

EPALLAGE FATIME (CHARP.) (ZYGOPTERA: EUPHAEIDAE) AS PREY OF ARGIOPE BRUENNICHII (SCOP.) (ARANEAE: ARANEIDAE)

There are quite a few records of predation on dragonflies by spiders to be found in literature, e.g. P.S. CORBET (1962, *A biology of dragonflies*, Witherby, London), A.T. HASSAN (1977, *Odonatologica* 6: 1-5), A. KUMAR & M. PRASAD (1977, *Odonatologica* 6: 19-20), R. RAM & M. PRASAD (1978, *Notul. odonatul.* 1: 25-26). Nevertheless, the main diet of spiders is composed of other arthropods (c.f. R.F. FOELIX, 1979, *Biologie der Spinnen*, Thieme, Stuttgart). Being predators with high visual capacity, dragonflies are but seldom trapped in spiders' webs. CORBET (1962) pointed out that in areas highly infested with webs, diurnal odonates may display a modified flying behaviour and avoid resting in shaded sites where visibility is limited. The situation may be different when web-building Araneae accumulate in the vicinity or at the sites of emergence of Odonata. In these cases freshly emerged or teneral adults may be entrapped in webs as been reported in several species (cf. KUMAR & PRASAD, 1977; RAM & PRASAD, 1978). Certain modes of behaviour of some species may also favour a predation by spiders (E. GONZÁLEZ SORIANO et al., 1982, *Adv. Odonatul.* 1: 55-62).

The following observations were made on a small brook (affluent of the Oront's river) in the Biqa Valley (Lebanon), north of Baalbek, in the morning of 6 July 1980. The small rivulet was overgrown with thistle shrubs (*Carthamus* sp.), reed (*Phragmites* sp.) and *Juncus* sp. Numerous females of *Argiope bruennichi* had spun their vertically oriented cobwebs across the brook at regular intervals of about 5 m. In each of ten webs a single specimen of *E. fatime* was trapped. In most cases the dragonfly was preyed on by the spider. The victims were exclusively mature specimens, the bodies of males being coated extensively with whitish blue pruinosity. At the same locality exuviae of *E. fatime* were found.

G. JURZITZA (1978, *Unsere Libellen*,

Franckh, Stuttgart) reported on an adult individual of *Anax parthenope* preyed upon by *Argiope bruennichi*. As mentioned earlier, the capture of adult specimens is a mere accident. It is therefore remarkable that in the present case only adults of *E. fatime* but no tenerals were trapped, though the webs were situated at a site of transformation. It is well known that *A. bruennichi* replaces its web almost daily, as most Araneidae do. This is usually done by night or in the early morning (FOELIX, 1979; Dr R. Guttman, pers. comm.). I therefore conclude that freshly emerged individuals of *E. fatime* took off before the new webs had been woven. The question why adult insects became victims of the spiders remains open. The large web is a conspicuous structure for animals such as dragonflies, in which sight is the most highly developed sense. The black and yellow striped spider itself, which is permanently sitting in the hub of its web, is a striking appearance. It is, therefore, likely that the adult specimens became trapped in the new webs during the early morning, immediately after having resumed flight activity. Whether this happened while they took off or while they flew in from their roosting sites cannot be decided. Unfortunately, very little is known on the behaviour of *E. fatime*, viz. A. BILEK (1967, *Dt. ent. Z.*, N.F. 14: 303-312), C. BUCHHOLTZ (1955, *Z. Tierpsychol.* 12: 364-386), A. HEYMER (1973, *Z. Tierpsychol.*, Suppl. 11: 1-100).

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