

XYLENINAE I.

THE WITT CATALOGUE

9



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A Taxonomic Atlas of the
Eurasian and North African
Noctuoidea

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László Ronkay, Gábor Ronkay, Péter Gyulai
& Zoltán Varga



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A TAXONOMIC ATLAS OF THE EURASIAN AND NORTH AFRICAN NOCTUOIDEA

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Contents

| | |
|--|----|
| Preface | 9 |
| Abbreviations | 10 |
| Acknowledgements | 11 |
| Taxonomic and nomenclatural summary | 13 |
| Systematic Part | |
| Subfamily Xyleninae Guenée, 1837 | 19 |
| Tribe Xylenini Guenée, 1837 | 19 |
| Subtribe Xylenina Guenée, 1837 | 19 |
| Genus Agrochola Hübner, 1821 | 19 |
| <i>lychnidis</i> ([Denis & Schiffermüller], 1775) | 20 |
| <i>orejoni orejoni</i> (Agenjo, 1951) | 21 |
| <i>orejoni terranova</i> (Parenzan, 1982) stat. rev. | 22 |
| Genus Anchoscelis Guenée, 1839 | 22 |
| Subgenus Anchoscelis Guenée, 1839 | 25 |
| <i>prolai</i> (Berio, 1976) comb. n. | 26 |
| <i>deleta</i> (Staudinger, 1882) comb. n. | 26 |
| <i>thurneri</i> (Boursin, 1953) comb. n. | 27 |
| <i>imitata</i> (Ronkay, 1984) comb. n. | 28 |
| <i>pistacinooides</i> (d'Aubuisson, 1867) comb. n. | 28 |
| <i>nitida</i> ([Denis & Schiffermüller], 1775) comb. n. | 29 |
| <i>lunosa</i> (Haworth, 1809) comb. n. | 30 |
| <i>tripolensis</i> (Hampson, 1914) stat. rev., comb. n. | 31 |
| <i>polybela</i> (de Joannis, 1903) comb. n. | 32 |
| <i>approximata</i> (Hampson, 1906) comb. n. | 33 |
| <i>deosaiensis</i> (Ronkay & Ronkay, 2000) comb. n. | 33 |
| <i>nekrasovi</i> (Hacker & Ronkay, 1992) comb. n. | 34 |
| <i>pamiricola</i> (Hacker & Ronkay, 1992) comb. n. | 34 |
| <i>trapezoides trapezoides</i> (Staudinger, 1882) comb. n. | 35 |
| <i>trapezoides naumanni</i> (Hacker & Ronkay, 1990) comb. n. stat. n. | 35 |
| <i>statira</i> (Boursin, 1960) comb. n. | 36 |
| <i>zoltanus</i> (Ronkay & Ronkay, 2000) comb. n. | 37 |
| <i>griseovariegata</i> (Ronkay & Ronkay, 2000) comb. n. | 37 |
| <i>spectabilis</i> (Hacker & Ronkay, 1990) comb. n. | 38 |
| <i>scabra</i> (Staudinger, 1892) comb. n. | 39 |
| <i>fuscomixta</i> (Gyulai & Ronkay, 2006) comb. n. | 40 |
| <i>pauli</i> (Staudinger, 1892) comb. n. | 40 |
| <i>kindermannii</i> (Fischer von Röslerstamm, 1838) comb. n. | 41 |
| <i>consueta</i> (Herrich-Schäffer, 1852) comb. n. | 42 |
| <i>rupicapra rupicapra</i> (Staudinger, 1879) comb. n. | 43 |

| | |
|--|----|
| <i>rupicapra kresnaensis</i> (Ronkay & Mészáros, 1982) stat. rev., comb. n. | 44 |
| <i>oropotamica oropotamica</i> (Wiltshire, 1941) comb. n. | 44 |
| <i>oropotamica archar</i> (Ronkay, Varga & Hreblay, 1998) comb. n. | 45 |
| <i>meridionalis meridionalis</i> (Staudinger, 1871) comb. n. | 46 |
| <i>meridionalis maghrebianus</i> ssp. n. | 46 |
| <i>agnorista</i> (Boursin, 1955) comb. n. | 47 |
| <i>hypotaenia</i> (Bytinski-Salz, 1936) comb. n. | 48 |
| <i>orientalis</i> (Fibiger, 1997) comb. n. | 48 |
| <i>litura</i> (Linnaeus, 1761) comb. n. | 49 |
| <i>luteogrisea</i> (Warren, 1911) comb. n. | 50 |
| <i>turcomanica</i> (Ronkay, Varga & Hreblay, 1998) comb. n. | 50 |
| <i>humilis</i> ([Denis & Schiffermüller], 1775) comb. n. | 51 |
| Subgenus <i>Alpichola</i> Ronkay, 1984 | 52 |
| <i>egorovi</i> (Bang-Haas, 1934) comb. n. | 52 |
| <i>azerica</i> (Ronkay & Gyulai, 1997) comb. n. | 53 |
| <i>lactiflora lactiflora</i> (Draudt, 1934) comb. n. | 54 |
| <i>lactiflora wautieri</i> (Dufay, 1975) comb. n. | 54 |
| <i>janhillmanni</i> (Hacker & Moberg, 1989) comb. n. | 55 |
| <i>elbursica</i> (Gyulai & Ronkay, 2006) comb. n. | 56 |
| <i>dubatolovi</i> (Varga & Ronkay, 1991) comb. n. | 56 |
| Subgenus <i>Osthelderichola</i> Beck, 1991 | 57 |
| <i>osthelderi</i> (Boursin, 1951) comb. n. | 57 |
| <i>gratiosa</i> (Staudinger, 1882) comb. n. | 58 |
| Subgenus <i>Rufachola</i> Beck, 1991 | 59 |
| <i>helvola helvola</i> (Linnaeus, 1758) comb. n. | 59 |
| <i>helvola pallescens</i> (Warren, 1909) comb. n. | 60 |
| Subgenus <i>Haemachola</i> Beck, 1991 | 60 |
| <i>haematidea</i> (Duponchel, 1827) comb. n. | 61 |
| Genus <i>Maraschia</i> Osthelder, 1933. | 61 |
| <i>grisescens grisescens</i> Osthelder, 1933. | 62 |
| <i>grisescens balcanica</i> ssp. n. | 62 |
| <i>hissarensis</i> Varga & Ronkay, 1991. | 63 |
| <i>secunda</i> Hacker, 1990 | 63 |
| Genus <i>Hazaropolia</i> gen. n. | 64 |
| <i>hazara hazara</i> (Hacker, 1990) comb. n. | 64 |
| <i>hazara marmorata</i> ssp. n. | 64 |
| Genus <i>Frivaldszkyola</i> Ronkay, 1984 | 65 |
| <i>mansueta mansueta</i> (Herrich-Schäffer, 1850) comb. n. | 66 |
| <i>mansueta sphakiota</i> (Ronkay, Yela & Hreblay, 2001) comb. n. | 67 |
| <i>staudingeri</i> (Ronkay, 1984) comb. n. | 67 |
| <i>elami</i> (Ronkay, 2001) comb. n. | 68 |
| Genus <i>Leptologia</i> Prout, 1901 | 68 |
| Subgenus <i>Leptologia</i> Prout, 1901 | 69 |
| <i>lota</i> (Clerck, 1759) | 69 |
| Subgenus <i>Xandria</i> de Laever, 1983 | 70 |
| <i>macilenta</i> (Hübner, [1808-1809]) | 71 |
| <i>blidaensis</i> (Stertz, 1915) comb. n. | 71 |
| Genus <i>Sunira</i> Franclemont, 1950. | 72 |
| <i>circellaris</i> (Hufnagel, 1766) | 72 |
| Genus <i>Vulpechola</i> gen. n. | 73 |
| <i>vulpecula</i> (Lederer, 1853) comb. n. | 74 |
| Genus <i>Agrocholorta</i> gen. n. | 74 |

| | |
|--|-----|
| Subgenus <i>Agrocholorta</i> subgen. n. | 76 |
| <i>albirena albirena</i> (Boursin, 1956) comb. n. | 76 |
| <i>albirena annamica</i> (Hreblay, Peregovits & Ronkay, 1999) comb. n. | 77 |
| <i>albirena doiinthanoni</i> (Hreblay & Ronkay, 1999) comb. n. | 77 |
| <i>albirena chihutuana</i> (Chang, 1991) comb. n. | 77 |
| <i>karma</i> (Hreblay, Peregovits & Ronkay, 1999) comb. n. | 78 |
| <i>attila</i> (Hreblay & Ronkay, 1999) comb. n. | 78 |
| <i>zita</i> (Hreblay & Ronkay, 1999) comb. n. | 79 |
| Subgenus <i>Flavirenorta</i> subgen. n. | 79 |
| <i>flavirena</i> (Moore, 1881) comb. n. | 80 |
| <i>stoyani</i> sp. n. | 80 |
| <i>antiqua antiqua</i> (Hacker, 1992) comb. n. | 81 |
| <i>antiqua kosagezai</i> (Hreblay, Peregovits & Ronkay, 1999) comb. n. stat. rev. | 82 |
| <i>punctilinea</i> (Hreblay & Ronkay, 1999) comb. n. | 83 |
| <i>gorza</i> (Hreblay & Ronkay, 1999) comb. n. | 83 |
| Subgenus <i>Mimicotelorta</i> subgen. n. | 83 |
| <i>atrifusa</i> (Ronkay & Kobayashi, 1997) comb. n. | 84 |
| <i>telortoides</i> (Hreblay & Ronkay, 1999) comb. n. | 84 |
| <i>fibigeri</i> (Ronkay, Ronkay, Gyulai & Hacker, 2010) comb. n. | 85 |
| Subgenus <i>Kyutekparkorta</i> subgen. n. | 85 |
| <i>parki</i> (Ronkay, Ronkay, Gyulai & Hacker, 2010) comb. n. | 86 |
| <i>magarorum</i> (Benedek, Babics & Saldaitis, 2013) comb. n. | 86 |
| Subgenus <i>Shipherorta</i> subgen. n. | 86 |
| <i>pallidilinea</i> (Hreblay, Peregovits & Ronkay, 1999) comb. n. | 87 |
| <i>humidialis</i> (Ronkay, Ronkay, Gyulai & Hacker, 2010) comb. n. | 87 |
| Subgenus <i>Semirenorta</i> subgen. n. | 88 |
| <i>semirena</i> (Draudt, 1950) comb. n. | 89 |
| <i>siamica</i> (Hreblay & Ronkay, 1999) comb. n. | 89 |
| <i>minorata</i> (Hreblay & Ronkay, 1999) comb. n. | 90 |
| <i>csoevarii</i> (Ronkay, Ronkay, Gyulai & Hacker, 2010) comb. n. | 90 |
| <i>kunandrasi</i> (Hreblay & Ronkay, 1999) comb. n. | 91 |
| <i>emilia</i> (Ronkay, 2001) comb. n. | 91 |
| <i>plumbitincta</i> (Hreblay, Peregovits & Ronkay, 1999) comb. n. | 92 |
| Subgenus <i>Pacificorta</i> subgen. n. | 92 |
| <i>nawae</i> (Matsumura, 1926) comb. n. | 92 |
| <i>taiwanawae</i> sp. n. | 93 |
| <i>amamiensis</i> (Shikata, 2015) comb. n. | 94 |
| <i>kimurai</i> (Shikata, 2015) comb. n. | 94 |
| Genus <i>Suginistra</i> gen. n. | 94 |
| <i>sakabei sakabei</i> (Sugi, 1980) comb. n. | 95 |
| <i>sakabei continentalis</i> (Ronkay, Ronkay, Gyulai & Hacker, 2010) comb. n. | 95 |
| Genus <i>Edentelorta</i> gen. n. | 95 |
| <i>edentata</i> (Leech, 1889) comb. n. | 96 |
| Genus <i>Telorta</i> Warren, 1910 | 97 |
| Subgenus <i>Telorta</i> Warren, 1910 | 97 |
| <i>divergens</i> (Butler, 1879) | 98 |
| <i>obscura</i> Yoshimoto, 1987 | 98 |
| <i>yazakii</i> Yoshimoto, 1987 | 99 |
| Subgenus <i>Acuminorta</i> subgen. n. | 99 |
| <i>acuminata</i> (Butler, 1878) | 100 |
| <i>shenhornyeni</i> Ronkay & Kobayashi, 1997 | 100 |
| Genus <i>Gigatelorta</i> Ronkay, Ronkay, Gyulai & Hacker, 2010. | 101 |

| | |
|--|-----|
| <i>falcipectus</i> (Boursin, 1958) | 102 |
| <i>herois</i> (Kobayashi, 1998) | 102 |
| Genus <i>Propenistra</i> Berio, 1980 | 103 |
| <i>laevis</i> (Hübner, [1800-1803]) | 103 |
| Genus <i>Incertobole</i> gen. n. | 104 |
| <i>evelina</i> (Butler, 1879) comb. n. | 104 |
| Genus <i>Hyalobole</i> Warren, 1911 | 105 |
| Subgenus <i>Hyalobole</i> Warren, 1911 | 106 |
| <i>orthosoides orthosoides</i> Warren, 1911 | 107 |
| <i>orthosoides hyalbre</i> Kobayashi, 2003 | 107 |
| <i>variegata</i> Hreblay & Ronkay, 1998 | 107 |
| <i>marginalis</i> Hreblay & Ronkay, 1998 | 108 |
| <i>medvegymihalyi</i> Ronkay, Ronkay, Gyulai & Hacker, 2010 | 109 |
| <i>infenestra</i> Hreblay & Ronkay, 1998 | 109 |
| <i>phaeosoma</i> (Hampson, 1906) | 110 |
| <i>subapicalis</i> Hreblay & Ronkay, 1998 | 111 |
| <i>subtropica</i> Hreblay, Peregovits & Ronkay, 1999 | 111 |
| Subgenus <i>Anstineobole</i> subgen. n. | 112 |
| <i>albimacula albimacula</i> (Kononenko, 1978) | 112 |
| <i>albimacula nigrizonata</i> Ronkay, Ronkay, Gyulai & Hacker, 2010 | 112 |
| <i>kononenkoi</i> Hreblay & Ronkay, 1998 | 113 |
| Subgenus <i>Tzuobole</i> subgen. n. | 113 |
| <i>nigripalpis nigripalpis</i> (Warren, 1911) | 114 |
| <i>nigripalpis hreblayi</i> Kobayashi, 2003 | 114 |
| <i>taiwanensis</i> Hreblay & Ronkay, 1998 | 115 |
| <i>changae changae</i> Owada, 1994 | 115 |
| <i>changae longirostris</i> Hreblay & Ronkay, 1998 | 116 |
| Subgenus <i>Fuobole</i> subgen. n. | 116 |
| <i>conistroides</i> Ronkay, Ronkay, Gyulai & Hacker, 2010 | 116 |
| Genus <i>Cupreobole</i> Ronkay, Ronkay, Gyulai & Hacker, 2010 | 117 |
| <i>adrienneae</i> Ronkay, Ronkay, Gyulai & Hacker, 2010 | 117 |
| Colour Plates | 119 |
| Magnified images | 119 |
| Natural-sized images | 155 |
| Genitalia figures | 195 |
| References | 327 |
| Index | 339 |

Preface

With this volume we wish to open a new field in the treatment of the Noctuidae sensu stricto, the subfamily Xyleninae, supposedly the taxonomically most diverse subfamily of Noctuidae. The first large clade of the tribe Xylenini we started the revisional work with is the *Agrochola-Telorta-Hyalobole* generic complex. This work has been started still at beginning of the eighties of the last century and continued with the revisions of the Balkanic, western Asiatic and, finally, with the Himalayan-Sino-Pacific taxa of this giant lineage.

The interpretation of *Agrochola* sensu lato has been changed in several time and the first splitting of the western Palaearctic groups is dated, similarly to our work, to the beginning of 80'es. Subsequently, the lumping tendencies dominated in the supraspecific grouping of the clade and only a few genera have been distinguished though the large *Agrochola* complex was divided into numerous subgenera. The complete revision of this taxonomic entity revealed the need to separate *Agrochola* s. str. from practically all other major groups put into this large sac and the detailed study of the Central and Eastern Asiatic "*Agrochola*" led to the description of a number of new genera and subgenera for the more ancient, mainly Himalayan-Pacific lineages.

It is worth mentioning that there are certain additional lineages which would belong to this major clade rather than to the conistroid genera (e.g. *Cirrhia*, *Spudaea*, *Jodia*, *Evisa* etc.) which are omitted from this volume, mainly due to the large size of the present item; these groups will be discussed in a forthcoming volume of the series. Thus, the *Agrochola-Telorta-Hyalobole* generic complex is treated in this volume in 16 genera, with the description of 6 new genera, 10 new subgenera, 2 new species and 3 new subspecies. The genitalia of both sexes of each taxa are illustrated and their phylogenetic and biogeographical connections are also discussed. Since these genera and their species/subspecies demonstrate a rich variety of colourful vs. unicolorous appearance with considerable geographical and individual variation, it was necessary to figure a larger number of specimens of most taxa, including valuable type materials from several large European collections, due to the friendly courtesy of our colleagues.

Similarly to the earlier volumes of this series, this volume is also based on a large number of genital slides, almost exclusively prepared by the authors. The technique of photographic reproduction was also continuously improved, mostly by long experience of Gabor Ronkay and also by the kind helpfulness of our friends in the Natural History Museum Vienna, The Natural History Museum London, the Zoological State Collection Munich and State Collection of Natural History Karlsruhe.

The authors would like to expect that this book will be a worthy continuation of the Taxonomic Atlas series and hope that our work will meet the approval both of professional entomologists and of enthusiasts of this fascinating group of moths.

Budapest, Miskolc and Debrecen, February, 2017

the Authors

Abbreviations

- BC CAS – Biological Centrum, Czech Academy of Sciences, České Budejovice
- BIN – Biological Institute, Russian Academy of Sciences, Novosibirsk
- BMNH – The Natural History Museum (formerly British Museum, Natural History), London
- CMF – collection of Chien-Ming Fu, Taiping
- EIHU – Entomological Institute, Hokkaido University, Sapporo
- ESRI - Taiwan Endemic Species Research Institute, Chi-Chi
- GYP – slide of Péter Gyulai
- HH – slide of Hermann-Heinrich Hacker
- HM – slide of Márton Hreblay
- HRT – collection of Han-Rong Tzuoo, Puli
- HT – slide of Hubert Thöny
- HNHM – Hungarian Natural History Museum, Budapest
- ICZN – International Code of Zoological Nomenclature
- LMK – Kärntner Landesmuseum, Klagenfurt
- LSL – The Linnean Society, London
- MHNG – Museum of Natural History, Geneva
- MNHNP – Museum National d'Histoire Naturelle, Paris
- NHMB – Natural History Museum, Basel
- NHMW – Naturhistorisches Museum, Wien
- NLMW – Niederösterreichisches Landesmuseum, Wien
- NRS – Naturhistoriska Riksmuseet, Stockholm
- NSMT – National Science Museum, Tsukuba
- OP – slide of Oleg Pekarsky
- RL – slide of Ronkay László
- SMNK – Staatliches Museum für Naturkunde, Karlsruhe
- SMNS – Staatliches Museum für Naturkunde, Stuttgart
- TLM - Tiroler Landesmuseum Ferdinandeum, Innsbruck
- USNMW – National Museum of Natural History, Washington
- VZ – slide of Zoltán Varga
- ZFMK – Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn
- ZISP – Zoological Institute, Russian Academy of Sciences, St. Petersburg
- ZMHU – Museum für Naturkunde (formerly Zoologisches Museum der Humboldt-Universität), Berlin
- ZMM – Zoological Museum of the Lomonossov University, Moscow
- ZMUC – Zoological Museum, University of Copenhagen
- ZSM – Zoologische Sammlung des Bayerischen Staates (Zoologische Staatssammlung, München).

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László Ronkay, Gábor Ronkay, Péter Gyulai and Zoltán Varga

Taxonomic and nomenclatural summary

The authors of all newly described taxa are the four authors of the volume except in case of *Agrocholorta (Pacificorta) taiwanawae* where the authors are Ronkay, Ronkay, Shikata, Gyulai & Varga.

Neotype designation

Orthosia kindermanni Fischer von Röslerstamm, 1838

Lectotype designations

Orthosia nitida var. *deleta* Staudinger, 1881
Cosmia trapezoides Staudinger, 1882
Orthosia kindermanni var. *pauli* Staudinger, 1891
Orthosia rupicapra Staudinger, 1879
Orthosia litura var. *meridionalis* Staudinger, 1871
Amathes egorovi Bang-Haas, 1934
Orthosia gratiosa Staudinger, 1881
Orthosia helvola var. *sibirica* Staudinger, 1882
Xanthia vulpecula Lederer, 1853
Orrhodia ciliata Staudinger, 1881

Newly described taxa

Newly described genera

Genus *Hazaropolia* **gen. n.**
Genus *Vulpechola* **gen. n.**
Genus *Agrocholorta* **gen. n.**
Genus *Suginistra* **gen. n.**
Genus *Edentelorta* **gen. n.**
Genus *Incertobole* **gen. n.**

Newly described subgenera

- Subgenus *Flavirenorta* **subgen. n.**
Subgenus *Kyutekparkorta* **subgen. n.**
Subgenus *Mimicotelorta* **subgen. n.**
Subgenus *Shipherorta* **subgen. n.**
Subgenus *Semirenorta* **subgen. n.**
Subgenus *Pacificorta* **subgen. n.**
Subgenus *Acuminorta* **subgen. n.**
Subgenus *Anstineobole* **subgen. n.**
Subgenus *Tzuoobole* **subgen. n.**
Subgenus *Fuobole* **subgen. n.**

Newly described species

- Agrocholorta* (*Flavirenorta*) *stoyani* **sp. n.**
Agrocholorta (*Pacificorta*) *taiwanawae* **sp. n.**

Newly described subspecies

- Anchoscelis* (*Anchoscelis*) *meridionalis maghrebianus* **ssp. n.**
Maraschia *grisescens balcanica* **ssp. n.**
Hazaropolia *hazara marmorata* **ssp. n.**

Revised status, **stat. rev.**

- Agrochola orejoni terranova* (Parenzan, 1982) **stat. rev.**
Anchoscelis (*Anchoscelis*) *tripolensis* (Hampson, 1914) **stat. rev.**
Anchoscelis (*Anchoscelis*) *rupicapra kresnaensis* (Ronkay & Mészáros, 1982) **stat. rev.**

Raised to genus

- Anchoscelis* Guenée, 1839 **stat. rev.**
Fivaldszkyola Ronkay, 1984 **stat. n.**

Downgraded to subspecies

- Anchoscelis* (*Anchoscelis*) *trapezoides naumanni* (Hacker & Ronkay, 1990) **stat. n.**
Agrocholorta (*Flavirenorta*) *antiqua kosagezai* (Hreblay, Peregovits & Ronkay, 1999) **stat. n.**

New synonyms

- Agrochola occulta* Hacker, 1996 – synonym of *Agrochola lychnidis* ([Denis & Schiffermüller], 1775) **syn. n.**
Agrochola lychnidis aequalis Hacker, 1996 – synonym of *Agrochola lychnidis* ([Denis & Schiffermüller], 1775), **syn. n.**
Agrochola deleta decolorata Boursin, 1951 – synonym of *Anchoscelis (Anchoscelis) deleta* (Staudinger, 1882) **syn. n.**
Amathes oropotamica thermopotamica Wiltshire, 1941 – synonym of *Anchoscelis (Anchoscelis) oropotamica oropotamica* (Wiltshire, 1941) **syn. n.**
Amathes modesta Brandt, 1941 – synonym of *Anchoscelis (Anchoscelis) oropotamica oropotamica* (Wiltshire, 1941) **syn. n.**
Agrochola sairtana Derra, 1990 – synonym of *Anchoscelis (Anchoscelis) luteogrisea* (Warren, 1911) **syn. n.**
Agrochola humilis anatolica Pinker, 1980 – synonym of *Anchoscelis (Anchoscelis) humilis* ([Denis & Schiffermüller], 1775) **syn. n.**
Agrochola fibigeri Hacker & Moberg, 1989 – synonym of *Anchoscelis (Alpichola) lactiflora wautieri* (Dufay, 1975), **syn. n.**
Orthosia helvola var. *sibirica* Staudinger, 1882 – synonym of *Anchoscelis (Rufachola) helvola helvola* (Linnaeus, 1758) **syn. n.**
Orthosia caspica Kuznetzov, 1957 – synonym of *Maraschia grisescens grisescens* Osthelder, 1933 **syn. n.**
Orthosia mansueta var. *pontica* Staudinger, 1901 – synonym of *Frivaldszkyola mansueta mansueta* (Herrich-Schäffer, 1850) **syn. n.**
Amathes lota ab. *abdita* Warren, 1911 – synonym of *Leptologia lota* (Clerck, 1759) **syn. n.**
Amathes macilenta plumbea Wiltshire, 1941 – synonym of *Leptologia lota* (Clerck, 1759) **syn. n.**
Anchoscelis plumbea convergens Wiltshire, 1946 – synonym of *Leptologia lota* (Clerck, 1759) **syn. n.**
Agrochola lota schreieri Hacker & Weigert, 1986 – synonym of *Leptologia lota* (Clerck, 1759) **syn. n.**
Amathes macilenta rubescens Wiltshire, 1939 – synonym of *Leptologia macilenta* (Hübner, 1809) **syn. n.**
Hyalobole apicalis Hacker & Ronkay, 1996 – synonym of *Hyalobole phaeosoma* (Hampson, 1906) **syn. n.**

New combinations

- Anchoscelis (Anchoscelis) prolai* (Berio, 1976) **comb. n.**
Anchoscelis (Anchoscelis) deleta (Staudinger, 1882) **comb. n.**
Anchoscelis (Anchoscelis) thurneri (Boursin, 1953) **comb. n.**
Anchoscelis (Anchoscelis) imitata (Ronkay, 1984) **comb. n.**
Anchoscelis (Anchoscelis) pistacinoides (d'Aubuisson, 1867) **comb. n.**
Anchoscelis (Anchoscelis) nitida ([Denis & Schiffermüller], 1775) **comb. n.**
Anchoscelis (Anchoscelis) lunosa (Haworth, 1809) **comb. n.**
Anchoscelis (Anchoscelis) tripolensis (Hampson, 1914) **comb. n.**
Anchoscelis (Anchoscelis) polybela (de Joannis, 1903) **comb. n.**
Anchoscelis (Anchoscelis) approximata (Hampson, 1906) **comb. n.**
Anchoscelis (Anchoscelis) deosaiensis (Ronkay & Ronkay, 2000) **comb. n.**
Anchoscelis (Anchoscelis) nekrasovi (Hacker & Ronkay, 1992) **comb. n.**
Anchoscelis (Anchoscelis) pamiricola (Hacker & Ronkay, 1992) **comb. n.**
Anchoscelis (Anchoscelis) trapezoides (Staudinger, 1882) **comb. n.**
Anchoscelis (Anchoscelis) trapezoides naumannii (Hacker & Ronkay, 1990) **comb. n.**
Anchoscelis (Anchoscelis) statira (Boursin, 1960) **comb. n.**
Anchoscelis (Anchoscelis) zoltanus (Ronkay & Ronkay, 2000) **comb. n.**
Anchoscelis (Anchoscelis) griseovariegata (Ronkay & Ronkay, 2000) **comb. n.**
Anchoscelis (Anchoscelis) spectabilis (Hacker & Ronkay, 1990) **comb. n.**

- Anchoscelis (Anchoscelis) scabra* (Staudinger, 1892) **comb. n.**
Anchoscelis (Anchoscelis) fuscomixta (Gyulai & Ronkay, 2006) **comb. n.**
Anchoscelis (Anchoscelis) pauli (Staudinger, 1892) **comb. n.**
Anchoscelis (Anchoscelis) kindermanni (Fischer von Röslerstamm, 1838) **comb. n.**
Anchoscelis (Anchoscelis) consueta (Herrich-Schäffer, 1852) **comb. n.**
Anchoscelis (Anchoscelis) rupicapra rupicapra (Staudinger, 1879) **comb. n.**
Anchoscelis (Anchoscelis) rupicapra kresnaensis (Ronkay & Mészáros, 1982) **comb. n.**
Anchoscelis (Anchoscelis) oropotamica oropotamica (Wiltshire, 1941) **comb. n.**
Anchoscelis (Anchoscelis) oropotamica archar (Ronkay, Varga & Hreblay, 1998) **comb. n.**
Anchoscelis (Anchoscelis) meridionalis meridionalis (Staudinger, 1871) **comb. n.**
Anchoscelis (Anchoscelis) orientalis (Fibiger, 1997) **comb. n.**
Anchoscelis (Anchoscelis) agnorista (Boursin, 1955) **comb. n.**
Anchoscelis (Anchoscelis) hypotaenia (Bytinski-Salz, 1936) **comb. n.**
Anchoscelis (Anchoscelis) litura (Linnaeus, 1761) **comb. n.**
Anchoscelis (Anchoscelis) luteogrisea (Warren, 1911) **comb. n.**
Anchoscelis (Anchoscelis) turcomanica (Ronkay, Varga & Hreblay, 1998) **comb. n.**
Anchoscelis (Anchoscelis) humilis ([Denis & Schiffermüller], 1775) **comb. n.**
Anchoscelis (Alpichola) egorovi (Bang-Haas, 1934) **comb. n.**
Anchoscelis (Alpichola) azerica (Ronkay & Gyulai, 1997) **comb. n.**
Anchoscelis (Alpichola) lactiflora lactiflora (Draudt, 1934) **comb. n.**
Anchoscelis (Alpichola) lactiflora wautieri (Dufay, 1975) **comb. n.**
Anchoscelis (Alpichola) janhillmanni (Hacker & Moberg, 1989) **comb. n.**
Anchoscelis (Alpichola) elbursica (Gyulai & Ronkay, 2006) **comb. n.**
Anchoscelis (Alpichola) dubatolovi (Varga & Ronkay, 1991) **comb. n.**
Anchoscelis (Osthelderichola) osthelderi (Boursin, 1951) **comb. n.**
Anchoscelis (Osthelderichola) gratiosa (Staudinger, 1882) **comb. n.**
Anchoscelis (Rufachola) helvola helvola (Linnaeus, 1758) **comb. n.**
Anchoscelis (Rufachola) helvola pallescens (Warren, 1909) **comb. n.**
Anchoscelis (Haemachola) haematidea (Duponchel, 1827) **comb. n.**
Hazaropolia hazara (Hacker, 1990) **comb. n.**
Frivaldskyola mansueta mansueta (Herrich-Schäffer, 1850) **comb. n.**
Frivaldskyola mansueta sphakiota (Ronkay, Yela & Hreblay, 2001) **comb. n.**
Frivaldskyola staudingeri (Ronkay, 1984) **comb. n.**
Frivaldskyola elami (Ronkay, 2001) **comb. n.**
Leptologia (Xandria) blidaensis (Boursin, 1951) **comb. n.**
Vulpechola vulpecula (Lederer, 1853) **comb. n.**
Agrocholorta (Agrocholorta) albirena albirena (Boursin, 1956) **comb. n.**
Agrocholorta (Agrocholorta) albirena annamica (Hreblay, Peregovits & Ronkay, 1999) **comb. n.**
Agrocholorta (Agrocholorta) albirena chihutuana (Chang, 1991) **comb. n.**
Agrocholorta (Agrocholorta) albirena doiinthanoni (Hreblay & Ronkay, 1999) **comb. n.**
Agrocholorta (Agrocholorta) karma (Hreblay, Peregovits & Ronkay, 1999) **comb. n.**
Agrocholorta (Agrocholorta) attila (Hreblay & Ronkay, 1999) **comb. n.**
Agrocholorta (Agrocholorta) zita (Hreblay & Ronkay, 1999) **comb. n.**
Agrocholorta (Flavirenorta) flavirena (Moore, 1881) **comb. n.**
Agrocholorta (Flavirenorta) gorza (Hreblay & Ronkay, 1999) **comb. n.**
Agrocholorta (Flavirenorta) punctilinea (Hreblay & Ronkay, 1999) **comb. n.**
Agrocholorta (Flavirenorta) antiqua antiqua (Hacker, 1992) **comb. n.**
Agrocholorta (Flavirenorta) antiqua kosagezai (Hreblay, Peregovits & Ronkay, 1999) **comb. n.**
Agrocholorta (Mimicotelorta) atrifusa (Ronkay & Kobayashi, 1997) **comb. n.**
Agrocholorta (Mimicotelorta) telortoides (Hreblay & Ronkay, 1999) **comb. n.**
Agrocholorta (Mimicotelorta) fibigeri (Ronkay, Ronkay, Gyulai & Hacker, 2010) **comb. n.**
Agrocholorta (Kyutekparkorta) parki (Ronkay, Ronkay, Gyulai & Hacker, 2010) **comb. n.**

- Agrocholorta (Kyutekparkorta) magarorum* (Benedek, Babics & Saldaitis, 2013) **comb. n.**
Agrocholorta (Shipherorta) humidalis (Ronkay, Ronkay, Gyulai & Hacker, 2010) **comb. n.**
Agrocholorta (Shipherorta) pallidilinea (Hreblay, Peregovits & Ronkay, 1999) **comb. n.**
Agrocholorta (Semirenorta) semirena (Draudt, 1950) **comb. n.**
Agrocholorta (Semirenorta) siamica (Hreblay & Ronkay, 1999) **comb. n.**
Agrocholorta (Semirenorta) minorata (Hreblay & Ronkay, 1999) **comb. n.**
Agrocholorta (Semirenorta) csoevarii (Ronkay, Ronkay, Gyulai & Hacker, 2010) **comb. n.**
Agrocholorta (Semirenorta) kunandrasi (Hreblay & Ronkay, 1999) **comb. n.**
Agrocholorta (Semirenorta) emilia (Ronkay, 2001) **comb. n.**
Agrocholorta (Semirenorta) plumbitincta (Hreblay, Peregovits & Ronkay, 1999) **comb. n.**
Agrocholorta (Pacifcorta) nawae (Matsumura, 1926) **comb. n.**
Agrocholorta (Pacifcorta) amamiensis (Shikata, 2015) **comb. n.**
Agrocholorta (Pacifcorta) kimurai (Shikata, 2015) **comb. n.**
Suginistra sakabei sakabei (Sugi, 1980) **comb. n.**
Suginistra sakabei continentalis (Ronkay, Ronkay, Gyulai & Hacker, 2010) **comb. n.**
Edentelorta edentata (Leech, 1889) **comb. n.**
Incertobole evelina (Butler, 1879) **comb. n.**

