

DRAGONFLIES FROM THE ERGENE RIVER BASIN, THRACE, TURKEY

T. YAZICIOĞLU

Department of Systematic Zoology, Aegean University, P.K. 74, Izmir, Turkey

Abstract — 20 spp. and ssp. are listed from the European part of Turkey. *Coenagrion p. puella*, *Lestes v. virens*, *Gomphus flavipes*, *G. vulgatissimus schneideri*, and *Somatochlora flavomaculata* were not earlier reported from this region.

Introduction

Up to now five papers dealing with the odonate fauna of European Turkey have been published, viz. SPAGNOLINI (1877), KEMPNY (1908), MORTON (1915, 1922) and DUMONT (1977a). In the latter publication all Turkish records prior to 1977 are reviewed and many new species are added. It provides also the most thorough and critical revision of the subject.

The present note is based upon a collection (adults), gathered during 1980-1981 along a 20 km stretch of the middle course of the Ergene River, East Thrace), starting 11 km NW of Çorlu (Tekirdağ Province). In all, 20 species and subspecies are recorded, including *C. p. puella*, *Lestes v. virens*, *Gomphus flavipes*, *G. vulgatissimus schneideri*, and *Somatochlora flavomaculata*, which are new to the fauna of the European Turkey.

The middle and lower course of the Ergene are characterized by their ecological homogeneity and by the absence of rock formations. This explains the local absence of some taxa, such as e.g. the lithorheobiotic *Epallage fatime*, recorded by DUMONT (1977a) from Istanbul.

In the area studied, three types of larval habitats can be distinguished:

- (1) Shallow, flowing water, with muddy and sandy bottom. The rich vegetation includes trees, reeds and water-lilies. Width: 8-20 m, depth: 0.2-1.9 m, velocity: 11-15 cm/sec;
- (2) Low flowing water (14-18 cm/sec), with sandy bottom (or fine gravel), but the banks lacking trees and reeds;
- (3) Stagnant water bodies, with muddy or sandy bottom. These are generally ponds

and swamps along the river, characterized by varying depths, and by grassy and reedy banks.

Of the 190 specimens collected, two thirds are referable to *Platycnemis pennipes*, *Lestes barbarus*, *Calopteryx splendens*, and *Symptetrum fonscolombi*. Throughout the summer, the most abundant species of the first mentioned habitat was *C. splendens* (49% of the specimens encountered), while *P. pennipes* was the most abundant and dominant in the other two types of habitats.

Annotated list of species

Platycnemis p. pennipes (Pall.): numerous specimens of both sexes, 16-V/28-IX-1980. — A widespread and common species all over Turkey, occurring in a variety of habitats. — In Thrace it occurs both on stagnant and running water bodies.

Coenagrion p. puella (L.): 10 ♂, 2 ♀, 16-V/13-VII-1981. — New for European Turkey. As far as I know, the only other Turkish record is that of SCHNEIDER (1981). The Thracian specimens agree with the characters given by SPURIS (1964). — In stagnicolous habitats only.

C. scitulum (Ramb.): 1 ♂, 16-V-1981. — A rare species, recorded earlier from Istanbul. — It prefers running-water habitats.

Ischnura elegans ebneri Schmidt: specimens of both sexes, 23-V/13-VIII-1981; 2 ♂, 1 ♀ also from Keşan (Edirne Prov.), 3-VII-1981. — A widespread taxon in Turkey and Syria (DUMONT, 1977a; SCHNEIDER, 1981). SCHMIDT's (1967) record of *I. e. pontica* from the Black Sea coast (Thrace) needs confirmation. — It occurs in running and in stagnant waters; in mid August, out of the total number of specimens collected, 6.6% of the running-water material, and 15.0% of the stagnant-habitat material is referable to this species. On one occasion I have seen a male carried away by wind at a distance of 1500 m from the nearest breeding site. Similar migrations by *I. elegans* have also been ob-

served by MOORE (1960) in Britain.

Lestes barbarus (Fabr.): 7 ♂, 5 ♀, 13-VII/28-IX-1980, 16-VII/4-X-1981. — This species is locally dominant. Although occurring in similar types of habitats as *L. viridis*, I have never seen the two species together in the same locality.

L. dryas Kirby: tandem at a small ditch, 24-VII-1980. — It is a rarity in Thrace. The only earlier regional record is that of MORTON (1915).

L. v. virens (Charp.): a single specimen, in a swamp, 13-VII-1981. — This is the first record from European Turkey. The species appears to be rare both in Thrace and in Asia Minor; it has not been recorded from Turkey since 1966 (Abant, Bolu). — Larvae in stagnant waters only (AGUESSE, 1968).

L. viridis parvidens Artobolevski: 3 ♂, 6 ♀, 13-VII/10-X-1981. — Recorded from Istanbul already by SCHNEIDER (1845). — According to AGUESSE (1968) it breeds in running waters. Our specimens, however, were all caught on stagnant water; many tandems were noticed on the vegetation overhanging a swamp.

Calopteryx splendens mingrelica Sel.: numerous specimens of both sexes, 16-V/24-VIII-1980. — Dominant species at flowing waters. I have seen no specimens at the stagnicolous habitats. Within a population, sexual maturity is reached more or less simultaneously.

Gomphus flavipes (Charp.): 2 ♂, 16-VII-1980. — New to European Turkey; the Anatolian population is referable to *G. f. lineatus* (Bart.). More material is needed before the status and distribution of this species in Thrace and Asia Minor can be ascertained. — Rheophilous.

G. vulgarissimus schneideri St. Quentin: 2 ♂, 3 ♀, 16-V-1980; 1 ♂, 1 ♀, 16-VII-1981. — New to the fauna of Thrace. — It breeds in running water, and all specimens taken were collected at the habitat type mentioned above under (1).

Onychogomphus forcipatus unguiculatus (Vander L.): 4 ♂, 2 ♀, 13-VII-1980, 13-VIII-1981. — Known previously from Kirklareli (DUMONT, 1977a). — A relatively common species; I have taken all specimens on the river

bank. It breeds in flowing water only.

Aeshna mixta (Latr.): 3 ♂, 1 ♀, 13-VII-1980; 1 ♂, 20-VIII-1981; 2 ♂, 4-X-1981.

S. metallica meridionalis Nielsen: 1 ♂, 2 ♀, 30-V-1980; 2 ♂, 2 ♀, 13-VII-1981. — Due to the prolonged summer, our subspecies has a relatively longer flight period than the boreal nominate form (cf. BELYSHEV, 1968).

Somatochlora flavomaculata (Vander L.): 1 ♂, 1 ♀, 30-V-1981. — First record for Thrace. Less common than *S. metallica*.

Libellula depressa L.: 2 ♂, 1 ♀, 23-V-1981. — Reported previously by KEMPNY (1908) and MORTON (1915) from the Istanbul area. HOVASSE's (1929) record from Sapanca Lake, West Anatolia is doubtful.

Orthetrum ramburi (Sel.): 2 mated pairs, 24-VII-1980; 1 ♂, Keşan (Edirne), 3-VIII-1981. — Common in the region.

Sympetrum fonscolombei (Charp.): long series of both sexes, VII-1980, VII-1981. — By far the most abundant anisopteran.

S. s. sanguineum (Müll.): 2 ♂, 1 ♀, 13-VIII-1980; 1 ♂, 3 ♀, 13-VII-1981; 3 ♂, 2 ♀, 10-X-1981.

S. s. striolatum (Charp.): pair, 28-IX-1980.

Acknowledgements — The manuscript was read by Professor H.J. DUMONT (Ghent, Belgium). For valuable criticism special thanks are extended to Associate Professor IBRAHIM BARAN and Dr MEHMET ATATÛR (Izmir, Turkey), and for comments on the English to Mr ALAATTIN ARICAN.

References — AGUESSE, P.A., 1968. *Les odonates de l'Europe Occidentale, du Nord de l'Afrique et des Iles Atlantiques*, Masson, Paris; — BELYSHEV, B.F., 1968. *Fragm. faun.* 14: 407-539; — DUMONT, H.J., 1977a, *Bull. Ann. Soc. r. belge Ent.* 113: 119-171; — 1977b, *Bull. Ann. Soc. r. belge Ent.* 113: 187-209; — HOVASSE, R., 1929, *Rev. Fac. Sci. Istanbul* 3: 931; — KEMPNY, P., 1908, *Verh. Zool.-bot. Ges. Wien* 58: 259-270; — MOORE, N.W., 1960, in: P.S. Corbet, C. Longfield & N.W. Moore, *Dragonflies*, pp. 127-137, Collins, London; — MORTON, K.J., 1915, *Entomologist* 48: 129-134; — 1922, *Entomologist* 55: 80-82; — SCHMIDT, E., 1967, *Ent. Tidskr.* 88: 188-216; — SCHNEIDER, W.

1981, *Odonatologica* 10: 131-145; — SCHNEIDER, W.G., 1845, *Stettin. ent. Ztg* 6: 110-116, 133-135; — SPAGNOLINI, A., 1877, *Boll. Soc. ent. ital.* 9: 302-310; — SPURIS, Z.D., 1964. in: G. Ya. Bei-Bienko, [Ed.], *Opredelitel'*

nasekomyh evropeyskoy chasti SSSR, vol. 1, pp. 137-161, Nauka, Moscow-Leningrad.

Received December 10, 1981