

**TEPUIBASIS GEN. NOV. FROM THE PANTEPUI REGION  
OF VENEZUELA, WITH DESCRIPTIONS OF FOUR NEW  
SPECIES, AND WITH BIOGEOGRAPHIC, PHYLOGENETIC  
AND TAXONOMIC CONSIDERATIONS ON THE  
TEINOBASINAE (ZYGOPTERA: COENAGRIONIDAE)**

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The new genus *Tepuibasis* includes 7 spp., all endemic to Pantepui; – 4 are new to science, viz.: *T. garciana* sp. n. from the Serranía de Maigualida, *T. nigra* sp. n. from Cerro Yutajé and Cerro Yaví, *T. rubicunda* sp. n. from Cerro Guanay, and *T. thea* sp. n., also from Cerro Guanay. *T. chimantai* (De Marmels, 1988), comb. n., *T. fulvum* (Needham, 1933), comb. n. and *T. neblinae* (De Marmels, 1989) comb. n. are transferred to *Tepuibasis* from *Aeolagrion* Williamson, 1917. The new genus falls within Teinobasinae Tillyard, 1917 (= Amphicneminae Fraser, 1957 syn. n. = Nehalenniinae De Marmels, 1984 syn. n), and herein within Teinobasini, because of the presence of an articulated ventrobasal spur on the male cercus. Other noticeable features of *Tepuibasis* are a bifid apical penis segment, and a spiny, auricle-like process directed proximad, at the base of each of the lobes forming bifid tip. *Tepuibasis* evolved out of ancestral teinobasine stock with considerable morphogenetic potential reflected by the large number of recent genera present in cratonic S. America, which is equaled only by insular SE Asia. Taxogeny of *Tepuibasis* was triggered by the uplift of the Guyana shield, and the vicariant species are the result of secondary isolation through fracturing and partial erosion of these highlands.

**MORPHOLOGICAL VARIATIONS IN RELATION  
TO MATURATION IN *PANTALA FLAVESCENS* (FABRICIUS)  
IN CENTRAL JAPAN  
(ANISOPTERA: LIBELLULIDAE)**

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*P. flavescens* was investigated in open fields in a deciduous forest in an inland part of the Kanto region for 3 months from late June 2003. The sp. was estimated to be bivoltine from summer to late autumn. The size of the adults was unchanged throughout the season. The sex ratio of the population skewed towards ♀. Maturity degree (MD), shown as the value of body weight divided by the cube of wing length, shifted upwards until the second half of August, after which it decreased sharply. Similarly the wing loading (WL) (calculated by dividing body weight by wing area) increased until the second half of August, and decreased from September, and in early October it was not significantly different between ♂♂ and ♀♀. As the relationship of body temperature to ambient temperature showed no difference between mature and immature individuals, or between sexes, with both correlation coefficients and regression coefficients being large for a flyer type sp., they seemed to be easily affected by the ambient temperature.

## EGG PRODUCTION IN *SYMPETRUM INFUSCATUM* (SELYS) FEMALES LIVING IN A FOREST-PADDY FIELD COMPLEX (ANISOPTERA: LIBELLULIDAE)

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Although the larval habitats of *S. infuscatum* are paddy fields, all adults leave the paddy fields for forest gaps after emergence, and remain there during their sexually immature stages. In late summer when they have matured, some visit the paddy fields in tandem flight for oviposition. However, many ♀♀ remain perching in the forest gaps, where no mating behaviour is observed. To evaluate the habitat selection of *S. infuscatum* ♀♀ in the forest gaps, fecundity was examined by means of dissection. In the morning, the ♀♀ remaining in the forest gaps loaded fewer mature eggs (ca 100) than did ovipositing ♀♀ in the paddy fields (ca 300). ♀♀ remaining in the forest gaps throughout the day were not willing to visit the paddy fields for oviposition due to the low egg number loaded. This could be because these ♀♀ were developing their eggs, having loaded more sub-mature eggs (ca 60) than ovipositing females in the paddy fields (ca 30). As a result, in the evening, ♀♀ that had developed nearly 500 eggs appeared. In an artificial oviposition experiment, the ♀♀ in the paddy fields released their eggs significantly faster (60 eggs/min) than did those in the forest gaps (16 eggs/min), and released almost all of their eggs, while the ♀♀ in the forest gaps retained a considerable number of eggs in their ovaries. Although ♀♀ loaded 400 ovarioles irrespective of their age, the number of immature eggs per ovariole decreased with age. Consequently, a ♀ might have laid more than 2000 eggs in her life span. ♀♀ must visit the paddy fields cyclically several times in a single month and stay in the forest gaps during the other days.

**THE ODONATA OF SULAWESI  
AND ADJACENT ISLANDS, PART 6.  
REVISION OF THE GENUS *DREPANOSTICTA* LAIDLAW  
(ZYGOPTERA: PLATYSTICTIDAE)\***

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The genus *Drepanosticta* Laidlaw is revised for Sulawesi and adjacent islands. *D. ephippiata* Lieftinck is redescribed, and *D. bicolor* sp. n. (Buton Island), *D. hamulifera* sp. n. (Kabaena Island), *D. penicillata* sp. n. (central Sulawesi) and *D. watuwilensis* sp. n. (SE Sulawesi) are described as new to science. A key to the ♂ is provided. Based on the structure of posterior margin of the pronotum, *D. ephippiata* presumably represents a monophyletic clade with the *D. lymetta* and *D. megametia* species-groups, including spp. from the mainland of New Guinea. This group is distributed from Mindanao (Philippines) eastward to the northern Moluccas, northern New Guinea and the Solomon Islands. The newly described spp. are morphologically quite diverse; they are presumably most closely related to spp. occurring SE of Sulawesi.

SHORT COMMUNICATIONS

**MACROTHEMIS MEURGEYI SPEC. NOV.  
FROM GUADELOUPE  
(ANISOPTERA: LIBELLULIDAE)**

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The new sp. is described and figured from specimens of both sexes, collected from Guadeloupe in the Caribbean Sea. Holotype ♂: Guadeloupe, Basse Terre, Habitation Deravin, SE of Pigeon, 9-II-2006; deposited at FSCA, Gainesville/FL, USA. The sp. is closely related to *M. imitans* Karsch from eastern South America. The all-black abdomen can readily separate it from *M. imitans*.

**DESCRIPTION OF THE LARVA OF  
*CORDULEGASTER PEKINENSIS* SELYS FROM CHINA  
(ANISOPTERA: CORDULEGASTRIDAE)**

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The ♀ ultimate instar larva from Beijing area, China, is described and illustrated. It shares some characters with the *Cordulegaster boltonii*-group, and others with the *C. bidentata*-group, but the anal pyramid is longer than in both.

***ARCHBOLDARGIA SCISSORHANDSI* SPEC. NOV.  
FROM PAPUA, INDONESIA  
(ZYGOPTERA: COENAGRIONIDAE)**

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The new sp. is described, based on a single ♂. Holotype ♂: Indonesia: Papua (formerly Irian Jaya), Pass Valley, Ibem R., 13/20-V-1999; deposited in ZMAN, Amsterdam. A key to the *Archboldargia* ♂♂ is given and some notes on the distribution of the genus are provided.

**PERISTICTA AENEOVIRIDIS CALVERT, 1909  
AND *P. FORCEPS* HAGEN IN SELYS, 1860:  
REDESCRIPTIONS AND A NEW SYNONYMY  
(ZYGOPTERA: PROTONEURIDAE)**

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*Peristicta misionera* Jurzitza, 1981 is considered a junior synonym of *P. aeneoviridis* Calvert, 1909. The holotype of *P. aeneoviridis* and ♂ *P. forceps* are redescribed, and *P. forceps* ♀ and larva are described for the first time.