

NEW LOCALITIES FOR *EPITHECA BIMACULATA* (CHARP.), WITH A REVIEW OF ITS STATUS IN WESTERN EUROPE (ANISOPTERA: CORDULIIDAE)

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Abstract — Four new localities (3 in France, 1 in Belgium) are brought on record and discussed, and a review is presented of the records of this sp. in western Europe.

Introduction

Through the kindness of Mr A. Grafteaux (Monthermé, France), I was able to examine a small, but extremely interesting collection of Anisoptera. Twenty-six specimens, including 2 males of *Epitheca bimaculata* were collected on a small pool near the village of Les Mazures. Dépt Artois, France. Later, Mr Grafteaux communicated to me another new locality of this species in France. Two further unpublished localities, one in Belgium and one in France, came up by

consulting the cartographic index of the Belgian invertebrates (Gembloux).

Description of the localities

Les Mazures is situated in northern France, about halfway between Revin and Renwez (Dépt Artois). The pool is surrounded by forest, and was created by damming up a brooklet, which drains a peat-moor. Its surface is 50 x 80 m² and its maximum depth is 2 m. The vegetation in and around the pool, probably as a result of the nature of the water, shows many characteristics of a bog: *Sphagnum*, *Drosera* and *Eriophorum* occur. *Potamogeton* and *Typha* are also present. Trout was introduced a few years ago. In this locality, 1 larva was captured on 11-

V-1972 yielding a male on 25-V-1972. Another male was captured on 17-VI-1973. It is not known whether the species is still present here today. Other species taken here between 1967 and 1979 are: *Aeshna affinis*, *A. juncea*, *Anax imperator*, *Cordulia aenea*, *Somatochlora metallica*, *Libellula depressa*, *L. quadrimaculata*, *Orthetrum cancellatum*, *Sympetrum danae*, *S. flaveolum* and *S. meridionale*.

The female from Chatel de Neuvre (Dépt Allier) was captured on 4-VI-1972. The speci-

men is deposited in the collection of the University of Gembloux. There are no further details available about this capture.

A teneral female was taken by Mr A. Grafteaux on 13-VI-1972 along the border of the river Maas, near the city of Charlesville-Mezières, northern France. The specimen was not preserved.

A fourth new locality is due to Mr L. Verlinden (Antwerp, Belgium), who provided a description of the area. An adult old male was

Table I — Records of *Epiheca bimaculata* in western Europe

Country	Year	Locality	References
Belgium	1828	Campine (Flanders)	SELYS, 1888
	1841, 1842	Rouge-Cloître	SELYS, 1888
	1850	Longchamps-s-Geer	SELYS, 1888
	1914, 1915	Lake Donk (Flanders)	ROUSSEAU, 1919
	1980	Brecht (Antwerp)	this paper
France	?	Besançon (Jura)	DEGRANGE & SEASSAU, 1974
	1965	Commelles (Isère)	DEGRANGE & SEASSAU, 1974
	1971	Jura (Doubs, Loue, Cuisance)	VERNEAUX, 1972
	1972	Chatel de Neuvre	this paper
	1972	Charlesvilles-Mezières	this paper
1972, 1973	Les Mazures	this paper	
Germany	?	Schleswig-Holstein (20 captures before 1950)	SCHMIDT, 1975
	?	Baden-Württemberg (2 localities)	GERKEN, 1980
	?	Baden-Württemberg (3 recent localities)	LOHMANN, 1980
	?	Nordrhein-Westfalen (1 recent locality)	LOHMANN, 1980
	?	Schleswig-Holstein (1 recent locality)	LOHMANN, 1980
Italy	?	Trentino (3 localities, before 1869)	AUSSERER, 1869
	1906 (?)	Veronese (Lago di Garda)	cf. CONCI & NIELSEN, 1956
Luxembourg	1951-1960	Echternach (Alferweiher)	HOFFMANN, 1960
	1951-1960	Scheidhof	HOFFMANN, 1960
	1951-1960	Schoenfels (Mamer)	HOFFMANN, 1960
Netherlands	18??	Arnhem	SELYS, 1888
	18??	Roermond	SELYS, 1888
Switzerland	?	Zürich	SELYS, 1888
	1922, 1925	Lobsigensee nr Aarberg	ROBERT, 1958
	1975	Jura (Lac Ter, Lac de Lussy, Lac des Taillères).	DUFOUR, 1978

taken on 26-V-1980 in the heath of Brecht (Antwerp), near a pool. The pH of the water was found to be near 3! *Calluna*, *Narthecium ossifragum*, *Sphagnum* and a huge amount of *Myrica gale* were present. Like the preceding, this specimen was not preserved.

Only the material from Les Mazures was identified by myself. The other specimens were named by Dr R. Cammaerts (for Chatel de Neuve), Mr A. Grafteaux (for Charlesville-Mezières) and by Mr L. Verlinden (for Brecht).

Status of *Epitheca bimaculata* in western Europe
Table I gives a summary of all localities in western Europe, mainly known from the literature.

There are five localities in Belgium. ROUSSEAU (1919) first described the prolarva from Lake Donk in Flanders. DE SELYS-LONGCHAMPS (1888:138) described the situation in Rouge-Cloître, where the species was quite common in 1841 and 1842: "J'en pris facilement une quinzaine dans la matinée". After 1842, the species seems to have disappeared completely from that site.

An older capture is known from Besançon in France (cf. DEGRANGE & SEASSAU, 1974). In the same region (Le Bassin du Doubs, Massif du Jura), VERNEAUX (1972) collected larvae in 4 localities, all of them in running water. A fairly recent locality is known from pools near Commeles (Isère) (DEGRANGE & SEASSAU, 1974), where a single larva was caught in 1965. Three recent localities are brought on record in the present note.

Aside from a semi-permanent population in Schleswig-Holstein, only fragmentary data are available from Germany, while no recent records are known from Italy and The Netherlands.

Beside the localities given by DE SELYS-LONGCHAMPS (1888) and ROBERT (1958), DUFOUR (1978) presents 3 recent localities for Switzerland (Jura), close to the sites where VERNEAUX (1972) found the species in the French part of the Jura.

To date, the species has not become known from Great Britain (HAMMOND, 1977), Spain and Portugal.

It is clear that in western Europe, the species is rare and is seen very irregularly, so that it is hard

to decide whether it is in decline or in progress. Only in Germany, more specifically in Schleswig-Holstein, one can speak of a real decline. *E. bimaculata* is therefore considered at risk in this country (SCHMIDT, 1977; LOHMANN, 1980).

Epitheca bimaculata is apparently an eastern species, attempting to expand in the westward direction. This, however, seems to have failed so far, although it is not impossible that it has succeeded to settle in Schleswig-Holstein and the Jura-massive for a number of years.

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