THE NEWSLETTER OF THE SOCIETAS INTERNATIONALIS ODONATOLOGICA

## Vol. 13, No. 1

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## March 1, 1984

# SELYSIA BECOMES OFFICIAL NEWSLETTER OF S.I.O.

At the 1983 Symposium in Calgary, Canada, the Council voted to recognize SELYSIA as the official newsletter of the Society. Dr. Kenneth Tennessen agreed to alter his original heading for the newsletter and to bring it up to date for its new format which includes the official S.I.O. symbol. SELYSIA is presently distributed to S.I.O. members residing in each of the 60 countries represented in our Society.

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# SEVENTH INTERNATIONAL SYMPOSIUM OF ODONATOLOGY

#### by

# Sidney W. Dunkle Bureau of Entomology Division of Plant Industry P.O. Box 1269 Gainesville, Florida 32602 U.S.A.

The Seventh International Symposium of Odonatology was hosted by the University of Calgary, Alberta, Canada, from 14-21 August 1983. The Symposium was sponsored by the Societas Internationalis Odonatologica (S.I.O.), and was very ably organized by Gordon Pritchard, assisted by Rob and Syd Cannings, Ken Deacon, Mark Leggott. and Curtis Nimz. S.I.O. members chosen for the Committee of Honour were Juanda Bick, Norman Moore, and Jean-Guy Pilon. A total of 52 registrants, plus their families in some cases, from 10 countries participated in the Sympo-Countries represented were sium. Belgium, Bophuthatswana, Canada, France, West Germany, Japan, The Netherlands, Sweden, United Kingdom and the United States of America.

Even before the Symposium officially began, the Odonata Specialist Group of the International Union for the Conservation of Nature (IUCN) Survival Service Commission, chaired by N. Moore, discussed Odonata comservation problems on Sunday 14 August. Dr. Moore presented the group's conclusions to the other Symposium participants on 19 August.

The Symposium got off to a good start with a wine and cheese reception on the evening of 14 August. Many fruitful discussions of odonate biology were begun here and continued during coffee and luncheon breaks on succeeding days, and often far into the night!

Papers delivered on Monday 15 August included: 1) Some biological puzzles regarding Aka Tombo (Sympetrum frequens) of Japan by S. Asahina. This was the Presidential

SELYSIA, V. 13, #1

# SELYSIA

A Newsletter of Odonatology

Compiled at Department of Zoology University of Florida Gainesville, Florida 32611

by

Minter J. Westfall, Jr. and Margaret S. Westfall

This newsletter is designed to disseminate facts and news about the activities of Odonatologists and Odonatology. Tt 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 semi-annually, March 1 and September 1.

Address, and was highlighted by a recording of the song "Aka Tombo". 2) Ecoethological investigations at an isolated colony of Erythromma viridulum in the Botanical Garden of Bonn City by E. Schmidt. 3) Notes on the zoogeography of Loh Fau Shan (Tiger Mountain), central Kwangtung, south China with especial reference to the odonate fauna of south China by E. Tinkham. 4) Effect of temperature on the embryonic development of Argia vivida (Coenagrionidae), with reference to other aquatic insect groups by M. Leggott. 5) The emergence and adult habitats of the Anisoptera of a southern Alberta pond by C. Nimz. 6) The effects of prey density and temperature on survival and development of larvae of the damselfly, Lestes sponsa (Hans.)

by J. Pickup and D. Thompson. 7) Coexistence of Engallagma divagans and E. traviatum (Zygoptera:Coenagrionidae) in Bays Mountain Lake: An in situ enclosure experiment by D. Johnson, R. Bohanan, C. Watson, and T. Martin. 8) Seasonal emergence patterns of anisopterans in north-Ontario by K. Deacon. western Evening presentations on 15 August included: A tribute to E.M. Walker by P. Corbet and G. Pritchard, and a slide presentation on cordilleran Odonata and a preview of the field trips by R. Cannings and S. Cannings.

Tuesday 16 Papers presented on August were: 9) Habitat characterization by representative Odonata species spectrum (R.O.S.S.) by E. Schmidt. 10) The Beringian dragonfly Somatochlora sahlgergi Trybom in the Yukon Territory by S. Cannings. 11) Life history patterns in the northern expansion of dragonflies by 12) Weather and Odo-U. Norling. nata: Effect of temperature on egg development by J.-G. Pilon and M. Masseau. 13) Dragonflies and cosmology: Regulation of alife histories by celestial events by P. Lutz. 14) Morphology and ultrastructure of the excretory organs in larvae of Isch-(Vand.) (Odonata, nura elegans 15) Sperm Zygoptera) by J. Moens. competition in dragonflies by M. Siva-Jothy and P. Miller. 16) Considerations on the cytophylogeny of Chlorocyphidae by B. Kiauta. 17) Energy requirements of adult Anisoptera by M. May. 18) The strike mechanism of larval dragonflies by G. Pritchard. 19) Aspects of mating in Enallagma by K. Tennessen and H. Robertson. In the evening of 16 August, P. Corbet led a general discussion on questions of current interest in dragonfly biology.

Wednesday 17 August was devoted to field trips, with some Symposium participants traveling to the Kananaskis Valley in the Rocky Mountain foothills, led by G. Pritchard and

R. Cannings, while others visited Fish Creek and Sibbald Flats on the plains, led by S. Cannings and C. Nimz. The weather and surroundings were beautiful, and many interesting species of Odonata were collected, photographed, and observed, including Coenagrion resolutum, Aeshna constricta (New Alberta record), A. eremita, A. juncea, A. palmata, A. sitchensis, Ophiogomphus severus, Somatochlora albicincta, S. hudsonica, S. semicircularis, and Sympetrum madidum. During the evening of 17 August a barbeque dinner was held.

The S.I.O. Business Meeting was chaired by J.-G. Pilon during the morning of Thursday 18 August. The following Poster Papers were presented during Thursday afternoon: 20) Courbe d'emergence de Cordulia shurtleffi Scudder. (E. Caron and J.-G. Pilon). 21) Action de la temperature sur le developpement embryonnaire d'Ischnura verticalis (Say). (J. Franchini and J.-G. Pilon). 22) Population ecology of Calopteryx aequabilis in Nova (J.B. Henderson and T.B. Scotia. Herman). 23) Cone cristallin chez **la** larve d'Enallagma cyathigerum. (J. Lavoie-Dornik and J.-G. Pilon). 24) Turnover des membranes rhabdomeennes chez la larve et l'adulte d'Enallagma cyathigerum. (J. Lavoie-Dornik and J.-G. Pilon). 25) Position du massif d'accroissement externe sur la lamina au cours de l'avant-dernier stade larvaire chez Lestes eurinus Say. (C. Marullo, J.-G. Pilon, and M. Mouze). 26) Developpement morphologique postembryonnaire des ganglions optiques chez Lestes eurinus Say. (C. ..... Marullo, J.-G. Pilon, and М. . 27) Etude de la differen-Mouze). ciation des types de developpement et de la variation intra-stade au cours du developpement larvaire chez Ischnura verticalis (Say) .... (J.-G. Pilon and J. Franchini). 28) Etude morphologique des larves de Ischnura

verticalis (Say), elevees en laboratoire. (J.-G. Pilon and J. Franchini). 29) Paleocene fossil Odonata from South-central Alberta, Canada. (D. Wighton).

A delicious Symposium Dinner was consumed Thursday evening, including Dr. Asahina's birthday cake! Dr. George Ball of the University of Alberta at Edmonton delivered the Introductory Address. Between bites of Chicken Cordon Bleu, many participants were toasted and recognized for their achievements in Odonatology and S.I.O. Bastiaan Kiauta showed slides of the Sixth International Symposium of Odonatology which took place in Chur, Switzerland in 1981.

Papers given on Friday 19 August included: 30) The seasonal occurrence of the Odonata of the Liwonde National Park, Malawi by M. Parr. 31) Reproductive behaviour of Leucorrhinia hudsonica by D. Hilton. 32) Coexistence of females and territorial males at water in Japanese calopterygid species by K. Higashi and S. Nomakuchi. 33) A computerassisted analysis of Anax imperator life history data from Malawi by M. Parr. 34) The population structure of two sibling species of neotropical damselflies, Palaemnema desiderata Selys and P. paulitoyaca Calvert (Zygoptera:Platystictidae) by Ε. Gonzales and R. Garrison. 35) Process of territory establishment in pruinosa Selys Mnais pruinosa by (Zygoptera:Calopterygidae) S. Nomakuchi and K. Higashi. 36) Pictorial survey of the remarkable agrionine damselfly fauna of the mountain streams of south China and Taiwan by E. Tinkham. 38) Hunting dragonflies in southern Baja California, Mexico by E. Tinkham. Several Symposium participants gave slide shows on Friday evening, including: Dragonflies of Canada by R. Lee, the Fourth International Symposium of Odonatology and Rare Nearctic Anisoptera by S. Dunkle,

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Asiatic Odonata by D. Paulson, and Dragonflies of Oregon by S. Valley.

The Symposium was followed on 20-21 August by a splendid Post-Symposium sight-seeing and collecting tour to the Rocky Mountains of Alberta and British Columbia. The Symposium was a wonderful and unforgettable experience for all who attended.

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MINUTES OF THE BUSINESS MEETING SOCIETAS INTERNATIONALIS ODONATO-LOGICA (S.I.O.) held at University of Calgary, Calgary, Alberta, Canada 18 August 1983

Chairman: J.-G. Pilon Present: 30 S.I.O. members

Chairman's Introductory Remarks: The Chairman opened the meeting at 09.10 hrs. He welcomed members and explained the need to expedite business during the meeting. Detailed. factual information, including nominations, had been distributed or posted beforehand, and it was expected that most motions could be proposed by the Chair and passed without a formal vote. Members were urged to inform the Chair if there was insufficient opportunity for discussion.

The Agenda had been printed on pp. 15-16 of the Symposium program booklet.

1. <u>Minutes recorders</u>. The appointment of D.F.J. Hilton, M.L. May and M.J. Parr was approved.

2. <u>Minutes of the S.I.O. Business</u> <u>Meeting, Chur, 1981</u>. These had been previously posted and were accepted as a true record.

3. <u>Modifications and approval of</u> Agenda. Proposed:

- item 23 become item 14 - item 14 become item 15 - item 22 become item 23
- ILEM 22 DECOME ILEM 25
- item 24 become item 22

The Agenda was accepted as modified.

4. <u>Report of the Secretary-General</u>. The <u>Secretary-General</u> (K.J. Tennessen) reported that:

a) there are now 372 individual members plus 66 institutional subscribers (total of 438);

b) the S.I.O. has been represented at the meetings of the New Forest Field Meetings (July '82, June '83) and the Dutch Dragonfly Workers (Leiden, '82).

It was proposed and seconded (Pilon and Johnson) that the report be accepted.

5. <u>Report of the Executive Editor</u>. The Executive Editor (B. Kiauta) summarized his previously posted report.

All measures of publications output have increased since the Chur meeting, by comparison to the period between the Montreal and Chur meetings.

Data on pages, papers, and authors for each period were presented.

Demand for Rapid Communications has been very high. Publication of Advances of Odonatology was subsidized by a grant at no cost to S.I.O. Newsletters of national offices (FRASERIA - India; SIOJA -Japan) and publications of affiliated societies (LIBELLULA - Germany; BRITISH DRAGONFLY SOCIETY NEWSLETTER - Britain; CONTACTBLAD - Nederlandse Libellenonderzoekers - Netherlands) were described.

The report was accepted.

Dr. Moore expressed the appreciation of the IUCN for the cooperation of the Editor on IUCN reports. Dr. Paulson spoke in praise of the quality of the publications.

6. <u>Report of the Treasurer</u>. The Treasurer (J. van Brink) presented her report which was previously posted, and discussed aspects of the printing costs for ODONATOLOGICA and sen NOTULAE ODOATOLOGICAE. The national N.W

representatives were thanked for their help in collecting dues and thus reducing Society costs.

B. Kiauta reported that the Indian Office finances are separate from those of the central S.I.O. office.

It was proposed and seconded (Johnson and Paulson) that the report be accepted.

7. Report of the Librarian. The Librarian (R. Rudolph) was not present to give his report, which was read by B. Kiauta. About 150 papers as photocopies had been provided to members, but the policy adopted now is to discontinue this service because of the enormous cost. The library contains 3000 -4000 titles, plus the stock of all S.I.O. publications and occupies 14 shelf metres.

The report was accepted.

8. <u>Reports of the National Offices</u>. Brief summaries of the previously posted reports were presented as follows:

Federal Republic of Germany (E. Schmidt)

India (K.J. Tennessen for B.K. Tyagi)

Japan (K. Higashi)

United Kingdom (P.S. Corbet for P.J. Mill)

United States (M.J. Westfall)

These reports were all accepted.

Dr. Kiauta noted that the presence of National Offices, where they exist, tends to encourage membership greatly, and reported that efforts are underway to set up offices in Italy and Canada.

9. <u>Report of the Representative on</u> the IUCN Survival Service Commission

E. Schmidt indicated that a report had been tabled and that information on this matter would be pre sented to the Symposium members by N.W. Moore on Friday, 19 August 1983. This was accepted.

10. <u>Report of the European</u> Invertebrate Survey Representative

E. Schmidt said that his report had been tabled and that he had attended a meeting in Leiden of the E.I.S. The report was accepted.

11. <u>Report of the Auditors</u>. J. van Brink submitted a letter from A.W.A. Mol to the effect that the finances of the Society are correct as stated in Treasurer van Brink's financial statement. E. Schmidt also confirmed the correctness of these figures.

It was proposed and seconded (Pilon and Westfall) to accept the report.

12. Discharge of the Council. Dr. Pilon expressed thanks for their services to the outgoing Council. He noted that discharge of the present Council takes place immediately except that of the Executive Editor which is effective December 13, 1983.

The motion to discharge the Council was accepted.

13. <u>Election of the Council 1983-</u> 1985. The following members were elected:

President: M.J. Westfall President-Elect: R.M. Gambles Past-President: S. Asahina Secretary-General: K. Tennessen Executive Editor: B. Kiauta Treasurer: J.M. van Brink

Members: A. Machado (Brazil) P.S. Corbet (U.K.) J. Legrand (France) J.A.L. Watson (Australia)

National Representatives:

R. Rudolph (Germany)

P. M111 (U.K.)

K. Inoue (Japan)

B.K. Tyagi (India)

All nominees agreed to accept nomination.

14. <u>Election of Auditors (1983-1985)</u>. J. van Brink proposed and **P.S. Corbet seconded that the 1981-1983 auditors (Mol and Schmidt)** continue for a further term.

15. Proposed Alterations to the By-Laws. G. Pritchard summarized the proposed changes in the By-Laws of S.I.O., details of which had been previously posted. These changes were accepted.

16. Operation of the Affiliated National Societies. **B**. Kiauta reported that the United Kingdom Society is officially affiliated with the parent Society and that the Dutch and German Societies are in the process of obtaining affiliation. It was suggested by Dr. van Brink that the various affiliated societies be called Affiliated Societies rather than National Societies since their memberships are open to any interested persons.

17. <u>Report on the International</u> Research Center of Odonatology.

Dr. Westfall reported on current efforts to arrange for a center in Gainesville, Florida, U.S.A., that would be capable of its own administration and be the repository for the S.I.O. library, major collections of Odonata, and provide research facilities for odonatolo-The University of Florida gists. has agreed to provide land, and a building plan has been proposed. At this time funds for building are unavailable, and several alternative plans for temporary housing in' existing facilities, or facilities to be built for other purposes, are in an uncertain stage of negotiation. In addition, funds are needed to supply salary for a manager of the facility. Contributions and especially ideas for raising money, are earnestly solicited.

18. <u>Publication Program, 1983-1984</u>.
 B. Kiauta reported that all
 S.I.O. publications will continue as usual except for a special extra

issue of ODONATOLOGICA dedicated to M. Lieftinck, which will contain only research papers, not abstracts. B. Kiauta emphasized the high costs in time and money of Odonatological Abstracts, and he wished to extend special thanks to the following for all their help: R. Rudolph (Germany), W.J. Winstanley (N.Z.), and Bro. A. Pinratana (Thailand).

19. Financial Estimate 1983-1984.

Dr. van Brink said that the page prices were still rising and that she proposed to increase the subscription fee (for libraries) from Hfl. 160 to Hfl. 170, and the ordinary membership fee by Hfl. 5.

20. <u>Report of the Organizing Com-</u> <u>mittee</u>. Dr. Pritchard reported that 33 full members, 8 associate members, and 11 student members (total 52) attended, from 10 countries. Twenty-seven papers and 10 posters were presented, as well as a discussion group and 8 slide presentations.

Twelve abstracts were submitted but were not presented, as their authors could not attend. He expressed the thanks of the Organizing Committee to those organizations that provided financial and logistic support (see p. 3° of program, omit Province of Alberta). Few problems were encountered in the organizing of the Symposium, the most important being the difficulty of preparing an accurate program ahead of time, owing to nonattendance of some early regis-Pritchard trants. Dr. also expressed thanks the other to : members of the local organizing committee: R. Cannings, S. Cannings, K. Deacon, C. Nimz, and M. Leggott.

Dr. Pilon expressed thanks to Dr. Pritchard on behalf of the Society for his efforts in making this a very successful Symposium. 21. <u>Report of the Chairman of the</u> <u>Standing Committee for the Organi-</u> <u>zation of International Odonatolog-</u> <u>ical Symposia</u>. The Chairman (B. <u>Kiauta) expressed the gratitude of</u> the Committee to the local Organizing Committee (G. Pritchard, Chairman) for all their excellent work in producing such a good Symposium.

The 1985 Symposium will be held in Paris with J. Legrand as local Organizing Committee Chairman.

Invitations for future Symposia have been received from Kathmandu (Nepal), Bophuthatswana, and Tennessee, U.S.A.

Dr. Legrand suggested that the 1985 meeting would be most conveniently held in July.

22. <u>New Members of the Committee of</u> <u>Honour (Paris). It was proposed and</u> <u>seconded (Kiauta and Garrison) that</u> **F.** Schaller be nominated for the Committee of Honour for the 1985 Symposium.

23. Any other business. None

24. <u>New Members of Honour of the</u> <u>S.I.O.</u> Nineteen members enthusiastically supported, by personal documentation, the proposal by G. Pritchard and C. Ninz that Prof. J.M. van Brink be elected to the Membership of Honour.

The Chairman asked Dr. van Brink to leave the room while the nomination was discussed. When Dr. van Brink was recalled to the meeting, the Chairman commented on the extraordinarily valuable services she had rendered to the S.I.O., and he presented to Dr. van Brink the book containing the supporting letters to mark the occasion. Dr. van Brink's election was received with considerable acclamation by the members.

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The Chairman thanked members for the contributions and participation and the Minutes Recorders for their help. He then closed the meeting at 12:05 hrs.

5 decembre 1983, J.G. Pilon, Chairman.

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NOMINATIONS FOR COUNCIL, 1985-1987

In accordance with By-Law 2C, the Council of S.I.O. has nominated the following persons for the elected positions on Council, 1985-1987:

**President-Elect:** 

Ordinary Members:

Dr. J. Legrand (France)

Dr. M. May (U.S.A.)

- Dr. M. J. Parr (Bophuthatswana)
- Dr. J.-G. Pilon (Canada)

The call for further nominations is hereby given. Anyone with a further nomination must submit it to Dr. Gordon Pritchard, Department of Biology, University of Calgary, Calgary, Alberta, T2N 1N4, Canada by September 1, 1984. All nominees must be voting members of the Society, as must be the Proposer and Seconder of the nomination. The nominee must also have agreed to stand for election.

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ODONATA SPECIALIST GROUP

by

Norman Moore The Farm House Swavesey Cambridge, CB4 5RA

The third meeting of IUCN's Odonata Specialist Group was held at Calgary, Alberta, Canada on 14.8.83. Regional reports from Japan and China and the Neotropics were comsidered as well as progress reports on projects previously approved. The Group agreed that priority should now be given to providing a World Check list of Odonata, summarising what is known about distribution and conservation requirements. Funding for this major task is being sought.

The Group suggested that Phylolestes ethelae should be added to the list of Vulnerable species in the Red Data Book, and <u>Mecistogaster</u> <u>asticta</u>, <u>Libellula</u> <u>angelina</u> and <u>Mortonagrion hirosei</u> to the list of Endangered species.

The Group wishes to involve S.I.O. members with a special interest in conservation at its biennial meetings. These are held in conjunction with S.I.O. Symposia. To that end a general invitation to attend will be made in the edition of SELYSIA before each meeting, and those wishing to attend will be asked to get in touch with the Chairman.

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EIGHTH INTERNATIONAL SYMPOSIUM OF ODONATOLOGY

#### Advance Announcement

#### by

Jean Legrand Laboratoire d'Entomologie M.N.H.N. 45, rue de Buffon, F-75005 PARIS

The Eighth International Symposium of Odonatology will be held in Paris during the month of July 1985 at the "Museum national d'Histoire naturelle".

It is customary to provide a brief account of the city in which the next symposium will be held; but to say in a few words something of the ambience of Paris is almost impossible. A potted "tourist guide" repeating tired old statements about the magnificence of the Arc de Triomphe and the height of the Eiffel Tower hardly seems appropriate. Consequently I decided on an unusual text (appeared in "Paris mon Amour", Telerama Ed Paris 1983) that hopefully will be entertaining:

"The average Parisian is married, and has one chance out of three of getting divorced. He or she has a coloured television, but is less tempted by a freezer than is his or her cousin from the provinces; lives in an apartment of two and a half rooms; spent 371 francs at the movies in 1982; gets about three parking tickets a year; and loses his or her keys just as often as an Every year he or she umbrella. smokes 1,885 cigarettes, eats 250 kg of meat; and makes more than 4,000 telephone calls. Such a portrait would make a statistician shudder for of course it is not very scientific, but so simple (and **SO** pleasant) to manipulate numbers . . And here are some more.

1.10 m: the width of the smallest house in Paris located at 39, rue du Chateau d'Eau (20th arrondissement).

11.5°C: average temperature in Paris over the past 30 years. 1981: the wettest year since 1930 (750 hrs of rain as compared to an average of 495 hrs). 1982: a "lukewarm" year with 12.4°C (average of course).

48<sup>0</sup>50'11": North latitude, almost at the same parallel as Seattle, Quebec, Stuttgart, Brno, Volgograd (Stalingrad) ... and Mongolia.

2<sup>0</sup>20'14": East longitude, a meridian which also touches Barcelona, Niamey and Lagos.

128m: highest point in Paris, rue du Telegraphe at the height of the Belleville cemetery. The dead the closest to heaven ... Average altitude of the city: 35m.

2,850 pork-butchers: nearly twice the number of the bakers and pastrycookers (1,657). But the Parisian pays more attention to his looks than to his figure: 4,279 hairdressers for splitting hairs.

4,360: the longest street, rue de Vaugirard. The widest: avenue Foch with 120m. The narrowest: passage de la Duree, with only 0.60m.

10,786 doctors, 3,804 dentists and in Paris alone, 307 psychiatrists without counting the various schools of psychoanylists.

14,816 keys handed in at lostand-found bureau in 1981. Almost the same number of umbrellas: 14,733. Only 2,820 gloves. A total of 147,264 miscellaneous objects deposited, more than a third of which were forgotten in the "Metro" or on the bus. More than 100,000 of them are still unclaimed.

15,956 marriages in 1981, but 5,995 divorces. More happily: 40,834 births as against 23,742 deaths.

111,961 empty apartments in Paris! This is 8.7% of the total number of apartments (7.5% were empty in 1981).

122,141 seats divided among 499 cinemas and sat on by 44.97 millions of spectators in 1982. In addition there are 61 theatres, 48 concert halls, 15 jazz clubs ... "II faut sortir".

146,267 trees of which, fortunately, 8,043 are protected because they are growing in graveyards and 6,219 because they are in schoolyards. The largest: an oriental plane-tree with a circumference of 6.85m found in the Park Monceau. The most unusual: the fig-tree of La Conciergerie on l'Ile de la Cite, which during a good year or a bad year, gives 3 kg of fruits."

Thousands of Odonata specimens in the M.N.H.N. in Paris; but officially only one member of the S.I.O.

Please send correspondence and inquiries to the Chairman of the Organizing Committee: Jean Legrand at above address.

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NORTH AMERICAN ODONATA COLLECTORS' MEETING

# by

# Kenneth J. Tennessen

The first "Meeting of U.S. Odonata Collectors" was hosted by Dr. Thomas Donnelly in the summer of 1982 in New York. The meeting was very rewarding, and a concensus emerged that such a gathering should be held regularly in the years between S.I.O.'s biennial symposia. At the S.I.O. symposium in Calgary this past August, several participants approached me about hosting the '84 collecting meeting in Ala-I am happy to announce that bama. this will be possible, and I have tentatively set the dates June 15-17 for the meeting.

I envision the schedule to be as follows:

Friday evening - meet informally to make and renew aquaintances and discuss items of interest; decide on field trips.

<u>Saturday</u> - field trips to various localities within the Tennessee Valley region.

Saturday evening - barbecue dinner and slide presentations, study specimens, look through collection.

Sunday - more field trips.

The month of June in this area is prime time for quite a number of interesting and uncommon species. Although we will miss the early spring species and the late summer species, I consider it the height of the gomphid season. If you will be able to attend, please contact me before May 15 so I can send you information on accommodations and make final plans. My address is: Ken Tennessen, 1949 Hickory Avenue, Florence, AL 35630. Home phone: (205) 766-6970; office phone: (2.05) 386-2067.

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# FIRST INDIAN SYMPOSIUM OF ODONATOLOGY

On January 23-25, 1984 the First Indian Symposium of Odonatology was scheduled to convene. The meeting was held at the Department of Animal Physiology at Madurai Kamaraj University. The President, Prof. Ramachandran, and members of the faculty of the School of Biological Sciences formed the Reception Com-Chairman of the Organising mittee. Committee was Dr. S. Krishnaswamy. Other members included Dr. T. J. Pandian, Dr. N. B. Nair, Dr. B. K. Tyagi, Dr. S. C. Saxena, Dr. D. Tambhare, and Dr. M. Prasad. Convenor was Dr. S. Mathavan. In addition to the University, other sponsors for the event were S.I.O., the University Grants Commission (New Delhi), and the Department of Science and Technology (New Delhi).

The Key note address was to be delivered by Prof. Dr. B. Kiauta from Utrecht, the Netherlands. His topic was "Cytophylogeny of Chlorocyphidae of Southeastern Asia." Other speakers included Dr. D. B. Thambrae, Dr. B. K. Tyagi, and Dr. T. N. Ananthakrishnan.

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#### FRASERIA

FRASERIA, the Newsletter of the Indian National Office, No. 5 dated December 1, 1983 published some additions to the Odonata fauna of District Solan, Himachal Pradesh. Mr. M. Chandra reported on his recent survey, recording three new species from the district, making a total of 27 species. Dr. B. K. Tyagi contributed a list of littleknown dragonflies of North-western The editor of FRASERIA is India. Dr. B. K. Tyagi. His address is: Malarka Research Centre, Indian Council of Medical Research, UGH 61-Sector VI, Ukai-394680, 70 District Surat, Gujaret.

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# CONTACTBLAD No. 6, October 1983

The Newsletter of Dragonfly Workers in The Netherlands, CONTACTBLAD, No. 6 and dated October 1983, contains several interesting notes. The "University of Utrecht Student Award" article highlights the work on the cytology of the Odonata of Sudan by M. Wasscher and for this excellent research he was given the award.

Other contents included:

- Personal impressions from the trip to the Seventh Int. Symp. Odonatol. (Calgary) by L. Beukeboom
  - Interesting odonata records in the Netherlands during 1982 and 1983 (compiled by M. Wasscher)
  - -Various book reviews (by M. Verdonk and M. Wasscher).

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NEW NATIONAL NEWSLETTERS OF S.I.O.

At the Council meeting at the Symposium in Calgary, it was voted to recognize the establishment of two new National Offices of S.I.O. The Canadian National Office (Bureau national canadien de la Societe odonatologique internationale) is located at Thunder Bay, Ontario. Dr. Kenneth Deacon is editor of the Newsletter, WALKERIA. His address is: Department of Biology, Lakehead University, Thunder Bay, Ontario P7B 5E1.

The second national office formally recognized is the Italian National Office, Notiziario dell'Ufficio Nacionale Italiano della Societa Odoatologica Internazionale, which is located in Rome. Dr. Carlo Utzeri is the editor of the Newsletter, LINDENIA. Dr. Utzeri's address is: Instituto de Zoologia, Universita di Roma, Viale dell'Universit:a 32, 1-00100 Roma.

HAGENIA, the new Newsletter of the Federal Republic of Germany is

to appear in March, 1984, and is being edited by Dr. R. Rudolph. An earlier publication, LIBELLULA, has been in existence since February, 1981, and is a semi-annual journal devoted to publishing papers and abstracts of papers discussing German Odonata. Dr. Rudolph is also the editor of LIBELLULA. His address is: Dr. Rainer Rudolph, Fliednerstrasse 21, D-4400 Munster, German Federal Republic.

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#### DRAGONFLY CORRESPONDENCE CARDS

It has been suggested that S.I.O. produce cards depicting a species named on the Endangered Species list of the IUCN. Mr. Rupert Lee has drawn 2 poses of Cordulegaster sayi as an intial venture, with the dragonfly in white on a dark red background. These cards could be used as Christmas cards or for special occasions. The price for these cards will be Hfl. 10 for a package of ten, postage inclusive. No envelopes are included in this price, nor is the cost of bank charges. 

U.S. readers interested in placing orders for these correspondence notelets may request them from the national Office, in care of Dr. Minter J. Westfall, Jr., Department of Zoology, University of Florida, Gainesville, Florida, 32611. Other readers may place orders with the national office in their country or with the S.I.O. Treasurer, Dr. Janny van Brink, University of Utrecht, Department of Cytogenetics, Padulaan 8, 3584 CH, Utrecht, Holland.

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# COMMEMORATIVE ISSUES OF ODONATOLOGICA

On February 18, 1984, a commemorative Issue of ODONATOLOGICA (March Issue) will appear honoring Dr. M. A. Lieftinck of Holland on his 80th birthday. Dr. Lieftinck is the prolific author of papers concerning Odonata spanning several decades, and including over 300 titles. Dr. Lieftinck is Honorary President of S.I.O.

The June issue of ODONATOLOGICA will be dedicated to Dr. Syoziro Asahina of Tokyo, Japan, celebrating his 70th birthday (1983). Dr. Asahina is the doyen of Japanese odonatologists and the editor of TOMBO, the Japanese journal of odonatology, as well as the author of numerous papers which contribute greatly to the knowledge of Japanese Odonata.

Each of these issues will include a complete bibliography of the honoree as well as a biographical sketch and tribute prepared by colleagues. Dr. Asahina is immediate Past President of S.I.O.

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# BRITISH DRAGONFLY SOCIETY PUBLICATIONS

The British Dragonfly Society includes over 230 active members, and it has produced a newsletter, NEWSLETTER Nos. 1 & 2.

Last year the Society made the decision to issue two publications. They will introduce the JOURNAL OF THE BRITISH DRAGONFLY SOCIETY as a articles publication devoted to specifically concerning dragonflies. This will be a semi-annual journal, appearing in April and November. Vol. 1, No. 1, will contain five about dragonflies articles from NEWSLETTER No. 1, and will comprise 10 pages. Vol. 1, No. 2, November 1983, pages 11-30, has just been received.

In NEWSLETTER NO. 2, Mr. Merritt announced to readers that the 1985 S.I.O. Symposium will take place in Paris during the summer. He prop sed that members of the British Dragonfly Society might like to travel as a group, especially those who do not wish to travel by car or train. He suggested hiring a mini-bus for this purpose and organizing a two-week "package holiday" to include the meetings during the first week, and a trip to central and/or southern France for dragonfly-seeing during the second week.

Perhaps other groups would like to plan a similar arrangement for their members, which would make the travel arrangements more attractive and perhaps less expensive.

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## NEW CODE TO BE PUBLISHED

The International Commission on Zoological Nomenclature is preparing a new Code which will be published early in 1984. Presently, descriptions of new taxa published in the U.S. doctoral dissertations are not valid, as they are not considered publications under the current Code.

After January 1, 1985, such descriptions published in U.S. doctoral dissertations will be considered Taxa described in U.S. valid. doctoral publications prior to January 1, 1985 are valid only if the name of the new taxon is mentioned also in the abstract 28 published in the Dissertation Abstracts.

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# REVISION OF THE DRAGONFLIES OF GREAT BRITAIN AND IRELAND

A news release from the publishers, Harley Books of Colchester, Essex, announces that a substantially revised and updated publication of THE DRAGONFLIES OF GREAT BRITAIN AND IRELAND has been completed. Robert Merritt has accomplished this task by including additional color illustrations, 7500 new distribution map records, and a description of a new species.

Additional information about the book may be obtained from the publi-

sher, Harley Books, at the following address: Martins, Great Horkesley, Colchester, Essex CO6 4AH, England. The price is 16.95 pounds.

# REPORT ODON. SPECIALIST GROUP (1.U.C.N.)

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S.I.O. has recently published the Report of the Odonata Specialist Group, Species Survival Commission, International Union for Conservation of Nature and Natural Resources (I.U.C.N.) No. 5. This is entitled: "1978-1983 Progress Report on Dragonfly Conservation in Japan and China", and was authored by Dr. S. Asahina. A brief background of the conservation policy in Japan is given, and notes included on specific species which are threatened.

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## DRAGONFLIES OF BOTSWANA

We have recently received from Bophuthatswana, Mike Parr of а strikingly beautiful envelope, the cover of the first day issue from Gaborone, Botswana. The front of the envelope features a frontal-view illustration of a dragonfly in flight with the words, "DRAGONFLIES of Botswana" in giant, heavy type underneath. In the upper left corner, the smaller words, "Christmas 1983" appear adjacent to a sixpointed star.

Four stamps are affixed to the right corner and cancelled "First Day of Issue. 7-XI-83. Gaborone." The stamps are in 6t, 15t, 25t, and 45t denominations, and depict in attractive colors <u>Panala flavescens</u>, <u>Anax imperator</u>, <u>Trithemis arteriosa</u>, and <u>Chlorolestes elegans</u>, respectively.

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# ABSTRACT OF DOCTORAL DISSERTATION BY S.I.O. MEMBER

# LIFETIME MATING PATTERNS AND REPRODUCTIVE SUCCESS IN THE DAMSELFLY ENALLAGMA HAGENI (WALSH) (ODONATA: COENAGRIONIDAE)

#### by

# Ola Margaret Fincke Department of Zoology University of Iowa

The reproductive biology of <u>Enal-</u> <u>lagma hageni</u> was studied to determine the potential for sexual selection on this non-territorial, shortlived, promiscuous damselfly.

Variance in male and female reproductive success, measured by variation in mating success and number of eggs fertilized over an individual's lifetime, was quantified in an isolated population of individually marked Enallagma. 0f the males, 41% failed to mate in their lifetime, compared to 32 mating failure by females. Lifetime mating success was positively correlated with longevity; effects of size, relative age, and female color morph were not significant.

Dissection and sterile male experiments measuring sperm competition revealed that second mates can displace 83% of the first mate's sperm by volume, and fertilize 96% of the female's immediate clutch.

Males guarded mates while they oviposited underwater. Non-contact guarding benefitted males by preventing displacement of sperm should their mates prematurely resurface; females benefitted because guarding males saved them from drowning. Sperm competition benefits a female because it increases a male's investment in her clutch, making him less likely to abandon her while she is submerged.

Alternative mate-finding tactics were identified; males 1) searched for females around the pond or 2) waited at oviposition sites for resurfacing, gravid females. Although fitness gains from the searching tactic were greater than those accrued by the waiting tactic, the latter is maintained in the population because males using both tactics had a greater lifetime fitness than males using only the searching tactic.

Total variance in male reproductive success was partitioned into variance due to differences in female fertility and variance due to differences in the number of mates In E. hageni, 68-73% of per male. the variance in number of mates per male resulted from variance in longevity and 27-32% resulted from differences in mating rates among males. Because mating success correlated positively with longevity, and differences in longevity may arise from random mortality, the potential for sexual selection in this species may be low, even if variation in mating rates is assumed to reflect gene differences among males.

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# CORRECTION IN ABSTRACT ARTICLE

SELYSIA, Vol. 12, #1 included the abstracts of several doctoral dissertations of some S.I.O. members. Among these was the abstract submitted by Johann Waringer of the University of Vienna, Austria titled "The Effect of Water Temperature on Embryonic and Larval Development of <u>Coenagrion puella</u> L. from a Pond at Herzogenburg (Lower Austria)."

A printing error appears on page 6 of SELYSIA, third paragraph. Instead of reading: "The mean specific growth rate (% length increment day<sup>-1</sup>) was 0 at temperatures below 12°C, had a peak at 29°C..." the correct sentence is as follows:

"The mean specific growth rate (% length increment day") was 0 at temperatures below 12°C, had a peak

at 20<sup>0</sup>C (2.1% length increment day<sup>-1</sup>) and decreased again with increasing temperature."

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BEHAVIOR OBSERVATIONS IN ODONATA

# by

#### Tina White-Cross

I have run into a couple of interesting dragonfly/damselfly behaviors that I would like to present here. One: last summer in August, I was collecting at a pond in Augusta (primarily Enallagma spp) when a storm came up. To my surprise, males and females (all visible) immediately joined in I have watched other damtandem. sels at other locations since then (about 5 localities since), and a fair proportion (say 50-75% - it's awfully hard to count) go into tandem the minute it starts to rain. I have already observed the same phenomenon here in Baxley (Georgia). Do you suppose it could be a survival mechanism, so that if the wings of one get wet, the other can still fly?

The other behavior I observed was in Mexico Beach, Florida. Large numbers (30+) of Tramea females were swarming around cabbage palms. Ι saw this two days at two different localities. It started around 9 a.m. (Central time) and lasted about 40 minutes. There were very few midges, and no mosquitoes. The palms were in bloom, but the dragonflies did not light. It was not a darting type of flight - just around and around the palms. I wonder if the females could be attracted to the scent?

(Ed. note: Readers interested in corresponding with Dr. White-Cross may reach her at this address: Dr. Tina White-Cross, Route 7, Box 349, Baxley, GA 31315.

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NORTH AMERICAN ANISOPTERA EXCHANGE

In a recent letter from Mr. Jerrel1 Daigle of Tallahassee, Florida, he states that he has the following Odonata in his collection for exchange: Cordulegaster sayi, maxwelli, Arigomphus Gomphurus septima, Gomphurus ozarkensis. Gomphus sandrius, Stylurus ivae, Progomphus bellei, and many more. Lists of these are available on request.

The species Mr. Daigle would like in exchange are the following: Aphylla protracta (male), <u>Gomphurus</u> modestus, <u>Progomphus</u> integer, <u>Macromia pacifica</u>, and <u>Somatochlora</u> <u>ensigera</u>.

Mr. Daigle's address is: 2166 Kimberly Lane, Tallahassee, Florida 32301.

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#### ODONATA RECORDS FOR MARYLAND

#### DESIRED

Mr. Mark Scoville, a new member of S.I.O., writes that he is engaged in preparing a revised and annotated list of Maryland Odonata. He would appreciate any collection records and/or species data from any reader who can furnish it. His address is 2541 Robinson Court, Waldorf, MD 20601.

# POLYTHORE STUDY

After Dr. Montgomery's death, Dr. Westfall brought to Gainesville the extensive collection of Polythoridae which Dr. Montgomery had accumulated during his study of the family. This collection was turned over to for study and we have been us working on it for about a year. Scarcely any of the specimens were identified, but most have now been sorted and determined. We are concentrating attention on the genus Polythore; in this genus the .Montgomery material consists of over

2,000 specimens. mostly from Colombia, Ecuador and Peru. At least 14 of the nominal 18 species and, seemingly, one undescribed one are represented. We would be pleased to examine specimens, and to have any information, particularly personal collection experiences, which anyone would care to share with us. There is a need for more distribution data, particularly from Venezuela, Bolivia, and western Brazil. Please reply to George and Juanda Bick, 1928 S.W. 48th Ave., Gainesville, Florida 32608.

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ADDITIONS AND CHANGES TO LIST OF S.I.O. MEMBERS (See SELYSIA, V. 11, #1, #2; V. 12, #1, #2)

(Starred \* names are those of new members).

#### BELGIUM

Martens, Dr. Koen Laboratorium v. Dierkunde Rijksumiversiteit Gent K.L. Ledeganckstraat 35 B-9000 Gent

#### CANADA

Acorn, John H. Department of Entomology University of Alberta Edmonton, Alberta T6G 2E3

\*Caron, Eric 5700 de Lorimier Montreal, Quebec H2G 2N6

\*Gibo, Dr. D. L. Department of Biology Room 3032 Erindale Campus 3359 Mississauga Road Mississauga, Ontario L5L 1C6

\*Henderson, J. Bruce Department of Biology Queen's University Kingston, Ontario K7L 3N6

\*Marullo, Carolle
5528 Bourbonniere
Montreal, Quebec H1X 2N2

Stewart, Dr. W. E. Pesticide Division Agriculture Canada K. W. Neatby Building 960 Carlino Avenue Ottawa, Ontario K1A OC6

Walker, Dave 163 John Street Thornhill, Ontario L3T 1Y8

> GERMAN FEDERAL REPUBLIC (Bundesrepublik Deutschland)

Gerken, Prof. Dr. Bernd Univ. Paderborn-Hoxter An der Wilhelmshohe 44 D-3470 Hoxter 1

\*Moller, Herrn Karl-Heinz Georg-Voigt-Strasse 67 D-3550 Marburg/Lahn

Rasper, Manfred, Jr. Hauptstrasse 17 D-3007 Gehrden 2

## HOLLAND

Beukeboon, L. W. Helperwestsingel 31-22 9721 BB Groningen

Mol, Drs. A. W. M. Landstrekenlaan 21 5235 LH Den Bosch

Wasscher, M. Th. Minstraat 15 bis 3582 CA Utrecht

#### INDIA

Mitra, Tridib Ranjan 60 Shyam Nagar Road Calcutta - 700055

#### ITALY.

\*Carchini, Dr. Gianmaria Instituto di Zoologia Universita di Roma Viale Universite, 32 1-00185 Roma

# JAPAN

Arai, Yutaka 1233-2, Oaza Sueno Yorii-machi Osato-gun Saitama Pref., 369-12

- \*Hirose, Maroto 4-7, Daiku-machi 3-Chome Mito Ibaraki Pref., 310
- Kitawaki, Wako No. 313, Sugiyama Heights 1-15-15 Uryudo Higashi-Osaka Osaka Pref., 578
- Matsuki, Kazuo 3-23-5-103, Mihara Asaka Saitama Pref., 351
- Suzuki, Dr. Kunio Department of Biology Toyama University 3190 Gofuku Toyama-shi, 930

#### LUXEMBOURG

\*Battin, Tom 21, Rue de l'Hopital L-4137 Esch-Sur-Alzette

# SPAIN

\*Conesa Garcia, Dr. Miguel A. C/Lanuza No. 5, 3' Malaga

#### SWITZERLAND

\*Wegmuller, Herrn Robert Jurastrasse 29 CH-3013 Bern

#### THAILAND

Titayan, Dr. Manas Department of Entomology Faculty Agriculture Chiangmai University Chiangmai - 500000 (Re-registration)

#### UNITED KINGDOM

\*Baker, Russell Stuart Sqirrel Leap Thursley Road Elstead, Surrey GU8 6LN England Davies, Prof. Dr. D. A. L. 94 Thornton Road Girton Cambridge CB3 ONN England

\*Siva-Jothy, Michael T. Department of Zoology South Parks Road Oxford OX1 3PS, England

#### UNITED STATES

\*Buskirk, Dr. Ruth E Institute of Geophysics University of Texas Austin, TX 78712

\*Dominguez, Mr. Manuel B. P.O. Box 408 La Monte, MD 65337

- \*Frisbie, Mr. Malcolm P. 208 Mueller Lab. Penn State University University Park, PA 16802
- Halverson, Dr. Tim Natural Science and Mathematics Stockton State College Pomona, NJ 08240
- \*Howarth, Dr. Francis G. Entomology, Bishop Museum P.O. Box 19000-A Honolulu, HI 96819
- \*Morton, Mr. Robert 4741 N. Paulina Chicago, IL 60640
- \*Scoville, Mr. Mark 2541 Robinson Court Waldorf, MD 20601
- \*Turner, Dr. Perry Edward, Jr. Administrative Offices Turner Laboratories Drawer J McCloud, CA 96057
- \*Vogt, Mr. Tim Department of Zoology Southern Illinois University Carbondale, IL 62901

#### DR. ISAMU HIURA OF JAPAN DECEASED

S.I.O. has lost a well-known and highly respected Odonatologist from the Osaka Natural History Museum, Japan. Dr. Isamu Hiura died suddenly on October 18, 1983. His publications were numerous, and he will be greatly missed by his colleagues. Condolences on behalf of the S.I.O. were expressed to Mrs. Yoshiko Hiura by Minter Westfall as President.

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