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SOME OBSERVATIONS ON THE BIOLOGY OF THE SPIDER TIBELLUS OBLONGUS (Walckenaer)(ARANEAE)

by IZABELLA MIKULSKA.

Sand dunes, particularly coastal, constitute a peculiar biotope populated by animal species specially adapted to living in that habitat. On the sandy beaches of the Polish Baltic Coast cryptically coloured running spiders of the genus Arctosa C.L.Koch are frequently found (Menge 1869-1879; Mikulska 1963; Dziabaszewski 1965). Also fairly frequent is the sand-running Philodromus fallax Sund. (Mikulska 1963), whilst among the stems of dune plants spiders of the genus Tibellus Simon commonly occur. This latter genus is represented in Poland by two species, T. oblongus (Walck.) and T.maritimus (Menge) (Petrusewicz 1936), both very much alike in appearance (Fig. 1) and inhabiting similar places. Generally, reliable distinction between the two can be obtained by comparing their copulatory organs, but even this method may be misleading since, in some individuals, certain structures such as the epigyne show characteristics transitional between the two species, and it seems possible that these closely related species do crossbreed.

During the growing seasons 1962 and 1963, observations on T.oblongus were carried out in over a dozen sites on the dune belt along the Gdańsk Coast between Orłowo and Sobieszewo. The dunes in that area are distributed rather irregularly, and the largest dune fields forming a continuous sand ridge along the sea shore are found at Sobieszewo. The seaward dune slopes are frequently covered with tufts of grass, whose partly dry stems form a dense tangle close to the ground. The fixed dunes are overgrown with rich shrubby vegetation. It is this brushwood and the grass tufts along the dunes which constitute the favourite habitat of T.oblongus.

The spiders were collected with an insect-sweeping net at 10-day intervals from April 4th till December 4th 1962, and then again through May and June 1963, at various points along the coast. The information obtained showed that T.oblongus occurred throughout the above mentioned dune belt in varying intensity during the course of one growing season. In early spring, April and May, and in late autumn the spiders occurred in small numbers, and the individuals found were all mature, or nearly so. Mass emergence of juvenile forms was observed in May and June, and nearly mature forms were found in large numbers in August and September. The preferred habitat of these spiders was the grass, on which they stay

with their two anterior pairs of legs stretched forwards along a blade, the third pair grasping the blade and the posterior pair stretched backwards (Fig.2). Their fallow colouring and elongate shape of both thorax and abdomen make them scarcely visible in their surroundings, but they are easily scared by moving the grass, and so betray their presence by running away.

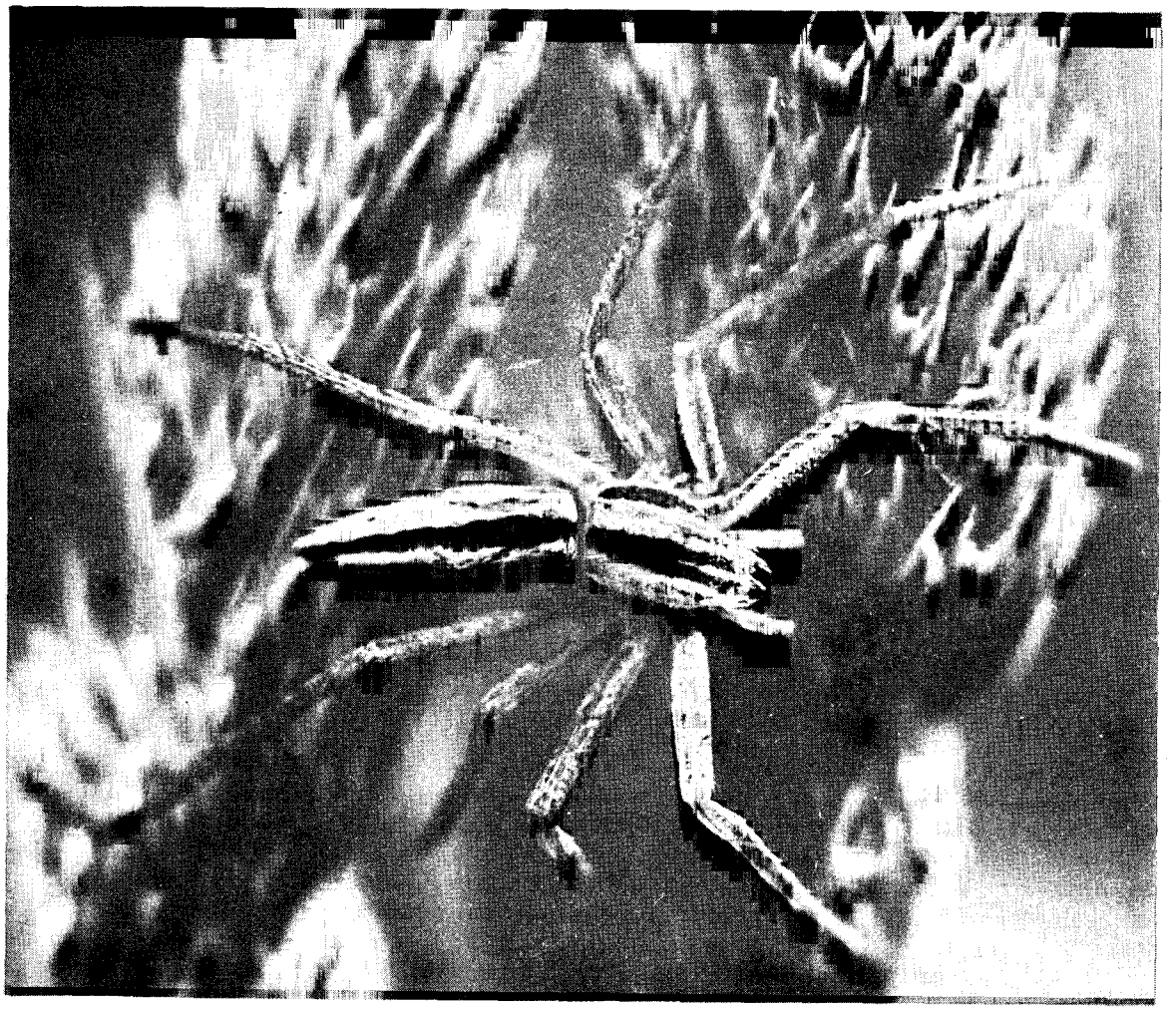

photo. W.Kokocinjki

Fig. 1. Tibellus oblongus (Walck.) female
Note the crab-like arrangement of appendages.

The fine autumn of 1962 obviously favoured the spiders' long stay in their usual habitat and the last specimens that year were collected on November 23rd. They were all well grown by then but not fully mature.

The data obtained indicate that in the area under study, T.oblongus hibernates in the pre-mature stage. In spring, after reaching sexual maturity, they start to breed, which results in the mass emergence of young observed in summer.

Only brief reports on this subject can be found in literature: Locket and Millidge (1951) note briefly "adult in summer", Palmgren (1950) gives the months of collecting adult forms: females in May, June, July and August with a maximum in June, males mainly in June. Mass emergence of the young is recorded from July onwards, with a maximum in September.

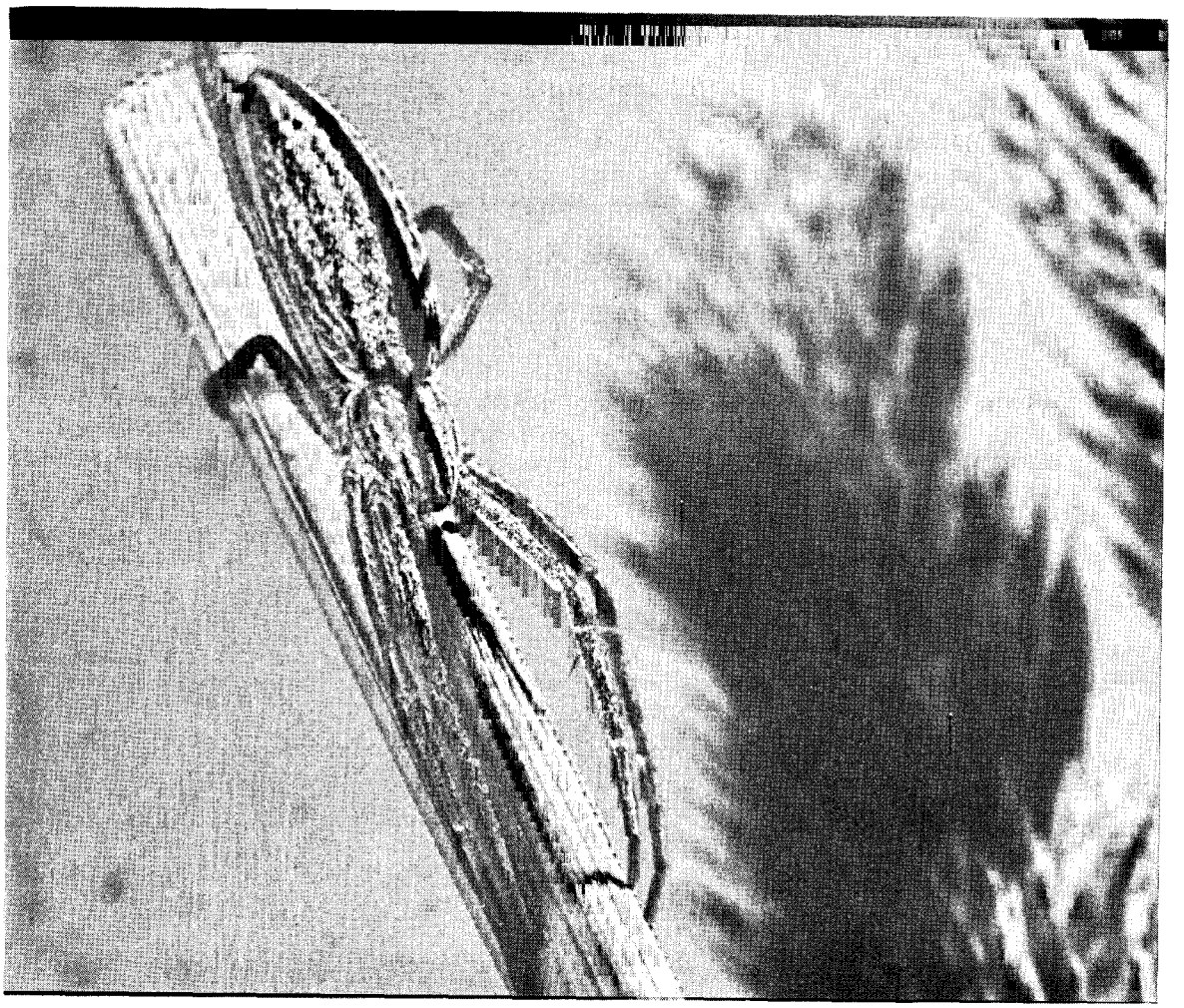

photo. W.Kokocinjki

Fig. 2. Tibellus oblongus (Walck.) female in cryptic position on blade of grass.

Having a fairly large collection, consisting of several dozen adult specimens from each year of observation, notice was also taken of their sizes, which were then compared with those of spiders collected in other regions. According to Palmgren (op.cit.) the dimensions of adult females are 6.5 to 11 mm in length, and of adult males 5.0 to 7.5 mm.

The specimens collected by us in 1962 were medium sized, while those of 1963 reached Palmgren's maximum values. Some adult females even

reached 12 mm in length. The differences in size may be accounted for by the differences in weather and, consequently, in feeding conditions between the two periods in question. The wet and cool spring of 1962 did not favour the development of insects which constitute the spiders' food. In 1963, on the other hand, sunny weather prevailed on the coast from April onwards, ensuring an abundant supply of insects. These conditions favoured good development and growth of the spiders.

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QUITE A LOT OF MISTAKES ABOUT HILLHOUSIA MISERA! by JACQUES DENIS.

Having re-read my two notes (1968; 1969) dealing with Hillhousia misera (O.P.-C.), I find wholly unaccountable mistakes in the second. First, contrary to my statement in this, I had not forgotten to allude to Ivie's paper (1967) in the former. Then, I was wrong in writing in the latter that Ivie had synonymized Tmeticus microtarsus Em. with Hillhousia misera; the author has only made the American species a Hillhousia and has taken it as a distinct species. It is thus normal that Tmeticus microtarsus and Tmeticus concavus Em. - which is really a synonym of Hillhousia misera - appear to be different species. I will just confirm here that, till now, two species are known as belonging to the genus Hillhousia:

H.misera (O.P.-Cambr.,1882)(= Tmeticus concavus Em.,ix.1882)
H.microtarsus (Em.,1882)

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