

V o r a n k ü n d i g u n g

Im Frühjahr 1985 soll für Mitglieder der GdO ein

* Libellen - Kurs *
 * mit Anleitung zur Bestimmung *
 * von Exuvien und Imagines *
 * sowie einem Diavortrag zur Biologie *

stattfinden.

Die Teilnehmerzahl wird auf 20 - 25 Personen begrenzt. Der Kursbeitrag wird vermutlich DM 50,- betragen. Der Kurs findet in Höxter (Uni - GH) statt.

Es wird um vorläufige Anmeldung bis 30.11.84 gebeten. Die Interessenten werden im Dezember über den genauen Termin sowie weiteres Wissenswertes informiert.

Prof.Dr. B. Gerken
 Uni-GH Paderborn, Abt.Höxter

An der Wilhelmshöhe 44
 D - 347 Höxter

FIRST RESULTS OF THE NEW MAPPING - PROGRAM OF ODONATA IN BELGIUM

by Anny Anselin

Introduction

The Odonata-cartography in Belgium, as part of the European Invertebrate Survey-project, started in 1974. In 1979, a distribution-Atlas was published (CAMMAERTS, 1979). It included all Odonata-data of Belgium, until 1978. Since then, the collecting of new, recent data, necessary to complete this provisional Atlas, had been neglected.

Recent information about the distribution of Odonata, endangered species and interesting sites is needed in the framework of a project of the Council of Europe on the 'Protection of Dragonflies and their biotopes', with the object of protecting Odonata on a European scale.

In 1983, we started a renewed mapping in Belgium. We contacted as many official associations and individual amateur-entomologists as possible, and consequently, much more people are now collaborating than during the former mapping-period. The recent publication of Odonata-determinationkeys (MOENS, 1981) and especially the 'Libellentabel voor België' (red. MICHIELS & VAN MIERLO, 1982), made dragonflies a more popular insectgroup to study and certainly has stimulated a lot of people to cooperate with the project.

All collaborators received a manual. Contacts were maintained by means of regular information-leaflets and meetings. Acceptance-rules for rare or difficult species (based on descriptions, collected specimens and fotografic material), were established, and it was stressed that only reliable determinations would be accepted.

To obtain additional information, people having private-collections were contacted. All literature from 1979 onwards on Belgian Odonatofauna was checked for data.

Results

General:

In 1983, some 50 persons collected data over a large part of the country. Several of them already possessed observations from 1979 onwards. All these data were worked out, together with the information obtained from private-collections, the insect-collections of the State Faculty of Agronomical Sciences (Gembloux) - determinations by K. Martens and A. Anselin-, and from checking literature from 1979 onwards: (ANSELIN, 1980, 1981, 1982, 1983, 1984; LERNER, 1982; MAES, 1982; MARTENS, 1979, 1980, 1982a, 1982b; MICHIELS, 1981; SCHMIDT, 1983; WASSCHER & MICHIELS, 1982; VAN MIERLO, 1982).

A first analysis of the results is presented here. It is based on some 3800 records, 80% of them collected in 1982 and 1983. A record is all information of one species brought together for one day for one locality (GEIJSKES & VAN TOL, 1983).

Number of investigated species:

For the time being, the Belgian Odonata-fauna consists of 68 species. CAMMAERTS (1979) gives the distribution of 67 of them. Since 1979, one new species, Onychogomphus unca-tus (Charpentier), has been added to the list (MARTENS, 1982b).

Until now, the renewed mapping collected data on 54 species, 19 Zygoptera and 35 Anisoptera. 14 species were not rediscovered. Five of these 14 were found not later than 1950 (Coenagrion mercuriale, Gomphus simillimus, Epitheca bi-maculata, Leucorrhinia caudalis, Sympetrum meridionale), the other 9 (Lestes barbarus, Lestes dryas, Coenagrion sci-

tulum, Nehalennia speciosa, Aeshna affinis, Hemianax ephip-piger, Oxygastra curtisii, Orthetrum brunneum and Sympetrum fonscolombei), have maximum 6 records after 1950, most of them even only 1 or 2.

However, some rare species, from which no or very few recent data were recorded, have been observed. More details about this are given later.

Number of U.T.M.-squares investigated:

Belgium is divided in approximately 400 10x10 km. U.T.M.-squares. Some of them cover only a small part of the territory. In the Atlas, data since 1950 have been collected from 310 different squares. The renewed cartography has covered 180 squares yet. A great part of them (147), overlap with squares already investigated, 33 squares are new. This results in 343 squares having been investigated, the possible maximum being 400.

From the 57 remaining, 40 have never been visited and 17 only before 1950. They are mainly situated in some parts of Flanders, Haspengouw and the central Ardennes.

Number of new squares and present distribution of the species:

For each species, the additional distribution (1979-1983) is compared with the distribution presented in the Atlas (1950-1978), to see to what extent new information was added by the renewed mapping. A comparison of the total number of squares occupied by all Zygoptera and Anisoptera in the Atlas, and the total of all additional squares resulting from the new project, is given in table 1.:

table 1:

	Zygoptera	Anisoptera	Total
Atlas	892	846	1738
+ Additions:	298	441	739
New total:	1190	1287	2477
% Augmentation:	33	52	42

Despite the fact that 147 of the 180 squares overlapped with formerly investigated ones, the knowledge of the total distribution has augmented by more than 40%, for the Anisoptera by even more than 50%!

A great part of the investigated squares was visited very intensively, which of course had a positive influence on the results.

To get a preliminary idea of which species are most common and which are not, the present number of squares in which they occur were counted. Ischnura elegans seems to be the most common species in Belgium (191 squares). Others are Aeshna cyanea (143), Coenagrion puella (138), Enallagma cyathigerum (128), Orthetrum cancellatum (119), Pyrrhosoma nymphula (118), Libellula depressa (107), Calopteryx virgo (91) and Anax imperator (89). Beside the 14 not rediscovered species, Cercion lindeni (7), Leucorrhinia pectoralis (7), Anaciaeschna isosceles (7), Somatochlora arctica (7), Leucorrhinia rubicunda (6), Sympetrum pedemontanum (4), Crocothemis erythraea (4), Aeshna subarctica (3) and Cordulegaster bidentatus (3), appear at the end of the list.

A survey of the increasing numbers of occupied squares (Atlas only and present situation) is given in fig. 1.

Comparing the species sequence from the two datasets shows little difference for the 'common species', but many changes for the 'less common' ones, which is in a sense normal, due to the smaller differences between their numbers.

It is however too early to make any conclusions about increase or decrease of certain species. For this, another

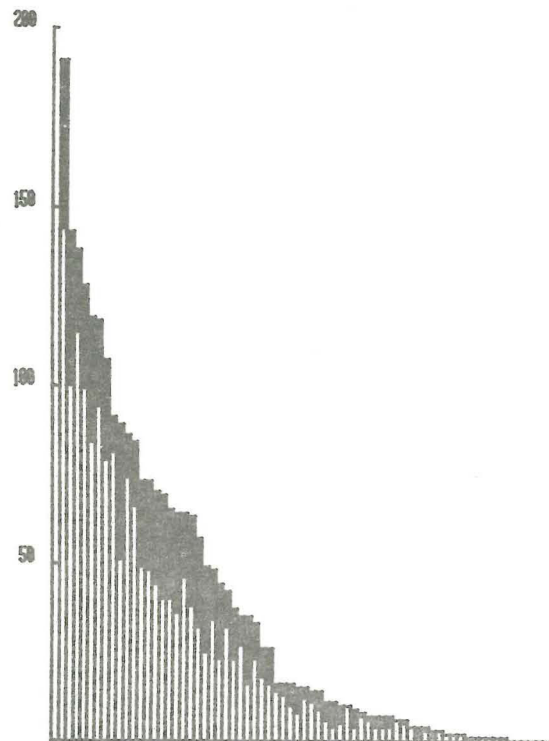


fig. 1: (for description see text)

year of intensive investigation is necessary.

Interesting new data:

The capture of Onychogomphus uncatus in 1979, in Roisin (Hainaut), about one kilometer from the French border, was not totally unexpected, taken into account some observations in the north of France and an unverified record on Belgian territory, not included by CAMMAERTS (1979) in the list of Belgian Odonata (MARTENS, 1982b).

The recent observations of Cordulegaster bidentatus in the Gaume (VAN MIERLO, 1982), are very interesting. The species was found in a typical habitat of humid slopes with Carex-vegetation and a little brook nearby. A further investigation of these 'Cron'-habitats in the south of Belgium will probably result in other observations of this un conspicuous species.

Sympetrum pedemontanum, an eastern species which is rare and erratic in Western Europe, has been discovered at several sites in the Campine (MICHIELS, 1981). This data are the most western of its distribution range. Sympetrum pedemontanum shows a tendency to disperse along the small drainage-canals. The further evolution of the distribution pattern of this population could be very interesting.

Crocothemis erythraea, a dweller from the south of France, has been reported from Roly (Namur). It is known that this species shows regular 'migrant'-behaviour and can reach northern countries when favorable weather conditions are present (eg. southern winds) (DUMONT, 1967). This was certainly the case during last summer. Two different but unverified observations of Anax parthenope, another southern species, in Roly and near Brussels, point in the same direction.

Some new observations of Somatochlora arctica in the Hautes Fagnes, Limbourg and Plateau des Tailles prove

that this species is still autochthonous in different localities in the country.

Conclusions

This first analysis of the 3800 records collected by the renewed Odonata-cartography-project, shows that our knowledge about the distribution of Odonata in Belgium has already increased by more than 40%, which is certainly a success.

However, many squares are still waiting for investigation. The distribution of some interesting and endangered species has to be studied in more detail by a systematic visit of their preferred habitats.

After another year of organised and intensive investigation, we hope to be able to give more detailed information on the distribution and occurrence of Odonata in Belgium, which could be used as an argument for the protection of endangered species and their biotopes, and species-rich valuable sites.

Acknowledgements

I wish to thank everybody who collaborated with the new project and especially Nico Michiels (Turnhout), co-organiser of the renewed project. I hope that they will continue with the same enthusiasm and accuracy for another year. I thank Prof. J. Hublé (Gent) for his revision of the text.

Summary

Since 1983, a renewed Odonata-cartography started

in Belgium. Some 50 persons collaborated with the new project. Already 3800 records were collected, 80% in 1982 and 1983. 180 U.T.M.-squares were investigated, 33 were new. This results in 343 of the 400 Belgian squares now investigated. Our knowledge about Odonata-distribution has increased by more than 40%. Some interesting observations are made. Another year of organised and intensive investigation is necessary.

Zusammenfassung

Seit 1983 ist ein neues Programm zur Bestandsaufnahme der Libellen in Belgien in Arbeit. Unter der Mitarbeit von ca. 50 Personen wurden bislang insgesamt 3800 Bestandsdaten auf 180 UTM-Quadraten registriert, 33 Quadrate wurden erstmals bearbeitet. Damit liegen jetzt zu 343 der 400 UTM-Quadrate Belgiens Libellen-Bestandsdaten vor. Einige faunistisch interessante Meldungen werden mitgeteilt, so der Neufund von *Onychogomphus uncatus*, sowie Feststellungen von *Cordulegaster bidentatus*, *Sympetrum pedemontanum*, *Crocothemis erythraea* and *Somatochlora arctica*. - Weitere intensive und systematische Erfassungsarbeit ist erforderlich.

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The authors address:

Anny Anselin

Laboratorium for Oecologie der
Dieren, Zoogeografie en Natuurbehoud
Rijksuniversitet Gent

K.L.Ledegandkstreet 35
B - 9000 GENT

ANAX PARTHENOPE SELYS IM BRAUNKOHLENREKULTIVIERUNGSGEBIET SÜDLICH
VON KÖLN - ERSTFUND FÜR NORDRHEIN-WESTFALEN

von Jochen Lempert

Anax parthenope ist bisher nur in den südlichen Bundesländern und in Schleswig-Holstein gefunden worden (Lohmann 1980). Im Jahr 1983 konnte ich die Art zum ersten Mal auch in Nordrhein-Westfalen nachweisen. Am Pingsdorfer See (MTB 5107) im Braunkohlenrekultivierungsgebiet Ville bei Brühl flog vom 21.-23.7.83 je ein Männchen von *Anax parthenope*. Am 21.7. konnte eine Eiablage beobachtet werden. Bei Exkursionen an das Gewässer an weiteren Tagen 1983 und auch bei mehreren Exkursionen im Vorjahr wurde die Art nicht gefunden. Es ist anzunehmen, daß es sich bei den beobachteten Individuen um Wanderer handelte, die während der im betreffenden Zeitraum herrschenden Schönwetterperiode eingewandert sind. Die nächstgelegenen Fundorte sind aus Rheinhessen-Pfalz bekannt. Für das Jahr 1983 liegen von dort eine ganze Anzahl von Fundorten vor, wobei es sich eventuell auch um bodenständige Vorkommen handelt (Niehuis 1984 und mündl.). Weiterhin ist die Art im Oberrheingebiet verbreitet (Lohmann 1980). Eine Einwanderung nach Nordrhein-Westfalen aus südlichen Richtungen, etwa entlang des Rheingrabens, ist deshalb wahrscheinlich.

Das Fundgewässer ist ein flacher, eutropher See von ca. 7000 m² Wasserfläche, der ganz von Wald umgeben ist. Vor einer schmalen Röhrlichtzone ist eine breite Schwimm- und Tauchblattzone entwickelt. Diese Bedingungen entsprechen ganz der bisherigen Charakterisierung der Habitatsprüche von *Anax parthenope* in Mitteleuropa (Robert 1958, Schmidt 1964, Lohmann 1980).

Das Männchen flog über der Schwimmblattzone und entlang des Röhrlichtgürtels. Es besetzte kein Revier, sondern streifte weit am See umher. Nicht-territoriales Verhalten der Männchen beobachtete auch Miller (1983) in Südfrankreich. Am Pingsdorfer See war eine andere Art der Gattung, *Anax imperator* (Leach), sehr häufig. Die Männchen von *Anax imperator* verteidigten Territorien über denselben Vegetationsstrukturen über denen auch *Anax parthenope* bevorzugt flog. Es kam oft zu zwischenartlichen

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