

## Robert's watercolour of *Sympetrum striolatum* and the ambiguity of the thermoregulatory obelisk posture (Odonata: Libellulidae)

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**Abstract.** In his 1958 book the well-known Swiss artist and odonatologist Paul-André Robert depicted a male *Sympetrum striolatum* adopting obelisk posture that might be interpreted as either warming-up or avoiding heat. We analysed the watercolour based on circumstantial evidence such as direction of irradiation, landscape, locality and season and we conclude that Robert painted the dragonfly in warm-up posture. The same posture was observed in a male held in a non-heated greenhouse on a cold morning. Similar postures were found on various photographs taken in the field at known temperatures. On the other hand, among 1 164 analysed photos from our own archives, from other photographers and from the Internet only five pictures exhibited unambiguous heat avoiding posture. Compared with other European *Sympetrum* spp. *S. striolatum* rarely adopts warm-up posture and only exceptionally heat avoiding posture. This species presumably avoids overheating mainly by seeking shade in woods.

Further key words. Dragonfly, Anisoptera, behavioural thermoregulation, heat-avoiding obelisk posture, warm-up obelisk posture, Paul-André Robert

## ***Ceriagrion georgifreyi* new to the Peloponnisos, Greece (Odonata: Coenagrionidae)**

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**Abstract.** *Ceriagrion georgifreyi* is reported from two localities in the North-west Peloponnisos in Greece in 2014 and 2018. Together with recent records of this species from mainland Greece north-east of Athens, as well as from Lesvos island, this suggest that all former records of *Ceriagrion* from continental Greece and the North Aegean islands should be ascribed to *C. georgifreyi* as, after careful examination, were those from Thasos, Kerkira and Zakynthos.

Further key words. Damselfly, Zygoptera, new records

## **An unusual case of gynandromorphism in *Neurothemis tullia* (Odonata: Libellulidae)**

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**Abstract.** An unusual gynandromorphic individual of *Neurothemis tullia* is reported from Faridpur District in Bangladesh. The head and thorax, including wings, are clearly bilaterally gynandromorphic. The abdomen is entirely pruinose androchromic with very few light spots left, however the abdominal tip bears female appendages. This unusual combination of gynandromorphism and androchromy is discussed in respect of its possible origin.

Further key words. Dragonfly, Anisoptera, androchromy

## Complete larval development of the dragonfly, *Rhionaeschna multicolor*, at 20°C under natural photoperiod (Odonata: Aeshnidae)

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**Abstract.** *Rhionaeschna multicolor* was reared from hatch to emergence in a controlled laboratory setting for the first time. Complete development at 20°C under natural photoperiod consisted of 13 stadia over  $428 \pm 3$  days. Moulting timing and total exuvia length tightly followed semi-log ( $R^2=0.993$ ,  $Sy.x=0.349$ ) and exponential growth curves ( $R^2=0.984$ ,  $Sy.x=1.301$ ), respectively, yielding a mean growth ratio of  $1.26 \pm 0.026$ . Winter diapause may persist through spring and summer photoperiods for late stadia nymphs in these conditions, potentially delaying adult emergence relative to nymphs reared in the wild.

Further key words. Dragonfly, Anisoptera, ontogeny, nymph, instar, diapause, temperature

## Rediscovery of *Agriocnemis sania* in northern Israel (Odonata: Coenagrionidae)

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**Abstract.** *Agriocnemis sania* is an Afro-Sudanese damselfly which was common in northern Israel until the early 1970s and was last recorded in 1986. In October 2014 *ca* 15 individuals of this species were found at Nahal Zavitan, Golan Heights, northern Israel, suggesting that this species persists in that country.

Further key words. Damselfly, Zygoptera

## ***Echo perornata* recorded in north-eastern India (Odonata: Calopterygidae)**

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**Abstract.** A single male of *Echo perornata*, a species new to the Indian fauna, was recorded and photographed on 11-vi-2013 in Hunli (28.3271°N, 95.9575°E, 1 280 m a.s.l.) in the Mishmi Hills, Arunachal Pradesh, India. Previously this species was only known from the adjacent Motuo (Medog) County in Tibet.

Further key words. Damsselfly, Zygoptera, new record, Arunachal Pradesh

## Odonata records from Lake Nasser, Egypt

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**Abstract.** Records of seven Odonata species, including one Zygoptera and six Anisoptera, from a boat trip on Lake Nasser, Egypt (from Aswan to Abu Simbel), are listed. The record of *Selysiothemis nigra* at two localities is the first ever sighting of this species at Lake Nasser, that of *Paragomphus pumilio* the first record in 35 years.

Further key words. Dragonfly, damselfly, Anisoptera, Zygoptera, faunistic records