ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 473-485

MORPHOLOGY OF THREE EUROPEAN SPECIES OF THE GENUS *PUNCTORIBATES* BERLESE, 1908 (ACARI: ORIBATIDA: MYCOBATIDAE)

STANISŁAW SENICZAK and ANNA SENICZAK

Department of Ecology, University of Technology and Life Sciences, Kordeckiego 20, Pl 85-225 Bydgoszcz, Poland; e-mail: stseni@utp.edu.pl

Abstract.— Juvenile stages of *Punctoribates punctum* (C. L. Koch, 1839) and *P. hexagonus* Berlese, 1908 are redescribed, those of *P. sellnicki* Willmann, 1928 are described for the first time, and both juveniles and adults of all species are illustrated. The juvenile stages of these species are similar in body shape and the number of setae on the prodorsum, gastronotum and anal, anogenital and epimeral regions, but differ in the shape and length of some prodorsal and gastronotal setae. Keys to the larvae and nymphs of these species are prepared.

Key words.— *Punctoribates punctum*, *P. hexagonus*, *P. sellnicki*, juvenile stages, ontogeny, setation, keys.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 487-520

MYSMENID SPIDERS OF CHINA (ARANEAE: MYSMENIDAE)

YUCHENG LIN and SHUQIANG LI*

Institute of Zoology, Chinese Academy of Sciences, Beijing 100101, P.R. China
**Corresponding author: e-mail: lisq@ioz.ac.cn*

Abstract.— Eleven new species of the family Mysmenidae occurring in China, in addition to one known species, *Mysmenella gongi* Yin, Peng et Bao, 2004, that was reported from Hunan Province, are diagnosed, described and illustrated. Three genera, i.e., *Calodipoena*, *Mysmena*, and *Trogloneta*, are firstly reported in China. *Mysmenella pseudojobi* **sp. nov.**, where is found hitherto at the northest range of distribution of the family in China, and *Trogloneta denticocleari* **sp. nov.** is collected in caves. *Mysmena spirala* **sp. nov.** is collected from rainforest in Hainan Province. *Calodipoena biangulata* **sp. nov.**, *C. cornigera* **sp. nov.**, *Mysmena zhengi* **sp. nov.**, *M. rostella* **sp. nov.**, *M. furca* **sp. nov.**, *M. arcilongus* **sp. nov.**, *Mysmenella menglunensis* **sp. nov.** and *Trogloneta speciosum* **sp. nov.**, from Xishuangbanna in Yunnan Province, are collected by fogging. Natural history and distributional map are provided.

Key words.— Taxonomy, new species, natural history, cave, rainforest.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 521-527

NEW MIDDLE JURASSIC MAYFLIES (INSECTA: EPHEMEROPTERA: SIPHLONURIDAE) FROM INNER MONGOLIA, CHINA

QI-BIN LIN and DI-YING HUANG*

State Key Laboratories of Palaeobiology and Stratigraphy, Nanjing Institute of Geology and Paleontology, Chinese Academy of Sciences, Nanjing 210008, P.R. China
**Corresponding author: e-mail: huangdiying@sina.com*

Abstract.— Two new mayfly species, *Cheirolgisca ningchengensis* **gen.** and **sp. nov.** and *Olgisca angusticubitis* **sp. nov.** from the Middle Jurassic Jiulongshan Formation of Ningcheng County, Inner Mongolia, NE China are described herein, both attributed to the extant family, Siphlonuridae. The Mesozoic mayfly imagoes have been rarely reported, thus the new material with well-preserved gonostyles provides valuable evolutionary evidence on this family.

Key words.— Ephemeroptera, Siphlonuridae, Daohugou fauna, Middle Jurassic, China.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 529-536

THIONIA DOUGLUNDBERGI SP. NOV. FROM THE MIOCENE DOMINICAN AMBER (HEMIPTERA: FULGOROMORPHA: ISSIDAE) WITH NOTES ON EXTINCT HIGHER PLANTHOPPERS

ADAM STROIŃSKI and JACEK SZWEDO

Museum and Institute of Zoology, Polish Academy of Sciences, 64, Wilcza Street, PL 00-679 Warsaw, Poland; e-mail: adam@miiz.waw.pl, szwedo@miiz.waw.pl

Abstract.— The new extinct species *Thionia douglundbergi* **sp. nov.** of the recent genus *Thionia* Stål, 1859 from the Miocene Dominican amber is described. The morphological features of the genus are discussed in brief. The fossil record of 'higher' Fulgoroidea in New World fossil resins is discussed.

Key words.— Hemiptera, Fulgoromorpha, Issidae, *Thionia*, new species, Hispaniola, Miocene, Dominican amber, fossils.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 537-549

THE PALAEARCTIC PLANTHOPPER GENUS *DICTYOPHARA* GERMAR, 1833 (HEMIPTERA: FULGOROIDEA: DICTYOPHARIDAE) IN CHINA

ZHI-SHUN SONG and AI-PIING LIANG*

Institute of Zoology, Chinese Academy of Sciences, Beijing 100101, China
**To whom the correspondence and reprint request should be addressed:*
e-mail: liangap@ioz.ac.cn

Abstract.— The dictyopharids planthopper genus *Dictyophara* Germar, 1833 from China is revised and restricted in Palaearctic Region of northern China. Only four recognized *Dictyophara* species are: *D. europaea* (Linnaeus, 1767), *D. koreana* Matsumura, 1915, *D. nekkana* Matsumura, 1940 and *D. pannonica* (Germar, 1830), which the former two are recorded from China for the first time. One new generic and three new specific synonyms are recognized: *Dictyophara* Germar, 1833 = *Togaphora* Matsumura, 1940 **syn. nov.**; *D. koreana* Matsumura, 1915 = *Centomera manchurica* Kato, 1933 **syn. nov.** = *Togaphora hokuryonis* Matsumura, 1940 **syn. nov.**; *D. nekkana* Matsumura, 1940 = *Dictyophara kaszabi* Dlabola, 1967 **syn. nov.** Photographs of the adults of all known species are presented. Descriptions of the genus and its included species are provided together with structural illustrations of the male genitalia. A key and a distribution map to the four species of *Dictyophara* from China are provided.

Key words.— *Dictyophara*, revision, new synonymy, Dictyopharidae, Palaearctic Region, China.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 551-556

A NEW SPECIES OF THE GENUS *MACROSIPHUM* (HEMIPTERA: APHIDIDAE) LIVING ON *SYMPHYTUM ASPERUM* (BORAGINACEAE) FROM GEORGIA

SHALVA BARJADZE and NINO CHAKVETADZE

Laboratory of Entomology, Institute of Zoology of Georgia, Chavchavadze av. 31, 0179, Tbilisi, Georgia; e-mail: shalva1980@yahoo.com

Abstract.— Apterous and alate viviparous female, oviparous female and alate male of *Macrosiphum symphyti* **sp. nov.** living on *Symphytum asperum* (Boraginaceae) are described and illustrated. A key to the apterous viviparous females of the genus *Macrosiphum* Passerini species distributed in Georgia is given.

Key words.— Aphid, new species, *Macrosiphum symphyti*, Aphididae, Georgia.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 557-560

A NEW *HYPENELLA* (EMPIDIDAE: CLINOCERINAE), A PALAEARCTIC RELICT IN GUANGDONG, SOUTH CHINA

PATRICK GROOTAERT[1] and DING YANG[2]

[1]*Department of Entomology, Royal Belgian Institute of Natural Sciences, Vautierstraat 29, B-1000 Brussels, Belgium; e-mail: Patrick.Grootaert@naturalsciences.be*
[2]*Department of Entomology, China Agricultural University, Beijing 100094, China, Correspondence author: e-mail: dingyang@cau.cn*

Abstract.— A new *Hypenella nanlingensis* is described from Guangdong Province, southern China. It is likely to represent a Palaearctic relict in the Oriental Realm. A key to the four species known in the world is given.

Key words.— Diptera, Empididae, *Hypenella*, new species, China.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 561-566

TACHYDROMIA MEIGEN, 1803 (DIPTERA: HYBOTIDAE) FROM YUNNAN, CHINA

PATRICK GROOTAERT[1], DING YANG[2] and IGOR SHAMSHEV[3]

[1]*Department of Entomology, Royal Belgian Institute of Natural Sciences, Rue Vautier 29, B-1000, Brussels, Belgium; e-mail: Patrick.Grootaert@naturalsciences.be*
[2]*Department of Entomology, China Agricultural University, Beijing 100094, China e-mail: dingyang@cau.cn; Corresponding author*
[3]*All-Russian Institute of Plant Protection, shosse Podbel'skogo 3, 188620, St. Petersburg - Pushkin, Russia; e-mail: shamshev@mail.ru*

Abstract.— Five *Tachydromia* species are reported from Yunnan province: two species were previously known from Thailand: *T. thaica* Shamshev et Grootaert, 2005 and *T. terricoloides* Shamshev et Grootaert, 2005. Three species are described as new for science: *T. mengyangensis* **sp. nov.**, *T. menglunensis* **sp. nov.** and *T. yunnanensis* **sp. nov.** A key to the ten known species of China is given.

Key words.— Diptera, Hybotidae, *Tachydromia*, new species, China.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 567-572

A TAXONOMIC REVIEW OF THE CALLIRHIPIDAE (INSECTA: COLEOPTERA: ELATERIFORMIA) OF THE AFROTROPICAL REGION

JIŘÍ HÁJEK

Department of Entomology, The National Museum, Kunratice 1, CZ-148 00 Praha 4, Czech Republic; e-mail: jiri_hajek@nm.cz

Abstract.— Only two species of the family Callirhipidae have been described from the Afrotropical zoogeographical region. *Callirhipis philiberti* Fairmaire, 1891 from the Seychelles is redescribed based on the type specimen and recently collected material. A study of the type specimen of the enigmatic Madagascan species *C. hovana* Fairmaire, 1901 revealed, that it is in fact a member of the family Elateridae, and is conspecific with *Hemiopinus hildebrandti* Fairmaire, 1883. Therefore *C. hovana* **syn. nov.** is here regarded as a junior subjective synonym of *H. hildebrandti*. The presently known distribution of the family Callirhipidae in the Afrotropical zoogeographical region is briefly discussed.

Key words.— Coleoptera, Callirhipidae, Elateridae, *Callirhipis*, *Hemiopinus*, new synonymy, Afrotropical region, Madagascar, Seychelles.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 573-577

REVISION OF THE GENUS *SETYLAIDES* STEBNICKA WITH DESCRIPTION OF A NEW SPECIES FROM THAILAND (COLEOPTERA: SCARABAEIDAE: APHODIINAE: EUPARIINI)

ZDZISŁAWA T. STEBNICKA

Institute of Systematics and Evolution of Animals PAS, Sławkowska 17, 31-016 Kraków, Poland; e-mail: stebnicka@isez.pan.krakow.pl

Abstract.— The genus *Setylaides* Stebnicka, 1994, is revised, including one new species, *S. chiangmai* **sp. nov.** described from Thailand. Lectotypes of *Dialytes foveatus* Schmidt, *D. punctatus* Schmidt and *D. javanus* Schmidt are designated and a key to species is provided. At present, five species are recognized within the genus, occurring exclusively in the Oriental region.

Key words.— Coleoptera, Eupariini, *Setylaides*, taxonomy, lectotypes, new species, Oriental region.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 579-594

A REVISION OF THE GENUS *SYNONA* POPE, 1989 (COLEOPTERA: COCCINELLIDAE: COCCINELLINI)

J. POORANI[1], ADAM ŚLIPIŃSKI[2] and ROGER G. BOOTH[3]

[1]*Project Directorate of Biological Control, P.B. No. 2491, H.A. Farm Post, Bellary Road, Bangalore 560 024, Karnataka, India; e-mail: pooranij@gmail.com*
[2]*CSIRO Entomology, GPO Box 1700, Canberra ACT 2601 Australia; e-mail: Adam.Slipinski@csiro.au*
[3]*Department of Entomology, The Natural History Museum, Cromwell Road, London SW7 5BD, UK; e-mail: r.booth@nhm.ac.uk*

Abstract.— The genus *Synona* Pope (1989) (Coleoptera: Coccinellidae: Coccinellini) is revised, with particular reference to the Oriental and Australasian species complex widely identified as *S. melanaria* (Mulsant, 1850), the type species. It is concluded that the name *S. melanaria* ought to be applied to the species currently known as *S. seminigra* (Weise, 1902) and a lectotype is designated for *S. melanaria*. *Synona seminigra* (Weise, 1902) is synonymised with *S. melanaria* (**new synonym**). *Coccinella cassidoides* Montrouzier, 1857 (not *C. cassidoides* Donovan, 1798), and *Harmonia anthracina* Iablokoff-Khnzorian, 1982 are reduced to junior synonyms of *S. melanaria* (Mulsant, 1850) (**new synonyms**). *Synona melanopepla* (Mulsant, 1850), distributed in the Indian subcontinent and hitherto considered as a synonym of *S. melanaria*, is recognized as a valid species (**status revived**). *Synona rougeti* (Mulsant, 1866), *Lemnia melanoptera* Iablokoff-Khnzorian, 1978, and *Lemnia (Synia) martini* Iablokoff-Khnzorian, 1984 are synonymised with *S. melanopepla* (**new synonyms**). Three new species are described: *S. obscura* **sp. nov.** (India), *S. consanguinea* **sp. nov.** (China, Taiwan, Thailand, Vietnam), *S. philippinensis* **sp. nov.** (Philippines). A key to the species is provided, along with biological information wherever available. *Coelophora vidua* Mulsant, 1850 is synonymised with *Coelophora inaequalis* (Fabricius, 1775) (**new synonym**).

Key words.— Entomology, taxonomy, revision, Coccinellidae, Coccinellini, *Synona*, revision, new species, new synonyms, Oriental Region, Australian Region.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 595-606

TAXONOMICAL AND FAUNISTICAL NOTES ON ASIAN *APOPHYLIA* (COLEOPTERA: CHRYSOMELIDAE: GALERUCINAE)

JAN BEZDĚK

Mendel University of Agriculture and Forestry, Department of Zoology, Zemědělská 1, 613 00 Brno, Czech Republic; e-mail: bezdek@mendelu.cz

Abstract.— Three new species of *Apophylia* are described, illustrated and compared with related taxa: *A. liska* **sp. nov.** (India: Meghalaya), *A. blecha* **sp. nov.** and *A. algie* **sp. nov.** (both India: Tamil Nadu). *Apophylia pavlae* Bezděk, 2003 is proposed as a **new synonym** of *A. melli* Gressitt et Kimoto, 1963. New faunistical data of 34 *Apophylia* species are presented. *Apophylia phuphanensis* Bezděk, 2006 is newly reported from Vietnam, *A. vietnamica* Samoderzhenkov, 1988 from China, *A. denisae* Bezděk, 2005 from Thailand, *A. hajeki* Bezděk, 2003 from India, *A. schawalleri* Medvedev, 1992 from China and *A. samoderzhenkovi* Medvedev, 1993 from India.

Key words.— Taxonomy, new species, synonymy, Coleoptera, Chrysomelidae, Galerucinae, *Apophylia*, Oriental Region.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 607-609

AULEXIS ERYTHRODERA, A NEW SPECIES OF LEAF-BEETLE FROM MYANMAR (COLEOPTERA: CHRYSOMELIDAE: EUMOLPINAE)

ANDRZEJ WARCHAŁOWSKI

Zoological Institute, University of Wrocław, Sienkiewicza 21, 50-335 Wrocław, Poland; e-mail: awar@biol.uni.wroc.pl

Abstract.— *Aulexis erythrodera*, a new species of leaf-beetle from Myanmar is described and illustrated.

Key words.— Coleoptera, Chrysomelidae, Eumolpinae, *Aulexis erythrodera*, new species, description, Myanmar.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 611-620

THREE NEW SPECIES OF *CASSIDA* LINNÉ, 1758 FROM INDIA AND NOTE ON *THLASPIDA OBENBERGERI* SPAETH, 1928 (COLEOPTERA: CHRYSOMELIDAE: CASSIDINAE: CASSIDINI)

LUKÁŠ SEKERKA[1] and LECH BOROWIEC[2]

[1]*Department of Zoology, Faculty of Science, University of South Bohemia, Branišovská 31, České Budějovice, CZ-370 05, Czech Republic; e-mail: sagrinae@seznam.cz*
[2]*Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Przybyszewskiego 63/77, 51-148 Wrocław, Poland; e-mail: cassidae@biol.uni.wroc.pl*

Abstract.— Three species of *Cassida* Linné, 1758 from NE India are described as new to the science: *Cassida mishmiensis* **sp. nov.** (Arunachal Pradesh), *C. atrosignata* **sp. nov.** (Arunachal Pradesh) and *C. pacholatkoi* **sp. nov.** (Meghalaya). Type material of *Thlaspida obenbergeri* Spaeth, 1928 has been studied and a lectotype designation is given here. *Thlaspida obenbergeri* is transferred to the genus *Cassida* (**comb. nov.**) and a following **new synonym** is proposed: *Cassida crucipennis* Borowiec, 2003 = *Cassida obenbergeri* (Spaeth, 1928).

Key words.— Coleoptera, Chrysomelidae, Cassidinae, *Cassida*, new species, India, new synonymy, new combination

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 621-639

DESCRIPTION OF IMMATURES OF *CYRTONOTA LATERALIS* (LINNAEUS, 1758) (COLEOPTERA: CHRYSOMELIDAE: CASSIDINAE: MESOMPHALINI)

JOLANTA ŚWIĘTOJAŃSKA

Zoological Institute, University of Wrocław, Przybyszewskiego 63/77, 51-148 Wrocław, Poland; e-mail: sindiola@biol.uni.wroc.pl

Abstract.— Egg, first and last instar larvae and pupa of *Cyrtonota lateralis* (Linnaeus, 1758), a member of the tribe Mesomphalini Chapuis, 1875 (= Stolaini Hincks, 1952), have been described and figured in detail for the first time. Immatures were figured using light microscope, for the first instar larva also SEM photos were prepared.

Key words.— Coleoptera, Chrysomelidae, Cassidinae, Mesomphalini, *Cyrtonota lateralis*, larva, pupa, Neotropics.

ANNALES ZOOLOGICI (Warszawa), 2008, 58(3): 641-665

IMMATURE STAGES OF *ASTERIZA FLAVICORNIS* (OLIVIER) AND *PHYSONOTA ALUTACEA* BOHEMAN (COLEOPTERA: CHRYSOMELIDAE: CASSIDINAE)

JOLANTA ŚWIĘTOJAŃSKA[1] and DONALD M. WINDSOR[2]

[1]*Zoological Institute, University of Wrocław, Przybyszewskiego 63/77, 51-148 Wrocław, Poland; e-mail: sindiola@biol.uni.wroc.pl (author for correspondence)*
[2]*Smithsonian Tropical Research Institute, Apartado 0843-03092, Panamá, República de Panamá; e-mail: windsord@si.edu*

Abstract.— The first instar larva of *Physonota alutacea* Boheman, 1854, a member of the tribe Physonotini Spaeth, 1942, and the mature larva and pupa of *Asteriza flavicornis* (Olivier, 1790), a member of the tribe Asterizini Hincks, 1952, are described for the first time. The mature larva and the pupa of *Physonota alutacea* are redescribed. Immatures are figured and described using light microscopy, the first instar larva of *Physonota alutacea* using scanning electron microscopy. Similarities in the larval morphologies of *Cistudinella* Champion, 1894, a member of the tribe Ischyrosonychini, Chapuis, 1875, and *Physonota* suggest both genera are close phylogenetically and should be placed in a single tribe. The additional similarities between the mature larva of *Asteriza* and those of *Physonota* and *Cistudinella* suggest all three genera should be placed within a single tribe.

Key words.— Coleoptera, Chrysomelidae, Cassidinae, Physonotini, Asterizini, *Physonota alutacea*, *Asteriza flavicornis*, morphology of immatures, Neotropics.