DRAGONFLY FAUNA OF THE PROVINCE OF TARRAGONA, SPAIN

Tarragona is the southernmost province in Catalunya, NE Spain, and contains the lower course of the river Ebro with its delta, the littoral of the Mediterranean Sea, and the mountainous hinterland. Suitable dragonfly habitats are scarce, and most of the streams are not permanent. The dragonfly fauna of this region has hitherto not been studied in detail, but there are several interesting records, mainly basing on the work by Cuni y Matorel in the late 19th century and Navas in the early years of the present century (for a review cf. F.J. OCHARAN LARONDO, 1987, *Los odonatos de Asturias y de España: aspectos sistematicos y faunisticos*, PhD thesis, Univ. Oviedo). Recent observations from Tarragona were published by D. GRAND (1990, *Notul. odonatol.* 3: 75), D. CHELMICK (1992, *Kimminsia* 3: 13-14), and M. BRÄNDLE & M.-O. RODEL (1994, *Ent. Z.* 104: 145-156).

In 1992 and 1993, I had the opportunity to observe dragonflies in Tarragona for several months. A detailed analysis of the Catalan material is in preparation. In the present paper a preliminary checklist is provided on the basis of records from 23 systematically visited localities.

C a l o p t e r y g i d a e: *Calopteryx haemorrhoidalis* (Vander L.), *C. splendens xanthostoma* (Charp.).

L e s t i d a e: *Sympecma fusca* (Vander L.), *Lestes barbarus* (Fabr.), *L. viridis* (Vander L.).

P l a t y c n e m i d i d a e: *Platycnemis acutipennis* (Sel.), *P. latipes* Ramb.

C o e n a g r i o n i d a e: *Pyrrhosoma nymphula* (Sulz.), *Coenagrion caerulescens* (Fonsc.), *C. mercuriale* (Charp.), *C. scitulum* (Ramb.), *Cercion lindenii* (Sel.), *Erythromma viridulum* (Charp.), *Ischnura elegans* (Vander L.), *I. graellsii* (Ramb.), *I. pumilio* (Charp.), *Enallagma cyathigerum* (Charp.), *Ceriagrion tenellum* (de Vill.).

Gomphidae: *Gomphus pulchellus* Sel., *G. simillimus* Sel., *Onychogomphus costae* Sel., *O. forcipatus unguiculatus* (Vander L.).

Aeshnidae: *Boyeria irene* (Fonsc.), *Aeshna cyanea* (Müll.), *A. isosceles* (Müll.), *A. mixta* Latr., *Hemianax ephippiger* (Burm.), *Anax imperator* Leach, *A. parthenope* (Sel.).

Cordulegastridae: *Cordulegaster boltonii immaculifrons* Sel.

Corduliidae: *Oxygastra curtisii* (Dale).

Libellulidae: *Libellula depressa* L., *Orthetrum brunneum* (Fonsc.), *O. cancellatum* (L.), *O. coerulescens* (Fabr.), *Crocothemis erythraea* (Brullé), *Sympetrum fonscolombii* (Sel.), *S. sinaiticum tarraconensis* Jödicke, *S. striolatum* (Charp.), *Trithemis annulata* (P. de Beauv.).

34 out of these 40 taxa were brought on record previously, while *Platycnemis acutipennis, Ischnura pumilio, Enallagma cyathigerum, Gomphus pulchellus, Anax parthenope*, and *Sympetrum sinaiticum tarraconensis* are new for Tarragona. Three species could not be confirmed during the present investigations, viz. *Coenagrion puella* (A. HEYMER, 1964, *Beitr. Ent.* 14: 601-614), *Onychogomphus uncatus* (OCHARAN LARONDO, 1987, *ibid.*; GRAND, 1990, *ibid.*), and *Sympetrum meridionale* (OCHARAN LARONDO, 1987, *ibid.*; GRAND, 1990, *ibid.*). These bring the fauna of Tarragona up to 43 species.

The occurrence of the following species might be of general interest. *Trithemis annulata* is a N African element that actually exhibits an expansion northward to the European Mediterranean regions. In Tarragona, the species is common along the Ebro which seems to be the main reproduction habitat, where it appears at several localities. This status was also reported by GRAND (1990, *ibid.*), and CHELMICK (1992, *ibid.*). The Catalan records indicate its hitherto easternmost limit of the range on the Iberian peninsula (cf. P.A. CROCHET, 1989, *Sympetrum*, Grenoble 3: 7-15). *Sympetrum sinaiticum tarraconensis* is widespread and locally very abundant. Its occurrence cannot be interpreted as a recent expansion of N African populations, because due to structural differentiation, the Iberian population is considered a separate subspecies (R. JÖDICKE, 1994, *Odonatologica* 23: 239-253). C. BONET (1992, *Navasia* 1: 4) filled up the gap between the Andalusian (M. FERRERAS-ROMERO, 1989, *Notul. odonatol.* 3: 44) and the Catalan records, reporting on its occurrence in the province of Valencia. This taxon has been overlooked, perhaps due to its autumnal activities. The only observations of *Onychogomphus costae* were made at a small tributary of the reservoir Pantà dels Guiamets E Móra on May 30 (2 ♂, 1 ovipositing ♀) and June 7 (1 ♂). The distance from here to Flix, where the species was originally recorded by Navas (OCHARAN LARONDO, 1987, *ibid.*), amounts to about 25 km. This is a new confirmation of its current occurrence in Spain. After a gap of some decades, the species was recently reported from three localities in the adjacent Aragon region (D. GRAND & J.-P. BOUDOT, 1993, *Notul. odonatol.* 4: 16-17; M. KÉRY & M. SCHAUB, 1994, *Notul. odonatol.* 4: 53-54).

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