Selysia

A NEWSLETTER OF ODONATOLOGY

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FIFTH INTERNATIONAL SYMPOSIUM OF ODONATOLOGY

by

Kenneth J. Tennessen
1949 Hickory Avenue
Florence, Alabama 35630

The Collège d'enseignement général et professional (CEGEP) Lionel Groulx, in Sainte-Thérèse, Quebec, Canada, was the site of the Fifth International Symposium of Odonatology, held August 5-11, 1979. The biennial symposium was hosted by the University of Montreal and was sponsored by the Societas Internationalis Odonatologica (S.I.O.). Dr. Jean-Guy Pilon headed the organizing committee joined by Mr. Michel Gougeon and Mrs. Marie-Andrée Piché-Lebuis. Members chosen for the Committee of Honour were Dr. Minter J. Westfall, Dr. George H. Bick, and Dr. Philip S. Corbet. Thirteen countries were represented by the 70 registrants (Belgium, Canada, England, France, German Federal Republic, India, Netherlands, New Zealand, Nigeria, Poland, Spain, Sweden, United States).

The meeting was opened Sunday evening, Aug. 5, by Dr. Pilon. A moment of silence was held for the late Dr. John A. Armstrong (N.Z.), Mr. Heinrich Greven (G.F.R.), Dr. Byron R. Ingram (U.S.), Dr. Eda G. Rudolph (G.F.R.), Dr. Paul-André Robert (Switz.), and Mr. Y. Tarui (Jap.). In an invited lecture, Mr. Raymond Hutchinson detailed the history of Odonatology in the Province of Quebec. Eight presentations were given Monday, including 1) seasonality in *Xanthocnemis zealandica* of New Zealand by K. Deacon, 2) karyotype analyses of some New Zealand Odonata by A. L. Jensen, 3) cytotaxonomy of *Argia* by B. Kiauta and M. A. J. E. Kiauta, 4) ultrastructure of the formation of ommatidia in *Aeshna cyanea* by M. Mouze, 5) territorial behavior in the African *Orthetrum julia* by M. J. Parr, 5) influence of sperm displacement on Odonata mating systems by J. K. Waage, 7) color slides of the Fourth International Symposium of Odonatology at Gainesville by B. Kiauta, and 8) slides and discussion of dragonfly eyes by T. E. Sherk.

On Tuesday, Aug. 7, an all day field trip to the University of Montreal Biological Station at St. Hippolyte took place. Participants toured the facilities there and took opportunity to collect several interesting species of Odonata despite the cool, cloudy afternoon weather. Some of the species taken were *Aeshna eremita, A. interrupta, A. umbrosa, Hagenius brevistylus, Sympetrum costiferum, S. obtrusum, Lestes disjunctus,* and *Enallagma vesperum.*

On Wednesday, the following papers were heard: 1) Osmoregulation in larvae of *Libellula quadrimaculata* by

S E L Y S I A

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. 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.

S. Nicholls, 2) a bibliography of reproductive behavior in Nearctic Zygoptera by G. H. Bick and J. C. Bick, 3) ecology of *Tachopteryx thoreyi* by S. W. Dunkle, 4) mating and oviposition in *Enallagma cyathigerum* by G. Doerksen, 5) distribution of *Lestes* species in a series of saline lakes in British Columbia by R. A. Cannings, 6) vision of dragonflies with specialized adult behavior by T. F. Sherk, 7) habitat segregation among coexisting Odonata larvae by P. H. Crowley and D. M. Johnson, 8) the making of *Odonatologica* by J. M. van Brink, and 9) slides of British Columbia Odonata by G. Doerksen.

The business meeting of S.I.O. was held Thursday morning, chaired by Dr. J. W. Boyes. The Executive Committee was reelected, plus Dr. J.-G. Pilon was elected as Second Secretary. Dr. Minter J. Westfall was unanimously voted as a Member of Honour of the society. A Permanent Committee for the Organization of the International Odonatological Symposia was appointed. The invitation to hold the Sixth International Symposium (1981) in Chur, Switzerland, was accepted by the members present.

On Thursday afternoon the papers heard were: 1) nymphs of *Stylurus* of North America and 2) the nymphs of *Diaphlebia (Desmogomphus) paucinervis* (Selys) 1873 and *Diaphlebia (Perigomphus) pallidistylus* Belle 1972 by M. J. Westfall, 3) ecological notes on *Micrathyria* in Panama by M. L. May, and 4) ultrastructure of epithelial elements in the ileum and colon of Anisoptera larvae by J. Moens.

The excellent symposium banquet was held Thursday evening at a hotel in the Laurentian hills north of Montreal.

On Friday morning, the session concluded with four papers: 1) notes on the distribution and life history of *Argia vivida* in Alberta and Oregon by G. Pritchard, 2) rehabilitation of the genus *Cornigomphus* by A. Compte-Sart, 3) an analysis of geographical variation in *Diphlebia* of Australia by W. E. Stewart, and 4) structure and development of the larval tracheal gills of *Epallage fatima* by U. Norling.

News of the symposium appeared on the front page of the Aug. 8 issue of the Quebec newspaper, la VOIX des MILLE-ILES.

The atmosphere at this symposium was relaxed and informal, allowing for questions and discussion, socializing, and making of new friendships. Many helpful ideas and bits of information were exchanged that would otherwise have been impossible without such a meeting. And so was furthered one of the primary purposes of S.I.O., to promote Odonatology by encouraging cooperation and friendship among odonatologists.

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Ed.'s Note: During the business meeting, it was noted that worldwide inflation was escalating, affecting printing and postage costs, etc., and because of this, the members voted a slight increase in dues for 1980, to be reflected in the 1980 invoices.

NOTES ON PREPARATION AND MAILING OF STUDY SPECIMENS AND DISCOVERY OF AVAILABLE REPRINTS

by

Leonora K. Gloyd
Division of Insects
Museum of Zoology
University of Michigan
Ann Arbor, Michigan 48109

Solutions for Making Visible Color Patterns Obscured by Postmortem Changes and for Relaxing Dried Specimens

Again after consulting a paper by Dr. C. H. Kennedy (1942, Ann. Ent. Soc. Amer. 35:97-104) in which he erroneously gives me credit for using household ammonia for briefly disclosing the original color pattern of a specimen on which it is obscured by postmortem changes, I am prompted to make a long overdue correction.

I recommended household ammonia (Parson's in particular) for relaxing a small area to extrude or remove the penis, to reposition a head, prothorax, leg, or anal appendage, or to expose the vulvar lamina more fully, but not for revealing the original color pattern. This is effective, but as Dr. Kennedy noted (p. 103), "After drying the lateral stripes lost all blue and the humeral stripes were dimmer than before ammonia was used." Even when household ammonia is used for relaxing, the area to which it has been applied should be rinsed with warm water several times and the excess water removed each time with a brush or bit of absorbent paper. Chemically pure ammonia is not effective for relaxing.

The liquid recommended to Dr. Kennedy for disclosing the color pattern was 85 to 95% alcohol, as reported in my paper on *Gomphaeschna* (Occ. Papers, Mus. Zool., Univ. Michigan, 1940, no. 415 [footnote, p. 6]). Since then I have found that "OT" is also an excellent relaxer, effective within a minute or two after applying, and does no harm to colors. It can be used for a local part or for the whole specimen.

The "OT" solution is sodium dioctyl sulfosuccinate, a surface active agent used in spraying insecticides over large areas by airplane. It may be obtained in either solid or liquid form, the latter being more easily measured when preparing a diluted solution. Aerosol OT 75% is in aqueous solution and about 7% alcohol. Average usage is about 1/10 of 1% of the weight of water or solvent. This is approximately one-fourth of a teaspoonful of the concentrated aqueous solution to a pint of water. If a waxy residue forms when used, dilute still more. A waxy film on a specimen can be removed by brushing the area with water or alcohol. After 16 years I still have part of a free sample sent to me by the American Cyanamid Company, Process Chemical Department, P.O. Box 5670 A, Chicago 80, Illinois.

To restore dry and shriveled specimens once preserved in alcohol, I have found that soaking them in a solution of table salt and tap water, equivalent to a normal physiological salt solution for 24 to 48 hours is better than boiling them in weak alcohol or soaking them in trisodium phosphate. The latter two methods are not at all suitable for delicate animals. From broken vials containing dried specimens of some of Folsom's type series of species of Collembola, using the salt solution I was able to locate and restore some from all but two or three. Trisodium phosphate would have dissolved all but the transparent cuticula and made them almost impossible to see.

After restoring dried alcoholic specimens with either OT or the salt solution, first rinse them in water, then place them in 10 or 15% alcohol followed by 25% and 50%, each for a few hours, before changing to the final 70% or 75% for storage. If alcohol has been added to the dried specimens first, neither the OT nor the salt solution method will be successful in restoring them.

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A Tragedy for *Argia* and *Protoneura* Type Specimens

In Florida when I read a letter telling me of the arrival of type specimens from the DeSelys Collection and their condition, I let out such a cry of anguish that Dr. Westfall hastened

to come to see if I were ill. When I returned to Ann Arbor and saw the contents of the box, I was horrified and speechless. Because of improper packing and the rigors of transportation by mail, the type specimens of *Argia difficilis, dimissa,* and *modesta,* and of *Protoneura paucinervis* arrived in a badly broken condition, and in part are little more than a mess of tiny fragments. This disaster prompts me to recommend the following precautions in mailing specimens.

1) Pinned specimens should be pinned in a box with a pinning media of good quality cork, or, better yet, a sheet of 3/8-inch polyester foam, firmly attached to the bottom.

2) Specimens should be braced. A bit of fluffy cotton twisted at each end around the middle of an insect pin, provides a soft cushion. Put a brace pin at an angle under an abdomen, then another at the same angle above, so that the abdomen rests gently between the soft cushions of cotton. If an abdomen does break in transit the cotton may still hold it in place. If a specimen is loose on its pin, a brace pin should be placed near the base of each front wing to prevent swiveling. (This is especially necessary for large specimens of Anisoptera.)

3) Do not put anything but the pinned specimens in the box. In the shipment to me, triangular envelopes, which were placed in one corner of the box containing the pinned types, were shaken loose from their mooring and caused havoc. All that kept the fragments from filtering out of the box and being lost was a cellophane covering glued inside to the top over the specimens.

4) Another "do not" is: Do not place a stiff cardboard over the top of the pins. The pressure on the tallest ones may be enough to bend them slightly, and with repeated bending and jarring in shipment the thorax of a specimen may crack and become dislodged.

5) The box of pinned specimens should be wrapped in paper, then packed in a strong corrugated cardboard box with not less than two inches of packing on all sides. An extra inch of packing material below the box will give added protection.

6) Before sealing the box, place a duplicate address label inside on top.

7) Be generous with "fragile" labels on the outside of the package.

There was a time when papered specimens packed in a cigar box wrapped in a layer or two of corrugated cardboard could be mailed safely without any damage. Now it is best to put it in a larger box and have at least one and a half inches of packing material on all sides. Papered specimens should be packed with a layer of sheet cotton or thin layer of cellucotton between each three or four layers of envelopes, and packed snugly enough so that the envelopes do not slide from end to end or side to side when the box is shaken. Cellophane envelopes can be placed in folds of tissue paper and wrapped in bundles of the proper height for the box to prevent sliding about. Specimens in envelopes can be packed in boxes made of balsa wood and sent safely without any outside packing. I have one such light weight box of half-inch balsa wood that has been to South America, Mexico, Java, Germany, and several places in the United States, and is still in good shape for more traveling.

Formerly my rule was to return borrowed specimens packed in the same manner they were sent to me. After one unfortunate return, I no longer do this if they were not packed properly when received. I also tried sending a specimen in a styrofoam container with very sad results.

It is very understandable why some institutions do not lend type specimens. Because of the great damage to the *Argia* and *Protoneura* types I shall be very reluctant to ask for a loan of types again if they have to be sent by mail. My last loan from the DeSelys Collection was brought to me by Dr. J. Belle at the 1977 S.I.O. meeting in Florida. The specimens of this loan and of the 1976 one were given to him at the 1979 meeting in Canada to hand-carry back to Brussels. For this courtesy I am deeply grateful.

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A RED-LETTER DAY

Upon returning to the University of Michigan in 1966 to devote full time to my study of the genus *Argia*, I found that the area in the Museum including Room 2035, designated in 1929 and labelled in gilt letters on the door as the E. B. Williamson Room, had been remodeled for other uses and the contents transferred elsewhere. Mr. Williamson's reprint library was in the range room, where the Odonata Collection was kept, on a high shelf near the ceiling, his books scattered in four libraries on campus, and no one knew what had become of his correspondence. Also, from Room 2035, Dr. C. H. Kennedy's notebooks with letters from collectors giving location of obscure places for collections purchased had also disappeared. These latter came to the Museum when Dr. Kennedy's library and collection of Odonata were purchased.

For nearly 13 years all my inquiries concerning what happened to the missing items have been of no avail. Then on Thursday, September 20th, I was told that a basement storage room for Museum publications had to be cleared out. Dr. Kennedy's supply of his duplicate reprints was there, and I was asked if I could find room for them in the range room with the Williamson Library and Collection. When all was brought up on the following Tuesday, there was more than just packets of reprints. Imagine my joy at seeing Kennedy's notebooks and all the letter file boxes containing the Williamson correspondence! It was truly a red-letter day for me.

Part of Dr. Kennedy's reprint library that had not been added to the Williamson Library because of duplication, reprints of his book reviews, and some of his correspondence as editor of the Annals of the Entomological Society of America, were with the stored items mentioned above. These reprints by a number of authors, as well as duplicate copies of his papers, will be listed either for sale or for free distribution. Prices for two much desired items, however, have been decided upon and are available now. These are Borror's "A revision of the genus *Erythrodiplax* (Odonata)" [16 bound copies, now out-of-print] at $10.00 each + .25 for postage and handling, and Kennedy's "Methods for the study of the internal anatomy of insects [paper-back copies] at $3.00 + .25. Purchase orders should be sent to Miss Sandra Bowne, Secretary, Museum of Zoology, University of Michigan, Ann Arbor, Michigan 48109. Remittances must accompany the order. Make check or mail order payable to the Museum of Zoology, University of Michigan.

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SIXTH INTERNATIONAL SYMPOSIUM OF ODONATOLOGY

Advance Announcement

The Sixth International Symposium of Odonatology will be held August 16-21, 1981 in Chur, the capital of the Canton of Grisons, Switzerland.

The city of Chur (population 25,000) said to be the oldest Swiss town, provides ideal conditions for this meeting: the sessions will take place in its new Natural History Museum. Chur has a cosy small-town character, and an efficient touristic infrastructure. It is situated in the heart of the Alps (elevation 600 m), and has a highway connection to the international airport Zürich/Kloten (130 km). The city is also readily accessible by (international) railway (1 hour from Zürich).

The summer day temperatures average 24°C with occasional peaks of up to 36°C; August is generally rather dry, though an occasional thunderstorm may be expected. The temperatures in the surrounding hills are considerably lower, and evenings there may be chilly.

The participants will be accommodated in the local hotels. The Organizing Committee is well aware that Switzerland has the reputation of being very expensive, but the figures circulating here and there among the odonatologists are certainly greatly exaggerated. Thus quite satisfactory single rooms, without bath, cost at present U.S. $12.- to 19.- and double rooms are available at the prices of U.S. $25.- to 30.-. This generally includes the (continental) breakfast. Most of the hotels from the medium category onwards are of the characteristic Swiss alpine style, homely and cosy.

During the sessions one day is reserved for collecting trips in the surroundings, including a trip to the nearby Principality of Liechtenstein, one of the smallest European sovereign states, situated on the Rhine River, hardly a 30 min. drive from Chur. Provided there will be enough registrations, a Post-symposium Tour (1 or 2 days) is planned to the Engadine, one of the most famous alpine valleys and the classical collecting ground of such workers as R. McLachlan, F. Ris and K. J. Morton. For family members not attending technical sessions, sightseeing trips and tours to the nearby alpine resorts will shorten the time.

As usual, an informal Symposium Banquet is also scheduled.

For the first time in the history of the odonatological symposia, a special dragonfly program aiming at the interested local population of the city and the canton will also be organized.

1981 is the year of the Tenth Anniversary of SIO. It goes without saying that a celebration of this important event will be included in the Symposium Program.

Although the odonate fauna of the Grisons is not very rich (about 50 species), it includes some interesting alpine and peat-bog taxa, and August is a good season to collect these.

The Organizing Committee is confident that the Sixth International Symposium of Odonatology will be a memorable meeting, to which all odonatologists and their families are cordially invited.

A Second Announcement will be sent, along with the Enrollment Forms and other details, in December 1980, to all odonatologists. Colleagues intending to present a paper are invited to prepare the text of the abstract(s) well in advance in order to enable the Organizing Committee to start the printing in March 1981.

Please send correspondence and inquiries to the Secretary of the Organizing Committee: Heinrich Schiess
Bündner Naturhistorisches Museum
Masanserstrasse 31
CH-7000 Chur
Switzerland

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MEETING OF EUROPEAN DRAGONFLY WORKERS

by

Rainer Rudolph
Westfälisches Landesmuseum
für Naturkunde
Himmelreichallee 50
D-4400 Münster (Westf.),
West Germany

On October 6, 1979, a meeting of dragonfly workers was organized by R. Rudolph at the Museum of Natural History in Münster, Westfalia, GFR. Though the time from a preliminary announcement to the proposed date of the meeting was very short, there was an enthusiastic response from everybody whom I contacted during my preparatory activities. Finally the meeting was attended by 72 participants from 7 European countries. Among them, the representatives of the SIO, Dr. Janny van Brink and Professor Bastiaan Kiauta, were especially welcomed by the director of the Münster museum in his introductory words to the audience. The director invited the dragonfly workers to perform another of the forthcoming meetings in the rooms of the new museum, which is under construction just now and which will offer even better facilities. The participants received a letter from the Secretary General of the SIO, K. J. Tennessen, expressing the society's recognition.

We were presented 14 lectures, some of which induced intense discussions. Here is an English translation of the titles of papers delivered at the meeting:

Lohmann: Postglacial disjunctions in European dragonflies;

Schmidt: Distribution patterns of some rare dragonfly species in the GFR;

Dickehuth: The dragonfly fauna of Bad Lippspringe;

Dreyer: Mechanisms of mate recognition in *Lestes viridis*;

Rudolph: The distribution of *Gomphus pulchellus* in Western Europe;

Stark: Dragonflies of the Neusiedler See;

Deval: Estimating the ecological value of water bodies by means of analyzing the dragonfly cenoses;

Benken: Dragonflies of the Hahlener Moor;

Haese: Distribution and ecology of *Ischnura pumilio* near Stolberg;

Heidemann: Races of *Onychogomphus forcipatus;*

Geijskes: Dragonflies of the border region between Holland and Germany;

Jurzitza: Survey of South American dragonflies;

Nielsen: Is the superfamily Coenagrioidea a monophyletic group? - a cladistic approach;

Anselin: Distribution and ecology of Odonata in some area near Brugge (West Flanders, Belgium).

Abstracts of papers will be published either in NOTULAE ODONATOLOGICAE or in a semiannual newsletter named "LIBELLULA," which the participants urged me to edit as a German complement to SELYSIA and NOTULAE.

A remarkable advantage achieved by my preparatory activities was that quite a number of hitherto unknown young dragonfly workers were discovered and invited, who, by means of the meeting, became acquainted with the SIO and its activities. Some of these people brought important faunistic data on rare dragonfly species from Northern Germany.

Three local newspapers reported on the meeting, and two broadcasts were made by the West German Broadcasting Corporation.

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REPORT ON THE FIRST MEETING OF BRITISH ODONATA RECORDERS FOR THE BRITISH ODONATA MAPPING SCHEME

by

David Chelmick
"Bredon"
High Beech Lane
HAYWARDS HEATH, Sussex
Great Britain

Seventy-two people travelling from as far afield as Inverness, Penzance and the Gower Peninsula, packed the Conference Room at Nature Conservancy Council Headquarters in London on April 7, 1979.

The morning and early afternoon sessions were devoted to discussions of the latest distribution maps which included all records received up to January 1979. These had been prepared by Bill and Bob Merritt. Without the work that they put in, these latest maps would never have been produced, and I take this opportunity of thanking them. The records received over the past two years (1977-78) amount to more than 40% of those received from 1961 to 1976 and, at last, the maps are beginning to convey the distribution of the insects, not just of the recorders.

The discussion ranged from the possible correlation of winter and summer isotherms with a distribution to habitat requirements, problems of identification and some of the topics mentioned above under "Progress in 1978." As an example, the discussion on two species is given below.

Ischnura elegans The various female colour variations of this species are not widely understood by field observers, and we were fortunate that Dr. M. J. Parr, an authority on the species, was able to give an explanation. The forms are age-related: *f. violacea* (violet thorax/blue spot on abdomen) either matures to *f. infuscans* (brownish thorax/no blue spot) or *f. "normal"* (greenish thorax/blue spot). *f. rufescens* (reddish thorax/blue spot) always matures into *f. infuscans-obsoleta* (brownish thorax - no stripes on top of thorax/no blue spot).

Ceriagrion tenellum Many years ago this species used to be found in the Fens where local acid conditions prevailed, i.e. Woodwalton and Wicken Fens. Dr. N. W. Moore of NCC explained his attempt at reintroduction by taking adults from a threatened site in Dorset and releasing them near specially-prepared fenland ponds. Eggs were laid and a new generation appeared two years later, but the colony died out in 1976, possibly as a result of the drought that year. The question of female forms was also discussed, and Dr. Parr was again able to give us guidance. From

his work, mainly in the New Forest, he had identified three forms, *f. "normal"* (abdomen 1/3 red, 2/3 black), *f. melanogastrum* (abdomen all black), and *f. erythrogastrum* (abdomen all red). In terms of abundance, the first two were equally common, whilst the latter was very rare. Dr. Parr stated that he would like to hear from anyone finding colonies where the 'red' female is found even in small numbers.

Following exhaustive discussions of the maps, the main part of the afternoon was then devoted to Graham Vick's excellent talk on searching out, collecting and identifying exuviae and larvae. Graham concentrated on the Anisoptera, as it is these that are usually most difficult to find in dull weather. The study of exuviae gives the Odonatist much more flexibility because there is something to do even in bad weather. Graham's secret is to see the vegetation from dragonfly level, often getting into the water to examine the emergent vegetation. Of course, finding these cases is just the first step, as identification is often very difficult, but with Graham's excellent slides and explanation the whole subject seems much clearer.

With concluding discussion on such diverse matters as the Channel Islands, Habitat cards, Vagrant Species etc. the meeting was wound up at around 5:30 p.m.

It is obvious from the response that the meeting will have to become an annual event. In fact, it has been suggested that a complete weekend is necessary, perhaps held somewhere out of London to allow more people to attend. I welcome your views.

Graham Vick and I are hoping to publish a simple booklet covering identification of all the adults and most of the larvae found in Britain. This will have black and white illustrations only, and will be aimed at encouraging more people to study dragonflies. This booklet has been promised for ages, but if we can include the larvae it will be worth waiting for.

PROVISIONAL ATLAS BRC are in the process of reprinting the Odonata atlas, and are taking this opportunity of adding the 1977 and 1978 records. Copies will be available for recorders at a reduced rate, details of which will be available from Monks Wood later in the summer.

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S.I.O MEMBERS TRAVEL

Research Trip to the Orient

by

Dr. and Mrs. B. Kiauta
State University of Utrecht
Padualaan 8, Utrecht 2506
The Netherlands

For our work on dragonfly cytogenetics, we were in Thailand, Nepal, the Philippines and Japan (April-June, 1979). In all, over 5000 specimens were collected and close to 1000 chromosome preparations made.

In Thailand we were invited by our member, Mr. M. Titayavan, to work in the Department of Entomology, Faculty of Agriculture, Chiang Mai University, Chiang Mai. Mr. Titayavan greatly facilitated our work also by providing the local collectors, who accompanied us in the field. Other collecting activities centered in the Bankok area.

In Nepal we undertook a research expedition in the general area of the little-explored Upper Arun Valley, eastern Nepal, but dragonflies were not the main objective of our work there.

In the Philippines we collected mainly in the vicinity of Manila, and at the Pagsanjan Falls (Laguna Prov.). Some other localities in the Luzon Island were also visited, but we were much hindered in our collecting activities by exceptionally bad weather.

We visited Japan upon an invitation by the Kansai Research Group of Odonatology (President: Mr. K. Inoue, Osaka, who is also the SIO Representative in Japan). Due to the marvelous assistance received from the Japanese colleagues we were able to visit a considerable number of localities and gathered substantial cytological material. An unforgettable experience was our participation at a *Mnais* survey trip in the Wakayama Prefecture, organized by the members of the KRGO on May 20, where we met also Mr. K. Tani, the Editor of Kansai odonatological journal, GRACILE (named after *Sympetrum gracile*, described from Osaka). In Osaka (with Mr. Inoue, Dr. S. Tsuda, Mr. Y. Miyatake and others) and in Tokyo (with Dr. S.

Asahina) the possibilities were discussed to organize one of the forthcoming International Symposia of Odonatology in the Osaka Museum of Natural History. A brief account of the *Mnais* trip and a report on our stay in Japan have appeared in GRACILE, 1979, No. 26, pp. 21-22 and 23-28 respectively. (All correspondence for the KANSAI RESEARCH GROUP OF ODONATOLOGY, incl. the subscription orders for GRACILE [annual subscription ¥1500] should be directed to Mr. K. Inoue, 5-9 Fuminosato 4-chome, Abeno-ku, Osaka, 545, Japan).

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Research Trip to South America

by

Prof. Dr. Gerhard Jurzitza
D-7500 Karlsruhe
Botanisches Institut 1
Kaiserstr. 12, West Germany

I was somewhat amused when I read in Selysia (Vol. 8, No. 2, p. 2) that I spent my vacation in Argentina. I should like to be able to do this!

It was a working trip of nearly half a year which took me first to Chile. I spent there some ten weeks collecting in the regions of Illapel, Santiago, Concepción and Valdivia. I also gave a talk on Odonata at the University of Concepción.

Then I spent about two months in the Argentine National Park Iguazú following an invitation of the administration of Argentine National Parks in Buenos Aires, collecting in the subtropical rain forest. I collected more than one hundred species. The last three weeks I lived in the home of Dr. Angelo B. M. Machado, thanks to the hospitality of himself and his wife. We had some exciting collecting trips in the vicinity of Belo Horizonte. The last three days I spent in the Museu Nacional in Rio de Janeiro together with Dr. Newton Dias dos Santos and his charming assistant, Dr. Janira Pedeira Martins. To all my friends I owe many thanks.

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Curtis and Lunell Williams Visit in Holland and West Germany

by

Curtis E. Williams
704 Foster Street
Marlin, Texas 76661

Early in July 1979 my wife, Lunell, and I visited for a week in England with our son and family. He is stationed there in the U.S. Navy. We took the train and ferry to Holland where we were met at the station by Dr. Kiauta and Dr. Janny van Brink. From there we went to the home of Bastiaan and Marianne. In Holland we were shown many interesting places, and we visited at least four collection sites-one near the Belgium border. In addition to viewing the beautiful country, I was able to photograph several species of Odonata in natural habitat. At times when Bastiaan and Marianne were busy, Janny showed us interesting places, such as the Clock Museum and some famous flower gardens. Also she invited all of us for a most delicious dinner.

During our visit in Holland, Dr. Rainer Rudolph came by auto to fetch us for a visit with him in Münster, West Germany. He too entertained us royally. We ate in typical German restaurants, visited the Natural History Museum, the zoo, and several historic castles. At some of the castles we photographed dragonflies near the moats which still held water as they have for many hundreds of years. At the end of our visit Rainer carried us back to Holland, and we stopped to see the Nature Preserve near the Dutch border. A large area of the preserve consists of a bog, and at one point while photographing, both of my feet began to sink. I lost my balance and very nearly let the camera rig fall into the water.

As all good things must end, finally we had to say "Goodby," and return to England to finish our visit there.

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A Visit to Carl Cook in Kentucky

by

Jean Belle
Onder de Beumkes 35,
6883 HC Velp,
The Netherlands

Before the odonate symposium in St. Thérèse I was in Kentucky from July 3 till July 31, 1979. Despite the many days of unsettled weather and the fact that on nearly all the remaining days the sky was overcast my stay in Kentucky became successful thanks to Mr. Carl Cook. He introduced me to the Odonata of Kentucky and was of great help to me in numerous ways. He gave me a list of the Kentuckian dragonflies, compiled by him and consisting of 138 species. Indicated were: (1) the species possible to collect in July (52 species); - (2) the species doubtful to collect in July (13 species); - (3) the old (doubtful) published records (5 species); - (4) the rare species (28 species); - (5) the very rare species, i. e. one or two collections (25 species); - (6) the sight record (not yet collected and verified) (1 species); -(7) the species collected but not yet published (7 species); - (8) the species probably not permanently established in Kentucky (13 species).

Carl Cook showed me a number of Odonate localities (rivers, creeks, natural and artificial ponds and lakes) some of which with ideal collecting conditions. It also enabled me to make movies of several interesting dragonflies. Several collecting trips were organized by him, among others, a boat trip along the Little Barren River. *Neurocordulia yamaskanensis* was collected in nearly darkness at the famous collecting place of the Little Barren River bordering Carl Cook's farm. Of interest was also the capture of *Macromia alleghaniensis*. *Anax longipes* and *Somatochlora linearis* (?) were seen but not collected.

Carl Cook's collection contains a considerable number (over 100,000 specimens!) of dragonflies from many parts of the world. With the exception of 4 species all North American gomphidae are represented. As a boy of 9 years Carl Cook was already busy with collecting insects. He became extremely interested in dragonflies when Dr. Harrison Garman of the University of Kentucky gave the boy one dollar to collect dragonflies for him. Carl Cook's odonate collection was built up since his 19th year (the eldest captures in his collection have the date July, 1940). In the vicinity of his residence Carl Cook is well known as "the bug man."

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JAPANESE COLLAPSIBLE COLLECTING NETS

During our visit to Japan (May, 1979) Dr. S. Asahina, President of the Society of Odonatology, Tokyo (Takadanobaba 4-4-24, Shinjuku-ku, Tokyo, 160), introduced us to the Messrs. Shiga Konchu Kukyusha Ltd. (1-7-9, Shibuya, Shibuya-ku, Tokyo, 150), well-known manufacturers and traders of entomological equipment.

To odonatologists will be of particular interest their light-weight collecting net, Model No. 7 (collapsible steel frame, diameter 42 cm, nylon), going along with the telescopic aluminum handle (Model No. 30: 4 segments, diameter 2-3 cm, length collapsed: 46 cm, length extended: 150 cm), fixable at any length stand between the maximum and minimum length. The original British design of the handle has been slightly modified for odonatological purposes by Dr. Asahina. The price per set amounts to ¥ 3800.

For the collecting conditions encountered in the tropical jungles, the glass-fibre handle No. 12 is particularly handy (collapsible in 6 segments, length collapsed: 58 cm, length extended: 270 cm), or Model No. 13 (length extended: 450 cm). These, however, cannot be fixed at intermediate lengths, but do go along with the above mentioned net No. 7. The catalogue price of the two handles, without net frame, amounts to ¥ 6500 and 7500 respectively.

A voluminous, illustrated sales catalogue of more than 700 entomological equipment items (in Japanese) is available free on application. Through mediation of Dr. Asahina, Messrs. Shiga appear to be willing to furnish very substantial discounts on the catalogue prices.

Last but not least, we would like to stress that, after our return from Japan, we had more dealings with this company. Our experiences are most pleasant and the company should be recommended for their high quality service and prompt execution of orders.

B. Kiauta
M.A.J.E. Kiauta

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S.I.O MEMBERS PROMOTED

May 18, 1979 Dr. Jon Waage wrote to Dr. Kiauta that his tenure review was successful and he is now associate professor with tenure at Brown University in Providence, Rhode Island. Dr. Kiauta wroteone of the supporting letters. Congratulations Jon.

Also we should note that on June 1, 1978 Dr. M. J. Parr was appointed to a Readership in the Department of Biology at the University of Salford in England. Drs. Kiauta and Westfall both wrote supporting letters for him. Congratulations Mike.

It was good to see both of these men at the Fifth Symposium in Quebec last summer.

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NEWS FROM DR. CHAO

Dr. Hsiu-fu Chao, who is now Head of the Department of Plant Protection at Fujian Agricultural College, Fujian, People's Republic of China, has written the following to Dr. Kiauta in a letter dated November 6, 1979: "I am glad to tell you that I joined our delegation on biological control to pay a return visit to the United States in August and September. There is an exchange program on the introduction of beneficial insects in biological control between our two countries. I met Dr. O. S. Flint when I visited the U.S. National Museum. Dr. Flint, who is now the curator of the neuropteroids of the museum, was my neighbor when I lived in the home of Dr. C. P. Alexander nearly 30 years ago.

Recently I have conducted a general survey of the dragonfly fauna in the rice fields in our province. I hope that I will be able to have time to work on my favorite dragonflies in the near future."

In a letter to Dr. Westfall under the same date Dr. Chao states further details of the trip. He writes, "We arrived at Washington, D.C. on August 17, and left Hawaii for China via Tokyo on September 17. We visited 9 states, but with regret that our itinerary schedule did not include a visit to Florida. Prof. James Tsai of the University of Florida escorted us in the first half of our journey."

In case that anyone wonders about the spelling Fujian, it is the new transliteration which replaces the former spelling Fukien. In 1952 Dr. Chao presented an important Ph.D. thesis at the University of Massachusetts on the Gomphidae of China. Later the original in English was translated into Chinese and published. In case you care to refer to this and have trouble with the Chinese, we have a Xerox copy of the original thesis in English at the Department of Zoology in Gainesville, Florida which can be seen here if you can't go to Amherst.

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DR. RAINER RUDOLPH IN THE NEWS

A clipping has been received from the Westfälische Nachrichten, No. 174, Münster, July 30, 1979. It is entitled, "Internationale Tagung der Libellenforscher in Münster, Flugtechnik der ‚Mosaikjungfer', Nützliche Insekten/61 Arten in Westfalen/Dr. R. Rudolph." The article, reported by Wolfgang Schemann, tells of the meeting described on page 6 which was arranged by Dr. Rudolph. It includes a photograph of him, and another which he took of a mating pair of Zygoptera. The author tells of Dr. Rudolph's position at the Westfälischen Landesmuseum and how he became interested in the Odonata. He describes at length his interest in and research related to the dynamics of flight of the Odonata, their ecology, and numbers in Westfalen. Congratulation Rainer.

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ODONATA MAPPING SCHEME NEWSLETTER

Newsletter No. 3 of the Odonata Mapping Scheme of Great Britain is edited by David G. Chelmick, Scheme Organiser. It outlines the progress in 1978, which is truly impressive. The report of the Recorders' Meeting No. 1 is given (this we have reproduced on page 7). Of special interest to some will be the note, "Graham Vick and I (D. G. Chelmick) are hoping to publish a simple booklet covering identification of all the adults and most of the larvae found in Britain. This will have black and white illustrations only, and will be aimed at encouraging more people to study dragonflies. This booklet has been promised for ages, but if we can include the larvae it will be worth waiting for." A further statement is made, "A number of people have suggested that there is now enough interest and enthusiasm to form our own British Society."

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DR. MACHADO VISITS DR. BELLE IN VELP

In SELYSIA, Vol. 8, #2, p. 2 it was stated that Dr. Angelo Machado planned to visit Dr. Kiauta in Holland after a trip to the Zeiss factory in Oberkochen. Because the Kiautas at that time were on their research trip to the Orient, Dr. Machado visited Dr. Jean Belle instead. Jean informs us that Dr. Machado is also very much interested in the psychology of the child (4 to 6 years old) in connection with the forest. Therefore not only did they visit odonate localities but also a number of forests of diverse type.

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CORBET'S ARTICLE ON BIOLOGY OF ODONATA

Dr. Philip S. Corbet reports that his article on the biology of Odonata has been accepted by Annual Review of Entomology and is due to appear in about March 1980. Until September 1, 1980 he is at the Department of Applied Biology, Pembroke Street, University of Cambridge, Cambridge CB2 3DX, England, after which he will return to his permanent address in New Zealand.

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DATA ON STYLOGOMPHUS ALBISTYLUS WANTED

Mr. Blust writes: "I am presently working on the biology of *Stylogomphus albistylus*, whose development appears to be closely related to temperature. In an effort to help clarify trends seen in southeast Pennsylvania, I would greatly appreciate collection records from all states of nymphs and adults, including emergence dates. If possible, data on the collection site, such as stream order or habitat type would also be helpful. Please send to:

Michael H. Blust
Stroud Water Research Center
R.D. 1 Box 512
Avondale, Pa. 19311"

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LOAN OF AFRICAN GOMPHIDAE DESIRED

Dr. Roger Cammaerts writes that he is now able, after completing his Ph.D. thesis in Coleoptera, to resume his taxonomic revision of the African Gomphidae. If you know of any unstudied material, especially in American institutions, he would like to know about it. He believes that even the "well known" species need to be restudied and that a revision is the best opportunity to do this. If you have African gomphid material, even already determined specimens, and would be willing to loan them, please contact him. He may be addressed as follows:

Dr. R. J. P. Cammaerts
Université Libre de Bruxelles,
Lab. de Zoologie Générale
50 Avenue F. D. Roosevelt
B-1050 Brussels
Belgium

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ROSSER GARRISON IN PUERTO RICO

Rosser Garrison has his Ph.D. in hand but no job yet. He wrote to Sid Dunkle that while his wife is gainfully employed in Puerto Rico, he finds dragonfly collecting there excellent. His address is Calle Iris UU-18B, Borinquen Gardens, Rio Piedras, P.R., Phone: 809-790-5361.

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SECOND INSTAR ANISOPTERA NEEDED

I am working on anisopteran eggs and second instar larvae (first instar is the pronymph) for the Ph.D. I especially would like to make up a key to the second instar Libellulidae of the southern coastal plain. For such a key to work well I probably also will have to include the Macromiidae and Corduliidae. I lack second instar larvae of *Didymops, Epicordulia, Neurocordulia, Idiataphe, Macrodiplax, Tauriphila, Macromia georgina, Somatochlora georgiana, Tetragoneuria semiaquea, T. spinosa, T. costalis, Celithemis verna, Erythrodiplax umbrata, Erythemis plebeja, Libellula pulchella, L. semifasciata, Sympetrum ambiguum, Tramea abdominalis, T. binotata,* and *T. onusta.* My priority for specimens is: 1. Live eggs, eggs plus second instar larvae or mature females, 2. Second instar larvae plus eggs in alcohol, 3. Eggs in alcohol, 4. Eggs or ovaries dissected from a mature female in alcohol.

Eggs from exophytic species can often be obtained by dipping the female's abdomen in a container of water. Sometimes gentle squeezing of the abdomen helps. I find aged tap water much better than pond water because the eggs are less likely to mold. Endophytic species often lay eggs in wet paper toweling in the bottom of a smooth walled container covered with netting. Recalcitrant species such as all the Macromiidae may lay if pinned by the wings over a dish of water into which the abdomen dips as they struggle. My only batch of macromiid eggs was thus obtained after a female, caught while ovipositing, struggled for 3 days! A final point is that often several females must be tried to get eggs.-- Sid Dunkle, 410½ N.W. 24th Street, Gainesville, Florida 32601.

CHANGES OF ADDRESS

Dr. George H. Bick
1928 S.W. 48th Avenue
Gainesville, Florida 32608 USA

Mr. Robert A. Cannings
Curator of Entomology
British Columbia Provincial Museum
Victoria, B.C., Canada
V8V 1X4

DONNELLY ROAMS AGAIN

Dr. Thomas W. Donnelly (better known to some of us as Nick) wrote December 17, "I leave in two weeks for a six months sabbatical. I will go to Edinburgh (Grant Institute of Geology, University of Edinburgh, Scotland) until May. Then, if all goes well, we're off to southern India for a month's visit, then on to Thailand, and then Fiji for more *Nesobasis*. We may make a few stops, unless we become bankrupt, which is not unlikely. I can be reached in Edinburgh until May. I plan a visit to Holland to see Lieftinck, and probably Kiauta. I have had lots of correspondence with Lieftinck about various SE Asia problems. This will be my chance to meet him at last." Nick goes on to say he hopes to have several papers finished in the next year on many new species from Central and South America.

ATTENTION ODONATOLOGISTS GOING TO THE INTERNATIONAL CONGRESS OF ENTOMOLOGY

Dr. Syoziro Asahina recently wrote to Dr. Kiauta that Prof. N. Moore had suggested the possibility of having a meeting on the conservation problem of Odonata at Kyoto in 1980, before or during, or after the Congress. Dr. Asahina was thinking, with the cooperation of Mr. Inoue and others, of organizing at least an informal meeting for odonatologists if he can get a number of specialists of the world at that time. If you are planning to attend the Congress will you please get in touch with Dr. Asahina at once. He may be addressed at the National Institute of Health, 10-35 Kamiosaki 2-chome, Shinagawa-ku, Tokyo, Japan.

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DR. BOYES DIES

Dr. J. W. Boyes of 1102 Guildwood Blvd., London, Ontario died suddenly January 12, apparently from a heart attack. Some of us met him in Canada where he chaired the business meeting of the Fifth Symposium in August.

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