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TWO NEW SPECIES OF THE GENUS *SENSILLONYCHIURUS* POMORSKI ET SVEENKOVA, 2006 (COLLEMBOLA: ONYCHIURIDAE) FROM CHANGBAI MOUNTAINS, CHINA

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Abstract.— Two new species of *Sensillonychiurus*, are described from Changbai Mountains, northeastern China: *S. reducta* **sp. nov.** and *S. pseudoreducta* **sp. nov.** Both these species are very similar to each other, sharing such characters as a reduced unguiculus, 4 papillae and 3 guard chaetae on the Ant. III sensory organ, the AC type of labium, 5+5 chaetae on Th. I tergum, 9 distal tibiotarsal chaetae, as well as the absence of anal spines. Yet they can be differentiated by the presence vs. absence of pso on Th. I tergum, of chaetae p2 on Th. II tergum, and of chaetae b2 on the upper anal valve, respectively, as well as by the number of dorsal S-chaetae, of sublobal hair on the maxillary palp, of p-row chaetae on Abd. IV tergum.

Key words.— Springtail, taxonomy, *Sensillonychiurus*, new species, China

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REVIEW OF THE FAMILY ISSIDAE (HEMIPTERA: FULGOROMORPHA) IN VIETNAM WITH DESCRIPTION OF A NEW SPECIES

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Abstract.— A list of 18 species of the planthopper family Issidae known from Vietnam is given. *Pseudochoutagus rubens* **sp. nov.** is described from Northern Vietnam. New records for *Macrodaruma pertinax* Fennah, 1978 and *Euxaldar jehucal* Fennah, 1978 are provided. Convergence in body shape for the issid genera *Pseudochoutagus* Che, Zhang et Wang, 2011 and *Choutagus* Zhang, Wang et Che, 2006 and for the genus *Philagra* Stål, 1863 (Aphrophoridae) is mentioned for the first time.

Key words.— taxonomy, faunistics, new species, new records, convergence

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A NEW SPECIES OF *PHLEBOPTERUM* STÅL, 1854 (HEMIPTERA: FULGOROMORPHA: FLATIDAE) FROM THE TAPIA WOODLANDS OF MADAGASCAR

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Abstract.— A new species of the family Flatidae (Sisciini) *Phlebopterum tapiae* **sp. nov.** from Madagascar is described and illustrated. Additionally, environmental affinities of newly described species are discussed. A key to all Madagascan *Phlebopterum* Stål species is also provided.

Key words.— Entomology, taxonomy, Hemiptera, Fulgoromorpha, Flatidae, *Phlebopterum*, new species, Madagascar.

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A NEW PECULIAR *MYRMICA* SPECIES (HYMENOPTERA, FORMICIDAE) FROM THE NORTH CAUCASUS

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Abstract.— A new species, *Myrmica elbrusi* **sp. nov**., is described from the North Caucasus (Kabardino-Balkaria, Russia). Its main diagnostic features are: the scape smoothly curved at the base, with no trace of lobe or carina; the frontal carinae very feebly curved, merging with the rugae that extend to the posterior margin, not curved outwards and not merged with the rugae surrounding antennal sockets; the frontal lobes not extended; the anterior clypeal margin distinctly prominent, narrowly rounded, not notched medially. Based on the above characters, *M. elbrusi* well differs from any other known Euro-Caucasian *Myrmica* species with smoothly curved scape [e.g. *M. rubra* (L.), *M. ruginodis* Nyl., *M, gallienii* Bondr., *M. bergi* Ruzs.], but fits well either to the *rugosa*- or *dshungarica* species-groups (*sensu* Radchenko and Elmes 2010). Unfortunately, until males of *M. elbrusi* are found, this question cannot be resolved.

Key words.— Ants, Formicidae, *Myrmica elbrusi*, new species, North Caucasus, taxonomy, zoogeography.

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AFRICAN AND SOUTHEAST ASIAN *CHALICODOMA* (HYMENOPTERA: MEGACHILIDAE): NEW SUBGENUS, NEW SPECIES, AND NOTES ON THE COMPOSITION OF *PSEUDOMEGACHILE* AND *LARGELLA*

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Abstract.— A new subgenus, *Lophanthedon* **subg. nov.**, is described and figured for five species of distinctive Southeast Asian bees in the genus *Chalicodoma* Lepeletier de Saint Fargeau (Megachilinae: Megachilini). Two new species of the subgenus *Pseudomegachile* Friese from Africa, *Chalicodoma* (*Pseudomegachile*) *strangei* **sp. nov.**, and *C.* (*P.*) *gibbsi* **sp. nov.**, and one of the subgenus *Largella* Pasteels from Malaysia, *C.* (*Largella*) *donbakeri* **sp. nov.**, are described and figured. The subgenus *Neochalicodoma* Pasteels, consisting of the two African species *C. pseudolaminata* Pasteels and *C. pseudocincta* Pasteels, is synonymized with *Pseudomegachile* (**syn. nov.**). *Chalicodoma pseudocincta*, is newly placed in synonymy with *C.* (*P.*) *scindularia* (Buysson), **syn. nov.** The morphological diversity of *Pseudomegachile* is briefly discussed in an attempt to highlight useful characters for recognizing natural species groups and inferring floral hosts. Revised diagnoses as well as information on the species composition of *Largella* and *Pseudomegachile* are provided.

Key words.— Apoidea, Anthophila, Megachilinae, Megachilini, morphology, taxonomy, bees.

ANNALES ZOOLOGICI (Warszawa), 2012, 62(4): 619-625

A NEW SPECIES OF *LEPTANILLA* (HYMENOPTERA: FORMICIDAE: LEPTANILLINAE) WITH A KEY TO ORIENTAL SPECIES

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Abstract.— A **new species** *Leptanilla lamellata* is described from the north-west Shivalik region of India. Earlier the genus was represented by a single species viz., *Leptanilla escheri* (Kutter, 1948), which is here redescribed. A key to the known Oriental species of this genus is also provided.

Key words.— ants, India, key, *Leptanilla lamellata*, new species, Oriental Region.

ANNALES ZOOLOGICI (Warszawa), 2012, 62(4): 627-631

BOLTONIDRIS GEN. NOV., THE FIRST EXTINCT STENAMMINI ANT GENUS (HYMENOPTERA, FORMICIDAE) FROM THE LATE EOCENE ROVNO AMBER

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Abstract.— The new extinct ant genus and species, *Boltonidris mirabilis*, are described from the late Eocene Rovno Amber (Ukraine). This genus belongs to the tribe Stenammini of the subfamily Myrmicinae. It possesses the plesiomorphic characters of the tribe Stenammini, e.g. 12-segmented antennae with 3-segmented apical club, characteristic structure of the clypeus and frontal lobes, absence of gastral shoulder, but it has a series of autapomorphies, e.g. modified mandibles with the only two teeth on the masticatory margin, well developed longitudinal medial groove on the head dorsum, somewhat depressed areas lateral to the frontal carinae (like "vestigial" antennal scrobes), and finely swollen postero-lateral area of head, close to the occipital corners. Additionally, it has two short blunt teeth on the pronotum.

Key words.— *Boltonidris mirabilis*, ants, taxonomy, Formicidae, Myrmicinae, Stenammini, palaeontology, European ambers, Ukraine, late Eocene, new genus, new species.

ANNALES ZOOLOGICI (Warszawa), 2012, 62(4): 633-638

THE EXTERNAL MORPHOLOGY OF *CHIRONOMUS* (S. STR.) *ACERBIPHILUS* TOKUNAGA, 1939 A SENIOR SYNONYM OF *C. CRASSIMANUS* STRENZKE (DIPTERA, CHIRONOMIDAE) FROM POLAND

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Abstract.— The pupa and imago of *Chironomus acerbiphilus* (a senior synonym of *C. crassimanus*) show wide variation of external morphology characters. This paper describes the external morphology of larva, pupa and adult of *C. acerbiphilus* from Poland. Variability of morphological characters is evaluated for the Polish population in comparison with other European, Asian and North American populations. Pupal subgeneric characters are discussed.

Key words.— morphology, larva, pupa, adult male, acid waters.

ANNALES ZOOLOGICI (Warszawa), 2012, 62(4): 639-642

A LONG-BEAKED FUNGUS GNAT IN DOMINICAN AMBER (DIPTERA: LYGISTORRHINIDAE)

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Abstract.— *Lygistorrhina caribbiana* **sp. nov.** (Diptera: Lygistorrhinidae), the first fossil of this extant genus, is described from Dominican amber. All other fossil Lygistorrhinidae, which are known from older amber deposits in other regions, belong to extinct genera. This is the first fossil record of this rare family in Dominican amber and the first record for Hispaniola in general as the family is currently unknown from the extant fauna.

Key words.— Palaeontology, Miocene, amber, fungus gnat, fossil, Hispaniola

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CATALOGUE OF CHILEAN ELATERIDAE

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Abstract.— A catalogue of Chilean Elateridae is included with 11 subfamilies: Cebrioninae Latreille, Agrypninae Candèze, Lissominae Laporte, Semiotinae Jakobson, Campyloxeninae Costa, Pytiobiininae Hyslop, Dendrometrinae Gistel, Negastriinae Nakane and Kishii, Elaterinae Leach, Cardiophorinae Candèze, and Physodactylinae Lacordaire 1857, distributed in 52 genera and 140 species.

Key words.— Chile, Coleoptera, Elateridae.

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TWO NEW SPECIES OF *PLAGIOMETRIONA* FROM BOLIVIA AND ECUADOR (COLEOPTERA: CHRYSOMELIDAE: CASSIDINAE: CASSIDINI)

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Abstract.— *Plagiometriona centromaculata* **sp. nov.** from Bolivia: Santa Cruz department and *P. hyalina* **sp. nov.** from Ecuador: Morona-Santiago and Sucumbíos provinces are described and figured. Both species are associated with *Solanum* species (Solanaceae).

Key words.— Entomology, taxonomy, new species, Coleoptera, Chrysomelidae, Cassidinae, Cassidini, *Plagiometriona*, Bolivia, Ecuador

ANNALES ZOOLOGICI (Warszawa), 2012, 62(4): 679-704

REVISION OF THE AUSTRALIAN COCCINELLIDAE (COLEOPTERA) PART 8. GENUS *SCYMNUS* KUGELANN

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Abstract.— The Australian species classified in the cosmopolitan genus *Scymnus* are revised. Nomenclatural history, diagnoses, illustrations and distribution are provided for each of the eleven recognized species. *Scymnus fuscatus* Boheman, 1859 is recorded from Australia for the first time. Four new species, *Scymnus alligator, S. bunya, S. leai* and *S. tasmanicus* are described. Lectotypes are designated for: *Midus pygmaeus* Blackburn, 1892, *Scymnomorpha duplopunctulata* Blackburn, 1892, *Scymnus ambulans* Blackburn, 1895, *S. mitior* Blackburn, 1895, *S. parallelus* Blackburn, 1889, *S. queenslandicus* Blackburn, 1892 and *S. varipes* Blackburn, 1895. A new name *Scymnus blackburni* **nom. nov.** is introduced for *Scymnus pygmaeus* (Blackburn, 1892) preoccupied by *Scymnus pygmaeus* (Fourcroy, 1785). *Scymnus varipes* Blackburn, 1895 is recognised as a junior synonym of *Scymnus ambulans* Blackburn, 1895 (**syn. nov.**)

Key words.— Taxonomy, Cucujoidea, Coccinellidae, Scymnus, Australia.

ANNALES ZOOLOGICI (Warszawa), 2012, 62(4): 705-709

A NEW PAPUAN SPECIES OF THE GENUS *HENOSEPILACHNA* LI (COLEOPTERA: COCCINELLIDAE: EPILACHNINI)

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Abstract.— *Henosepilachna frusciantei*, a **new species** from New Guinea is described and illustrated. It belongs to the group of species related to *Henosepilachna vigintioctopunctata* (Fabricius, 1775).

Key words.— Entomology, taxonomy, new species, Cucujoidea, *Henosepilachna*, New Guinea.

ANNALES ZOOLOGICI (Warszawa), 2012, 62(4): 711-720

REVISION OF THE GENUS *ANISORCUS* CROTCH (COLEOPTERA: COCCINELLIDAE: CHILOCORINI)

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Abstract.— Species of *Anisorcus* Crotch are revised, diagnosed and illustrated. Notes on the genus and nomenclatural history for each species are provided. Lectotypes are designated for *Anisorcus affinis* Crotch and *Anisorcus fryi* Crotch. *Anisorcus malayanus* Crotch is recorded from Solomon Islands and Vanuatu for the first time. Keys to Australasian genera of Chilocorini and to *Anisorcus* species are presented.

Key words.— Cucujoidea, Chilocorini, *Anisorcus*, new records, Fiji, Vanuatu, Solomon Islands.

ANNALES ZOOLOGICI (Warszawa), 2012, 62(4): 721-724

A NEW SPECIES OF *PENTAPHYLLUS* DEJEAN, 1821 (TENEBRIONIDAE: DIAPERINAE) FROM CYPRUS

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Abstract.— *Pentaphyllus reibnitzi* **sp. nov.** from Cyprus is described, representing the fourth species of *Pentaphyllus* from the western Palaearctic Region. All four species from this area are figured, a key for their identification and selected faunistic data are given. Two species have a wider distribution in the western Palaearctic Region, and two are restricted to limited areas in Azerbaijan or Cyprus, respectively. The type specimens of the new species were found in polypores, collected from a dead tree of *Ficus carica* in an extensively cultivated garden near seashore. Lectotype of *Pentaphyllus nitidulus* Reitter, 1884 is designated.

Key words.— Tenebrionidae, Diaperinae, *Pentaphyllus*, new species, taxonomy, identification key, Palaearctic Region, Cyprus.

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NOMENCLATURAL NOTES ON THE SPECIES RECORDED AND DESCRIBED UNDER THE NAME "*HELOPS GRACILIS*" (COLEOPTERA: TENEBRIONIDAE)

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Abstract.— The nomenclatural status of three darkling beetle species previously described under the name *Helops gracilis*, by Fisher von Waldheim in 1823, Küster in 1850 and Bland in 1864, is clarified. The status of a fourth species, a misidentification of *Helops gracilis* Küster by Allard (1876, 1877) and Seidlitz (1896), is also discussed. The following new nomenclatural acts are included: *Helops gracilis* Fisher von Waldheim, 1823 is recognized as *Odocnemis* (*Heloponotus*) *gracilis* (Fisher von Waldheim, 1823) **comb. nov.** (from *Helops*); *Catomus kuesteri* (Weise, 1878) **comb. nov.** (from *Helops*) is the valid name for *Helops gracilis* Küster, 1850; *Helops blandi* Bousquet and Bouchard, **nom. nov.** is proposed for *Helops gracilis* Bland, 1864. *Odocnemis perplexus* (Ménétriés, 1848) is considered a **new synonym** of *Odocnemis gracilis* (Fisher de Waldheim, 1823) and *Catomus dichrous* Reitter, 1902 as a **new synonym** of *Catomus kuesteri* (Weise, 1878). Lectotypes are designated for *Helops gracilis* Fischer von Waldheim, 1823, *H. gracilis* Bland, 1864 and *H. seidlitzi* Gebien, 1911.

Key words.— Tenebrionidae, Helopini, *Helops*, *Odocnemis*, *Catomus*, nomenclature, homonymy, types, new name.

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JUMPING SPIDERS (ARANEAE: SALTICIDAE) OF THE CALABAR AREA (SE NIGERIA)

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Abstract.— Forty nine species of jumping spiders from the Calabar area in southeastern Nigeria and two from Kaduna Junction in central northern Nigeria are listed in this paper. Among these, the following 8 species are described as new to science: *Bacelarella gibbosa* **sp. nov.** (♂♀), *Brancus lacrimosus* **sp. nov.** (♂), "*Brancus*" *nigeriensis* **sp. nov.** (♀), *Mexcala smaragdina* **sp. nov.** (♂), *Phintella paludosa* **sp. nov.** (♂), *Thiratoscirtus atakpa* **sp. nov.** (♀), *Thiratoscirtus efik* **sp. nov.** (♂) and*Thiratoscirtus procerus* **sp. nov.** (♀). Females of *Baryphas jullieni* Simon, 1902, *Longarenus brachycephalus* Simon, 1903 and *Thiratoscirtus torquatus* Simon, 1903 are described for the first time. Two species names are synonymized, *Schenkelia gertschi* Berland et Millot, 1941 with *Schenkelia modesta* Lessert, 1927 and *Myrmarachne insulana* Roewer, 1942 with *Myrmarachne hesperia* (Simon, 1887). Four new combinations are proposed, *Viciria mondoni* Berland et Millot 1941, *Viciria niveimana* Simon, 1902 and *Viciria peckhamorum* Lessert, 1927 are transferred to the genus *Brancus*, and *Mithion grassei* Berland et Millot, 1941 is transferred to the genus *Pseudicius*. Twenty eight salticid species are recorded for the first time in Nigeria.

Key words.— Taxonomy, new species, synonyms, Afrotropical Region, salticid diversity

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A NEW SUBGENUS AND THREE NEW SPECIES OF ORIBATID MITES OF THE FAMILY SCHELORIBATIDAE (ACARI: ORIBATIDA) FROM ECUADOR

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Abstract.— A new oribatid mite subgenus, *Perscheloribates* (*Ecuadoribates*) **subgen. nov.**, and three new species, *Perscheloribates* (*Ecuadoribates*) *pentasacculus* **sp. nov.**, *Fissurobates neotropicus* **sp. nov.** and *Mucrobates microsetosus* **sp. nov.**, of the family Scheloribatidae are described from Ecuador. The new subgenus differs from *Perscheloribates* (*Perscheloribates*) by the number of notogastral sacculi and number of genital setae. *Fissurobates* and *Mucrobates* are recorded for the first time in Ecuador. The morphology of gnathosoma and legs are presented for the first time for any member of *Fissurobates* and *Mucrobates*.

Key words.— oribatid mites, Scheloribatidae, *Perscheloribates*, *Fissurobates*, *Mucrobates*, new subgenus and species, Ecuador.

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LIFE HISTORY OF *ALINDA BIPLICATA* (MONTAGU, 1803) (GASTROPODA: PULMONATA: CLAUSILIIDAE) BASED ON FIVE-YEAR LABORATORY OBSERVATIONS

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Abstract.— The maturation, growth and reproduction of *Alinda biplicata* in the laboratory were studied over a five-year period. The snails were kept in pairs and groups of a few individuals. The initial material came from two populations from SW. Poland. The snails reproduced during the whole year, more intensively in the spring and autumn. We confirmed the ovoviviparity of *A. biplicata*: the whole embrynic development takes place in eggs retained in the parent's uterus. The snails gave birth to juveniles (no egg-laying was observed), and the uteri of dissected individuals contained from 3 to 15 eggs. The number of juveniles per litter was 1 to 8. The snails produced 3 to 20 juveniles in 2–9 batches per year. The neonate shells had 2.1–2.9 whorls and height of 1–1.6 mm. Growth to adulthood lasted 20 to 56 weeks and the time increased with increasing density of snails. The snails became sexually mature 5–6 months after completeion of shell growth and formation of the closing apparatus. The juvenile mortality ranged from 16.7% to 60.6% and increased with density. The life span in the laboratory was 220 to 295 weeks (4 to 6 years). These results are compared with those for other species; *A. biplicata* resembles other large ovoviviparous Clausiliidae species.

Key words.— land snail, Clausiliidae, ovoviviparity, life cycle, delayed maturation, reproduction, development, growth