

Systematic list of the geometrid moths of the Levant and neighbouring countries

Part I : Orthostixinae and Geometrinae

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Summary

Specific and subspecific names of the Orthostixinae and Geometrinae (Geometridae) occurring in the Levant and neighbouring countries are listed. In the study area 49 species group names refer to valid taxa : 43 species (occurrence of two of these is probable but they are not yet recorded) and six further taxa at subspecific level. Citation of original descriptions, locus typicus and some important synonyms are given. A brief survey of the distribution of the taxa within the study area is added.

Zusammenfassung

Art- und Unterartnamen der in der Levante und den umliegenden Ländern vorkommenden Arten der Unterfamilien Orthostixinae und Geometrinae (Geometridae) werden aufgelistet. Im Untersuchungsgebiet beziehen sich 49 Namen der Artgruppe auf gültige Taxa : Neben 43 Arten (in zwei Fällen ist das Vorkommen zu erwarten, aber nicht abgesichert) sind sechs weitere Taxa auf Unterart-Niveau verbreitet. Es werden Originalbeschreibung, locus typicus und einige wichtige Synonyme erwähnt. Ein kurzer Überblick über die Verbreitung der Taxa im Untersuchungsgebiet wird angefügt.

Introduction

This is the first paper in the second of three series of publications by the author on the Geometridae of the Middle East. The three series are :

1) Morphology of the species and subspecies occurring in the Levantine basin and neighbouring countries ; with figures of male and female genitalia of all taxa, of venation of all genera, description of external structure of the imago and discussion of relationships at subspecies, species, genus and tribus level.

2) Systematic list of these species with some important synonyms, citation of original descriptions, locus typicus and a short survey of the geographical distribution within the study area.

3) Faunistic data, phenology and ecology of the species occurring in the state of Israel (administration frontiers of 1990).

The present publication initiates the second series of publications. There are some differences from the fairly well accepted list of Leraut (1980). In addition to the data in the present paper there is information on the reasons for these changes in the discussions on tribal systematics in the first series (morphology). By including many additional Old World genera and tribes it should facilitate the systematic arrangement for any future Palaearctic Orthostixinae or Geometrinae Fauna. A systematic check list of species occurring in the Levant is provided in Tab. 1.

Tab. 1. Systematic checklist of species and subspecies occurring in the study area
(Subfamilies Orthostixinae and Geometrinae)

Orthostixinae

- Myinodes shohami* Hausmann, 1994
- Eumegethes tenuis* Staudinger, 1898
- Orthostixis cribraria amanensis* Wehrli, 1932
- Orthostixis cinerea* Rebel, 1916
- Orthostixis calcularia* Lederer, 1853

Geometrinae

PSEUDOTERPNI Warren, 1893

- Pingasa lahayeae multispurcata* Prout, 1913
- Pseudoterpna coronillaria axillaria* Guenée, 1857
- Pseudoterpna coronillaria halperini* Hausmann, 1996
- Pseudoterpna rectistrigaria* Wiltshire, 1948
- Holoterpna pruinosata* (Staudinger, 1898)
- Aplasta ononaria* (Fuessly, 1783)

COMIBAENINI Inoue, 1961

- Microbaena pulchra* (Staudinger, 1898)
- Comibaena bajularia* ([Denis & Schiffermüller], 1775)
- Proteuchloris neriaria* (Herrich-Schäffer, 1852)
- Thetidia (Antonechloris) persica* Hausmann, 1996
- Thetidia (Antonechloris) silvia* Hausmann, 1991
- Thetidia (Antonechloris) bilineata* Hausmann, 1991
- Thetidia (Aglossochloris) eurythra* Prout, 1935

HEMISTOLINI Inoue, 1961

- Hemistola chrysoprasaria* (Esper, 1795)
- Xenochlorodes olympiaria cremonaria* (Staudinger, 1897)
- Gnophosema palumba kurdistanica* Ebert, 1969
- Victoria (Victorinella) wiltshirei* Hausmann, 1996
- Victoria (Victorinella) plantei* Herbulot, 1976
- Victoria (Victorinella) eremita* Hausmann, 1993
- Victoria (Victorinella) fifensis* Wiltshire, 1994

COMOSTOLINI Inoue, 1961

- Eucrostes indigenata* (de Villers, 1789)

THALERINI Herbulot, 1963

Thalera fimbrialis magnata A. Fuchs, 1903

Culpinia prouti (Thierry-Mieg, 1913)

HEMITHEINI Bruand, 1846

Chlorissa cloraria (Hübner, [1813])

Chlorissa asphaleia Wiltshire, 1966

Phaiogramma pulmentaria (Guenée, 1857)

Phaiogramma faustinata (Millière, 1868)

Phaiogramma discesa (Walker, 1861)

Phaiogramma polemia (Prout, 1920)

Neromia pulvereisparsa pulvereisparsa (Hampson, 1896)

Neromia pulvereisparsa jodisata Staudinger, 1898

Neromia simplex Brandt, 1938

Kuchleria gisisi Hausmann, 1995

MICROLOXIINI Hausmann, 1996

Microloxia herbaria (Hübner, [1813])

Microloxia ruficornis (Warren, 1897)

Acidaliastis micra Hampson, 1896

Hemidromodes robusta robusta (Prout, 1913)

Hemidromodes robusta affinis (Rothschild, 1915)

Hemidromodes robusta galala Wiltshire, 1949

Hemidromodes sabulifera sabulifera Prout, 1922

Hemidromodes sabulifera hessa Prout, 1935

Hemidromodes sabulifera triforma Wiltshire, 1949

Hierochthonia pulverata (Warren, 1901)

Hierochthonia semitaria (Püngeler, 1901)

The delimitation of the study area is based on the following zoogeographical patterns :

- 1) Many tropical and subtropical African species range northwards to C. Sudan and SW. Saudi Arabia. They are not the subject of this paper. For this reason the Sudan and also the Asir mountains of Saudi Arabia (northwards to Mecca) are excluded. The western limit of the study area (the political border between Egypt and Libya) is drawn arbitrarily as there are few zoogeographical discontinuities in the region.
- 2) Many species occurring in S. Iran (e.g. some tropical Asiatic elements) find their western limit of distribution in the Oman. They are not the subject of this paper. For this reason the southeastern parts of the Arabian peninsula are excluded from the study area.
- 3) The species inhabiting the W. Iranian heights are not the subject of this paper. They often extend to the E. Turkish mountains (e.g. Hakkari) east of the River Tigris. The study area is extended to the mountains of N. Iraq in order to allow the inclusion of the complete Iraqi fauna.
- 4) Many C. European or N. Mediterranean species have their eastern limit of distribution in N. Turkey or Armenia. They are not the subject of this paper.

These zoogeographical patterns define the study area, which includes S. Turkey south of the summits of Taurus between Göksu and the River Tigris, Cyprus, Syria, Lebanon, Iraq, Kuwait, N. Saudi Arabia (north of a line between Medina and Kuwait), Israel, Jordan, Egypt (see Fig. 1).

Abbreviations (compare Wiltshire, 1990) :

e	endemic
EO	Euroriental
SE	South European
AI	Anatolian-Iranian
EM	East Mediterranean
HM	Holomediterranean
SM	South Mediterranean
PE	Pan-Eremic
WE	Western Eremic
EE	Eastern Eremic
SA	Saharo-Arabian
SS	Saharo-Sindian
TA	Tropical Asiatic
PT	Palaeotropical
Eth	Ethiopian (Afrotropical)

N., W., E., S., C. = North, West, East, South, Central [country respectively]

When part of a country is not specified as above, the taxon occurs throughout.

SYSTEMATIC PART

ORTHOSTIXINAE Meyrick, 1892

Oenochrominae auct. nec Guenée, 1857

MYINODES Meyrick, 1892

Myinodes shohami Hausmann, 1994

Myinodes shohami Hausmann, 1994 : Nota lepid. 17 (1/2) : 38 (loc. typ. : Qasr el Hallabad, Jordan)

Pseudotagma interpunctaria sensu Staudinger, 1892 : Dt. Ent. Z. Iris 4 : 168 (from Beirut and Jerusalem) (nec Herrich-Schäffer, 1839 : pl. 6 and wrapper ; loc. typ. : Sicily).

RANGE : S. Turkey, N. Iraq, Lebanon, ? S. Syria, N. Jordan, N. + C. Israel (AI ; also in SW. Iran)

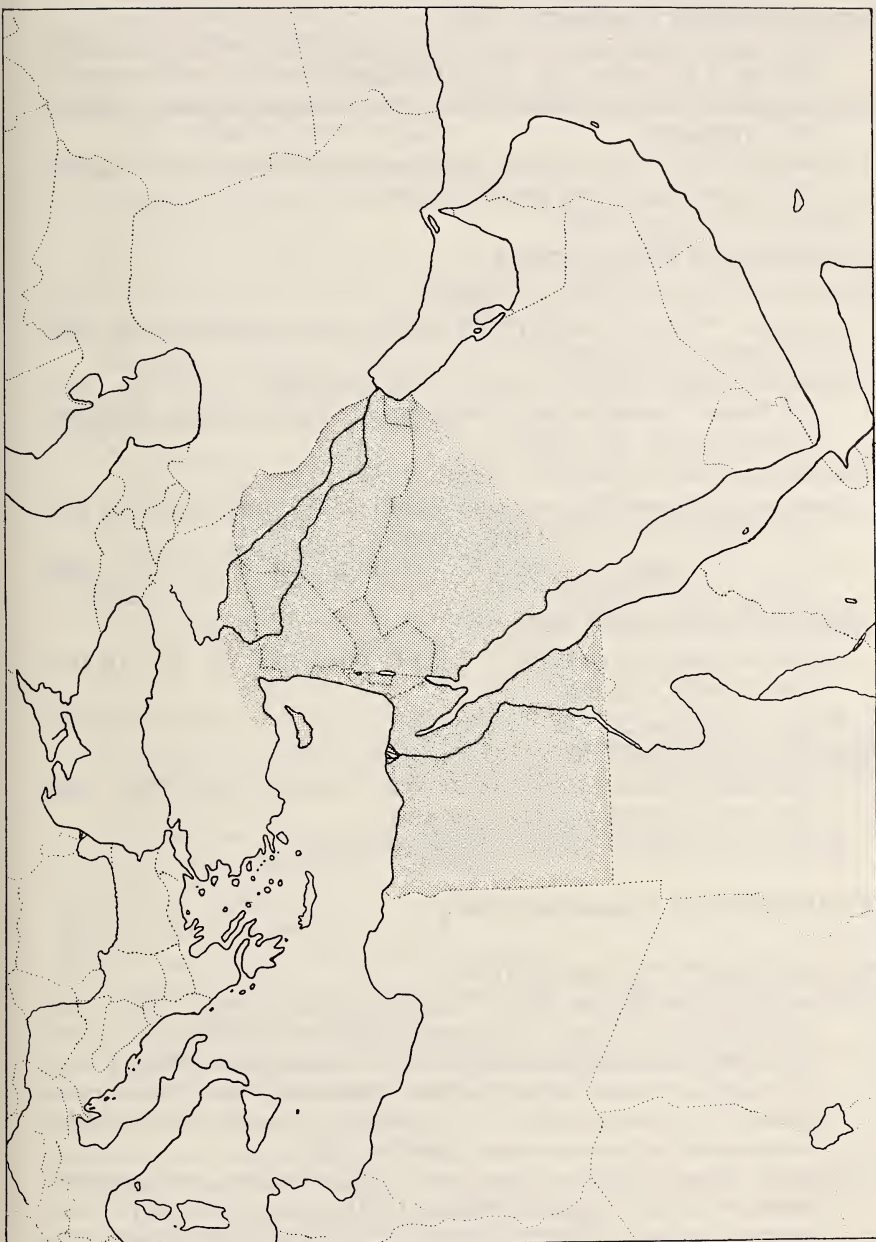


Fig. 1. Study area (see text).

EUMEGETHES Staudinger, 1898

Eumegethes tenuis Staudinger, 1898

Thalpochares (Eumegethes) tenuis Staudinger, 1898 : Dt. Ent. Z. Iris 10 : 268, Pl. 4, Fig. 6 (loc. typ. : Sfax, E. Tunisia)

Lomographa petroffi Andres & Seitz, 1923 : Senckenbergiana 7 : 60 (loc. typ. : [Egypt])

Eumegethes picta Turati, 1934 : Atti Soc. Ital. Sci. Nat. 73 : 176, pl. 3, fig. 14 (loc. typ. : Porto Bardia, E. Libya)

RANGE : W. Egypt (SM)

ORTHOSTIXIS Hübner, [1823]

Orthostixis cribraria (Hübner, [1799])

Geometra cribraria Hübner, [1799] : Samml. Eur. Schmett. Geom. t. 16, f. 83 (loc. typ. : [Europe]).

Phalaena laetata Fabricius, 1798 : Suppl. Ent. Syst. p. 456 (loc. typ. : „S. Russia”; junior primary homonym to *Phalaena laetata* Fabricius, 1784 : Ent. Syst. 3 (2) : 164)

Orthostixis cribraria amanensis Wehrli, 1932

Orthostixis cribraria Hb. *amanensis* Wehrli, 1932 : Mitt. münch. ent. Ges. 22 : 3 (loc. typ. : Döldül Dag, Amanos)

RANGE : S. Turkey, N. and C. Lebanon (ssp. e ; sp. EM, with Sicily, S. + C. Italy))

Orthostixis cinerea Rebel, 1916

Orthostixis cinerea Rebel, 1916 : Jahresb. Wien. Ent. Ver. 26 : 108 (loc. typ. : Nicosia, Cyprus)

RANGE : Cyprus (e)

Orthostixis calcularia Lederer, 1853

Orthostixis calcularia Lederer, 1853 : Verh. Zool.-Bot. Ver. Wien 3 : 260 (loc. typ. : Elisabethpol, Transcaucasus)

RANGE : S. Turkey, „Syria” (Prout, 1912) (AI)

GEOMETRINAE Duponchel, [1845]

PSEUDOTERPNIINI Warren, 1893

Pseudoterpninae Warren, 1893 : Proc. Zool. Soc. London 1893 : 349. Availability of the name “Pseudoterpnini” based on article 36 ICZN ; Type genus according to article 63 ICZN *Pseudoterpna* Hübner, [1823], although not listed in the original publication, but *Pseudoterpna* belongs to Pseudoterpninae as suggested by Warren. Next available name would be Pseudoterpnini Herbulot, 1963.

Terpnini Inoue, 1961, nec Kusnetzov, 1904, homonym, not available. Based on *Terpna* Herrich-Schäffer, [1854], which is an incorrect subsequent spelling of *Terpne* Hübner, 1822. In addition homonym to Terpnidae Kusnetzov, 1904 : Horae Ent. Soc. Ross. 37 : 53. The latter

based on *Terpne* Hbn., junior objective synonym to *Geometra* Linnaeus, 1758. *Terpnini* Kusnetzov therefore synonym to *Geometrini*.

PINGASA Moore, [1887]

Pingasa lahayei (Oberthür, 1887)

Hypochroma lahayei Oberthür, 1887 : Bull. Soc. Ent. Fr. 1887 : LIX (loc. typ. : Ain-Sefra, NW. Algeria)

Pingasa lahayei multispurcata Prout, 1913

Pingasa multispurcata Prout, 1913 : Novit. Zool. 20 : 397 (loc. typ. : Rawal Pindi, N. Pakistan)

RANGE : W. Saudi Arabia, C. and S. Iraq (ssp. TA ; sp. PT)

PSEUDOTERPNA Hübner, [1823]

Pseudoterpna coronillaria (Hübner, [1817])

Geometra coronillaria Hübner, [1817] : Samml. Eur. Schmett. Geom. : pl. 93, fig. 479-482 (loc. typ. : [Europe : S. France, Corsica or Spain])

Pseudoterpna coronillaria axillaria Guenée, 1857

Pseudoterpna axillaria Guenée, 1857 : Spec. Gén. Léop. 9 : 339 (loc. typ. : Beirut, Lebanon)

RANGE : Lebanon, ? S. Turkey (Prout 1913 : 20 "Taurus"), ? Cyprus, ? NW. Syria (ssp. EM, sp. HM)

Pseudoterpna coronillaria halperini Hausmann, 1996

Pseudoterpna coronillaria halperini Hausmann, 1996 : Nota lepid. 19 (1/2) : 16 (loc. typ. : Senir, NE. Israel)

RANGE : N. Jordan, N. + C. Israel (ssp. e, sp. HM)

Pseudoterpna rectistrigaria Wiltshire, 1948

Pseudoterpna coronillaria Hb. (sic !) ab. *rectistrigaria* Rebel, 1939 : Mitt. münch. ent. Ges. 29 : 531, pl. 15, fig. 12. (not available, see Hausmann, 1994 : 81)

Pseudoterpna rectistrigaria Wiltshire, 1948 : Entomologist's Rec. J. Var. 15 : 81, fig. B (loc. typ. : Cyprus)

RANGE : Cyprus (e)

HOLOTERPNA Püngeler, 1900

Holoterpna pruinosa (Staudinger, 1898)

Eucrostis (?) *pruinosa* Staudinger, 1898 : Dt. Ent. Z. Iris 10 : 303 (loc. typ. : Jerusalem, Israel)

RANGE : Lebanon, N. + C. Israel (EM, furthermore NE. Italy : Trieste, probably introduced by ship)

APLASTA Hübner, [1823]

Aplasta ononaria (Fuessly, 1783)

Phalaena ononaria Fuessly, 1783 : Arch. Insectengesch. 3 : 1, t. 17, f. 4-6 (loc. typ. : not stated, probably [S. Europe])

Geometra faecaturia Hübner, [1819] : Samml. eur. Schmett. 5, Geom. : pl. 97, fig. 503 (loc. typ. : [Europa])

Aplasta faecataria Hübner, [1823]: Verz. Bek. Schmett. : 304 (justified emendation).

Aplasta ononaria ab.? (v.?) *berytaria* Staudinger, 1901: Cat. Lep. Palaearct. 1 : 261 (loc. typ. : Beirut, Lebanon).

RANGE : S. Turkey, Cyprus, N. Iraq, Lebanon, Syria, N. Israel, N. Jordan (EO)

COMIBAENINI Inoue, 1961

Euchlorini Herbulot, 1963

MICROBAENA Hausmann, 1996

Microbaena pulchra (Staudinger, 1897)

Phorodesma pulchra Staudinger, 1897 : Dt. Ent. Z. Iris 10 : t. 4, fig. 27, (p. 302 : 1898) (loc. typ. : Jerusalem or Jaffa, Israel)

RANGE : C. Israel (Eth)

COMIBAENA Hübner, [1823]

Comibaena bajularia ([Denis & Schiffermüller], 1775)

Phalaena pustulata Hufnagel, 1767 : Berlinisches Magazin : 520 (loc. typ. : Berlin distr. ; junior primary homonym to *Phalaena pustulata* O. F. Müller, 1764 : Faun. Frid. 46 ; identity *Hyphoraia aulica* (Linnaeus, 1758), Arctiidae)

Geometra (Phalaena) bajularia [Denis & Schiffermüller], 1775 : Schmett. Wien : 97 (loc. typ. : Vienna, Austria).

RANGE : S. Turkey (EO)

PROTEUCHLORIS Hausmann, 1996

Proteuchloris neriaria (Herrich-Schäffer, 1852)

neriaria Herrich-Schäffer, 1848 : Syst. Bearb. Schm. Eur. 3 : t. 70, fig. 429 (uninominal, no description, not available).

[*Geometra (Phorodesma)*] *neriaria* Herrich-Schäffer, 1852 : Syst. Bearb. Schm. Eur. 6 : 62 (nec "Friv."; loc. typ. : Crete ; available : description in the supplements of Vol. 6 apparently uninominal with species name only, but there is precisely stated position in text of Vol. 6, where the description has to be inserted. Thus the combined generic and subgeneric indication that is given in text part of Vol. 6, is valid also for the supplementary description of *neriaria*).

RANGE : S. Turkey, Lebanon, N. Israel (EM)

THETIDIA Boisduval, 1840

subgenus *ANTONECHLORIS* Raineri, 1994

Thetidia (Antonechloris) smaragdaria (Fabricius, 1787)

Phalaena smaragdaria Fabricius, 1787 : Mant. Ins. 2 : 192 (loc. typ. : Austria)

RANGE : not represented in the study area, but discussed in Hausmann (1996) with regard to *T. persica*.

Thetidia (Antonechloris) volgaria (Guenée, 1857)

Geometra prasinaria Eversmann, 1837 : Bull. Soc. Imp. Nat. Mosc. 10 (2) : 52 (loc. typ. : Orenburg, S. Russia ; junior primary homonym to *Geometra prasinaria* Linnaeus).

Geometra volgaria Guenée, 1857 : Spec. Gén. Léop. 9 : 344 (loc. typ. : Orenburg, S. Russia).

RANGE : not represented in the study area, but discussed in Hausmann (1996) with regard to *T. persica*.

Thetidia (Antonechloris) persica Hausmann, 1996

Euchloris smaragdaria F. ssp. *anomica* sensu Schwingenschuss, 1940 (Ent. Z. 53 : 202 : Pelur, N. Iran) nec Prout, 1935 : 17 (loc. typ. : Issyk Kul, C. Asia).

Thetidia persica Hausmann, 1996 : Nota lepid. 19 (1/2) : 27 (loc. typ. : Tacht i Suleiman, N. Iran).

RANGE : S. Turkey, N. Iraq (AI)

Thetidia (Antonechloris) silvia Hausmann, 1991

Thetidia silvia Hausmann, 1991 : Mitt. münch. ent. Ges. 81 : 117, t. 1, figs. 10, 11, t. 10, fig. 71 (loc. typ. : Shaubak, Jordan).

RANGE : C. Jordan (e)

Thetidia (Antonechloris) bilineata Hausmann, 1991

Thetidia bilineata Hausmann, 1991 : Mitt. münch. ent. Ges. 81 : 117, t. 1, fig. 8, t. 10, fig. 72 (loc. typ. : Shaubak, Jordan).

RANGE : C. Jordan (e)

subgenus *AGLOSSOCHLORIS* Prout, 1912

Thetidia (Aglossochloris) euryrithra Prout, 1935

Aglossochloris crucigerata euryrithra Prout, 1935 : in Seitz Macrolep. 4 Suppl. : 18, fig. 3c (loc. typ. : Amman, Jordan)

RANGE : N. Jordan (e)

HEMISTOLINI Inoue, 1961

HEMISTOLA Warren, 1893

Hemistola chrysoprasaria (Esper, 1795)

Phalaena (Geometra) vernaria [Denis & Schiffermüller], 1775 : Ank. Verz. Schmett. Umg. Wien : 97 (loc. typ. : Vienna distr. ; junior primary homonym to *Phalaena (Geometra) vernaria* Linnaeus, 1761 : Fauna Svec. (2) : 323, identity *Jodis lactearia* (Linnaeus, 1758))

Phalaena (Geometra) chrysoprasaria Esper, 1795 : Schmett. in Abbild. 5 : 37, t. 5, fig. 1 (loc. typ. : first locality mentioned "Vienna" but "Originals from Frankfurt")

Hemistola immaculata auct. nec Thunberg, 1784 ("*Geometra immaculata*"; cf. Karsholt & Schmid Nielsen, 1985 : 448)

Hemistola biliosata auct. nec de Villers, 1789 ("*Phalaena Geometra biliosata*" Linn. Ent. 2 : 386, pl. 6, fig. 22). Recently some authors have

treated *biliosata* as the valid species name for this taxon (e.g. Skou, 1986 : 28 ; Rezbanyai-Reser, 1993 : Boll. Soc. Tic. Sci. Natur. 81 (1) : 47). Shape of postmedian line of forewing in original illustration of *biliosata* however clearly proves its true identity to be *Hylaea fasciaria* f. *prasinaria*.

RANGE : S. Turkey (EO)

XENOCHLORODES Warren, 1897

Xenochlorodes olympiaria (Herrich-Schäffer, 1852)

olympiaria Herrich-Schäffer, 1851 : Syst. Bearb. Schmett. Eur. 3 : pl. 87, fig. 539 (loc. typ. : not stated ; uninominal, no text, not available)

Geometra (Eucrostes) olympiaria Herrich-Schäffer, 1852 : Syst. Bearb. Schmett. Eur. 6 : 63 (loc. typ. : Olymp near Brussa, NW. Turkey)

Geometra beryllaria Mann, 1853 : Verh. Zool.-Bot. Ver. Wien 3 : 76 (loc. typ. : Spalato, Dalmatia)

Nemoria aureliaria Millière, 1864 : Ann. Soc. Linn. Lyon (N.S.) 11 : 268 (Icon. Chen. 2 : 37), pl. 55, fig. 1, 2 (loc. typ. : S. Italy)

Xenochlorodes olympiaria cremonaria (Staudinger, 1897)

Eucrostis olympiaria HS. var. ? *cremonaria* Staudinger, 1897 : Dtsch. Ent. Z. Iris 10 : 179 (loc. typ. : Haifa, Israel)

Xenochlorodes pallida Warren, 1897 : Novit. Zool. 4 : 47 (loc. typ. : Lebanon, Beirut)

RANGE : S. Turkey, Cyprus, Lebanon, N. + C. Israel (ssp. EM ; sp. HM)

GNOPHOSEMA Prout, 1912

Gnophosema palumba Brandt, 1938

Gnophosema palumba Brandt, 1938 : Ent. Rndsch. 55 (49) : 572, figs. 238-243 (loc. typ. : Mian-Kotal, SW. Iran)

Gnophosema palumba kurdistan Ebert, 1969

Gnophosema palumba kurdistan Ebert, 1969 : Arkiv för Zool. 22 (6) : 193, figs. 16, 17, gen.fig. 11 (loc. typ. : Shaqlawa, N. Iraq)

RANGE : N. Iraq (ssp. e ; sp. AI)

VICTORIA Warren, 1897

subgenus *Victorinella* Hausmann, 1996

Victoria (Victorinella) wiltshirei Hausmann, 1996

Victoria sematoperas sensu Wiltshire, 1949 : Bull. Soc. Fouad Ier d'Ent. 33 : 399 (from Wadi Aideb, S. Egypt). Not available, homonym to *Victoria sematoperas* Prout, 1916 : Proc. Zool. Soc. London 1916 : 142, pl. II, Fig. 26 (loc. typ. : Mandere, S. Somalia).

Victoria wiltshirei Hausmann, 1996 : Nota lepid. 19 (1/2) : 39 (loc. typ. : Ed Damer, NE. Sudan)

RANGE : S. Egypt, N. Sudan (e)

Victoria (Victorinella) plantei Herbulot, 1976

Victoria plantei Herbulot, 1976 : Alexanor 9 : 290 (loc. typ. : Sodom, C. Israel)

RANGE : C. Israel (e)

Victoria (Victorinella) eremita Hausmann, 1993

Victoria eremita Hausmann, 1993 : Spixiana 16 (1) : 55 (loc. typ. : Yotvata, S. Israel)

RANGE : S. Israel (e)

Victoria (Victorinella) fifensis Wiltshire, 1994

Victoria fifensis Wiltshire, 1994 : Fauna of Saudi Arabia 14 : 115, pl. 1, figs. 5-6 (loc. typ. : Tarima, W. Saudi Arabia)

RANGE : W. Saudi Arabia (e)

COMOSTOLINI Inoue, 1961

EUCROSTES Hübner, [1823]

Eucrostes indigenata (de Villers, 1789)

Phalaena indigenata de Villers, 1789 : Caroli Linn. Ent. 2 : 383, pl. 6, fig. 19 (loc. typ. : Europe, "Le Content")

Geometra fimbriolaria Hübner, [1817] 1796 : Samml. Eur. Schmett. 5 : pl. 91, fig. 468 (loc. typ. : [Europa])

RANGE : Lebanon, N. + C. Israel, Jordan (HM)

THALERINI Herbulot, 1963

Chlorochromites Duponchel, [1845], ("sub-tribe"), nom. invalid. : "Chlorochromini" valid according to Seven (1991 : 44) and including also those species placed here in Hemitheini. Based on the type genus *Chlorochroma* Duponchel, [1845], which is an objective junior synonym of *Thalera* Hübner, [1823] (same type species). Family group name Chlorochromites forgotten for about 100 years, but "Thalerini" accepted e.g. by Leraut (1980), Vives Moreno (1994) and Viidalepp (1981) (cf. also Holloway, 1993 : 4).

Thalerini Herbulot, 1963 : Tribal name not introduced by Inoue, 1961, as suggested by Viidalepp (1981 : 95).

THALERA Hübner, [1823]

Thalera fimbrialis (Scopoli, 1763)

Phalaena fimbrialis Scopoli, 1763 : Ent. Carniolica : 216 (loc. typ. : Carniolia (Slovenia))

Thalera fimbrialis magnata A. Fuchs, 1903

Thalera fimbrialis ab. (var. ?) *magnata* A. Fuchs, 1903 : Jahrb. Nass. Ver. Nat. 56 : 53 (loc. typ. : Tura, Transcaspia)

Thalera fimbrialis major Warnecke, 1930 : Int. Ent. Z. Guben 24 : 133, pl. 1 figs. 10-11 (loc. typ. : Issyk Kul, Kirgizia)

RANGE : S. Turkey, Lebanon (ssp. AI with C. Asian mountains, sp. EO)

CULPINIA Prout, 1912

Culpinia prouti (Thierry-Mieg, 1913)

Thalera prouti Thierry-Mieg, 1913 : Feuille Jeun. Nat. 43 : 180 (loc. typ. : Akbès, S. Turkey)

Thalera feroniaria Oberthür, 1916 : Lep. Comparée 12 : 123 (loc. typ. : Akbès, S. Turkey)

RANGE : S. Turkey, Lebanon, C. Israel (EM)

HEMITHEINI Bruand, 1846

CHLORISSA Stephens, 1831

Chlorissa viridata (Linnaeus, 1758)

Phalaena viridata Linnaeus, 1758 : Syst. Nat. (10) 1 : 523 (loc. typ. : not stated [Europe])

RANGE : Not represented in the study area, but discussed in Hausmann (1996) with regard to *C. cloraria*.

Chlorissa cloraria (Hübner, [1813])

Geometra cloraria Hübner, [1813] : Samml. Eur. Schmett. 5 : pl. 68, fig. 352 (loc. typ. [Europe])

RANGE : C. Turkey, probably reaching the study area in the Taurus Mountains (EO)

Chlorissa asphaleia Wiltshire, 1966

Chlorissa asphaleia Wiltshire, 1966 : Zeits. Wien. Ent. Ges. 51 : 30, pl. 2, fig. 3 (loc. typ. : Derbend, N. Iran).

RANGE : E. Turkey, perhaps reaching the study area in the Taurus mountains (AI)

PHAIOGRAMMA Gumpfenberg, 1887

Phaiogramma pulmentaria (Guenée, 1857)

etruscaria Zeller, 1849 : Ent. Z. [Stettin] : 203 (loc. typ. : Livorno, N. Italy ; uninominal in the text, binominal in the index ; name forgotten for about 100 years)

Nemoria pulmentaria Guenée, 1857 : Spec. Gén. Léop. Phal. 9 : 349 (loc. typ. : S.-Frankreich (Dalmatien, Italien))

Nemoria (sic !) *pulmentaria* Gn. var. *palaestinensis* Fuchs, 1903 : Societ. Entom. 18 : 51 (loc. typ. : Jerusalem)

RANGE : S. Turkey, N. + NW. Iraq, Lebanon, N. + C. Israel, N. Jordan (EO)

Phaiogramma faustinata (Millière, 1868)

Nemoria faustinata Millière, 1868 : Ann. Soc. Linn. Lyon (N.S.) 17 : 26
(Icon. Chen. 2 : 436) (loc. typ. : Barcelona, Spain)

RANGE : Cyprus, C. Lebanon, Israel, N. Jordan, W. Saudi Arabia,
Egypt (Eth)

Phaiogramma discessa (Walker, 1861)

Iodis discessa Walker, 1861 : List. Lep. Ins. Brit. Mus. 22 : 544 (loc. typ. :
North Hindustan)

? *Chlorissa patialensis* Rose & Devinder, 1985 : Journ. Bomb. Nat. Hist.
Soc. 82 : 614, figs. 1-5 (loc. typ. : Patiala, NW. India)

RANGE : E. Saudi Arabia (north-western limit of distribution
Kuwait ?) (TA)

Phaiogramma polemia (Prout, 1920)

Microloxia polemia Prout, 1920 : Novit. Zool. Tring 27 : 300 (loc. typ. :
Kut-al-Amara, C. Iraq)

RANGE : C. + S. Iraq (e ; also SW. Iran)

NEROMIA Staudinger, 1898

Neromia pulvereisparsa (Hampson, 1896)

Nemoria pulvereisparsa Hampson, 1896 : Proc. Zool. Soc. Lond. 1896 :
268, pl. 10, fig. 27 (loc. typ. : Aden, S. Yemen)

RANGE : C. + S. Iraq, Saudi Arabia (EE)

Neromia pulvereisparsa jodisata Staudinger, 1898

Nemoria ? (*Neromia*) *jodisata* Staudinger, 1898 : Dt. Ent. Ztschr. Iris 10 :
304, pl. 4, fig., 28 (loc. typ. : Israel/Jordan, Jordan Valley)

Chlorissa draudti Andres-Seitz, 1924 : Senckenbergiana VI (1/2) : 70,
fig. 19 (loc. typ. Wadi Hof near Heluan, Egypt).

RANGE : C. + E. Egypt, S. + C. Israel, S. Jordan (ssp. e ; sp. EE)

Neromia simplex Brandt, 1938

Neromia simplex Brandt, 1938 : Entom. Rundsch. 55 : 572, fig. 219 (loc.
typ. : Fort Mian-Kotal, SW. Iran)

RANGE : C. Iraq (according to Heydemann et al. 1963 : 104), E.
Saudi Arabia (near Kuwait) (EE)

KUCHLERIA Hausmann, 1995

Kuchleria gisizi Hausmann, 1995

Kuchleria gisizi Hausmann, 1995 : Atalanta 25 (3/4) : 588, fig. 49 (loc.
typ. : Tel Aviv, C. Israel).

RANGE : C. Israel (e)

MICROLOXIINI Hausmann, 1996

MICROLOXIA Warren, 1893

Microloxia herbaria (Hübner, [1813])

Geometra herbaria Hübner, [1813]: Samml. Eur. Schmett. 5: pl. 79, fig. 407 (loc. typ. [Europa])

RANGE: S. Turkey, Cyprus, Lebanon, C. Iraq, N. Israel, heights of C. Israel (EO)

Microloxia ruficornis Warren, 1897

Microloxia ruficornis Warren, 1897: Novit. Zool. 4: 42 (loc. typ.: Natal, S. Africa).

Eucrostes halimaria Chreti  n, 1909: Le Naturaliste 31: 18 (loc. typ.: Biskra, Algeria).

Microloxia indecretata auct. nec Walker, [1863] (List Specimens lepid. Insects Colln Br. Mus. 26: 1555 (loc. typ.: South Hindustan))

RANGE: Egypt, Saudi Arabia, C. + S. Israel, S. Jordan, Kuwait, S. Iraq (PT)

ACIDALIASTIS Hampson, 1896

Acidaliastis micra Hampson, 1896

Acidaliastis micra Hampson, 1896: Proc. zool. Soc. London 1896: 267, pl. 10, fig. 20 (loc. typ.: S. Yemen, Aden)

Euchloris dissimilis Warren & Rothschild, 1905: Novitates Zool. 12: 26; pl. 4, fig. 27 (loc. typ.: Nakheila, Sudan)

Eucrostes ? desertoria Rebel, 1909: Verh. Nat. Ver. Karlsruhe 21: 137 (loc. typ.: Sinai).

RANGE: S. + E. Egypt, Saudi Arabia, S. + C. Israel, S. Jordan (SA)

HEMIDROMODES Prout, 1916

Hemidromodes robusta (Prout, 1913)

Hierochthonia robusta Prout, 1913: Novit. Zool. 20: 435 (loc. typ.: Port Sudan)

RANGE: C. + S. Egypt (also Sudan; ssp. e; sp. WE)

Hemidromodes robusta affinis (Rothschild, 1915)

Hemidromodes affinis Rothschild, 1915: Ann. Mag. Nat. Hist. 16 (8th series): 392 (loc. typ.: Tahihout, Hoggar, Algeria)

Hierochthonia debonoi Kr  ger, 1939: Ann. Mus. Libico Stor. Nat. 1: 352, pl. 16, figs. 109-110 (loc. typ.: Gebel es-Soda, Tripolitania, Libya)

RANGE: NW. Egypt ? (ssp. e ?, sp. WE)

Hemidromodes robusta galala Wiltshire, 1949

Hemidromodes affinis galala Wiltshire, 1949: Bull. Soc. Fouad Ier d'Ent. 33: 401; pl. 9, figs. 3, 4 (loc. typ.: Suez Road (km 100), E. Egypt).

RANGE: E. Egypt (ssp. e; sp. WE)

Hemidromodes sabulifera Prout, 1922

Hemidromodes sabulifera Prout, 1922: Bull. Hill Mus. 1: 257 (loc. typ.: Bombay, W. India)

RANGE: C. and E. Saudi Arabia (also S. Iran; TA)

Hemidromodes sabulifera hessa Prout, 1935

Hemidromodes sabulifera hessa Prout, 1935 : in Seitz Macrolep. 4, Suppl. : 16, fig. 6b (loc. typ. : Ghor el Safieh, S. Dead Sea, Jordan)

RANGE : S. + C. Israel, S. + C. Jordan (ssp. e ; sp. TA)

Hemidromodes sabulifera triforma Wiltshire, 1949

Hemidromodes robusta triforma Wiltshire, 1949 : Bull. Soc. Fouad Ier d'Ent. 33 : 363 ; figs. 10, 11 (loc. typ. : Hejaz, Saudi Arabien)

RANGE : W. Saudi Arabia (ssp. e ; sp. TA)

HIEROCHTHONIA Prout, 1912

Hierochthonia pulverata (Warren, 1901)

Microloxia pulverata Warren, 1901 : Novit. Zool. 8 : 193 (loc. typ. : Lebanon, Beirut)

RANGE : S. Turkey, Lebanon (EM)

Hierochthonia semitaria (Püngeler, 1901)

Eucrostes semitaria Püngeler, 1901 : Dtsch. Ent. Z. Iris 14 : 333 (l.t. : Dead Sea, near Qumran, C. Israel)

RANGE : N. + C. Israel, N. + C. Jordan (e)

References

- AMSEL, H. G., 1933. Die Lepidopteren Palästinas. *Zoogeographica* 2 (1) : 1-146.
- AMSEL, H. G., 1935a. Neue palästinensische Lepidopteren. *Mitt. Zool. Mus. Berlin* 20 (2) : 271-319.
- AMSEL, H. G., 1935b. Weitere Mitteilungen über palästinensische Lepidopteren. *Veröff. dt. Kolon. u. Übersee-Mus. Bremen* 1 (2) : 223-277.
- ELLISON, R. E. & WILTSHIRE, E. P., 1939. The Lepidoptera of the Lebanon with notes on their season and distribution. *Trans. R. ent. Soc. Lond.* 88 (1) : 1-56.
- FLETCHER, D. S., 1979. In Nye, I.W.B (Ed.) : The Generic Names of Moths of the World, vol. 3, London, 243 pp..
- HAUSMANN, A., 1991. Beitrag zur Geometridenfauna Palästinas : Die Spanner der Klapperich-Ausbeute aus Jordanien (Lepidoptera, Geometridae). *Mitt. münch. ent. Ges.* 81 : 111-163.
- HAUSMANN, A., 1994. Beitrag zur Geometridenfauna Zyperns. *Z. Arb. Gem. öst. Ent.* 46 (3/4) : 81-97.
- HAUSMANN, A., 1996. The Morphology of the Geometrid Moths of the Levant and Neighbouring Countries (Part I : Orthostixinae-Geometrinae). *Nota lepid.* 19 (1/2) : 3-90.
- HEYDEMANN, F., SCHULTE, A. & REMANE, R., 1963. Beitrag zur Macrolepidopterenfauna des Irak. *Mitt. münch. ent. Ges.* 58 : 80-107.
- HOLLOWAY, J. D., 1993. The Moths of Borneo : Family Geometridae, Subfamily Ennominae. 309 pp., London.

- INOUE, H., 1961. Geometridae, Insecta Japonica. Series 1, Part 4: 1-106. Hokuryukan, Tokyo.
- KARSHOLT, O. & SCHMIDT NIELSEN, E., 1985. The Lepidoptera described by C.P. Thunberg. *Ent. Scand.* 16 : 433-466.
- LERAUT, P., 1980. Liste systématique et synonymique des Lépidoptères de France, Belgique et Corse. *Suppl. à Alexanor et au Bull. Soc. ent. de France*, 334 pp., Paris.
- PROUT, L. B., 1912. Lepidopterorum Catalogus, Pars 8 : Geometridae : Brephinae, Oenochrominae. 94 pp., W. Junk, Berlin.
- PROUT, L.B., 1913. Lepidopterorum Catalogus, Pars 14 : Geometridae : Subfam. Hemitheinae. 192 pp., W. Junk, Berlin.
- REBEL, H., 1939. Zur Lepidopterenfauna Cyperns. *Mitt. münch. ent. Ges.* 29 : 487-564.
- SEVEN, S., 1991. Trakya Lepidoptera Faunasi Üzerine Bibliografik Arastirmalar. *Priamus* 6 (1/2) : 1-82.
- SKOU, P., 1986. The Geometrid Moths of North Europe. *Entomonograph*, Vol. 6. 348 pp., Copenhagen.
- VIIDALEPP, J., 1981. The systematic of the genera of the subfamily Geometrinae (Lepidoptera, Geometridae). *Trudy vses. ent. Obshch.* 63 : 90-95.
- VIVES MORENO, A., 1994. Catalogo sistematico y sinonimico de los Lepidopteros de la Peninsula Iberica y Baleares II., Madrid.
- WEHRLI, E., 1934. Lepidopteren-Fauna von Marasch in türkisch Nordsyrien. *Mitt. münch. ent. Ges.* 24 : 1-55.
- WILTSHIRE, E. P., 1948. Middle East Lepidoptera, IX : Two new forms or species and thirty-five new records from Cyprus. *Entomologist's Rec. J. Var.* 60 : 79-87.
- WILTSHIRE, E. P., 1949. The Lepidoptera of the Kingdom of Egypt, Pt. 2. *Bull. Soc. Fouad I^{er} d'Ent.* 33 : 381-457.
- WILTSHIRE, E. P., 1957. The Lepidoptera of Iraq. Nicholas Kaye Limited, London & Bagdad.
- WILTSHIRE, E. P., 1980. Insects of Saudi Arabia. Fam. Cossidae, Limacodidae, Sesiidae, Lasiocampidae, Sphingidae, Notodontidae, Geometridae, Lymantriidae, Nolidae, Arctiidae, Agaristidae, Noctuidae, Ctenuchidae. *Fauna of Saudi Arabia* 2 : 179-240.
- WILTSHIRE, E. P., 1990. An Illustrated, Annotated Catalogue of the Macro-Heterocera of Saudi Arabia. *Fauna of Saudi Arabia* 11 : 91-250.

ZOBODAT - www.zobodat.at

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