

PROGRESS IN ANALYSING THE NETHERLANDS ODONATE FAUNISTIC RECORDS WITHIN THE FRAMEWORK OF THE EUROPEAN INVERTEBRATE SURVEY

A re-analysis of the Dutch dragonfly fauna was started in 1977, as a contribution to the European Invertebrate Survey (E.I.S.) (cf. J. VAN TOL, 1978, *Jaarb. ned. ent. Ver.* 1976-1978: 64-66; — J. VAN TOL & P.J. VAN HELSDINGEN, 1979, *Vakbl. Biol.* 59: 2-7). Specimens of the local taxa present in collections of the Dutch musea were included. In all, some 9000 specimens were recorded from 313 localities, along with dates of capture, names of collectors and ecological notes, if any.

The number of species recorded from the Netherlands amounts to 68. Of these, about 10 are not found in recent times, which reduces the present day dragonfly fauna of the country to about 58 species.

For the E.I.S. project only specimens studied by ourselves were used. They were identified or their identification was checked.

Larvae and exuviae were not included, nor were data from the faunistic literature.

We plan to publish an up-to-date list of species occurring in the Netherlands together with their distribution plotted on a 10x10 km grid map. Observations made before and after 1950 are recorded separately. This year is taken as a demarcation (a) because of the sudden increase in industrialization and urbanization after the second world war, and (b) because approximately equal numbers of observations were made before and after this date. On the maps small black dots indicate records made before 1950, large black dots those from 1950 onwards. For localities where we had old as well as recent records, large dots are given only.

In this way the maps show the difference in frequencies of the species between the two periods. In most cases there is a decrease, in particular for those species whose larval development takes place in running water (*Calopteryx*, Gomphidae).

Some common species show a relative increase in range and number within recent

times (*Lestes sponsa*, *Ischnura elegans*, *Enallagma cyathigerum*, *Aeshna mixta*, *Sympetrum vulgatum*). Even species known to have been rare in earlier times (*Erythromma viridulum*) seem to be expanding nowadays, emerging in well studied localities where they had not been found before.

Descriptions of all species will be provided along with the distribution maps, notes on their distribution in Europe, and with an ecological characterization. With this contribution we hope to give an up-to-date review of the status of the Dutch odonate fauna, together with much needed information on the ecological value of every species.

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