



Selysia

A NEWSLETTER OF ODONATOLOGY

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September 1, 1980

SIXTH INTERNATIONAL SYMPOSIUM OF ODONATOLOGY

by

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On page 5 of SELYSIA, Vol. 9, No. 1 (March 1, 1980), we reproduced the Advance Announcement of the Sixth International Symposium of Odonatology to be held August 16-21, 1981 in Chur, Switzerland. The organizing committee has been very busy, as indicated by a long letter from Heinrich Schiess, Secretary of the Committee, detailing plans to the S.I.O. Executive Committee.

In a letter dated July 1 from Prof. Dr. B. Kiauta to Heinrich Schiess, there is given a list of invited papers as follows:

Discussion Session

Corbet, P.S. (Cambridge, UK). A Review of our understanding of certain topics in odonatology in the context of current knowledge and ideas.

Opening Session

Kiauta, B. (Utrecht, NL). Odonatology in Switzerland: history and perspectives.
Moore, N.W. (London, UK). Conservation of Odonata: first steps towards a world strategy.

Invited - and other Feature Papers

DEACON, K.J. (Copenhagen, DK). The seasonality in the temperate region dragonflies.

DUMONT, H.J. (Ghent, B). The evolution of the odonata faunas of northern Africa and the Middle East.

KOMNICK, H. (Bonn, GFR). The rectum of larval dragonflies as jet-engine, respirator and ion pump.

MILL, P.J. (Leeds, UK). The use of dragonflies in physiological research and teaching.

O'FARRELL, A.F. (Armidale, AU). Biogeography of some Australian Zygoptera.

PARR, M.J. (Salford, UK). A synthesis of the general features of adult libellulid behaviour.

PRITCHARD, G. (Edmonton, Alb., CAN). Life history strategies in Odonata.

TENNESSEN, K.J. (Florence, AL, USA). Review of the reproductive isolating mechanisms in Odonata.

WAAGE, J.K. (Providence, RI, USA). Sexual selection and the evolution of the Odonata mating systems.

WATSON, J.A.L. (Canberra, AU). Dragonflies in the Australian environment: taxonomy, ecology and conservation.

WESTFALL, M.J. (Gainesville, FL, USA). Current progress in taxonomic studies of American Odonata.

WINSTANLEY, W.J. (Wellington, NZ). A review of the biology of the Petaluridae.

SELYSIA

A Newsletter of Odonatology

Compiled at
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Gainesville, Florida 32611

by
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and
Margaret S. Westfall

This newsletter is designed to disseminate facts and news about the activities of Odonatologists and Odonatology. It is not intended as a journal nor an organ for the publication of articles or technical papers. The name is based upon that of the "Father of Odonatology," Baron Edmond de Selys Longchamps. Founded in 1963 by Dr. B. Elwood Montgomery at Purdue University, SELYSIA is now issued semiannually, March 1 and September 1.

- The attendance of Dr. E. PINHEY (Bulawayo, Zimbabwe/Rhodesia) is still uncertain, though likely: If able to attend, Dr. Pinhey is willing to present a review of the present state of the odonate taxonomy in Africa.
- The following workers have agreed to present review papers in the fields of their research, but have not yet announced the titles:
Dr. K. MIYAKAWA (Kawagoe, Japan)
Dr. D. J. THOMPSON (Liverpool, UK)
Dr. B. C. WILMOT (Grahamstown, SA)
- Almost certainly reviews will also be presented by:
Dr. S. ASAHINA (Tokyo, Japan) (taxonomy eastern and southeastern Asia).
Dr. T. E. SHERK (New Haven, Conn., USA) (vision).

There has been circulated under date of May 1980 a communication from Philip Corbet relative to the Discussion Session mentioned above. He writes:

"My intention is to begin the session with a brief explanatory statement and then to devote the rest of the time to structured discussion (including the exchange of relevant information and ideas) on certain topics, selected because of their contemporary interest. I would expect to act as chairman for this discussion, and I would hope that an interpreter could work with me, and that one or two rapporteurs would take notes and present a brief synthesis of the main conclusions later during the Symposium. The discussion will probably be recorded on tape. The objective of such a session would be to take advantage of the assembled knowledge and expertise of members to improve our understanding of certain controversial or puzzling topics in dragonfly biology. The purposes of this memorandum are to:

- Inform members of my intention and a list of proposed topics for discussion;
- to invite their comments on the conduct of the session and on the topics I have suggested;
- invite them to suggest additional or alternative topics for discussion.

I should be grateful if all comments and suggestions could be sent to me at:
Department of Biological Sciences
The University, Dundee, DD1 4HN, U.K.

so as to reach me there no later than 15 December 1980."

"Suggested Topics (There will probably be time to discuss only about 5 to 10 topics. So a selection will have to be made from this list and from suggestions received.)

1. Clues that enable females to recognize the larval habitat.
2. Oviposition sites away from water
3. Defensive behaviour of larvae.
4. Drought resistance among larvae.
5. Unusual larval habitats (e.g. tree-holes, moist vegetation, etc.)
6. Strategies for dry-season survival in the tropics.
7. Influence of local climate on within-species phenology in Europe.
8. Variations in duration of maturation period in temperate species (as in *Iestes sponsa*, see Ueda (1978) TOMBO 21:27-34).

9. Examples of mimicry among adults.
10. The biological significance of adult colour variation.
11. The biological significance of "oreillets" (ventrolateral protuberances on 2nd abdominal segment of adult males).
12. The sound of dragonfly wingbeats as a possible repellent for mosquitoes.
13. The biological significance of "water-touching" behavior among adults.
14. The occurrence in dragonflies of "temporal territoriality" (as in *Aeschna cyanea*, see Kaiser (1974) Z. Tierpsychol. 34:398-429).
15. Intramale sperm transfer in Anisoptera.
16. Types of migratory behaviour among dragonflies in temperate latitudes.
17. The larval habitats of Palaeozoic dragonflies."

There has also been circulated a sheet entitled Extra Possibilities for the Presentation of Papers. It reads: "In view of the appreciable number of workers expected to attend the meeting, and in order to enable everybody to present his/her paper(s) without having to increase the number of papers per session or the length of the sessions, the Organizing Committee has decided to introduce for the first time the possibility of POSTER PRESENTATIONS.

"The authors of faunistic and other papers that could be easily presented in a poster form are invited to consider this possibility. This would enable the Organizing Committee to admit nearly any number of papers, without having to economize on the length of the presentations.

"It goes without saying that also in the case of posters, a brief abstract (without illustrations) would be needed for publication in the Abstracts booklet, and it is hoped that the authors will submit the manuscripts of their poster presentations in the form of full papers for publication in the Proceedings.

"The number of posters per paper as well as the lay-out and shape of these is left entirely to the discretion of the authors. The authors feeling the need for any technical assistance with the layout and labelling of their posters are invited to contact the Editors of *Odonatologica*. The latter will be taking care of mounting and labelling of all such posters, the illustrative material, captions, and other brief texts. These materials should reach the Editors as early as is convenient to the authors, but not later than by the deadline, April 1, 1981.

"Although the Symposium Registration Forms will be circulated only with the December 1980 issue of *ODONATOLOGICA*, all workers are urgently requested to submit the brief abstract(s) of their paper(s) not later than by February 28, 1981. It will be impossible to publish in the Abstracts booklet those texts which reach the Organizing Committee after that date."

Dr. Klauta has made an announcement relative to official Letters of Invitation as follows: "At the Montreal Symposium it was suggested that the travel grant applications would often be facilitated if the applicant could produce an official Letter of Invitation. It has been recommended, therefore, that the Permanent Committee for the Organisation of International Odonatological Symposia should issue a Letter of Invitation to all those who would need it. All colleagues feeling that such a letter might facilitate their application for a travel grant are invited herewith to contact the Permanent Committee at their earliest convenience. Please state in your letter the (preliminary) title (or at least the field) of your scheduled paper(s), if any, the date by which the letter should be in your possession, and all such details you consider useful to be mentioned in the letter. The document will be styled individually and signed by the S.I.O. Secretary General, by the Chairman of the Permanent Committee, and the Chairman of the (Swiss) Organizing Committee; hence, the procedure may take some time. You are requested, therefore, to drop a

note to the Permanent Committee well ahead of the term. Please address your communication to the address below:

Prof. Dr. B. KIAUTA
Department of Animal Cytogenetics
and Cytotaxonomy
University of Utrecht
Padualaan 8, UTRECHT, The Netherlands

P.S. Letters of Invitation will only be sent to full S.I.O. members who have paid their fees. Non-members should first apply for membership at the above address."

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TWO NEW S.I.O. NATIONAL OFFICES OPENED

In accordance with the recommendation of the Montreal Business Meeting and on behalf of the S.I.O. Executive, the Secretary General, Dr. K. J. Tennessen, has sanctioned, April 23, 1980, the opening of S.I.O. National Offices in United Kingdom and in the German Federal Republic. They became operative on January 1, 1980, and are headed respectively by Dr. Peter J. Mill (Department of Pure and Applied Zoology, University of Leeds, Leeds, LS2 9JT, England) and by Dr. Rainer Rudolph (Abt. Biologie, Pädagogische Hochschule, Fliegerstr. 21, D-44 Münster, GFR).

The offices of the S.I.O. representative in Japan (Mr. Kiyoshi Inoue, 5-9, Fuminosato 4-chome, Abeno-ku, Osaka, 545) and in the United States (Dr. Minter J. Westfall, Jr., Department of Zoology, University of Florida, Gainesville, Florida 32611), in operation since 1973, are henceforth also considered as the S.I.O. National Offices.

The S.I.O. National Offices are the official representatives of the Society in the countries of their residence, and are handling all Society's business related to the geographic area of their jurisdiction, including the collecting of the annual and other fees due from the resident members. They are acting as a liaison between the Society and the local odonatologists and organisations, and are rendering assistance in all matters related to the odontology of their territory, including the mediation

of local literature, addresses of local workers, etc. Various informative material on the Society and its activities is also available (in national language) from the National Offices. In some, not in all cases, the mailing of the S.I.O. publications also falls under the responsibilities of the National Offices. The scope of their activities, however, is to a great extent determined by the technical possibilities of each particular office

The Chairman of a National Office is automatically a member of the S.I.O. Executive, and has the right to invite, upon his own discretion, any number of assistants and/or associates he considers necessary to perform his duties.

In addition to the four above-mentioned National Offices, the Society also has Liaison Officers in the following countries: Australia, Brazil, Canada, France, German Federal Republic, India, Malaysia, The Netherlands, South African Republic, Switzerland, United Kingdom, United States, and USSR. They are automatically members of the Editorial Board of NOTULAE ODONATOLOGICAE, hence their names and addresses are stated in each issue of that periodical

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THE PROBLEMS OF ODONATOLOGICAL ABSTRACTS

Some General Answers to Users and Request to Readers of SELYSIA by Prof. Dr. B. Klauta

It is for the 9th year that I am responsible for the compilation of Odonatological Abstracts as appearing quarterly in Odonatologica. We are approaching the 3000 mark now, and I would like to thank in this place all colleagues who have in the past period expressed in their letters the appreciation and given encouragement for this rather thankless task.

On my desk, there is also an increasing number of letters, the writers of which are expressing various kinds of criticism, suggestions and doubts. I am very happy to have these

and, since it is technically difficult to answer all the letters individually, I thought it opportune to make use of Selysia for a general reply.

The critical remarks are mainly centered around the following points: (1) the relevance of abstracting general and/or minor local notes; - (2) the dates of publication of some papers; - (3) the listing of the English translation of the titles of non-English and non-congress language papers; - (4) the decreasing coverage of our abstracting service, particularly so in the field of local periodicals, the journals published by various United States Academies of Sciences, and, generally in the field of Japanese and Russian literature, and - (5) the necessity to publish periodically a Subject- and an Author Index.

(1) LOCAL NOTES AND GENERAL LITERATURE.

For an Editor of an abstracting journal it is extremely difficult and dangerous to attempt to discriminate between "important" and "unimportant" papers. Seemingly unimportant local notes and incidental observations could become important if viewed in a larger context. Since they often appear in less easily accessible journals, it is also from this point of view considered opportune to bring them under the attention of all workers. If one is going to discriminate between "important" and "unimportant" papers, the discrimination would be certainly arbitrary and would, in my opinion, greatly diminish the value of our service. I am suggesting, therefore, to continue the listing as before, including all available references, regardless their contents and scope.

(2) DATES OF PUBLICATION.- Some journal issues appear with great delay, in the extreme case a couple of years later than shown on the cover of the issue. If the date of appearance could be determined with certainty, this is mentioned as an "Abstracter's Note." If the date is uncertain (i.e. not stated in the issue, and could be supposed on the basis of the mailing date only), I prefer to omit any statement of the actual date, even if the latter is clearly different from that shown on the cover of the journal. In the text of our bibliographic references,

as a rule, the dates are stated as they appear on the cover of the journal and/or in the head of the paper. If we were to replace the formal date of appearance with the supposed actual date, this might cause confusion at a later stage and to workers to whom only the bound, formally dated volumes will be available.

(3) ENGLISH TRANSLATIONS OF THE TITLES

To the reader not acquainted with other languages than English, it is certainly convenient if all titles are given in English. For this reason some of the most illustrious abstracting services are either listing all titles in English, i.e. translating the non-English titles (e.g. Biological Abstracts), or they supply an English translation in addition to the original-language title (e.g. Entomology Abstracts). The first case is bibliographically wrong, while the latter is considered too expensive for the financial means of \$10.

The Odonatological Abstracts follow the following policy: (i) The original-language titles of papers are given if they are written in Latin, Gothic, Cyrillic, Greek or Devanagari alphabets; in the case of non-Latin alphabets they are stated in Latin, English-style, transliteration; - (ii) In the case of papers written in western congress languages other than English (i.e. French, Spanish, German, Italian), no English translation of the title is supplied; - (iii) In the case of non-congress languages and Russian, the title of the summary, if in a western congress language, is also provided; - (iv) An English translation of the title is given of all papers written in non-congress languages using the above mentioned alphabets and in Russian, if the paper has no summary in one of the western congress languages; and - (v) The titles of papers written in other than the above mentioned alphabets (e.g. Japanese, Chinese, Thai, Korean, Hebrew, Arabic, etc.) are stated in English translation only, put in square brackets.

(4) THE COVERAGE - This is the most painful point of complaints expressed by the readers and, at the same time, one that I am unable to improve without

a great deal of help from fellow odonatologists. I am well aware that our coverage is inadequate and is getting more and more so, though everything has been done so far to cope with the literature.

Aside from the often very late registration of titles by our service, I would estimate that our average coverage amounts at present to less than 70% of the world literature.

Here I would like, in the first place, to express my appreciation and gratitude to the colleagues who are, regularly or incidentally, helping to at least keep the service in the shape it is at the moment. In the period, September 1979 - April 1980, any kind of help has been received from 17 fellow workers. This, along with the reprints sent spontaneously by the authors, makes up for some 12% of the abstracts published between December 1979 and September 1980 (i.e. Vol. 8, No. 4, Vol. 9, Nos. 1, 2, 3).

For the remaining 88% I am systematically checking several hundreds of periodicals received regularly by the Library of the Netherlands Entomological Society (Amsterdam) and the titles published by a number of other abstracting services, notably Biological Abstracts, Entomology Abstracts, Refereativnyi Zhurnal, etc.

It goes without saying that this is a time-consuming job, and the xeroxing of the papers of which no reprints are sent by the authors, is becoming more and more expensive. Although I have several times appealed to all colleagues for help, through Odonatologica and Selysia, and although the problems with our service have been emphasized at all Symposia from Karlsruhe onwards, the assistance received remains incidental and greatly limited. There is also a great number of periodicals, particularly in Japan, that are not available to me, hence e.g. the Japanese literature, other than that issued by the Tokyo Society of Odonatology and by the Kansai Research Group of Odonatology, remains almost uncovered.

In view of the ever increasing difficulties and the amount of time and finance involved in our service, and considering the fact that without a VERY SUBSTANTIAL HELP from active odonatologists our abstracting service is bound to cease to

serve the purpose for which it was set up, I am wondering whether or not it should be continued under these conditions much longer. The more so, since the expenses of printing (about US \$70.- per page!) are also not to be disregarded.

I am appealing, therefore, once again herewith to all readers of Selysia to start sending me regularly, for abstracting purposes, (1) REPRINTS of all their papers and, whenever possible, to send me, (2) XEROX COPIES of all such notes and articles that they may have noticed in general magazines and in other less well-known and/or not easily available local periodicals. For a rapid preparation of an abstract it is absolutely imperative to have a xerox of the WHOLE PAPER, incl. the references and illustrations, and the exact bibliographic data (incl. the journal issue number), not just the title or a copy of the author's abstract. (In case of a notification of a title only, the process of locating the journal, obtaining a xerox, or requesting a reprint from the author, if his address is known, is time-consuming and may cause a considerable delay in preparation and publication of the abstract). At the same time, I would greatly appreciate hearing from those colleagues who would feel like serving ACTIVELY on the Editorial Board of the Abstracts.

This is the only way to improve our service and, indeed, to continue it to the advantage of both the workers and the authors alike. Without this help I am unable to guarantee I shall be able to carry on the job much longer.

(I should also like to note, that some readers are making, and this is their good right, a liberal use of the SIO library service. In the period, September 1979 - April 1980, the Editors have supplied close to 200 copies of abstracted and non-abstracted papers. The continuation of this service will be also possible only if the supply of the literature from the authors, and other workers will be essentially improved. This applies also to the copies of M.Sc., M.A. and Ph.D. dissertations.)

(5) INDICES. There is certainly no doubt that the publication of the Author, Subject and Taxonomic indices would greatly facilitate the use of the abstracted literature. The Editors would be happy to be able to provide these, but the financial possibilities of the Society and the man-power needed for their compilation are at the moment absolutely prohibitive.

As a matter of fact, the Editors do have a card file for the Author Index (incl. all junior authors, etc.), while a Taxonomic Index is in preparation. The latter is in the form of an "Annotated Catalogue of New Taxonomic Names introduced in the Order since 1970," incl. data on type material, various detailed annotations and bibliography. The Subject Index, on the other hand, could only be compiled by a team of workers who, in many cases, would have to consult the original papers, as the text of the abstracts is often insufficient for an adequate subject classification. I would be happy hearing from the colleagues who would be willing to undertake this difficult but useful task.

I hope the above are the answers to most of the queries received from the readers of Odonatological Abstracts. Thanking once again for the help and encouragement received so far (the criticism I also understand as a useful kind of encouragement!), I hope that these will be intensified and that we shall be able, with united endeavours, to continue this task.

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Department of Animal
Cytogenetics and
Cytotaxonomy
University of Utrecht
Padualaan 8
Utrecht, The Netherlands

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SOCIETAS INTERNATIONALIS ODONATOLOGICA
RAPID COMMUNICATIONS
(Soc. int. odonatol. rapid Comm.)

This is a new series, published by the International Odonatological Society (S.I.O.), and edited by the Editors of ODONATOLOGICA (c/o Department of Animal Cytogenetics and Cytotaxonomy, University of Utrecht, Padualaan 8, Utrecht, The Netherlands.) It will appear at irregular

intervals and is intended as a vehicle for rapid communication of more extensive preliminary faunistic and other information, discussion papers, etc. The manuscripts (in any language) are photographically reproduced as submitted by the author(s), without any copy editing by the Editors. Each issue contains a single paper and is issued as an independent bibliographic unit. The price is fixed for each issue in accordance with its volume.

The first issue appeared February 29, 1980 and contains a paper by H. Lohmann: "Faunenliste der Libellen (Odonata) der Bundesrepublik Deutschland und Westberlins - The Odonate Fauna List of the German Federal Republic and West Berlin. 34 pp., in German. Price: Hfl. 10.- net (surface postage inc.). This is an annotated preliminary catalogue of the odonate fauna of Western Germany, with extensive bibliography. Orders for single issues and Standing Orders should be sent to the Editors of ODONATOLOGICA at the Utrecht address.

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REPRINT EDITION OF DRAGONFLY MANUAL
by NEEDHAM and WESTFALL

Because the first reprint edition of the MANUAL OF THE DRAGONFLIES OF NORTH AMERICA (Anisoptera) was sold out, a number of persons have written asking about acquiring a copy. If anyone has a copy of the MANUAL for sale, let me know and I will put you in contact with a buyer. A letter of April 30 from the reprint editor indicates she has begun the reprint procedure by requesting an estimate of manufacturing costs. She thinks they will print 500 copies, and these should be available in the fall. Further information will be given in the next SELYSIA. I am sorry we will not have a much-needed revision, the cost of which the University of California Press states makes it prohibitive.

M. J. Westfall, Jr.

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ZÜRCHER LIBELLENFORUM
(Zurich Dragonfly Forum)

The first two issues of the newsletter, ZÜRCHER LIBELLENFORUM, issued by the new

Swiss Club of the same name, have been received from Dr. Klauta. The editor of the newsletter and the coordinator of the Club is: Dipl.-Biol. H. Schiess
Brüglenstr. 1

CH-8344 ADETSWIL, Switzerland

The Club has been organized, temporarily, for the purpose of producing an inventory of the Odonata fauna of Canton Zürich, but hopefully it will develop later into a more formal Swiss Odonatological Society.

These issues contain the minutes of the first meeting of the Club (organization plan for the inventory, to be completed in 1982), and the addresses of the members, all Swiss except for two: one from the Principality of Liechtenstein, and another from the German Federal Republic. We are pleased to learn of this keen interest and we wish to encourage the members of ZÜRCHER LIBELLENFORUM with our wholehearted support.

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TO ALL DRAGONFLY WATCHERS WHO
VISIT, OR HAVE VISITED, SWITZERLAND

The following is an English version of the German note sent out by the organizing members of the Swiss Survey (our thanks to Mr. Matthias Wolf for this translation): "Please send all your records concerning the Swiss fauna to:

Heinrich Schiess or Matthias Wolf
Brüglenstr. 1 Altwiesenstr. 345
CH-8344 ADETSWIL CH-8051 ZÜRICH

or Claude Meier
Zürcherstr. 120
CH-8620 WETZIKON

A new system for the storing and processing of all data dealing with Swiss Odonate faunistics has been created (computer programmes and techniques by O. Wildi, EAFV Birmensdorf), aiming at a complete survey of the fauna and its changes. The data collected for the "Inventar Libellenfauna der Schweiz" one day, too, should provide a tool for conservation measures. Record forms (in German; French issue in preparation) are available. Records should state exact locality (coordinates of the "Schweizer Landeskarte" most comfortable), date, data on proofs of autochthony (exuviae, larvae) or reproductive behaviour, eventually abundance of observed species and biotope, observer, and preserved specimens. Further inquiries for

information from the members listed earlier will be most welcome."

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ODONATA RECORDING SCHEME

In SELYSIA (Vol. 9, No. 1, March 1, 1980, p. 7) we have given the report of the First Meeting of British Odonata Recorders for the British Odonata Mapping scheme by David Chelmick. We have received a copy of Newsletter No. 4, also written by David Chelmick and we reproduce it here:

"May I take this opportunity of wishing you successful recording in the 1980s, which should, if progress continues as well as it has in the last decade, see the completion of the present recording scheme.

PROGRESS IN 1979

Yet another indifferent summer, but fortunately it has had little effect on our intrepid recorders, because progress has been at least as good as in 1978. Cheshire, Warwickshire, Kincardineshire and Aberdeenshire produced particularly notable records. The confirmation of Coenagrion hastulatum in Aberdeenshire was perhaps of greatest importance, but additional sites for Coenagrion pulchellum and further records of Aeshna mixta in the Midlands of England were of interest.

One fascinating discovery came from Sussex in September, when a dead male Lestes viridis was found in a gravel pit. This insect was last recorded in Britain, from Herefordshire, in 1895.

I note that Oxygastra curtisii was recorded recently in the Netherlands after an absence of records for 50 years. River watchers in southern England please note!

IDENTIFICATION PROBLEMS

The publication of Cyril Hammond's book has undoubtedly encouraged many people to study dragonflies, but fine illustrations are by no means the complete answer to identification. The two genera that appear to be causing the most problems are Coenagrion and Sympetrum. Records of any Coenagrion based on females are not accepted, because they are so variable, and all Sympetrum records are of Sympetrum

striolatum until you prove otherwise, even if they have got peculiar light-coloured pterostigmas.

RECORDERS' MEETING

For a variety of reasons, there will be no recorders' meeting in 1980. There will, however, be an informal field meeting at Thursley Common on Saturday, 14th June 1980. We will be meeting at 11.00 a.m. in the Moat Pond Car Park (Map Ref. 41 (SU)/898410) to look at Britain's finest nature reserve for dragonflies.

The next formal meeting of recorders will take place in the Spring of 1981, possibly over a weekend, based at Monks Wood. Maps, updated to the end of 1980, will be on view, and I am hoping that a number of contributions will be forthcoming from you, the recorders. If, therefore, you feel that you could give a short talk on any subject relating to dragonflies, please let me know as soon as possible.

HELP!

Because of the success of the scheme, the administrative burden increases daily, and before it all grinds to a halt, I need some help. If you like administration and are attracted by the prospect of no pay, lots of work, and plenty of brickbats, please contact me.

BOOKSHELF

A revised edition of the provisional atlas, incorporating all records received up to February 1979 (a 40% increase on the previous edition), was published by the Biological Records Centre in December 1979. It is available, at a discount price of £2.00 to recorders, from Monks Wood. A cheque or postal order should accompany your order, and should be payable to "The Institute of Terrestrial Ecology".

The International Society for Odonatology (S.I.O.) has recently brought out a new publication, "Notulae Odonatologicae". It deals with local faunistics, field observations and is of particular use to the amateur. It has just accepted for publication the proceedings of our April 1979 Recorders' Meeting. It is available to members of S.I.O. free of charge, but can be obtained by non-members for HFL 20 per annum (approx. £5.00) from S.I.O., c/o Dept. of Animal Cytogenetics, Univer-

sity of Utrecht, Padualaan 8, Utrecht, The Netherlands.

Finally, a thank you to all those who have submitted their records for 1979; if you haven't yet done so, get them to me as soon as possible - Good hunting in 1980."

D. G. Chelmick
'Bredon'
High Beech Lane
Haywards Heath, Sussex

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CRETACEOUS DRAGONFLY DISCOVERY IN BRAZIL

Dr. Angelo Machado has reported that he was extremely pleased to receive as a gift a fossil wing which he identified as the hind wing of a male gomphid. The specimen is in perfect condition, and represents the first fossil dragonfly from Brazil. Dr. Machado is undertaking extensive studies of this fossil, especially of its possible relationship to other fossil and extant gomphid genera. He hopes to obtain more specimens from Ceara, the site of its discovery, and is planning to describe it as a new genus and new species. He mentions two other fossil dragonflies reported from South America, Permagrion falklandicum Tilliard and Triassothemis mendozensis Carpenter. Also cited are two other fossils known from the Cretaceous period, Aeschinidiopsis flinderscensis Woodward and Hong's Sinaeschnidia.

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LOOKING AHEAD TO 1983 SYMPOSIUM of S.I.

As many of you know, tentative plans were being made by the Permanent Committee for the Organization of International Odonatological Symposia to hold the 1983 symposium in Rio de Janeiro, Brazil. That country has passed some rather stiff laws relative to collecting zoological specimens and taking them out of the country. Obtaining a permit for collecting is rather difficult and time consuming. Dr. Angelo Machado has written in March that Dr. Santos is very enthusiastic about the possible Symposium and they feel certain that a blanket permit can be obtained by the organizing committee for the Symposium participants. They are planning collecting trips and

to send." If you are able to help in this endeavor, Mr. Hubbard's address is Department of Entomology, Florida A&M University, Tallahassee, Florida 32307 USA.

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S.I.O. MEMBERS COMPLETE Ph.D. DEGREES

Several S.I.O. members have recently completed work toward Ph.D. degrees. Tina White received her degree from Clemson University, Clemson, South Carolina. Ken Deacon on December 21, 1979 received his at the University of Canterbury, Christchurch, New Zealand. The title of his thesis is: "The Seasonality of four Odonata species from Mid Canterbury, South Island, New Zealand". Sidney W. Dunkle in August 1980 received his degree at the University of Florida, Gainesville. The title of his dissertation is "Second Larval Instars of Florida Anisoptera". The abstract follows:

ABSTRACT OF DISSERTATION PRESENTED TO THE GRADUATE COUNCIL OF THE UNIVERSITY OF FLORIDA

SECOND LARVAL INSTARS OF FLORIDA ANISOPTERA (ODONATA)

by
Sidney Warren Dunkle

Descriptions and identification keys are provided for Florida anisopteran second instars, including all of the families, 78% of the genera, and 62% of the 109 species breeding within the state. Comparative and supplementary data on 28 non-Florida species are also given. A list of all previously published illustrations of anisopteran first and second instars of the world is included. Methods of obtaining and hatching Anisoptera eggs are discussed, along with methods of preparing specimens of second larval instars for examination. The only known mid-ventral thoracic and abdominal spines in larval Anisoptera were found in Arigomphus, evidence that this groups should be considered a genus instead of a subgenus. Epicranial tubercles, or horns, were found in 25 to 100% of the genera studied in Aeshnidae, Gomphidae, Macromiidae, Corduliidae, and Libellulidae. Horns have evolved independently many times in the Anisoptera and are probably primarily sensory. The behavior of anisopteran second instars and the use of characters

of second instars in solving taxonomic problems are discussed. Partial life histories for species of Cordulegastridae and Macromiidae are the first to be described for these families.

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CHANGES OF ADDRESS

Dr. Philip S. Corbet writes to members of S.I.O, "I have accepted a permanent position at the University of Dundee, Scotland and shall be moving there in December 1980. I ask that all copies of publications on Odonata be sent to me at Dundee after 15 July 1980. My address during the next few months will be:

until 5 September: Department of
Applied Biology
Pembroke Street
University of Cambridge
Cambridge, CB2 3DX, U.K.

6 September to
15 November 1980 (urgent - airmail-
correspondence only):
Department of Zoology
University of Canterbury, Private
Bag
Christchurch, New Zealand

16 November 1980
onwards:
Department of Biological Sciences
The University, Dundee
DDI 4HN, U.K.

I thank members warmly for having sent me copies of their publications, I am making progress with the preparation of a second edition of the book "A Biology of Dragonflies" and hope to have the typescript completed during 1982. Accordingly I should find it helpful if members would continue to send me copies of their publications promptly."

CAROLE AND CHRISTOPHE DUFOUR-HUMBLET

A wedding card announces that Carole and Christophe were married in January 1980. Their new address is Bd. de Grancy 17, 1006 Lausanne, Switzerland, Tel. (021) 26 90 62.

PROF. VIRENDRA GUPTA

Prof. Gupta is editor of the well-known Indian Quarterly, "Oriental Insects". He planned to arrive in Ann Arbor, Michigan about May 1, 1980 where for at least a year his address will be c/o American Entomological Institute, 5950 Warren Road, Ann Arbor, Michigan 48105 U.S.A.

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Editor's note: As we were typing the last stencil the following interesting account of Nick Donnelly's recent trip came:

AROUND THE WORLD IN EIGHTY DAYS - Odonata Collecting in India, Thailand, and Fiji.

by

Thomas W. Donnelly
Partridge Lane
Binghamton, NY, USA

The seven-year itch, also called the sabbatical, struck this year for the Donnelly family. We began with a five month stay in Edinburgh which provided the base for a visit to the Kiautas and a long awaited meeting with M. Lieftinck. Later I was able to meet A. R. Waterston and have an enjoyable luncheon with Philip Corbet. Our first collecting didn't begin, however, until one very hot May day in south India when I netted an Indictinogomphus rapax in order to ask a local the Tamil name (which is Tumbi). We spent nearly a month in south India, while I did some geology and my wife revisited several of her childhood haunts. We were based in the Nilgris, which is the heart of Fraser country. Consequently our sixty odd species produced little new (we did take the undescribed male of one of his Idionyx species), but much that was memorable for us. I was delighted with the Indophaea and Dysphaea species, at gomphids such as Megalogomphus, Gomphidia, and Heliogomphus, at the wealth of protoneurids (Disparoneura, Prodasineura, Caconeura, Melanoneura), at the several species of Protosticta, and at such novelties as Idionyx and Zygonyx. Libellago is as good a bee mimic as I ever hope to see, and Rhinocypha has a beauty which can't be appreciated in museum specimens. Col. Fraser would probably make scathing comments were he to see his old haunts modified as they are by hydroelectric schemes and other

construction, but there is still much to attract the collector. Also, we have never been so diverted by wild animals - several large monkey species, elephant, deer, wild peafowl - as we were in south India; the month was well spent.

In mid June we moved on to Thailand. Spending our first week in Chiang Mai. Although odonatist M. Titayavan was on leave, his colleagues graciously showed me several choice collecting spots. In our week we took nearly seventy species and didn't even scratch the surface. Especially impressive were the gomphids (three species of Onychogomphus, two of Burmagomphus, and one each of Macrogomphus, Anisogomphus, and Phaenandrogomphus, among more common things), the epallagids (two Euphaea, a species of Dysphaea we can't name, the very aptly named Caliphaea, and Bayadera), and the platycnemines (three species of Calicnemis, of which two are waterfall dwellers, two of Coeliccia, and two of the ubiquitous genus Copera). The three species of Rhinocypha were a great treat. Other odonates of special interest were Megalestes, Burmargiolestes, Macromidia, Mnais and the lovely Prodasineura auricolor. This area is probably one of the most rewarding collecting spots in southeast Asia - certainly it was the most enjoyable, both from an odonatological as well as a tourist's standpoint.

Our five days on the River Kwai produced a shorter species list but some memorable moments. We were frustrated by the difficulties inherent in karst country (few streams), by the difficulties of getting around (almost entirely by rented boat), and by the scarcity of jungle. Still, we were not disappointed by the odonates. We found another Macrogomphus, a Mergomphus, an odd Burmagomphus, three species of Prodasineura, and what was without doubt the single most thrilling odonate I have ever stumbled on in a grubby jungle stream during a rain storm. This was Rhinagrion mima, whose beauty is matched only by its odd appearance (imagine the body of Diaphlebia, colored green and orange, attached to the wings of Pseudagrion). It is placed in the Megapodagrionidae, but surely it belongs with those zygoptera genera which were placed on earth to test our imagination.

From Thailand we moved back to familiar haunts - Fiji, where we spent over three weeks. This time I was participating in a general stream survey prompted by the construction of a large hydroelectric project in the plateau of the big island (Viti Levu). I spent much time searching for Nesobasis larvae, and found the best hunting in semi-terrestrial haunts, such as the faces of small waterfalls. I have now found all of the old Nesobasis species save one of the original Selysian species, and took two new ones on Viti Levu. Of more significance was extensive Nesobasis collecting on the second big island (Vanua Levu), as well as two large islands near the major islands (Taveuni, near Vanua Levu, and Ovalau, near Viti Levu). It appears that I had underestimated the extent of development of geographic races. Another problem which I had underestimated in my earlier work was the extent of ontogenetic color change, and at least one of Tillyard's species will have to be synonymized. The genus Nesobasis is probably recently evolved, and there are, in my view, more problems of interest in this genus than any other single tropical damselfly. The larval adaptations must be complex (explaining, for example, why typically one can collect as many as ten species in a good locality), and the morphological oddities are legion. The apparent "mimicry" of genera that aren't even found in Fiji is either the product of an over fertile imagination or is a deeper mystery. For example, I find that one species is a convincing Copera double, another looks like Burmargiolestes, a third like Protoneura, still another is a perfect Argia, and on and on.

We reared a few species, but we haven't scratched the surface of larval studies. We have only collected four of the nearly dozen islands that are large enough to have Nesobasis; the biogeographic diversity of these islands suggests that collections on the other islands are very badly needed. A hint of the natural forces shaping the diversity of this genus was a recent tropical storm which dumped nearly a meter of rain on part of Viti Levu in three days. The devastation was complete - a volcano could have done no better. How the Nesobasis will reoccupy this terrain should be a worthy study.

There is little besides Nesobasis of

interest in the Fijian islands. We did locate Hypothemis, but took only one male among myriad females. It seems to prefer vegetated hillside seeps, but we found no larvae. We found our old friend Procordulia irregularis and, in several places, an odd Hemicordulia.

Once again my family provided many of the best species collected, with each of the three boys and Ailsa distinguishing themselves from day to day. We arrived home at the end of July exhausted and laden, determined somehow to get back to Chiang Mai, and not caring if we never see another Orthetrum sabina.

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GIANT DRAGONFLY

The June 2, 1980 Dallas Morning News contains an article with a picture. It states that Bob Wade, the Dallas artist who created his 3-story-tall cowboy boots on a lot near the White House has created a giant dragonfly. It has a 16-foot wing span and a 12-foot body from tail to antenna. It has stained glass wings, iron legs and a "beady face" (28,000 beads). The piece of art came as a result of Wade's being commissioned to work with the Kansas City Art Institute. His class needed a project so they did the dragonfly which is shown in part in the newspaper picture. Wade thinks it is a masterpiece fit for the Smithsonian Institution's Air and Space Museum, citing that the dragonfly started soaring through the air 300 million years ago. We are indebted to Curtis Williams for the newspaper account

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SELYSIA EDITORS LEAVE FOR SABBATICAL

Minter and Margaret Westfall will be in South America collecting and rearing Odonata from September 2 to December 3. We expect to spend the first six weeks in Venezuela. The last six weeks we plan to collect in various areas in Ecuador, devoting much of the time to the jungle sites near Limoncocha. In order to include notes and information you may wish to send us for the March issue, please have these news items reach us by January 1, 1981.