-II-1986 (3).

Remark: second place of Apulia, known only from Parco delle Pianelle (province of Taranto) (PARENZAN, 1994).

Subfamily Ennominae Duponchel, 1845

Tribe Aspitatini Duponchel, 1845

*Aspitates ochrearia* (Rossi, 1794)

New records: 22-25-VIII-1986 (1), 20-24-IX-1986 (2); 24-30-V-1987 (1).

Tribe Bistonini Pierce, 1914

*Agriopsis bajaria* (Denis & Schiffermüller, 1775)

12-18-I-1986 (PARENZAN, 1994).

*Agriopsis marginaria* (Fabricius, 1777)  
II-1986 (PARENZAN, 1994).

*Apocheima hispidaria* (Denis & Schiffermüller, 1775)  
New records: 16-22-II-1986 (3).

*Apochima flabellaria* (Heeger, 1833)  
8-XII-1985- I-1986 (PARENZAN, 1994).  
New records: 21-XI-4-XII-1985 (2); 27-I-2-II-1986 (1).

*Biston strataria* (Hufnagel, 1767)  
III-1986 (PARENZAN, 1994).

*Erannis defoliaria* (Clerck, 1759)  
15-29-XII-1985 (PARENZAN, 1994).

*Lycia florentina* (Stefanelli, 1882)  
New records: 16-22-II-1986 (2).

Tribe Boarmiini Duponchel, 1845

*Ascotis selenaria* (Denis & Schiffermüller, 1775)  
III-IX (PARENZAN, 1994).

*Menophra japygiaria* (Costa O.G., 1849)  
IV-1986, 6-10, 14-20-XI-1986 (PARENZAN, 1994).

*Peribatodes rhomboidaria* (Denis & Schiffermüller, 1775)  
IV-1986, V-1986; X-1987 (PARENZAN, 1994).  
New records: 26-29-VII-1985 (2); 27-IV-2-V-1986 (6).

*Peribatodes umbraria* (Hübner, 1809)  
V-1985 (PARENZAN, 1994).  
New records: 12-13-V-1985 (2); 25-28-IX-1987 (3).

Tribe Campaeini Herbuleot, 1963

*Campaea honoraria* (Denis & Schiffermüller, 1775)  
New records: 20-21-V-1985 (1); 8-12-IX-1986 (3), 20-24-IX-1986 (1); 3-4-VI-1987 (1), 25-28-IX-1987 (7).

Tribe Ennomini Guenée, 1845

*Ennomos quercaria* (Hübner, 1813)  
VII-1985; VI-1986, IX-1986 (PARENZAN, 1994; FLAMIGNI *et al.*, 2007).  
New records: 26-28-VI-1985 (4), 2-4-VII-1985 (2), 19-21-VII-1985 (1), 6-9-VIII-1985 (1); 11-15-VI-1986 (1), 26-IX-1986 (2); 22-25-VI-1987 (1), 3-7-VII-1987 (9), 20-22-VII-1987 (2).

Tribe Epionini Bruand, 1846

*Opisthograptis luteolata* (Linnaeus, 1758)

V-1986 (PARENZAN, 1994).

New records: 12-13-V-1985 (2), 16-17-V-1985 (1), 3-6-IX-1985 (5), 17-21-IX-1985 (2); 17-19-IX-1986 (1); 24-30-V-1987 (3).

Tribe Gnophini Guenée, 1845

*Gnophos sartata* Treitschke, 1827

IX-1986 (PARENZAN, 1994).

New records: 12-13-VI-1985 (3).

Tribe Gonodontini Forbes, 1948

*Crocallis elinguaria* (Linnaeus, 1758)

X-1987 (PARENZAN, 1994).

*Crocallis tusciaria* (Borkhausen, 1793)

VI-1986, X-1986, 14-20-XI-1986; X-1987 (PARENZAN, 1984; FLAMIGNI *et al.*, 2007).

New records: 21-XI-4-XII-1986 (2).

*Colotois pennaria* (Linnaeus, 1761)

X-1986, XII-1986 (PARENZAN, 1994).

New records: 13-XI-1985 (2), 7-XII-1985 (1); 21-XI-1986 (3), 4-XII-1986 (1).

Tribe Macariini Guenée, 1858

*Enconista spodiaria* (Lefèbvre 1832)

X-1987 (PARENZAN, 1994).

New records: 30-IV-2-V-1985 (3), 16-17-V-1985 (1).

*Heliomata glarearia* (Denis & Schiffermüller, 1775)

VIII-1986 (PARENZAN, 1994).

*Rhoptria asperaria* (Hübner, 1817)

VI-1985, VII-1985; IV-1986, VIII-1986, IX-1986; X-1987 (PARENZAN, 1994).

New records: 5-7-VII-1986 (1), 22-24-VII-1986 (4).

Subfamily Geometrinae Stephens, 1829

Tribe Comostolini Inoue, 1961

*Eucrostes indigenata* (de Villers, 1789)

VIII-1986 (PARENZAN, 1994).

New records: 20-22-VII-1987 (3).

Tribe Pseudoterpnini Warren, 1893

*Pseudoterpnna coronillaria* (Hübner, 1817)

IV-1986, IX-1986 (PARENZAN, 1994).

New records: 16-17-V-1985 (1), 19-21-VII-1985 (2), 26-29-VII-1985 (1), 3-5-VIII-1985 (2); 11-14-VII-1986 (1), 22-24-VII-1986 (1), 7-VIII-1986 (1), 13-IX-1986 (4), 20-24-IX-1986 (1); 24-30-V-1987 (2).

Tribe Thalerini Herbuleot, 1963

*Thalera fimbrialis* (Scopoli, 1763)

New records: 28-VI-2-VII-1986 (3).

Subfamily Larentiinae Duponchel, 1845  
Tribe Cidariini Duponchel, 1845

*Coenotephria ablutaria* (Boisduval, 1840)

IX-X-1986 (PARENZAN, 1994).

*Coenotephria salicata* (Denis & Schiffermüller, 1775)

III-V-VIII-IX-1986 (PARENZAN, 1994).

New records: IV-1986 (3); X-1987 (1), XI-1987 (4).

Tribe Eupitheciini Pierce, 1914

*Eupithecia abbreviata* Stephens, 1831

10-IV-1986 (HAUSMANN & PARENZAN, 1990; PARENZAN, 1994).

Remark: in Apulia region known only from this locality.

*Eupithecia insigniata* (Hübner, 1790)

26-IV-1989 (PARENZAN, 1994).

Tribe Larentiini Duponchel, 1845

*Earophila badiata* (Denis & Schiffermüller, 1775)

8-VIII-1986 (PARENZAN et al., 1998).

*Larentia clavaria* (Haworth, 1809)

17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

Tribe Xanthorhoini Pierce, 1914

*Campptogramma bilineata* (Linnaeus 1758)

New records: 29-31-VII-1986 (1); 20-22-VII-1987 (5).

*Nycterosea obstipata* (Fabricius, 1794)

X-1986 (PARENZAN, 1994).

*Xanthorhoe oxybiata* (Millière, 1872)

11-17-X-1987 (PARENZAN & PORCELLI, 2007).

*Xanthorhoe vidanoi* Parenzan & Hausmann, 1994

X-1987 (PARENZAN, 1994).

Remark: in Apulia region known only from this locality.

Subfamily Sterrhinae Meyrick, 1892  
Tribe Cosymbiini Prout, 1911

*Cyclophora porata* (Linnaeus, 1767)

IV-1986, 30-VI-1986, IX-1986 (PARENZAN, 1994).

New records: 12-13-VI-1985 (1), 2-4-VII-1985 (2); 16-22-VI-1986 (2), 23-27-VI-1986 (3), 28-VI-2-VII-1986 (1); 1-10-VI-1987 (1), 3-7-VII-1987 (2), 8-11-VII-1987 (3), 12-16-VII-1987 (2), 17-19-VII-1987 (2).

*Cyclophora pupillaria* (Hübner, 1799)

IV-1986, VII-1986 (PARENZAN, 1994).

New records: 12-13-V-1985 (1), 16-17-VI-1985 (2), 21-22-VI-1985 (4), 26-28-VI-1985 (19), 2-4-VII-1985 (7), 19-21-VII-1985 (6), 6-9-VIII-1985 (1); 4-5-VII-1986 (1), 11-14-VII-1986 (2), 22-24-VII-1986 (3), 13-16-IX-1986 (1), 23-25-IX-1986 (4); 24-30-V-1987 (1), 1-10-VI-1987 (3), 22-25-VI-1987 (1), 3-7-VII-1987 (7), 8-11-VII-1987 (22), 12-16-VII-1987 (2), 20-22-VII-1987 (3), 25-28-IX-1987 (2).

*Cyclophora quercimontaria* (Bastelberger, 1897)

New records: 23-27-VI-1986 (10); 3-7-VII-1987 (2).

Remark: this is the first record for Apulia region, and southern Italy.

*Cyclophora supunctaria* (Zeller, 1847)

VII-1986, VIII-1986, IX-1986 (PARENZAN, 1994).

Tribe Idaeini Butler, 1881

*Idaea consolidata* (Lederer, 1853)

3-6-VIII-1986 (PARENZAN & HAUSMANN, 1992; PARENZAN, 1994).

Remark: in Apulia region known from Bosco Palazzi, and Serra degli Angeli (Lecce province) (PARENZAN & HAUSMANN, 1992). In southern Italy known only for another record in Calabria region: Tortora (PARENZAN *et al.*, 1999)

*Idaea degeneraria* (Hübner, 1799)

IX-1986 (PARENZAN, 1994).

*Idaea distinctaria* (Boisduval, 1840)

IV-VIII (PARENZAN, 1994).

*Idaea elongaria* (Rambur, 1833)

VII-1986, VIII-1986 (PARENZAN, 1994).

*Idaea filicata* (Hübner, 1799)

VIII-1986, IX-1986 (PARENZAN, 1994).

New records: 20-23-V-1985 (16), 21-22-VI-1985 (1), 3-5-VIII-1985 (1), 10-12-VIII-1985 (3), 26-30-VIII-1985 (19), 3-6-IX-1985 (1), 13-16-IX-1985 (9), 22-25-IX-1985 (11); 27-IV-2-V-1986 (11), 5-7-VII-1986 (1), 29-31-VII-1986 (1), 22-25-VIII-1986 (78), 8-12-IX-1986 (25), 13-16-IX-1986 (3), 20-24-IX-1986 (5); 24-30-V-1987 (56), 3-4-VI-1987 (1), 25-28-IX-1987 (5).

*Idaea infirmaria* (Rambur, 1833)

3-6-VIII-1986 (PARENZAN, 1994).

*Idaea obsoletaria dionigii* Hausmann, 1991

VII-1986, VIII-1986 (PARENZAN, 1994).

*Idaea rusticata* (Denis & Schiffermüller, 1775)

VIII-1986 (PARENZAN, 1994).

New records: 26-28-VI-1985 (1), 19-21-VII-1985 (5); 23-27-VI-1986 (6), 28-VI-2-VII-1986 (1), 11-14-VII-1986 (3), 29-31-VII-1986 (3); 8-11-VII-1987 (2), 17-19-VII-1987 (2), 25-28-IX-1987 (5).

*Idaea seriata* (Schrank, 1802)

18-IV-1987 (as *I. albitorquata* Püngeler, 1909) (PARENZAN, 1988; PARENZAN & HAUSMANN, 1992), VIII-1986, 2-X-1991 (as *I. virgularia* Hübner, 1799) (PARENZAN, 1994). Records of *I. albitorquata* in PARENZAN (1988) must be attributed to *I. seriata* (PARENZAN & HAUSMANN, 1992).

*Idaea subsericeata* (Haworth, 1809)

5-7-VII-1996 (PARENZAN & PORCELLI, 2007).

*Idaea typicata* (Guenée, 1858)

VII-1986, VIII-1986 (PARENZAN, 1994).

New records: 5-7-VII-1996 (2).

Tribe Rhodometrini Agenjo, 1951

*Rhodometra sacraria* (Linnaeus, 1767)

X-1986 (PARENZAN, 1994).

New records: 2-4-VII-1985 (1), 6-9-VIII-1985 (7), 10-12-VIII-1985 (1), 26-30-VIII-1985 (4), 3-6-IX-1985 (3), 17-21-IX-1985 (1), 26-IX-1985 (1); 29-31-VII-1986 (4), 13-16-IX-1986 (7), 13-19-X-1986 (1); 8-11-VII-1987 (1), 25-28-IX-1987 (3).

Tribe Scopulini Herbuleot, 1963

*Scopula decorata* (Denis & Schiffermüller, 1775)

New records: 2-4-VII-1985 (2).

*Scopula imitaria* (Hübner, 1799)

VIII-1993, IX-1993 (PARENZAN, 1994).

*Scopula marginipunctata* (Goeze, 1781)

VII-1986, IX-1986, X-1986 (PARENZAN, 1994).

New records: 5-7-VII-1996 (4).

Superfamily Noctuoidea Latreille, 1809

Family Notodontidae Stephens, 1829

Subfamily Heterocampinae Neumögen & Dyar, 1894

*Harpyia milhauseri* (Fabricius, 1775)

New records: 11-14-VII-1986 (3).

*Spatialia argentina* (Denis & Schiffermüller, 1775)

New records: 13-15-VIII-1985 (1); 28-VI-2-VII-1986 (1).

Subfamily Notodontinae Stephens, 1829

*Cerura vinula* (Linnaeus, 1758)

11-V-1984 (PARENZAN & PORCELLI, 2007).

Subfamily Phalerinae Butler, 1886

*Peridea anceps* (Goeze, 1781)

New records: 26-29-VII-1985 (2); 27-IV-2-V-1986 (3).

*Phalera bucephaloides* (Ochsenheimer, 1810)

New records: 3-7-VII-1987 (5).

Family Nolidae Bruand, 1846

Subfamily Chloephorinae Stainton, 1859

Tribe Nolini Bruand, 1846

*Meganola togatalalis* (Hübner, 1796)

New records: 11-14-VII-1986 (6).

Tribe Chloephorini Stainton, 1859

*Bena bicolorana* (Fuessly, 1775)

New records: 22-25-VIII-1986 (2).

*Pseudoips prasinana* (Linnaeus, 1758)

New records: 22-25-VIII-1986 (2).

Family Euteliidae Grote, 1882

Subfamily Euteliinae Grote, 1882

*Eutelia adulatrix* (Hübner, 1813)

New records: 3-5-VIII-1985 (2).

Family Noctuidae Latreille, 1809

Subfamily Eustrotiinae Grote, 1882

*Metachrostis velox* (Hübner, 1813)

New records: 11-14-VII-1986 (1), 8-12-IX-1986 (3).

Subfamily Plusiinae Boisduval, 1828

Tribe Argyrogrammatini Eichlin & Cunningham, 1978

*Trichoplusia ni* (Hübner, 1803)

New records: 3-7-VII-1987 (3), 12-16-VII-1987 (5).

*Diachrysia chrysitis* (Linnaeus, 1758)

New records: 13-16-IX-1986 (3).

Tribe Plusiini Boisduval, 1828

*Autographa gamma* (Linnaeus, 1758)

8-13-X-1985 (PARENZAN & PORCELLI, 2007).

New records: 26-30-VIII-1985 (9), 3-6-IX-1985 (14); 31-VIII-2-IX-1986 (3), 13-16-IX-1986 (1), 20-24-IX-1986 (2); 24-30-V-1987 (2), 25-28-IX-1987 (7).

Subfamily Acontiinae Guenée, 1841  
Tribe Acontiini Guenée, 1841

*Acontia lucida* (Hufnagel, 1766)

New records: 20-22-VII-1987 (2).

*Acontia trabealis* (Scopoli, 1763)

5-7-VII-1996 (PARENZAN & PORCELLI, 2007).

New records: 18-20-VI-1985 (1), 26-28-VI-1985 (11), 2-4-VII-1985 (2), 19-21-VII-1985 (2), 13-15-VIII-1985 (2), 17-21-IX-1985 (1); 23-27-VI-1986 (1), 22-25-VIII-1986 (2); 8-11-VII-1987 (5), 12-16-VII-1987 (3), 17-19-VII-1987 (10), 20-22-VII-1987 (5).

Subfamily Acronictinae Heinemann, 1959

*Acronicta aceris* (Linnaeus, 1758)

New records: 20-21-V-1985 (10); 27-IV-2-V-1986 (1); 24-30-V-1987 (7).

Subfamily Metaponiinae Herrich-Schäffer, 1851

*Tyta luctuosa* (Denis & Schiffermüller, 1775)

5-7-VII-1986, 22-24-VII-1986, 17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

New records: 27-29-V-1985 (1), 12-15-VI-1985 (4), 16-20-VI-1985 (3), 21-22-VI-1985 (1), 2-4-VII-1985 (2), 19-21-VII-1985 (2), 26-29-VII-1985 (3), 26-30-VIII-1985 (1), 3-6-IX-1985 (1), 7-9-IX-1985 (1), 17-21-IX-1985 (1); 16-22-VI-1986 (1), 23-27-VI-1986 (10), 28-VI-2-VII-1986 (4), 22-25-VIII-1986 (3), 8-12-IX-1986 (5), 13-16-IX-1986 (2), 23-25-IX-1986 (3); 24-30-V-1987 (2), 1-10-VI-1987 (2), 26-28-VI-1987 (2), 3-7-VII-1987 (2), 8-11-VII-1987 (6), 12-16-VII-1987 (5), 17-21-VII-1987 (7).

Subfamily Amphipyrinae Guenée, 1837

Tribe Psaphidini Grote, 1896

*Allophyes corsica* (Spuler, 1905)

28-X-1985, 30-XI-1985; 15-XI-22-XII-1987; 21-XI-1996, 4-XII-1996 (PARENZAN & PORCELLI, 2007).

*Valeria oleagina* (Denis & Schiffermüller, 1775)

New records: 14-15-III-1987 (1).

Subfamily Heliothinae Boisduval, 1829

Tribe Heliothini Boisduval, 1829

*Heliothis peltigera* (Denis & Schiffermüller, 1775)

New records: 27-IV-1986 (2), 23-27-VI-1986 (3); 13-16-IX-1987 (2).

Subfamily Bryophilinae Guenée, 1852

*Bryophila rectilinea* (Warren, 1909)

5-7-VII-1996 (as *Cryphia ravula* Hübner, 1813) (PARENZAN & PORCELLI, 2007).

Remarks: the records of *C. ravula* for central and southern Italy must be attributed to *B. rectilinea* (FIBIGER *et al.*, 2009). This is the only locality known for the Apulia region. In Italy it is present in the central-northern regions, and in Calabria, Sicily, and Sardinia (PARENZAN & PORCELLI, 2007).

*Cryphia ochsi* (Boursin, 1940)

5-7-VII-1986, 22-24-VII-1986 (PARENZAN & PORCELLI, 2007).

*Nyctobrya muralis* (Forster, 1771)

22-24-VII-1986 (PARENZAN & PORCELLI, 2007).

New records: 3-5-VIII-1985 (3), 6-9-VIII-1985 (7), 13-15-VIII-1985 (1); 29-31-VII-1986 (3), 22-25-VIII-1986 (3); 20-22-VII-1987 (1).

Subfamily Noctuinae Latreille, 1809

Tribe Apameini Boisduval, 1828

*Apamea monoglypha* (Hufnagel, 1766)

New records: 12-13-V-1985 (4); 22-25-VIII-1986 (3).

*Gortyna xanthenes* (Germar, 1842)

19-23-X-1985 (PARENZAN & PORCELLI, 2007).

*Luperina dumerili* (Duponchel, 1826)

3-23-X-1985; 17-19-IX-1996 (PARENZAN & PORCELLI, 2007).

New records: 13-16-IX-1986 (6).

*Luperina tiberina* (Sohn-Rethel, 1929)

8-13-X-1985 (as *L. nickerlii* Freyer, 1845) (PARENZAN & SCALERCIO, 1996).

Remark: the reports of *L. nickerlii* for central and southern Italy are to be attributed to *L. tiberina* Sohn-Rethel, 1929 (ZILLI *et al.*, 2005).

*Luperina testacea* (Denis & Schiffermüller, 1775)

17-19-IX-1986 (PARENZAN *et al.*, 2006).

Remark: in Apulia region known only from this locality.

Tribe Caradrinini Boisduval, 1840

*Athetis hospes* (Freyer, 1831)

2-6-IX-1986 (PARENZAN & PORCELLI, 2007).

*Caradrina aspersa* Rambur, 1834

New records: 29-31-VII-1986 (2).

*Caradrina germainii* (Duponchel, 1835)

25-IX-1984 (PARENZAN, 1984).

New records: 12-25-IX-1985 (3), 3-7-X-1985 (1).

Remarks: species from western Mediterranean; in Italy known only for Tuscany, Apulia, Sicily, and Sardinia regions (PARENZAN & PORCELLI, 2008).

*Charanyca trigrammica* (Hufnagel, 1766)

New records: 30-IV-2-V-1985 (10), 12-13-V-1985 (4), 16-17-V-1985 (10), 20-21-V-1985 (1), 7-9-IX-1985 (1); 27-IV-2-V-1986 (9); 24-30-V-1987 (12).

*Hoplodrina ambigua* (Denis & Schiffermüller, 1775)

30-IX-31-X-1985; 17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

Tribe Dypterygiini Forbes, 1954

*Polyphaenis sericata* (Esper, 1787)

5-7-VII-1996 (PARENZAN & PORCELLI, 2007).

New records: 21-22-VI-1985 (2), 26-28-VI-1985 (4), 2-4-VII-1985 (2); 6-10-VI-1986 (1), 16-22-VI-1986 (5), 23-27-VI-1986 (3), 23-25-IX-1986 (2); 1-10-VI-1987 (49), 3-7-VII-1987 (7), 12-16-VII-1987 (5), 17-19-VII-1987 (5), 20-22-VII-1987 (2).

Tribe Episemini Guenée, 1852

*Cleoceris scoriacea* (Esper, 1789)

30-IX-13-X-1984 (PARENZAN, 1984; PARENZAN, 1991).

Remark: in Apulia region known only from this locality.

*Episema glauquina* (Esper, 1789)

3-28-X-1985; 11-17-X-1987 (PARENZAN & PORCELLI, 2007).

Tribe Hadenini Guenée, 1837

*Anarta trifolii* (Hufnagel, 1766)

11-17-X-1987 (PARENZAN & PORCELLI, 2007).

*Conisania luteago* (Denis & Schiffermüller, 1775)

New records: 30-IV-2-V-1985 (1), 12-13-V-1985 (5), 16-17-V-1985 (9), 20-21-V-1985 (5); 27-IV-2-V-1986 (28); 24-30-V-1987 (23).

*Hadena bicruris* (Hufnagel, 1766)

25-IV-1985 (PARENZAN & PORCELLI, 2007).

*Hadena confusa* (Hufnagel, 1766)

New records: 27-IV-2-V-1986 (3), 30-IX-5-X-1986 (7), 13-19-X-1986 (13).

*Hadena magnolii* (Boisduval, 1828)

New records: 30-IV-2-V-1985 (1), 12-13-V-1985 (1), 20-21-V-1985 (2); 27-IV-2-V-1986 (4); 24-30-V-1987 (1).

Tribe Leucaniini Guenée, 1837

*Leucania punctosa* (Treitschke, 1825)

8-13-X-1985 (PARENZAN & SCALERCIO, 1996).

*Leucania putrescens* (Hübner, 1824)

17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

New records: 6-9-VIII-1985 (1), 10-12-VIII-1985 (3), 13-15-VIII-1985 (2), 26-30-VIII-1985 (12), 3-6-IX-1985 (5), 10-15-IX-1985 (6); 22-25-VIII-1986 (12), 31-VIII-2-IX-1986 (3), 8-12-IX-1986 (9), 13-16-IX-1986 (3), 20-24-IX-1986 (8); 25-28-IX-1987 (3).

*Mythimna albipuncta* (Denis & Schiffermüller, 1775)

8-7-VII-1986, 17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

New records: 12-13-V-1985 (1), 20-21-V-1985 (1), 16-17-VI-1985 (2), 26-28-VI-1985 (4); 8-12-IX-1986 (1); 23-25-IX-1986 (5); 1-10-VI-1987 (2), 8-11-VII-1987 (2), 17-19-VII-1987 (1).

*Mythimna ferrago* (Fabricius, 1787)

22-24-VII, 17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

New records: 19-21-VII-1985 (3), 26-29-VII-1985 (2), 3-5-VIII-1985 (3), 6-9-VIII-1985 (8), 10-15-VIII-1985 (11), 26-30-VIII-1985 (1), 3-6-IX-1985 (11), 7-9-IX-1985 (3); 29-31-VII-1986 (8), 22-25-VIII-1986 (3), 8-12-IX-1986 (3), 13-16-IX-1986 (8), 13-19-X-1986 (11); 3-7-VII-1987 (4), 8-11-VII-1987 (2), 12-16-VII-1987 (1).

*Mythimna l-album* (Linnaeus, 1767)

23-IV-1985; 17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

New records: 22-23-V-1985 (2); 30-31-V-1985 (1), 26-28-VI-1985 (1), 2-4-VII-1985 (1), 19-21-VII-1985 (1); 22-25-VIII-1986 (2), 13-16-IX-1986 (2), 23-25-IX-1986 (2); 12-16-VII-1987 (3).

*Mythimna sicula* (Treitschke, 1835)

New records: 23-IV-1985 (3), 26-28-VI-1985 (7), 8-13-X-1985 (2); 23-27-VI-1986 (3), 11-14-VII-1986 (1), 22-25-VIII-1986 (4), 13-16-IX-1986 (3); 24-30-V-1987 (3).

*Mythimna unipuncta* (Haworth, 1809)

24-31-X-1985; 21-XI-4-XII-1996 (PARENZAN & PORCELLI, 2007).

New records: 18-20-VI-1985 (1); 3-7-VII-1987 (1), 17-19-VII-1987 (1).

*Mythimna vitellina* (Hübner, 1808)

New records: 30-IV-2-V-1985 (1), 12-13-V-1985 (3), 16-17-V-1985 (5), 20-23-V-1985 (15), 27-29-V-1985 (2), 30-31-V-1985 (4), 3-4-VI-1985 (1), 14-15-VI-1985 (2), 3-5-VIII-1985 (7), 6-9-VIII-1985 (9), 10-15-VIII-1985 (7), 26-30-VIII-1985 (1), 3-9-IX-1985 (4); 27-IV-2-V-1986 (2), 22-25-VIII-1986 (2); 24-30-V-1987 (15), 29-31-VII-1987 (9).

Tribe Noctuini Latreille, 1809

*Agrotis bigramma* (Esper, 1790)

22-VIII-1985 (sub *A. crassa* Hübner, 1803) (PARENZAN & PORCELLI, 2007).

New records: 3-5-VIII-1985 (1), 10-15-VIII-1985 (22), 26-30-VIII-1985 (15), 3-6-IX-1985 (36), 7-9-IX-1985 (27), 10-12-IX-1985 (11), 17-21-IX-1985 (3); 22-25-VIII-1986 (20), 31-VIII-2-IX-1986 (6), 8-12-IX-1986 (18), 13-16-IX-1986 (1); 25-28-IX-1987 (2).

*Agrotis lata* Treitschke, 1835

20-22-VIII-1985 (PARENZAN, 2002).

New records: 6-9-VIII-1985 (2), 10-12-VIII-1985 (1), 3-6-IX-1985 (6), 13-15-VIII-1985 (7), 26-30-VIII-1985 (15); 22-25-VIII-1986 (1).

*Agrotis epsilon* (Hufnagel, 1766)

New records: 18-20-VI-1985 (2), 6-9-VIII-1985 (2), 26-30-VIII-1985 (2), 3-6-IX-1985 (18), 7-9-IX-1985 (1), 17-21-IX-1985 (1); 6-10-VI-1986 (2), 22-25-VIII-1986 (1), 20-24-IX-1986 (1); 1-10-VI-1987 (1).

*Agrotis puta* (Hübner, 1803)

21-23-IV-1985 (PARENZAN & PORCELLI, 2007).

New records: 21-23-IV-1985 (7), 19-21-VII-1985 (4).

*Agrotis segetum* (Denis & Schiffermüller, 1775)

New records: 3-5-VIII-1985 (3).

*Cerastis faceta* (Treitschke, 1835)

New records: 13-19-X-1986 (3).

*Cerastis rubricosa* (Denis & Schiffermüller, 1775)

New records: 24-31-III-1986 (2).

*Epilecta linogrisea* (Denis & Schiffermüller, 1775)

New records: 19-21-VII-1985 (2).

*Euxoa temera* (Hübner, 1808)

18-IX-1985, 8-13-X-1985; 17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

*Noctua comes* (Hübner, 1813)

14-18-X-1985 (PARENZAN & PORCELLI, 2007).

New records: 6-10-VI-1985 (5); 20-24-IX-1986 (4), 23-25-IX-1986 (7).

*Noctua janthina* (Denis & Schiffermüller, 1775)

New records: 26-28-VI-1985 (3), 19-21-VII-1985 (1); 6-9-VIII-1987 (1).

*Noctua pronuba* (Linnaeus, 1758)

30-IX-23-XI-1985; 17-19-IX-1986; VI-1976; 4-VI-1992; 18-24-IX-1992; 16-VI-1999 (PARENZAN & PORCELLI, 2007).

New records: 14-15-VI-1985 (1), 7-12-IX-1985 (4), 17-21-IX-1985 (5), 22-25-IX-1985 (4); 6-10-VI-1986 (2), 8-12-IX-1986 (1), 13-16-IX-1986 (2), 25-29-IX-1986 (3), 13-19-X-1986 (5); 24-30-V-1987 (1), 25-28-IX-1987 (1), 9-14-XI-1987 (1).

*Noctua tirrenica* Biebinger, Speidel & Hanigk, 1983

28-VI, 25-IX-1984 (PARENZAN, 1984; ZILLI, 2007); 30-IX-3-X-1985 (PARENZAN & PORCELLI, 2007).

New records: 3-7-VII-1987 (2).

*Peridroma saucia* (Hübner, 1808)

New records: 2-4-VII-1985 (3); 13-16-IX-1986 (2); 9-14-XI-1987 (2).

*Xestia c-nigrum* (Linnaeus, 1758)

New records: 3-6-IX-1985 (3).

*Xestia castanea* (Esper, 1798)

3-18-X-1985; 30-IX-23-X (PARENZAN & SCALERCIO, 1996; ZILLI, 2007).

*Xestia xanthographa* (Denis & Schiffermüller, 1775)

21-IX-31-X-1985; 17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

Tribe Orthosiini Guenée, 1837

*Egira conspicillaris* (Linnaeus, 1758)

21-23-IV-1985 (PARENZAN & PORCELLI, 2007).

*Orthosia cruda* (Denis & Schiffermüller, 1775)

New records: 24-31-III-1986 (2), 10-IV-1986 (3).

*Orthosia gothica* (Linnaeus, 1766)

New records: 16-22-II-1986 (5).

*Orthosia miniosa* (Denis & Schiffermüller, 1775)

24-31-III-1986 (PARENZAN & PORCELLI, 2007).

New records: 11-15-VI-1986 (1).

*Orthosia cerasi* (Fabricius, 1775)

New records: 26-IX-1986 (8).

*Perigrapha rorida* (Frivaldszky, 1835)

20-III-1986 (PARENZAN & PORCELLI, 2007).

Tribe Phlogophorini Hampson, 1918

*Phlogophora meticulosa* (Linnaeus, 1758)

28-31-X-1985 (PARENZAN & PORCELLI, 2007).

New records: 27-29-V-1985 (1), 13-16-IX-1985 (3).

Tribe Prodeniini Forbes, 1954

*Spodoptera exigua* (Hübner, 1808)

New records: 24-31-III-1986 (1), 22-24-VII-1986 (2); 20-X-1987 (3).

Tribe Xylenini Guenée, 1837

*Agrochola helvola* (Linnaeus, 1758)

14-X-23-XI-1985; 21-XI-4-XII-1986 (PARENZAN & PORCELLI, 2007).

*Agrochola litura* (Linnaeus, 1761)

27-X-1985 (PARENZAN & SCALERCIO 1996).

New records: 20-X-1987 (2).

Remark: in Apulia region known only of this locality.

*Agrochola lychnidis* (Denis & Schiffermüller, 1775)

3-X-1985; 3-I-1986 (PARENZAN & PORCELLI, 2007).

New records: 20-25-I-1986 (7), 27-I-2-II-1986 (5), 9-15-II-1986 (20), 16-22-II-1986 (12); 9-14-XI-1987 (226).

*Agrochola pistacinaoides* (d’Aubuisson, 1867)

17-IX-1984 (PARENZAN, 1984; PARENZAN, 1991).

New records: 30-IX-1985 (8), 31-X-1985 (6).

Remark: in Apulia region known only of this locality.

*Ammoconia senex* (Geyer, 1828)

New records: 11-17-X-1987 (2), 9-14-XI-1987 (1).

*Aporophyla australis* (Boisduval, 1829)

8-X-16-XI-1985 (PARENZAN & PORCELLI, 2007).

*Aporophyla canescens* (Duponchel, 1826)

24-X-1986 (PARENZAN & PORCELLI, 2007).

*Aporophyla lutulenta* (Denis & Schiffermüller, 1775)

New records: 13-19-X-1986 (1).

Remark: in Apulia known only from San Paolo (Taranto province), 1-X, 4-XI (PARENZAN, 1979; BERIO, 1985).

*Aporophyla nigra* (Haworth, 1809)

8-X-16-XI-1985; 21-XI-4-XII-1986 (PARENZAN & PORCELLI, 2007).

*Atethmia ambusta* (Denis & Schiffermüller, 1775)

17-21-IX-1985, 25-IX-1985, 3-7-X-1985 (PARENZAN, 2002).

New records: 8-12-IX-1986 (2).

Remarks: this species in Apulia is known only from San Paolo, 18-IX-1971 (PARENZAN, 1979).

In southern Italy it is present only in Apulia, and Basilicata: fiume Camastrà (Potenza province) (PARENZAN, 1979).

*Conistra ligula* (Esper, 1791)

24-30-XI-1985 (PARENZAN & PORCELLI, 1993).

Remark: this is the only locality known for the Apulia region.

*Conistra rubiginea* (Denis & Schiffermüller, 1775)

15-22-XII-1985 (PARENZAN & PORCELLI, 2007).

*Conistra rubiginosa* (Scopoli, 1763)

New records: 9-15-II-1986 (1), 11-14-III-1986 (2).

*Conistra vaccinii* (Linnaeus, 1761)

9-15-III-1985 (PARENZAN & SCALERCIO, 1996).

Remark: in Apulia known only from this locality.

*Conistra veronicae* (Hübner, 1813)

17-30-XI-1985; 5-11-I-1986 (PARENZAN & PORCELLI, 2007).

*Dicycla oo* (Linnaeus, 1758)

New records: 30-31-V-1985 (4), 10-13-VI-1985 (18), 14-17-VI-1985 (13), 18-20-VI-1985 (3), 21-22-VI-1985 (2); 6-10-VI-1986 (38), 11-15-VI-1986 (8), 16-22-VI-1986 (11), 23-27-VI-1986 (3), 23-25-IX-1986 (1); 1-4-VI-1987 (4), 22-25-VI-1987 (24), 3-7-VII-1987 (7).

*Dryobotodes carbonis* (Wagner, 1931)

8-X-16-XI-1985; 30-IX-23-X-1986 (PARENZAN & PORCELLI, 2007).

*Dryobotodes servadeii* Parenzan, 1982

17-25-IX-1984 (PARENZAN, 1984); 8-13-XI-1985 (RONKAY *et al.*, 2001).

New records: 7-IX-18-X-1985 (2).

Remark: in Italy only known from Apulia and Basilicata; its presence for Sardinia is to be verified (PARENZAN & PORCELLI, 2007).

*Dryobotodes tenebrosa* (Esper, 1789)

3-6-XI-1985 (PARENZAN & SCALERCIO, 1996).

*Jodia croceago* (Denis & Schiffermüller, 1775)  
28-31-X-1985; 15-25-XI-1987 (PARENZAN & PORCELLI, 2007).

*Mesogona acetosellae* (Denis & Schiffermüller, 1775)  
18-IX-1996 (PARENZAN & PORCELLI, 2007).

*Mniotype solieri* (Boisduval, 1840)  
22-IX-31-X-1985 (PARENZAN & PORCELLI, 2007).  
New records: 3-6-IX-1985 (1); 25-28-IX-1987 (5).

*Oria musculosa* (Hübner, 1808)  
New records: 16-22-VI-1986 (1), 13-19-X-1986 (2).

*Polymixis rufocincta* (Geyer, 1828)  
28-X-16-XI-1985; 21-XI-4-XII-1986; 15-XI-14-XII-1987 (PARENZAN & PORCELLI, 2007).  
New records: 28-X-16-XI-1985 (2); 21-XI-4-XII-1986 (7); 15-XI-14-XII-1987 (2).

*Polymixis serpentina* (Treitschke, 1825)  
30-IX-23-XI-1985 (PARENZAN & SCALERCIO, 1996).  
New records: 11-17-X-1987 (2).

*Scotochrosta pulla* (Denis & Schiffermüller, 1775)  
30-IX-23-X-1985 (PARENZAN & SCALERCIO, 1996).

*Spudaea ruticilla* (Esper, 1791)  
New records: 23-IV-1985 (2), 7-XII-1985 (3); 16-22-II-1986 (6).

*Trigonophora flammea* (Esper, 1785)  
24-X-4-XII-1985 (PARENZAN & PORCELLI, 2007).  
New records: 27-29-V-1985 (7), 13-XI-1985 (1), 7-XII-1985 (4).

*Xylena exsoleta* (Linnaeus, 1758)  
3-6-XI-1985 (PARENZAN & SCALERCIO, 1996).

Subfamily Dilobinae Aurivillius, 1889

*Diloba caeruleocephala* (Linnaeus, 1758)  
8-14-XII-1985; 5-11-I-1986 (PARENZAN & PORCELLI, 2007).

Subfamily Oncocnemidinae Forbes & Franclemont, 1954

*Stilbia faillae* Püngeler, 1891  
30-IX-23-X-1985; 18-22-X-1987 (PARENZAN & SCALERCIO, 1996).  
Remark: in Apulia is known only from Monte Camplo (province of Taranto) (PARENZAN, 1979).

Family Erebidae Leach, 1815  
Subfamily Rivulinae Grote, 1895

*Zebeeba falsalis* (Herrich-Schäffer 1838)  
New records: 6-9-VIII-1985 (1); 11-14-VII-1986 (2), 13-16-IX-1986 (7).

Subfamily Hypeninae Herrich-Schaffer, 1851

*Hypena lividalis* (Hübner, 1796)

19-23-X-1985; 2-X-1991 (PARENZAN & PORCELLI, 2007).

New records: 8-12-IX-1986 (3).

Subfamily Lymantriinae Hampson, 1893

Tribe Lymantriini Hampson, 1893

*Lymantria dispar* (Linnaeus, 1758)

New records: 23-27-VI-1986 (7), 28.VI-2.VII.1986 (1); 3-7.VII.1987 (1), 8-11.VII.1987 (1), 12-16.VII.1987 (9), 17-19.VII.1987 (6), 20-22.VII.1987 (7).

Tribe Nygmiini Holloway, 1999

*Euproctis chrysorrhoea* (Linnaeus, 1758)

5-7-VII-1996 (PARENZAN & PORCELLI, 2007).

New records: 26-28-VI-1985 (3).

Tribe Orgyiini Wallengren, 1861

*Ocneria rubea* (Denis & Schiffermüller, 1775)

New records: 1-10-VI-1987 (1), 17-19-VII-1987 (3).

Subfamily Herminiinae Leach, 1815

*Zanclognatha zelleralis* (Wocke, 1850)

30-VII-1996 (PARENZAN & PORCELLI, 2007).

Subfamily Boletobiinae Guénée, 1858

Tribe Phytometrini Hampson, 1913

*Colobochyla salicalis* (Denis & Schiffermüller, 1775)

New records: 16-22-VI-1986 (1).

Tribe Eublemminii Forbes, 1954

*Eublemma parva* (Hübner, 1808)

New records: 23-27-VI-1986 (5).

*Eublemma ostrina* (Hübner, 1808)

New records: 29-31-VII-1986 (8).

Subfamily Arctiinae Leach, 1815

Tribe Arctiini Leach, 1815

*Arctia villica* (Linnaeus, 1758)

New records: 12-13-V-1985 (13), 16-17-V-1985 (20), 20-23-V-1985 (34), 25-26-V-1985 (2), 27-29-V-1985 (23), 30-31-V-1985 (6), 12-13-VI-1985 (4); 27-IV-2-V-1986 (4); 24-30-V-1987 (72), 3-4-VI-1987 (1).

*Cymbalophora pudica* (Esper, 1785)

17-19-IX-1986 (PARENZAN & PORCELLI, 2007).

New records: 3-6-IX-1985 (1), 17-21-IX-1985 (5).

*Diaphora mendica* (Clerck, 1759)

24-30-III-1986 (PARENZAN & PORCELLI, 2007).

*Euplagia quadripunctaria* (Poda, 1761)

New records: 29-31-VII-1986 (1).

*Phragmatobia fuliginosa* (Linnaeus, 1758)

New records: 13-15-VIII-1985 (1), 10-12-IX-1985 (3), 13-16-IX-1985 (7); 8-12-IX-1986 (17), 13-16-IX-1986 (3), 20-24-IX-1986 (2); 25-28-IX-1987 (4).

*Spilosoma luteum* (Hufnagel, 1766)

New records: 11-14-VII-1986 (3).

Remark: in Apulia known only from Gargano area (ZANGHERI, 1956; PARENZAN, 1977).

Tribe Lithosiini Billberg, 1820

*Eilema caniola* (Hübner, 1808)

11-17-X-1987 (PARENZAN & PORCELLI, 2007).

New records: 30-31-V-1985 (13), 3-6-IX-1985 (4), 17-21-IX-1985 (3); 6-10-VI-1986 (8), 14-15-VI-1986 (6) 23-27-VI-1986 (12), 11-14-VII-1986 (8), 22-25-VIII-1986 (4), 8-12-IX-1986 (11), 13-16-IX-1986 (8), 1-5-X-1986 (3); 24-30-V-1987 (4), 22-25-VI-1987 (9), 3-7-VII-1987 (5), 12-16-VII-1987 (3), 17-19-VII-1987 (4), 20-22-VII-1987 (3), 25-28-IX-1987 (5).

*Lithosia quadra* (Linnaeus, 1758)

New records: 19-21-VII-1985 (4).

Tribe Syntomini Herrich Schaffer, 1846

*Dysauxes famula* (Freyer, 1836)

New records: 21-22-VI-1985 (1), 10-12-VIII-1985 (2), 13-15-VIII-1985 (9); 16-22-VI-1986 (1), 22-25-VIII-1986 (32).

*Dysauxes punctata* (Fabricius, 1781)

20-IX-1995 (PARENZAN & PORCELLI, 2007).

Subfamily Erebinae Leach, 1815

Tribe Catocalini Boisduval, 1828

*Catocala conversa* (Esper, 1787)

22-24-VII-1986 (PARENZAN & PORCELLI, 2007).

*Catocala nymphagoga* (Esper, 1787)

5-7-VII-1986 (PARENZAN & PORCELLI, 2007).

New records: 21-22-VI-1985 (1), 26-28-VI-1985 (2), 6-9-VIII-1985 (1); 16-22-VI-1986 (3), 23-27-VI-1986 (2), 23-25-IX-1986 (5); 1-10-VI-1987 (1), 3-7-VII-1987 (1), 12-16-VII-1987 (4), 17-19-VII-1987 (5), 20-22-VII-1987 (1).

## Tribe Ophiusini Guenée, 1837

*Dysgonia algira* (Linnaeus, 1767)

18-VI-1985; 5-7-VII-1986 (PARENZAN &amp; PORCELLI, 2007).

New records: 2-4-VII-1985 (1), 26-29-VII-1985 (4), 6-9-VIII-1985 (3), 10-12-VIII-1985 (1), 17-21-IX-1985 (1); 6-10-VI-1986 (4), 29-31-VII-1986 (4), 22-25-VIII-1986 (4), 23-25-IX-1986 (2); 22-25-VI-1987 (1), 3-7-VII-1987 (1), 8-11-VII-1987 (1), 12-16-VII-1987 (4), 17-19-VII-1987 (3).

*Grammodes stolida* (Fabricius, 1775)

New records: 21-22-VI-1985 (2), 26-28-VI-1985 (1), 3-6-IX-1985 (1), 7-9-IX-1985 (1); 28-VI-2-VII-1986 (1); 1-10-VI-1987 (1), 12-16-VII-1987 (1), 17-19-VII-1987 (5), 20-22-VII-1987 (6).

*Minucia lunaris* (Denis & Schiffermüller, 1775)

New records: 25-26-V-1985 (2); 27-IV-02-V-1986 (1).

**Concluding considerations**

Based on current knowledge, about 695 species of macroheterocera are currently known in the Apulia region, belonging to 17 families, of the total of about 1996 species reported in Italy.

**Table II.**— Families with number of species and their presence in the months of the year in the “Bosco Palazzi” area.

Family	No. sp.	%	J	F	M	A	M	J	J	A	S	O	N	D
COSSIDAE	3	1,45						2	3	1	1			
DREPANIDAE	4	1,93			1	2	1	1	2		2	1		
LASIOCAMPIDAE	7	3,38	1	1				2	3		4	1		
LIMACODIDAE	1	0,48					1	1						
SATURNIIDAE	2	0,97				2	1							
SPHINGIDAE	5	2,42				1	4	3	3		1			
BRAHMAEIDAE	1	0,48									1	1		
GEOMETRIDAE	55	26,57	2	5	3	13	12	14	21	22	21	14	5	4
NOTODONTIDAE	5	2,42				1	2	1	4	1				
NOLIDAE	3	1,45							1	2				
EUTELIIDAE	1	0,48								1				
NOCTUIDAE	96	46,38	3	4	8	14	15	16	22	16	42	44	21	9
EREBIDAE	24	11,59			1	2	3	10	14	7	9	2		
<b>General total</b>	<b>207</b>	<b>100</b>	<b>6</b>	<b>10</b>	<b>13</b>	<b>35</b>	<b>39</b>	<b>50</b>	<b>73</b>	<b>50</b>	<b>81</b>	<b>63</b>	<b>26</b>	<b>13</b>

Overall, our lepidopterological surveys lead to 207 the number of macromoths currently known for the “Bosco Palazzi” area. It is interesting to note that on the total of the collected species in this locality, 100 (48,30 %) are those with larvae that feed on trees of the genus *Quercus*.

Among the most significant species found in this site, *Hemaris fuciformis* (Sphingidae), *Idaea consolidata* (Geometridae), *Atethmia ambusta*, and *Caradrina germainii* (Noctuidae) are sporadically found in southern Italy. Moreover, the geometrid *Cyclophora quercimontaria* (Bastelberger, 1897) is reported for the first time from Apulia region and in southern Italy. Among the reported species, twelve are known for the Apulia region only from Bosco Palazzi area, and others six only in one other locality.

The great natural importance of the Bosco Palazzi area is due to the presence of the Macedonian Oak, a species with an eastern origin (TRIGGIANI, 1984-85). The richness of lepidopteran species recorded should be considered a priority for the protection of this area and other fragments of woods with *Quercus trojana* in Apulia and Basilicata regions in southern Italy. The known biology of the moth

species reported in the present study should help to develop future plans for the conservation and management of the local and regional biodiversity.

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### BIBLIOGRAPHY

- BERIO, E., 1985.– *Lepidoptera Noctuidae. I. Generalità Hadeninae Cuculliinae*.– *Fauna d'Italia*, **22**: 970 pp., 32 pls, Ed. Calderini, Bologna.
- BOZZANO, M. & TUROK, J., 2002.– *EUFORGEN Mediterranean Oaks Network: Second Meeting*. 2-4 May 2002, Gozo, Malta. International Plant Genetic Resources Institute, Rome.
- FLAMIGNI, C., FIUMI, G., PARENZAN, P., 2007.– *Lepidotteri Eteroceri D'Italia. Geometridae Ennominae*, **1**: 382 pp. Natura Edizioni Scientifiche, Bologna.
- FRANCINI-CORTI, E., 1967.– Problemi di Fitogeografia della Puglia.– *Archivio Botanico e Biogeografico italiano*, **43**(4 ser.): 195-226.
- HAUSMANN, A. & PARENZAN, P., 1990.– Neue und interessante Geometridenarten für die Süditalien-Fauna (Lepidoptera, Geometridae).– *Entomofauna Zeitschrift für Entomologie*, **11**(29): 497-503.
- KARSHOLT, O. & NIEUKERKEN, E. J. van, 2013.– *Lepidoptera, Moths. Fauna Europaea version 2.6*. Available from <http://www faunaeu org>.
- NIEUKERKEN, E. J. van, KAILA, L., KITCHING, I. J., KRISTENSEN, N. P., LEES, D. J., MINET, J., MITTER, J., MUTANEN, M., REGIER, J. C., SIMONSEN, T. J., WAHLBERG, N., YEN, S.-H., ZAHIRI, R., ADAMSKI, D., BAIXERAS, J., BARTSCH, D., BENGTSSON, B. Å., BROWN, J. W., BUCHELI, R. S., DAVIS, D. R., DE PRINS, J., DE PRINS, W., EPSTEIN, M. E., GENTILI-POOLE, P., GIELIS, C., HÄTTENSCHWILER, P., HAUSMANN, A., HOLLOWAY, J. P., KALLIES, A., KARSHOLT, O., KAWAHARA, A., KOSTER, S. J., CKOZLOV, M. V., LAFONTAINE, J. D., LAMAS, G., LANDRY, J.-F., LEE, S., NUSS, M., PARK, K.-T., PENZ, C., ROTA, J., SCHMIDT, B. C., SCHINTLMEISTER, A., SOHN, J. C., SOLIS, M.A., TARMANN, G., WARREN, A. D., WELLER, S., YAKOVLEV, Y., ZOLOTUHIN, V. V. & ZWICK, A., 2011.– Order Lepidoptera Linnaeus, 1758. In Z.-Q. ZHANG (Ed.). Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness.– *Zootaxa*, **3148**: 212-221.
- PARENZAN, P., 1977.– Contributi alla conoscenza della Lepidotteroфаuna dell'Italia Meridionale. IV. Heterocera (Bombyces et Sphinges) di Puglia e Lucania.– *Entomologica*, **13**: 183-245.
- PARENZAN, P., 1979.– Contributi alla conoscenza della Lepidotteroфаuna dell'Italia Meridionale. V. Heterocera: Noctuidae.– *Entomologica*, **15**: 159-278.
- PARENZAN, P., 1984.– Noctuidae (Lepidoptera, Heterocera) dell'Italia meridionale (addenda).– *Entomologica*, **19**: 97-134.
- PARENZAN, P., 1988.– Nuove segnalazioni di Geometridae (Lepidoptera) per l'Italia meridionale.– *Entomologica*, **23**: 139-160.
- PARENZAN, P., 1991.– La macrolepidotteroфаuna italiana con particolare riferimento all'Italia meridionale e alla Puglia.– *Atti XVI Congresso Naz. Ital. di Entomologia, Bari-Martina Franca (TA), 23/28 settembre 1991*: 3-32.
- PARENZAN, P., 1994.– Contributi alla conoscenza della Lepidotteroфаuna dell'Italia Meridionale. XVII. Heterocera: Geometridae.– *Entomologica*, **28**: 99-246.
- PARENZAN, P., 1995.– Nuove catture di Bombici e Sfingi. Contributi alla conoscenza della lepidotteroфаuna dell'Italia meridionale. XVIII.– *Entomologica*, **19**: 149-162.
- PARENZAN, P., 2002.– Macrolepidotteroфаuna della Riserva Naturale WWF "Lago di Pignola" - Basilicata, Potenza. (Contributi alla conoscenza della Lepidotteroфаuna dell'Italia meridionale. XXII).– *Phytophaga*, **12**: 43-116.
- PARENZAN, P. & HAUSMANN, A., 1992.– Nuovi interessanti reperti di Geometridi (Lepidoptera) in Italia Meridionale.– *Entomofauna Zeitschrift für Entomologie*, **13**(8): 157-172.
- PARENZAN, P., HAUSMANN, A. & SCALERCIO, S., 1998.– Addenda e corrigenda ai Geometridae dell'Italia meridionale (Contributi alla conoscenza della Lepidotteroфаuna dell'Italia meridionale. XX).– *Entomologica*, **32**: 51-79.
- PARENZAN, P. & PORCELLI, F., 1993.– Aggiunte e correzioni ai Nottuidi dell'Italia meridionale (Lepidoptera).– *Entomologica*, **27**: 181-210.

- PARENZAN, P. & PORCELLI, F., 2007.- I macrolepidotteri italiani. Fauna Lepidopterorum Italiae (Macrolepidoptera).- *Phytophaga*, **15** (2005-2006), allegato in pdf: 1-1051.
- PARENZAN, P. & PORCELLI, F., 2008.- I macrolepidotteri italiani. Fauna Lepidopterorum Italiae (Macrolepidoptera). Addenda et corrigenda. 1.- *Entomologica*, **40**(2006-2007): 153-221.
- PARENZAN, P., SANNINO, L., SCALERCIO, S. & SCIARRETTA, A., 2006.- Nuovi dati sulla Macrolepidottero fauna dell'Italia meridionale (Lepidoptera).- *Entomologica*, **39**(2005): 183-209.
- PARENZAN, P. & SCALERCIO, S., 1996.- Nuove segnalazioni di Nottuidi (Lepidoptera) per l'Italia meridionale. (Contributi alla conoscenza della Lepidottero fauna dell'Italia meridionale. XIX).- *Entomologica*, **30**: 105-133.
- RONKAY, L., YELA, J. L. & HREBLAY, M., 2001.- *Noctuidae Europaea. Hadenia II*, **5**: 452 pp., 387 figs., 21 pls. Entomological Press, Sorø.
- TRIGGIANI, O., 1984-85.- Osservazioni sull'*Hexameris albicans* (Von Siebold) Pol. e Art. (Nematoda: Mermithoidea) parassita di larve di Lepidotteri fitofagi del Fragno (*Quercus trojana* Webb.).- *Frustula Entomologica, Nuova serie*, **7-8**(XX-XXI): 521-526.
- ZAHIRI, R., KITCHING, I. J., LAFONTAINE, J. D., MUTANEN, M., KAILA, L., HOLLOWAY, J. D. & WAHLBERG, N., 2011.-A new molecular phylogeny offers hope for a stable family level classification of the Noctuoidea (Lepidoptera).- *Zoologica Scripta*, **40**, 158-173.
- ZAHIRI, R., HOLLOWAY, J. D., KITCHING, I. J., LAFONTAINE, J. D., MUTANEN, M. & WAHLBERG, N., 2012.- Molecular phylogenetics of Erebidae (Lepidoptera, Noctuoidea).- *Systematic Entomology*, **37**: 102-124.
- ZANGHERI, S., 1956.- Le attuali conoscenze sui Lepidotteri del Promontorio del Gargano e delle Isole Tremiti, con osservazioni sulle specie a distribuzione transadriatica.- *Memorie di Biogeografia Adriatica*, **3**: 245-298.
- ZILLI, A., RONKAY, L. & FIBIGER, M., 2005.- *Noctuidae Europaea. Apameini*, **8**: 323 pp., 295 figs., 15 pls. Entomological Press, Sorø.
- ZILLI, A., 2007.- Insecta Lepidoptera Noctuidae (Plusiinae, Noctuinae) (and Lasiocampidae, Arctiidae, Sphingidae).- In S. RUFFO & F. STOCH (eds.). Checklist and distribution of the Italian fauna. 10.000 terrestrial and inland water species.- *Memorie del Museo Civico di Storia Naturale di Verona - 2. Sezione Scienza della Vita*, **17**(2006): 263-266, with data on CD-ROM.

\*S. B.

(CREA-OFA)

Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria

Centro di Ricerca olivicoltura, frutticoltura e agrumicoltura

Corso Savoia, 190

I-95024 Acireale (CT)

ITALIA / ITALY

E-mail: salvatore.bella@crea.gov.it

<https://orcid.org/0000-0003-3893-6907>

P. P.

Via De Ferraris, 65

I-70124 Bari

ITALIA / ITALY

E-mail: paolo.paren@libero.it

P. R.

Via Roma, 51

I-95025 Aci Sant'Antonio (CT)

ITALIA / ITALY

E-mail: paolorussoaci@alice.it

\*Autor para la correspondencia / Corresponding author

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**Table I.**—List of families and species known from the “Bosco Palazzi” area; presence/absence in the different months of the year. New records for this area collected by the authors (NR); bibliographical citations where the species were previously reported for the investigated area. Species marked with one asterisk (\*) are the first records for the Apulia region, with two asterisks (\*\*) the first record for southern Italy, and with three asterisks (\*\*\*) the species that in Apulia region are known only from Bosco Palazzi area.

	J	F	M	A	M	J	J	A	S	O	N	D	N R	Bibliographical citations
<b>COSSIDAE</b>														
<i>Cossus cossus</i>							✓							X
<i>Parahypopta caestrum</i>						✓	✓			✓				X
<i>Zeuzera pyrina</i>						✓	✓	✓						X
<b>DREPANIDAE</b>														
<i>Cilix glaucata</i>					✓	✓	✓	✓		✓				X
<i>Watsonalla uncinula</i>							✓							X
<i>Cymatophorina diluta</i>									✓	✓				Parenzan, 1995
<i>Polyploca ridens</i>				✓	✓									X
<b>LASIOCAMPIDAE</b>														
<i>Pachypasa otus</i>							✓							Parenzan & Porcelli, 2007
<i>Gastropacha quercifolia</i>							✓	✓						X
<i>Lasiocampa quercus</i>										✓				X
<i>Lasiocampa trifolii</i>										✓				Parenzan & Porcelli, 2007
<i>Malacosoma neustria</i>							✓	✓		✓				X
<i>Poecilocampa alpina</i>	✓	✓								✓				Parenzan & Porcelli, 2007
<i>Trichiura crataegi</i>											✓			Parenzan & Porcelli, 2007
<b>LIMACODIDAE</b>														
<i>Apoda limacodes</i>						✓	✓							X
<b>SATURNIIDAE</b>														
<i>Saturnia pavoniella</i>					✓									Parenzan & Porcelli, 2007
<i>Saturnia pyri</i>					✓	✓								X
<b>SPHINGIDAE</b>														
<i>Agrius convolvuli</i>					✓	✓	✓							X
<i>Macroglossum stellatarum</i>							✓	✓						X
<i>Hemaris fuciformis</i> (***)						✓								Parenzan <i>et al.</i> , 2006
<i>Laothoe populi</i>						✓		✓						X
<i>Marumba quercus</i>						✓	✓	✓		✓				Parenzan & Porcelli, 2007
<b>BRAHMAEIDAE</b>														
<i>Lemonia taraxaci</i>									✓	✓				X
<b>GEOMETRIDAE</b>														
<i>Alsophila aescularia</i>		✓												X

	J	F	M	A	M	J	J	A	S	O	N	D	N R	Bibliographical citations
<i>Aspitates ochrearia</i>					✓			✓	✓				X	
<i>Agriopis bajaria</i>	✓													Parenzan, 1994
<i>Agriopis marginaria</i>		✓												Parenzan, 1994
<i>Apocheima hispidaria</i>		✓											X	
<i>Apochima flabellaria</i>	✓	✓								✓	✓	X		Parenzan, 1994
<i>Biston strataria</i>			✓											Parenzan, 1994
<i>Erannis defoliaria</i>											✓			Parenzan, 1994
<i>Lycia florentina</i>		✓											X	
<i>Ascotis selenaria</i>			✓	✓	✓	✓	✓	✓	✓					Parenzan, 1994
<i>Menophra japygiaria</i>						✓					✓			Parenzan, 1994
<i>Peribatodes rhomboidaria</i>				✓	✓		✓			✓			X	Parenzan, 1994
<i>Peribatodes umbraria</i>						✓			✓				X	Parenzan, 1994
<i>Campaea honoraria</i>					✓	✓			✓				X	
<i>Ennomos quercaria</i>						✓	✓	✓	✓				X	Parenzan, 1994; Flamigni <i>et al.</i> , 2007
<i>Opisthograptis luteolata</i>						✓			✓					Parenzan, 1994
<i>Gnophos sartata</i>							✓		✓				X	Parenzan, 1994
<i>Crocallis elinguaria</i>									✓					Parenzan, 1994
<i>Crocallis tusciaria</i>							✓			✓	✓	✓	X	Parenzan, 1994; Flamigni <i>et al.</i> , 2007
<i>Colotois pennaria</i>										✓	✓	✓	X	Parenzan, 1994
<i>Enconista spodiaria</i>				✓	✓				✓				X	Parenzan, 1994
<i>Heliomata glarearia</i>									✓					Parenzan, 1994
<i>Rhoptria asperaria</i>				✓		✓	✓	✓	✓	✓			X	Parenzan, 1994
<i>Eucrostes indigenata</i>								✓	✓				X	Parenzan, 1994
<i>Pseudoterpnia coronillaria</i>				✓	✓		✓	✓	✓					Parenzan, 1994
<i>Thalera fimbrialis</i>							✓	✓					X	
<i>Coenotephria ablutaria</i>										✓	✓			Parenzan, 1994
<i>Coenotephria salicata</i>			✓	✓	✓				✓	✓	✓	✓	X	Parenzan, 1994
<i>Eupithecia abbreviata</i> (***)					✓									Hausmann & Parenzan, 1990; Parenzan, 1994
<i>Eupithecia insigniata</i>					✓									Parenzan, 1994
<i>Earophila badiata</i>									✓					Parenzan <i>et al.</i> , 1999
<i>Larentia clavaria</i>										✓				Parenzan & Porcelli, 2007
<i>Campogramma bilineata</i>								✓					X	
<i>Nycterosea obstipata</i>										✓				Parenzan, 1994
<i>Xanthorhoe oxybiata</i>										✓				Parenzan & Porcelli, 2007
<i>Xanthorhoe vidanoi</i> (***)											✓			Parenzan, 1994
<i>Cyclophora porata</i>					✓		✓	✓	✓				X	Parenzan, 1994
<i>Cyclophora pupillaria</i>					✓	✓	✓	✓	✓				X	Parenzan, 1994
<i>Cyclophora quercimontaria</i> (*) (**)							✓	✓					X	

	J	F	M	A	M	J	J	A	S	O	N	D	N R	Bibliographical citations
<i>Cyclophora suppunctaria</i>							✓	✓	✓					Parenzan, 1994
<i>Idaea consolidata</i>								✓						Parenzan & Hausmann, 1992; Parenzan, 1994
<i>Idaea degeneraria</i>									✓					Parenzan, 1994
<i>Idaea distinctaria</i>					✓	✓	✓	✓	✓					Parenzan, 1994
<i>Idaea elongaria</i>							✓	✓						Parenzan, 1994
<i>Idaea filicata</i>					✓	✓	✓	✓	✓				X	Parenzan, 1994
<i>Idaea infirmaria</i>									✓					Parenzan, 1994
<i>Idaea obsoletaria dionigii</i>									✓					Parenzan, 1994
<i>Idaea rusticata</i>							✓	✓	✓	✓			X	Parenzan, 1994
<i>Idaea seriata</i>					✓				✓		✓			Parenzan, 1988; Parenzan, 1994
<i>Idaea subsericeata</i>							✓							Parenzan & Porcelli, 2007
<i>Idaea typicata</i>							✓	✓					X	Parenzan, 1994
<i>Rhodometra sacraria</i>							✓	✓	✓	✓			X	Parenzan, 1994
<i>Scopula decorata</i>						✓							X	
<i>Scopula imitaria</i>							✓	✓						Parenzan, 1994
<i>Scopula marginepunctata</i>							✓		✓	✓			X	Parenzan, 1994
<b>NOTODONTIDAE</b>														
<i>Harpyia milhauseri</i>							✓						X	
<i>Spatialia argentina</i>						✓	✓	✓					X	
<i>Cerura vinula</i>					✓									Parenzan & Porcelli, 2007
<i>Peridea anceps</i>					✓	✓	✓						X	
<i>Phalera bucephalooides</i>							✓						X	
<b>NOLIDAE</b>														
<i>Meganola togatulalis</i>							✓						X	
<i>Bena bicolorana</i>								✓					X	
<i>Pseudoips prasinana</i>								✓					X	
<b>EUTELIIDAE</b>														
<i>Eutelia adulatrix</i>								✓					X	
<b>NOCTUIDAE</b>														
<i>Metachrostis velox</i>							✓		✓				X	
<i>Trichoplusia ni</i>							✓						X	
<i>Diachrysia chrysitis</i>									✓				X	
<i>Autographa gamma</i>					✓			✓	✓	✓			X	Parenzan & Porcelli, 2007
<i>Acontia lucida</i>							✓						X	
<i>Acontia trabealis</i>							✓	✓	✓	✓			X	Parenzan & Porcelli, 2007
<i>Acronicta aceris</i>							✓						X	
<i>Tyta luctuosa</i>							✓	✓	✓	✓			X	Parenzan & Porcelli, 2007
<i>Allophyes corsica</i>										✓	✓	✓		Parenzan & Porcelli, 2007

	J	F	M	A	M	J	J	A	S	O	N	D	N R	Bibliographical citations
<i>Valeria oleagina</i>			✓										X	
<i>Heliothis peltigera</i>				✓		✓			✓				X	
<i>Bryophila rectilinea</i> (***)							✓							Parenzan & Porcelli, 2007
<i>Cryphia ochsi</i>							✓	✓					X	Parenzan & Porcelli, 2007
<i>Nyctobrya muralis</i>							✓	✓					X	Parenzan & Porcelli, 2007
<i>Apamea monoglypha</i>					✓		✓						X	
<i>Gortyna xanthenes</i>										✓				Parenzan & Porcelli, 2007
<i>Luperina dumerilii</i>									✓	✓			X	Parenzan & Porcelli, 2007
<i>Luperina tiberina</i>										✓				Parenzan & Scalercio, 1996
<i>Luperina testacea</i> (***)									✓					Parenzan <i>et al.</i> , 2006
<i>Athetis hospes</i>									✓					Parenzan & Porcelli, 2007
<i>Caradrina aspersa</i>						✓							X	
<i>Caradrina germainii</i> (***)									✓	✓				Parenzan, 1984
<i>Charanyca trigrammica</i>				✓	✓				✓				X	
<i>Hoplodrina ambigua</i>									✓	✓				Parenzan & Porcelli, 2007
<i>Polyphaenis sericata</i>						✓	✓		✓				X	Parenzan & Porcelli, 2007
<i>Cleoceris scorriacea</i> (***)									✓	✓				Parenzan & Porcelli, 2007
<i>Episema glaucina</i>										✓				Parenzan & Porcelli, 2007
<i>Anarta trifolii</i>										✓				Parenzan & Porcelli, 2007
<i>Conisania luteago</i>				✓	✓								X	
<i>Hadena bicruris</i>				✓										Parenzan & Porcelli, 2007
<i>Hadena confusa</i>				✓					✓	✓			X	
<i>Hadena magnolii</i>				✓	✓								X	
<i>Leucania punctosa</i>											✓			Parenzan & Scalercio, 1996
<i>Leucania putrescens</i>									✓	✓			X	Parenzan & Porcelli, 2007
<i>Mythimna albipuncta</i>					✓	✓	✓		✓				X	Parenzan & Porcelli, 2007
<i>Mythimna ferrago</i>								✓	✓	✓	✓		X	Parenzan & Porcelli, 2007
<i>Mythimna l-album</i>					✓	✓	✓	✓	✓	✓			X	Parenzan & Porcelli, 2007

	J	F	M	A	M	J	J	A	S	O	N	D	N R	Bibliographical citations
<i>Mythimna sicula</i>				✓	✓	✓	✓	✓	✓	✓			X	
<i>Mythimna unipuncta</i>						✓	✓			✓	✓	✓	X	Parenzan & Porcelli, 2007
<i>Mythimna vitellina</i>				✓	✓	✓	✓	✓	✓				X	
<i>Agrotis bigramma</i>								✓	✓				X	Parenzan & Porcelli, 2007
<i>Agrotis lata</i>								✓	✓				X	Parenzan, 2002
<i>Agrotis ipsilon</i>						✓		✓	✓				X	
<i>Agrotis puta</i>				✓									X	Parenzan & Porcelli, 2007
<i>Agrotis segetum</i>								✓					X	
<i>Cerastis faceta</i>										✓			X	
<i>Cerastis rubricosa</i>			✓										X	
<i>Epilecta linogrisea</i>						✓							X	
<i>Euxoa temera</i>									✓	✓				Parenzan & Porcelli, 2007
<i>Noctua comes</i>						✓			✓	✓			X	Parenzan & Porcelli, 2007
<i>Noctua janthina</i>						✓	✓	✓					X	
<i>Noctua pronuba</i>					✓	✓			✓	✓	✓		X	Parenzan & Porcelli, 2007
<i>Noctua tirrenica</i>						✓	✓		✓	✓			X	Parenzan, 1984; Zilli, 2007; Parenzan & Porcelli, 2007
<i>Peridroma saucia</i>							✓		✓		✓		X	
<i>Xestia c-nigrum</i>									✓				X	
<i>Xestia castanea</i>									✓	✓				Parenzan & Scalercio, 1996; Zilli, 2007
<i>Xestia xanthographa</i>										✓	✓			Parenzan & Porcelli, 2007
<i>Egira conspicillaris</i>				✓										Parenzan & Porcelli, 2007
<i>Orthosia cruda</i>			✓	✓									X	
<i>Orthosia gothica</i>	✓												X	
<i>Orthosia miniosa</i>			✓	✓									X	Parenzan & Porcelli, 2007
<i>Orthosia cerasi</i>									✓				X	
<i>Perigrapha rorida</i>		✓												Parenzan & Porcelli, 2007
<i>Phlogophora meticulosa</i>					✓				✓	✓			X	Parenzan & Porcelli, 2007
<i>Spodoptera exigua</i>		✓					✓			✓			X	
<i>Agrochola helvola</i>										✓	✓	✓		Parenzan & Porcelli, 2007
<i>Agrochola litura</i> (***)										✓			X	Parenzan & Porcelli, 2007

	J	F	M	A	M	J	J	A	S	O	N	D	N	R	Bibliographical citations
<i>Agrochola lychnidis</i>	✓	✓								✓	✓		X	Parenzan & Porcelli, 2007	
<i>Agrochola pistacinaoides</i> (***)										✓	✓		X	Parenzan, 1984; Parenzan, 1991	
<i>Ammoconia senex</i>										✓	✓		X		
<i>Aporophyla australis</i>										✓	✓			Parenzan & Porcelli, 2007	
<i>Aporophyla canescens</i>										✓				Parenzan & Porcelli, 2007	
<i>Aporophyla lutulenta</i>										✓			X		
<i>Aporophyla nigra</i>										✓	✓	✓		Parenzan & Porcelli, 2007	
<i>Atethmia ambusta</i>										✓	✓		X	Parenzan, 2002	
<i>Conistra ligula</i> (***)											✓			Parenzan & Porcelli, 1993	
<i>Conistra rubiginea</i>												✓		Parenzan & Porcelli, 2007	
<i>Conistra rubiginosa</i>	✓	✓											X		
<i>Conistra vaccinii</i> (***)		✓												Parenzan & Scalercio, 1996	
<i>Conistra veronicae</i>	✓										✓			Parenzan & Porcelli, 2007	
<i>Dicycla oo</i>					✓	✓	✓		✓				X		
<i>Dryobotodes carbonis</i>										✓	✓			Parenzan & Porcelli, 2007	
<i>Dryobotodes servadeii</i>										✓	✓	✓		X	
<i>Dryobotodes tenebrosa</i>											✓			Parenzan & Scalercio, 1996	
<i>Jodia croceago</i>										✓	✓			Parenzan & Porcelli, 2007	
<i>Mesogona acetosellae</i>											✓			Parenzan & Porcelli, 2007	
<i>Mniotype solieri</i>										✓	✓		X	Parenzan & Porcelli, 2007	
<i>Oria musculosa</i>						✓				✓			X		
<i>Polymixis rufocincta</i>										✓	✓	✓	✓	X	
<i>Polymixis serpentina</i>										✓	✓	✓		Parenzan & Scalercio, 1996	
<i>Scotochrosta pulla</i>										✓	✓			Parenzan & Scalercio, 1996	
<i>Spudaea ruticilla</i>	✓		✓									✓	X		
<i>Trigonophora flammea</i>						✓				✓	✓	✓	X	Parenzan & Porcelli, 2007	
<i>Xylena exsoleta</i>											✓			Parenzan & Scalercio, 1996	

	J	F	M	A	M	J	J	A	S	O	N	D	N R	Bibliographical citations
<i>Diloba caeruleocephala</i>	✓											✓		Parenzan & Porcelli, 2007
<i>Stilbia faillae</i>									✓	✓				Parenzan & Porcelli, 2007
<b>EREBIDAE</b>														
<i>Zebeeba falsalis</i>								✓	✓	✓			X	
<i>Hypena lavidalis</i>									✓	✓			X	Parenzan & Porcelli, 2007
<i>Lymantria dispar</i>							✓	✓					X	
<i>Euproctis chrysorrhoea</i>							✓	✓					X	Parenzan & Porcelli, 2007
<i>Ocneria rubea</i>							✓	✓					X	Parenzan & Porcelli, 2007
<i>Zanclognatha zelleralis</i>								✓						Parenzan & Porcelli, 2007
<i>Colobochyla salicalis</i>				✓									X	
<i>Eublemma parva</i>						✓							X	
<i>Eublemma ostrina</i>							✓						X	
<i>Arctia villica</i>					✓	✓							X	
<i>Cymbalophora pudica</i>									✓				X	Parenzan & Porcelli, 2007
<i>Diaphora mendica</i>			✓											Parenzan & Porcelli, 2007
<i>Euplagia quadripunctaria</i>							✓						X	
<i>Phragmatobia fuliginosa</i>									✓	✓			X	
<i>Spilosoma luteum</i>							✓						X	
<i>Eilema caniola</i>					✓	✓	✓	✓	✓	✓			X	Parenzan & Porcelli, 2007
<i>Lithosia quadra</i>							✓						X	
<i>Dysauxes famula</i>						✓		✓					X	
<i>Dysauxes punctata</i>									✓					Parenzan & Porcelli, 2007
<i>Catocala conversa</i>						✓	✓	✓	✓				X	Parenzan & Porcelli, 2007
<i>Catocala nymphagoga</i>						✓	✓	✓	✓				X	Parenzan & Porcelli, 2007
<i>Dysgonia algira</i>						✓	✓	✓	✓				X	Parenzan & Porcelli, 2007
<i>Grammodes stolida</i>							✓	✓	✓	✓			X	
<i>Minucia lunaris</i>				✓	✓								X	