

**PARTHENOGENETIC *ISCHNURA HASTATA* (SAY),
WIDESPREAD IN THE AZORES
(ZYGOPTERA: COENAGRIONIDAE)**

A. CORDERO RIVERA¹, M.O. LORENZO CARBALLA¹, C. UTZERI² and V. VIEIRA³

¹Grupo de Ecoloxía Evolutiva, Departamento de Ecoloxía e Bioloxía Animal, Universidade de Vigo,
EUET Forestal, Campus Universitario, ES-36005 Pontevedra, Spain
e-mail (ACR): adolfo.cordero@uvigo.es; (MOLC): olalla.lorenzo@uvigo.es

²Dipartimento di Biologia Animale e dell'Uomo, Università "La Sapienza",
Viale dell'Università 32, I-00185 Roma, Italy
e-mail: carlo.utzeri@uniroma1.it

³Universidade dos Açores, Departamento de Biología, CIRN, Rua da Madre de Deus,
PT-9501-801 Ponta Delgada, Açores, Portugal
e-mail: vvieira@notes.uac.pt

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Literature and personal information on the distribution of *I. hastata* and other odon. spp. in the Azores is reported. *I. hastata* and *I. pumilio* are recorded for the first time from the islands of Corvo and São Jorge, respectively. *I. hastata* appears the most common and abundant sp. and its population is formed by only ♀♀ (no ♂♂ were ever recorded). The asexual reproduction of these populations was demonstrated by means of laboratory rearing during several generations. The dispersal ability of this sp. and the possible origin of parthenogenesis after its colonisation of the Azores are briefly discussed. The possible causes of threat are identified and the need for conservation measures is outlined.

**THE IDENTITY OF SOME WIDESPREAD AND VARIABLE
PHYLLOMACROMIA SPECIES, WITH A REVISED GROUPING
OF THE GENUS
(ANISOPTERA: CORDULIIDAE)**

K.-D.B. DIJKSTRA

Gortestraat 11, NL-2311 MS Leiden, The Netherlands
e-mail: dijkstra@nnm.nl

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Many *Phyllomacromia* spp. appear to be more variable than was hitherto realised. This has led to the description of paler and darker forms as distinct spp. Fortunately, the genus is rich in morphological characters in both sexes. *P. melania* and *P. overlaeti* were described from ♀♀ and both have been allied with non-conspecific ♂♂, leading to great confusion. *P. melania* is the ♀ of the sp. known as *P. funicularia* rather than that of *P. contumax*, while *P. overlaeti* matches *P. subtropicalis* and not *P. schoutedeni*. With the identity of these ♀♀ clarified and the variation considered, many synonyms arise: *P. funicularia*, *P. bredoi* and *P. martorelli* are synonyms of *P. melania*; *P. biflava*, *P. nyanzana*, *P. bifasciata*, *P. reginae*, *P. halei* and *P. leoni* of *P. contumax*; *P. onerata* and *P. clymene* of *P. monoceros*; and *P. subtropicalis*, *P. paludosa* and *P. royi* of *P. overlaeti*. *P. paludis* is not synonymous with *P. contumax* but with *P. paula*. The taxonomy of this large genus is briefly discussed and a new species grouping is proposed.

COMPETITION, PREDATION AND MICROHABITAT SELECTION OF ZYGOPTERA LARVAE IN A LOWLAND RIVER

T.A. HOFMANN* and C.F. MASON

Department of Biological Sciences, University of Essex, Wivenhoe Park,
Colchester, Essex, CO4 3SQ, United Kingdom

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The microdistribution of 4 lotic spp. was investigated in the field. Microhabitat selection of *Calopteryx splendens* and *Erythromma najas* was further examined in the laboratory, individually at different larval densities and in the presence of the other species and a predator. – *E. najas*, *Ischnura elegans* and *Platycnemis pennipes* showed significant preferences for particular aquatic macrophytes compared to others in the field, whereas *C. splendens* did not discriminate between the investigated plant species. Only limited spatial separation was apparent between the larvae of different species, as preferences for the same macrophyte species were found. – When kept separate and at low densities, larvae of *C. splendens* and *E. najas* inhabited significantly different microhabitats in the laboratory. At high intraspecific abundances, spatial overlap between the two species became apparent as both increasingly occupied less preferred substrata, which is in concurrence with the ideal free distribution model of habitat selection. *E. najas* showed no change in perch selection in the presence of *C. splendens* at high densities. – In this instance, intraspecific competition therefore appeared to be more important than interspecific competition with other Zygoptera in determining the microdistribution of *E. najas*. In the field, the niches of the two species may be more adequately separated on the basis of prey selection or hunting behaviour. *E. najas* also actively reacted to the presence of a predator, indicating some flexibility of response regarding perch selection.

* Author to whom all correspondence should be addressed: telephone number: 01206 873298
email: tahofmp@essex.ac.uk

**FREQUENCY OF FEMALE COLOUR MORPHS IN
POPULATIONS OF FOUR COENAGRIONID DAMSELFLIES
(ZYGOPTERA: COENAGRIONIDAE)**

D. McKEE¹, I.F. HARVEY², D.J. THOMPSON² and T.N. SHERRATT³

¹School of Biological and Biomedical Sciences, University of Durham, Durham, DH1 3LE, United Kingdom

²School of Biological Sciences, Biosciences Building, University of Liverpool, Crown Street,
Liverpool, L69 7ZB, United Kingdom

³Department of Biology, Carleton University, 1125 Colonel by Drive, Ottawa ON, K1S 5B6, Canada

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Knowledge of naturally occurring andromorph and gynomorph frequencies in populations of coenagrionid damselflies is important for understanding the evolution of ♀-limited polymorphism. Here are reported the frequencies of andromorphs and gynomorphs in populations of *Coenagrion puella*, *C. mercuriale*, *Xanthocnemis zealandica* and *Ischnura fluviatilis* and a review is presented of the literature for other coenagrionid spp. It is shown that ratios of andromorphs to gynomorphs are often unequal with andromorphs generally being the uncommon morph. Significant inter- and intra-population variation in morph frequency sometimes occurs but is of low magnitude. No evidence was found for spatial segregation of andromorphs and gynomorphs. Andromorph frequency could not be significantly related with sex ratio or ♂ density.

SHORT COMMUNICATIONS

**DESCRIPTION OF THE LAST INSTAR LARVA
OF *PERITHEMIS LAIS* (PERTY) AND COMPARISON
WITH OTHER SPECIES OF THE GENUS
(ANISOPTERA: LIBELLULIDAE)**

J.M. COSTA¹ and L.P.R.B. RÉGIS²

¹ Departamento de Entomologia, Museu Nacional, Universidade Federal do Rio de Janeiro,
Quinta da Boa Vista, BR-20940-040 Rio de Janeiro, Brazil

² Departamento de Biologia, Universidade Federal Rural de Pernambuco, Dois Irmãos, Recife,
BR-52171-900 Pernambuco, Brazil

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The external morphology is described, illustrated and compared with that of the congeners. A note on the habitat of *P. lais* is appended.

***PERUVIOGOMPHUS BELLEI* SPEC. NOV.
FROM THE AMAZONIAN REGION OF BRAZIL
(ANISOPTERA: GOMPHIDAE)**

A.B.M. MACHADO

Departamento de Zoologia, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais,
Caixa Postal 486, BR 31270-901, Belo Horizonte, Minas Gerais, Brazil

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The new sp. is described and illustrated (holotype ♂: Brazil, Amazonas, Tefê, I-1958, A.L. Carvalho leg., deposited in collection A.B.M. Machado). By its size, colour and structure of the anal appendages, *P. bellei* sp. n. is closest to *P. moyobambus* Klots, 1944, but it can be separated mainly by the presence of a well-developed expansion on abdominal segment 8. It differs from the other 2 congeners by the presence of a denticulated area in the mid-part of the inner hindwing margin. The significance of this character for gomphid taxonomy is discussed.

**SYNONYMY OF *SUBAESCHNA* MARTIN, 1908
WITH *GYNACANTHA* RAMBUR, 1842,
AND A NEW SPECIES OF *GYNACANTHA* FROM PERU
(ANISOPTERA, AESHNIDAE)**

D.R. PAULSON¹ and N. VON ELLENRIEDER²

¹ Slater Museum of Natural History, University of Puget Sound, Tacoma, WA 98416, United States
e-mail: dpaulson@ups.edu

² Natural History Museum of Los Angeles County, Exposition Boulevard 900, Los Angeles,
CA 90007, United States
e-mail: odo_nata@hotmail.com

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Subaeschna Martin, 1908, is synonymized with *Gynacantha* Rambur, 1842, and its only sp., *S. francesca* Martin, 1909, becomes *Gynacantha francesca* (Martin). *G. bartai* sp. n. is described from 5 specimens (holotype ♂ and allotype ♀; Peru, Madre de Dios, Explorer's Inn; deposited in the NMNH, Washington, DC, USA) from southern Peru. It is characterized by very small size, unmarked thorax, straight cerci, and abdomen constricted in ♂ and unconstricted in ♀.

**DESCRIPTION OF THE LAST LARVAL INSTAR
OF *ACANTHAGRION ABLUTUM* CALVERT
(ZYGOPTERA: COENAGRIONIDAE)**

P. PESSACQ¹, J. MUZÓN¹ and N. von ELLENRIEDER²

¹ Instituto de Limnología “Dr. R.A. Ringuelet”, C.C. 712, 1900 La Plata, Argentina
e-mail: pessacq@ilpla.edu.ar

² Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles,
CA 90007, United States
e-mail: odo_nata@hotmail.com

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The final larval instar is here described for the first time and it is compared with the other known *Acanthagrion* larvae. It differs from them mainly in the number of palpal and premental setae and shape of head posterolateral margin.

***AMPHICNEMIS BRAULITAE* SPEC. NOV.
FROM CAMIGUIN ISLAND, THE PHILIPPINES
(ZYGOPTERA: COENAGRIONIDAE)**

R.J. VILLANUEVA

Biology Department, Ateneo de Davao University, 8000 Davao City, Philippines
e-mail: reaganjoseph@lycos.com

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The new sp. is described, illustrated and compared with the other 3 spp. of the *Amphicnemis forcipata* Brauer-group. Holotype ♂: Philippines, Camiguin, Guinsiliban, Lilob, 30-IV-2003; deposited in RMNH, Leiden. A few notes on the ecology are provided.