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REVISION OF AUSTRALIAN SPECIES OF THE GENUS *DIAEA* (ARANEAE: THOMISIDAE) WITH REDEFINITION OF THEIR TAXONOMIC STATUS

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Abstract.— The crab spiders of the genus *Diaea* from Australia are revised. All the known 30 species are redescribed and illustrated. The type species of the genus – *Diaea dorsata* (Fabricius, 1777) (distributed in Palaearctic) is also included into this study. All the former members of *Diaea* from Australia changed their taxonomic position as a result of transfer to other genera. Three new genera were established: *Australomisidia* **gen. nov.**, *Boomerangia* **gen. nov.** and *Lehtinelagia* **gen. nov.** Twenty new combinations are proposed: *Australomisidia cruentata* (L. Koch, 1874), *A. elegans* (L. Koch, 1876), *A. ergandros* (Evans, 1995), *A. inornata* (L. Koch, 1876), *A. kangarooblaszaki* (Szymkowiak, 2008), *A. pilula* (L. Koch, 1867), *A. rosea* (L. Koch, 1875), *A. socialis* (Main, 1988), *Boomerangia dimidiata* (L. Koch, 1867), *Cetratus caecutiens* (L. Koch, 1876), *C. circumlitus* (L. Koch, 1876), *C. rubropunctatus* (Rainbow, 1920), *C. tenuis* (L. Koch, 1875), *Lehtinelagia evanida* (L. Koch, 1876), *L. multopunctata* (L. Koch, 1874), *L. prasina* (L. Koch, 1876), *L. pulleinei* (Rainbow, 1915), *L. variabilis* (L. Koch, 1875), *Runcinia insecta* (L. Koch, 1875), *Zygometis xanthogaster* (L. Koch, 1875). Four species are regarded as *nomina dubia*: *D. mollis* L. Koch, 1875, *Diaea olivacea* L. Koch, 1875, *D. plumbea* L. Koch, 1875, *D. punctipes* L. Koch, 1875. Following specific names are synonymised: *Diaea blanda* L. Koch, 1875 with *Australomisidia pilula*, *Diaea haematodactyla* L. Koch, 1875 with *Lehtinelagia evanida*, *Diaea jucunda* Thorell, 1881 with *Mastira adusta* (L. Koch, 1867), *Diaea multimaculata* Rainbow, 1904, *Diaea punctata* L. Koch, 1875 with *Lehtinelagia multopunctata*, *Diaea velata* L. Koch, 1876 with *Boomerangia dimidiata*, *Misumena tristania* Rainbow, 1900, *M. lactea* L. Koch, 1876 with *Diaea xanthogaster* L. Koch, 1875 (and transferred to the genus *Zygometis*), *Runcinia affinis* Simon, 1897 with *Diaea insecta* L. Koch, 1875 (placed into *Runcinia*) and *Xysticus bilimbatus* L. Koch, 1875 with *Australomisidia cruentata*. *Diaea elegans* L. Koch, 1876 was removed from synonyms of *D. cruentata* and reinstaled. Lectotypes are designated for 11 species: *Australomisidia cruentata*, *A. elegans*, *A. pilula*, *A. rosea*, *Cetratus caecutiens*, *C. rubropunctatus*, *Lehtinelagia evanida*, *L. multopunctata*, *L. prasina*, *L. variabilis*, *Runcinia insecta*. Identification keys for Australian species of genera *Australomisidia*, *Cetratus* and *Lehtinelagia* are provided. Maps with collection localities for discussed species are given and their distributional patterns are analysed. The original number of 30 species of *Diaea* from Australia which are subject to the revision is reduced to 21; among them 17 (80%) are endemic to Australia. The phylogeny reconstruction based on the nucleotide sequences of the fragment of the gene of mitochondrial cytochrome oxidase subunit I (COI, mtDNA) are presented. Tree of Australian "*Diaea*" includes two main phylogenetic lineages: Thomisinae (15 species) and Dietinae (3 species). The results of the sequence analysis justify the proposed taxonomic changes.

Key words.— Crab spiders, *Diaea*, taxonomy, redescription, synonyms, new genera, molecular studies, mtDNA COI, phylogeny, biodiversity, distribution, Australia.

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TWO NEW SPECIES OF THE SUBFAMILY HARPIRHYNCHINAE (ACARI: HARPIRHYNCHIDAE) FROM AFRICAN BIRDS

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Abstract.— Two new ectoparasitic species of the subfamily Harpirhynchinae (Acari: Harpirhynchidae) are described from African birds: *Harpyrhynchoides clamator* **sp. nov.** from *Clamator jacobinus* (Boddaert, 1783) (Cuculiformes: Cuculidae) from South Africa and *Neharpirhynchus oenanthe* **sp. nov.** from *Oenanthe oenanthe* (Linnaeus, 1758) (Passeriformes: Muscicapidae) from Rwanda.

Key words.— mites, systematics, Harpirhynchidae, birds, parasites, Africa.

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NEW SPECIES OF *EUPHTHIRACARUS* EWING, 1917 (ACARI: ORIBATIDA: EUPHTHIRACAROIDEA) FROM THE AFROTROPICAL REGION

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Abstract.— Four new species of the genus *Euphthiracarus* (*Euphthiracaridae*) from litter and soil samples collected in Madagascar and East Tanzania are described. Two belong to the subgenus *Euphthiracarus*: *Euphthiracarus* (*Euphthiracarus*) *duplex* **sp. nov.** and *Euphthiracarus* (*Euphthiracarus*) *netron* **sp. nov.**, and two to the subgenus *Pocsia*: *Euphthiracarus* (*Pocsia*) *paraafricanus* **sp. nov.** and *Euphthiracarus* (*Pocsia*) *uluguruensis* **sp. nov.** Detalied descriptions and figures are provided. A key to all species of the genus *Euphthiracarus* from the Afrotropical Region is presented.

Key words.— oribatid mites, Euphthiracaroidea, *Pocsia*, *Euphthiracarus*, new species, Tanzania, Madagascar.

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PHYLOGENY OF HYADININI (DIPTERA: EPHYDRIDAE) WITH AN EMPHASIS ON STRUCTURES OF THE PROBOSCIS

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Abstract.— The shape of adult mouthparts (proboscis) of all genera of Hyadinini (Diptera: Ephydridae) is provided, including variability of cibarium, lacinia and the number of pseudotracheae. Its usage in phylogenetic construction is documented. All ten genera are diagnosed, including the genus *Lytogaster*, which is formally restored from synonymy with Hyadina. The ventral receptacle of four genera (*Garifuna*, *Parahyadina*, *Parydroptera* and *Pelinoides*) and the male terminalia of *Parahyadina* are presented for the first time. Monophyly of the tribe is discussed and the relationships among genera of *Hyadinini* are proposed. Ten *Hyadinini* genera are grouped into four lineages 1) *Pelina* group with *Pelina* and *Parydroptera*, 2) *Pelinoides* group with *Pelinoides*, 3) *Philygria* group with *Nostima* and *Philygria*, 4) *Hyadina* group with *Axysta*, *Lytogaster*, *Hyadina*, *Parahyadina* and *Garifuna*.

Key words.— Diptera, Ephydridae, Hyadinini, phylogeny, ventral receptacle, proboscis.

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KIRKAMFLATA, A NEW PLANTHOPPER GENUS FROM SOCOTRA ISLAND (HEMIPTERA: FULGOROMORPHA: FLATIDAE)

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Abstract.— The paper describes a new genus of the Hemiptera: Fulgoromorpha: Flatidae, *Kirkamflata* **gen. nov.**, and a new species *K. socotrana* **sp. nov.** from the Hagher Mountains in central Socotra island (Yemen). Habitus, external morphology, male and female terminalia and internal genital structures of the new species are illustrated. The new genus is similar to *Latois* Stål, 1866 in head morphology, wing shape and venation, male and female terminalia but differs in a rudimentary median carina on pronotum and mesonotum, longer apical cells of tegmen and details of the male reproductive parts: style, periandrium, aedeagus, as well as female ones: gonapophysis VIII and *diverticulum ductus*.

Key words.— Entomology, systematics, taxonomy, endemism, Flatinae, Sisciini, Afrotropical region, Arabia.

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PRELIMINARY ANALYSIS OF GENETIC VARIABILITY IN MONTAGU'S HARRIER (*CIRCUS PYGARGUS*) USING CROSS-AMPLIFIED MICROSATELLITES

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Abstract.— The aim of our study was to find suitable molecular markers for genetic studies of the population of Montagu's harrier *Circus pygargus*. We used the cross-species amplification strategy to test the usefulness of 24 primer pairs, amplifying the microsatellite loci of several other members of Accipitridae. The analysis was performed on 139 Montagu's harriers from breeding populations in Spain and Poland. We found an amplification success of 50%; however, the level of polymorphism in cross-amplified microsatellites was low, especially in terms of heterozygosity. We did not find significant differences in genetic variability, estimated based on microsatellite markers, between breeding populations from Spain and Poland. The level of genetic differentiation between these two populations was low (F_{ST} = 0.016), although significant. An analysis of genotypes of nestlings in 10 nests suggested one case of extra-pair paternity.

Key words.— microsatellites, cross-species amplification, Montagu's harrier, *Circus pygargus*, genetic variability.