1st June 2017

Bastiaan Kiauta – octogenarian (1937–2017)

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Abstract. The life of Dr Bastiaan Kiauta, Emeritus Professor of Invertebrate Cytogenetics and Cytotaxonomy, University of Utrecht, The Netherlands, is briefly outlined and his odonatological work is described and assessed. During more than four decades (1971–2013) he managed the Central Office of Societas Internationalis Odonatologica (SIO) and served as the Editor of *Odonatologica*. His odonatological bibliography (1954–2016, partim) and the list of odonate taxa named in his honour (1986–2013) are appended.

1st June 2017

Odonata from La Pampa province, Argentina

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Abstract. In Argentina approximately 280 odonate species have been recorded, which are chiefly found in the north-eastern and north-western regions. With only three previously recorded species, La Pampa province is one of most understudied parts of the country. In the present work we provide a check-list of 17 species from La Pampa, including 14 new records for the province.

Further key words. Dragonfly, damselfly, Neotropical, South America, Espinal, Monte de Llanuras y Mesetas, check-list, new records.

1st June 2017

Current knowledge of Odonata in Venezuela: diversity and distribution of endemic taxa

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Abstract. So far, 525 species and 14 subspecies of odonates are known to occur in Venezuela. These are distributed in 124 genera and 13 families, with an undescribed species of the genus Ypirangathemis and Paracordulia. Despite Venezuela being one of the countries of Latin America with a very high diversity of described species, research on odonates is stagnant, mainly due to the small number of odonatologists and even more because of the political, economic and social situation in this country, rendering field trips to collect odonates almost impossible. The country harbours a significant number of endemics, including six endemic genera and a total of 78 endemic species. The Pantepui region, as well as the Andean and Coastal Cordilleras all have high levels of endemicity. A majority of endemic species is found within protected areas. However, threats to their survival have increased over the years, since there are no conservation plans for them or their habitats. Just seven species have so far been evaluated and catalogued in the Red Data Book of Venezuelan fauna, among them *Phyllogomphoides brunneus*, which is the only species of Odonata included in this Red Data Book that is not endemic to the country. The present paper aims to identify the distributions and diversity of endemic species in Venezuela, which can be used as a base to others investigations, including conservation studies in which they are assessed for inclusion in the Red List.

Further key words. Dragonfly, damselfly, Anisoptera, Zygoptera, endemism, Pantepui, South America

1st June 2017

Tramea basilaris on Linosa Island, Italy: A new species for Europe and the Western Palaearctic (Odonata: Libellulidae)

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Abstract. Two individuals of *Tramea basilaris* were observed and photographed at Linosa Island south of Sicily on 21-x-2016. This constitutes the first record of this species north of the Sahara, for Europe and for the Western Palaearctic. The closest known record is from Lake Chad, about 2 500 km to the South.

Further key words. Dragonfly, Anisoptera, migration, Sicilian Channel, Pelagie Islands, first record

1st June 2017

Lack of genetic structure in *Pantala flavescens* among Central and South American localities (Odonata: Libellulidae)

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Abstract. *Pantala flavescens* is the most widespread odonate on Earth, absent only in Antarctica and parts of Europe. A recent study performed with sequences of mtDNA suggested the presence of one panmictic population of the species at a global scale. However, combining mitochondrial and nuclear markers could offer more information about the genetic variability of populations. Here, we sequenced a fragment of the COI gene and genotyped eight microsatellite loci in order to analyze the population genetic structure and diversity in individuals collected in Central America (two sites in Costa Rica, separated by 147 km) and two localities in South America (one site in Chile and one in Peru, separated by 52 km). The global F_{ST} estimated from COI and microsatellite data showed no evidence of genetic structure. Furthermore, an Analysis of Molecular Variance (AMOVA) performed with both COI and microsatellites also showed no evidence of genetic structure despite the >5 000 km of distance between both geographic regions. These results suggest an extraordinary movement of *P. flavescens* along the American continent, thus corroborating the previous study conducted on this species.

Further key words. Dragonfly, Anisoptera, migration, dispersal, gene flow, Costa Rica, Peru, Chile

1st June 2017

The nature and structure of the white-reflecting underside 'scales' on the hind wing of *Pseudolestes mirabilis* (Odonata: Pseudolestidae)

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Abstract. The Hainanese endemic damselfly, *Pseudolestes mirabilis*, is unique among the Odonata in having brilliant silvery-white reflective areas on the underside of the hind wings in mature males. The light reflected is easily seen to be several times brighter than that from normal white pruinescence. The hind wing upsides have a striking coppery appearance due to the filtering of light reflected from the inside of the reflective area through bright amber tinted wing membranes, colour which results from small amounts of melanin in those parts of the membrane. Visual signals are thus produced from both sides of the wing and may be used to advertise territory occupancy while perched, as well as having an obvious semiotic function in aerial agonistic displays between pairs of males. The structure consists of a deep layer of long, parallel, flat wax fibres, secreted from the faces of cross-veins in individual wing cells over the affected areas. This is a spectacular and novel mode of cuticular wax secretion. The structure adds about 23–27 % to the mass of the hind wing, which may explain its unusual shape and shortness. However this character is also present in females, which lack the wax fibres, hence it may be an unusual example of an epigametic male trait being partially expressed in females.

Further key words. structural colour, cuticle, epicuticule, wax, fibres, disordered, wing density, wing mass

1st June 2017

Lestes concinnus and *L. pallidus*: two non-metallic species with wide, complementary ranges (Odonata: Lestidae)

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Abstract. We reiterate the history of two non-metallic, pale brown to greenish-blue marked with black *Lestes* species – *L. concinnus* Hagen & Selys, 1862 and *L. pallidus* Rambur, 1842 – that occur over a wide geographic range in the Old World and confirm their status as variable but good species, even though their history is marked by all the defects of early taxonomy. *Lestes thoracicus* Laidlaw, 1920 is synonymized with *L. concinnus.* We find that males (females not studied) of *L. concinnus* and *L. pallidus* can be separated by the structure of the inferior terminal appendages. The taxonomic distinctness of the two species is corroborated by the base sequence of the barcoding portion of the mitochondrial gene COI (genetic distance more than 6 %). There is a counterintuitive gap between the ranges of both, with only *L. pallidus* present in the southern Arabian Peninsula.

Further key words. Dragonfly, damselfly, Zygoptera, phylogeny, biogeography

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Rhinocypha peitho sp. nov. from central Laos (Odonata: Chlorocyphidae)

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Abstract. A new chlorocyphid damselfly species, *Rhinocypha peitho* sp. nov. (holotype ♂ from Laos, Vientiane province, Vang Vieng district, Pha Tang), is described and illustrated for the male sex and compared with its congeners, particularly *R. pelops*. *Rhinocypha watsoni* is recorded from Laos for the first time.

Further key words. Dragonfly, damselfly, new species, Zygoptera

1st June 2017

Nomenclature and status of the *Neurothemis tullia* complex of species (Odonata: Libellulidae)

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Abstract. Continental and Javanese specimens of the *Neurothemis tullia*-group were studied with an emphasis on wing color pattern and structure of the median process of the vesica spermalis. Continental *N. tullia* consists of two main variants: one well-known with a variable white wing pruinescence and a dry season variant in which it is lacking. The type of *Libellula equestris* var. *feralis* represents a distinct Javanese species, thus *N. feralis* is raised from being a subspecies of *N. tullia* to a full species. The variations of the wings as well as the median process of the vesica spermalis of both species are illustrated.

Further key words. Dragonfly, Anisoptera, *Neurothemis feralis*, Java, taxonomy, morphology

1st June 2017

Two new *Papuargia* Lieftinck, 1938 from Papua New Guinea (Odonata: Platycnemididae)

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Abstract. A second species of the hitherto monotypic New Guinean genus *Papuargia* Lieftinck, 1938 and a new subspecies of *P. stueberi* Lieftinck, 1938 are described from Papua New Guinea. These are *P. brevistigma* sp. nov. and *P. stueberi luciedecknerae* ssp. nov. The characters which define the genus are discussed with special reference to the labium and penis, which appears to show a previously unknown synapomorphy.

Further key words. Dragonfly, damselfly, Zygoptera, New Guinea, *stueberi*, *brevistigma*, *luciedecknerae*, new species, new subspecies