

Short note on dragonflies of Crete

Marcel Wasscher

Crete is with nearly 9000 km² one of the four largest in the Mediterranean Sea. The island is Greek and has mountains as high as 2456 m. In the beginning of April 1999, during a one week stay in Crete, I hoped to find some dragonflies and indeed two species (*Hemianax ephippiger* and *Sympetrum fonscolombii*) were on wing. Most interesting was to gather the larvae from three Cretan (sub) species being endemic to the island. None of these species is rare on the island (Lopau & Wendler, 1995). Pictures of the larvae of these species and of a reared juvenile *Boyeria cretensis* are presented on this website.



Larval habitat

In a river near the villages of Mixorrouma and Spili the larvae all three endemic (sub) species from Crete were found on one location. This locality was before a small barrier in the river. Between floating tree roots I could collect within a quarter of an hour two larvae of *Calopteryx splendens cretensis*, one larva of *Boyeria cretensis* and one larvae of *Coenagrion intermedium*. A few kilometres further upstream two additional larvae of *Boyeria cretensis* were found, again between floating tree roots.



Boyeria cretensis Peeters, 1991

The larvae of *Boyeria cretensis* look very much like its western Mediterranean sister species *Boyeria irene*. Both species have the light spot on the back of the [eight segment](#). The caudal pyramid in [ventral view](#) is the best distinguishing character between the larvae and [exuviae](#) of both species. These differences are in agreement with the description by Peeters (1991). From the larvae I transported to The Netherlands my odonatological companion Frank Bos was able to rear one male successfully. It [emerged](#) on 3 May 1999 at 20.30. The [adult](#) was fed with flies and kept alive for 10 days until 13 May 1999. We fed the adult by holding it by the four wings upside down, feeding it flies with a set of tweezers.



***Calopteryx splendens cretensis* Pongracz, 1911**

The [larvae](#) of *Calopteryx splendens cretensis* captured are very much like those of other *Calopteryx*-species. If this is a good subspecies or even a species is still in discussion. Both larvae died while trying to rear them. From one of the larvae Henri Dumont has got one of the legs for DNA analysis for comparing the species of the *Calopteryx*-complex from the Middle East. He had a surprising result from the DNA analysis and wrote me: "*Calopteryx splendens cretensis*: had greater differences compared to other splendens-forms (it even differed more from *C. splendens* as good *Calopteryx* species like *Calopteryx orientalis*, *C. syriaca* and *C. ancilla*)."



***Coenagrion intermedium* Lohmann, 1990**

The Coenagrionidae larvae I collected turned out to be a *Coenagrion* species: it had the characteristic dots on the upper head. After rearing it turned out to be *Coenagrion intermedium*. Lohmann has only recently described the adult of *Coenagrion intermedium* in 1990 as a subspecies of *Coenagrion ponticum*. Battin (1992) has proved it's a good species, which was followed by Lohmann (1993) and thus is followed here.



Battin (1991) has described the larva. It is a [relatively short larva](#), belonging to the *puella*-group (sensu Lohmann, 1990). It has been reared, and [the exuvium](#) has been scanned. Frank Bos has reared the larvae of this species. The reared female had a total length of 33 mm and a hind wing length of 20 mm. He noticed that the reared female of *Coenagrion intermedium* looks in some ways like *Coenagrion scitulum*: the proportion of the sides of the pterostigma is 2:1. It might be that the only record of the latter species (see Lopau & Wendler, 1995) refers to a record of female of *Coenagrion intermedium*.

Observed adults

Only two dragonfly species were seen on wing during my stay in the beginning of April on Crete. The first species seen was *Hemianax ephippiger*. The localities where it was found were often olive tree yards. These individuals had most likely been carried by desert winds on 24 March 1999 from the Sahara, Northern-Africa a week before this sighting. I encountered this species on six localities with a total of 24 individuals. On the island large locusts (maybe *Schistocerca gregaria*) were seen in small numbers in shrubs. Probably they invaded the island in the same period. From [Sympetrum fonscolombii](#) I found one rather juvenile male on the central south of Crete.



List of localities

The [major larval locality](#) was in the river a little east of Mixorrouma (Mixorrouma; 35° 13' North 24° 30' East).

The river is seepage fed and had a width of 5 meter. The second larval locality was south of the village of Spili (Spíllion; 35° 13' North 24° 32' East). The village lies at the feet of mountain Kedros and is the capital of the Province of Ayios Vasileios. Both localities lay 18 km South-southeast of Rethimnon (Réthimnon), Crete's second largest city.

On 7 April 1999 I collected here *Boyeria cretensis*, *Calopteryx splendens cretensis* and *Coenagrion intermedium*.

The data and localities were *Hemianax ephippiger* was found: 3 April 1999 Chersonissos, Eastside of town, (2 individuals) and same date south from this locality (1 individual); 4 April 1999 Malia, excavation palace (10 individuals over 250 meter), Malia hillsides (1 female); 6 April 1999: Siva Southwest (5 individuals), Matala Northeast (1 individual). 7 April 1999, excavation palace Phestos (3 individuals); 7 April 1999, Koxare (1 individual).

The *Sympetrum fonscolombii* locality: 6 April 1999: Siva Southwest, North of Matala (1 juvenile male).

Literature:

Battin, T., 1991. Description of the larva of *Coenagrion intermedium* Lohmann, 1990 from Crete, Greece (Zygoptera: Coenagrionidae). *Odonatologica* 20(3): 333-336.

Battin, T. 1992. Revision of the puella group of the genus *Coenagrion* Kirby, 1890 (Odonata, Zygoptera), with emphasis on morphologies contribution to reproduction isolation. In: T.J. Battin, Damsels and dragons: the impact of sex vicariance on speciation, pp. 44-64, DiplArb. Univ. Wien.

Boudot, J.-P., 1998. Differences in male colour patterns between *Boyeria cretensis* Peters, 1991 and *B. irene* (Fonscolombe, 1838) (Odonata: Aeshnidae). *Opuscula zoologica fluminensia* 161: 1-3.

Lohmann, H. 1990. *Coenagrion ponticum intermedium* subsp. nov. von der Insel Kreta, Griechenland (Odonata: Coenagrionidae). *Opuscula zoologica fluminensia* 54: 1-7.

Lohmann, H., 1993. *Coenagrion vanbrincki* spec.nov. und *C. persicum* spec. nov. aus Vorausion (Zygoptera: Coenagrionidae) *Odonatologica* 22(2): 203-211.

Lopau, W. & A. Wendler, 1995. Arbeitsatlas zur Verbreitung der Libellen in Griechenland und der umliegenden Gebieten. *Naturkd. Reiseber.* 5: 1-109.

Peters, G., 1991. Die Schattenlibelle auf Creta *Boyeria cretensis* (spec. nov.) und die Monophylie der Gattung *Boyeria* McLachlan, 1896 (Odonata Anisoptera, Aeshnidae). *Dt. ent. Z. (N.F.)* 38(1/3): 161-196.

Photos: Frank Bos & Marcel Wasscher