Selysia

A NEWSLETTER OF ODONATOLOGY

Vol. 12, No. 2 Gainesville, Florida September 1, 1983

MONTGOMERY RESEARCH MATERIALS IN GAINESVILLE

by

Minter J. Westfall, Jr.

As I wrote in SELYSIA (Vol. 12, No. 1, p. 1), Prof. Dr. B. Elwood Montgomery died January 19, 1983 in Lafayette, Indiana. He had expressed to me on the telephone and to his wife, Esther, before he died, that he wanted all of his dragonfly material not already donated to other institutions, including correspondence, slides, specimens, notes, books, reprints, etc., to be deposited here in Gainesville.

Sidney Dunkle and I made a trip to Lafayette, stopping on the way for a nice visit with Carl Cook at Center, Kentucky and collecting a few larvae along the way. We spent a night and parts of two days at Monty's home with Esther, and packed up all we could find. We rented a "U-Haul" trailer to bring it all to Gainesville. Since then we have been sorting through box after box. We have found a notebook of the material for his proposed Catalog of the Odonata of the New World. Unfortunately, it is far from ready for publication.

There were in the basement of Monty's home two large drums with many boxes of borrowed specimens, especially of the Polythoridae and Calopterygidae. Some pinned material and papered specimens were badly covered with mold. We are slowly trying to determine the owners of all the specimens and we will return them if at all possible. Among the boxes was one with Navas types of Argia, and Mrs. Gloyd is taking care of returning this material.

All of the notes on types studied in various museums, correspondence, bibliography indices, catalogue manuscript, etc., will be deposited in the S.I.O. Archives, and will be available for study by visitors to the planned International Center for Odonata Research. We also have here similar materials of James G. Needham and Philip P. Calvert.

Among the items brought to Gainesville are duplicates of many of Monty's own publications. We will be happy to send copies to anyone requesting them. From the following list, send us only the paper numbers which you would like to have. The supply of some papers is limited, however, so an early request is advised:

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. 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 semi-annually, March 1 and September 1.

Date	Paper No.	Title
1935	11	Records of Indiana Dragonflies, VIII. Pr. Ind. Acad. Sci. 44:231-235.
1937	13	Records of Indiana Dragonflies, IX. Pr. Ind. Acad. Sci. 46:203-210.
1939	14	Records of Indiana Dragonflies, X. Pr. Ind. Acad. Sci. 49:201.
1940	16	A revision of the genus Diastatops (Libellulidae, Odonata), and a study of the leg characters of related genera. Lloydia 3:213-280.
1943	19	Williamsonia fletcheri Williamson (Odonata, Cordulidae) from New England. Ent. News 54:1-4
1943	21	Records of Ohio dragonflies. O. Jr. Sci. 43:267-270.
1945	23	A century of Odonatology in Indiana. Pr. Ind. Acad. Sci. 54:161-168.
1945	24	The distribution and relative seasonal abundance of the Indiana species of Cordulidae and Libellulidae (Odonata). Pr. Ind. Acad. Sci. 54:217-224.
1947	25	The distribution and relative seasonal abundance of five families of dragonflies (Odonata, Calopterygidae, Petaluridae, Cordulegasteridae, Gomphidae and Aeshnidae). Pr. Ind. Acad. Sci. 56:163-169.
1951	29	Notes and records of Indiana Odonata, 1941-1950. Pr. Ind. Acad. Sci. 60:205-210.
1953	31	Notes and records of Indiana Odonata, 1951-1952. Pr. Ind. Acad. Sci. 62:200-202.
1954	32	Nomenclatural confusion in the Odonata: the Agrion-Calopteryx problems. Ann. Ent. Soc. Am. 47:471-483.
1955	33	Notes and records of Indiana Odonata, 1953-1954. Pr. Ind. Acad. Sci. 64:131-135.
1959	35	A new tray for specimens of Odonata. Pr. N. Centr. Br., Ent. Soc. Am. 14:15-16.
1959	36	Geographical distribution of the New World calopterygine dragonflies, with notes on their evolution-

Date	Paper No.	Title
		ary position. Pr. XV intern. Cong. Zool., (28):1001-1003.
1961	38	Distribution patterns of New World Odonata. Verh. XI intern. Kong. Ent. 1:562-564.
1962	39	Rates of development of the later instars of Neotetrum pulchellum (Drury) (Odonata, Libellulidae). Pr. N. Centr. Br., Ent. Soc. Am. 17:21-23 (with Jerry M. Macklin.)
1962	40	The classification and nomenclature of calopterygine dragonflies (Odonata, Calopterygoidea). Verh. XI intern. Kong. Ent. 3:281-283.
1962	41	Studies of the eggs of Odonata. Pr. Ind. Acad. Sci. 72:150-153 (with Connie Sue Zehring and Archie Alexander).
1962	42	Further notes on rates of development of the naiads of Neotetrum pulchellum (Drury) (Odonata, Libellulidae). Pr. Ind. Acad. Sci. 72:158-160 (with Jerry Macklin).
1963	43	Colloquium on the Odonata, Introduction from Chairman and Editor, Pr. N. Centr. Br., Ent. Soc. Am. 18:101-102.
	44	Scheme of the New World Catalogue of Odonata (pp. 102-103).
	45	Effects of photoperiod and temperature on rate of development in naiads of Ischnura verticalis (Say) (pp. 140-141).
1966	46	Photoperiod studies on the Odonata (abstract). Pr. N. Centr. Br., Ent. Soc. Am. 21:30-31 (with Jerry Macklin).
1967	48	Synopsis of the Polythoridae. Acta biol. venez. 5(9):123-158.
1967	49	The family- and genus-group names of the Odonata, I. Calopterygoidea. Festschrift for 75th birthday of Dr. Erich Schmidt of Bonn, Germany, Dts. ent. Z. 14:327-337.
1967	50	(Abstract) Notes and records of Indiana Odonata, 1955-1966. Pr. Ind. Acad. Sci. 76:259 (with Vinnedge Lawrence).
1967	51	Geographical distribution of Odonata in the North Central region. Pr. N. Centr. Br., Ent. Soc. Am. 22:121-129.
1968	52	The distribution of Western Odonata. Pr. N. Centr. Br., Ent. Soc. Am. 23:126-136.
1970	53	Types of New World Odonata in European museums. Yb. Am. Phil. Soc. Am. 1969:320-323.
1971	54	Records and observations of Indiana Odonata. Pr. Ind. Acad. Sci. 80:253-263.
1973	57	Why snake-feeder? Why dragonfly? Some random observations on etymological entomology. Pr. Ind. Acad. Sci., 82:235-241.

In addition to Dr. Montgomery's works on Odonata, there are available duplicates of his papers on miscellaneous subjects. These are listed, with the paper numbers prefixed by an "A". If these are of interest to any of our readers, we will be glad to send them, also.

Date	No.	Title
1935	A5	Notes on the biology and the developmental states of Glypta rufiscutellaris Cress., (Ichneumonidae, Hymenoptera), a larval parasite of the Oriental fruit moth. Jr. Econ. Ent. 28:171-176.
1957	A14	The anthophilous insects of Indiana. 1. A preliminary annotated list of the Apoidea. Pr. Ind. Acad. Sci. 66:125-140.
1957	A15	A separator for sampling the soil fauna. Pr. Ind. Acad. Sci. 66:152-156 (with Jerry Macklin).
1958	A16	Preliminary studies of the composition of some Indiana nectars. Pr. Ind. Acad. Sci. 68:159-163.
1958	A17	The anthophilous insects of Indiana. 2. A preliminary list of the Diptera collected from blossoms. Pr. Ind. Acad. Sci. 67:160-170.
1959	A18	Arthropods and ancient man. Bull. Ent. Soc. Am. 5:68-70.
1962	A20	A checklist of "entomological" stamps. Pr. N. Centr. Br., Ent. Soc. Am. 17:160-169 (with Frank W. Fisk, Kenneth P. Pruess, Garland T. Riegel and Roy W. Rings). (Also with slight additions: 1964 "Topical Times", May/June, 1964, issue pp. 18-20, 29-31, 44-48).
1966	A22	Factors affecting the production of nectar. Pr. 20th Intern. Beekeeping Jubilee Cong.:304-306.
1974	A25	Linnean elements in the Indiana fauna and flora. Pr. Ind. Acad. Sci. 83:319-329.

Some of Dr. Montgomery's students published results of their work with him, and duplicates of these are listed below:

1960 Macklin, Jerry M. Techniques for rearing Odonata. Pr. N. Centr. Br., Ent. Soc. Am. XV:67-71.

1967 Macklin, Jerry M. and Carl Cook New records of Kentucky Odonata Pr. N. Centr. Br., Ent. Soc. Am. 22:120-121.

1967 Tai, Ling Chu Chen. Biosystematic study of Sympetrum (Odonata: Libellulidae). Dissertation abstracts 28 (2), Purdue Univ., 2 pp. (Dissertation, 256 pp).

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FIRST MEETING OF KANTO ODONATOLOGISTS

Tokyo was the site of the First Meeting of Kanto Odonatologists held February 27, 1983 upon the invitation of four colleagues: Y. Arai, H. Ishikawa, K. Matsuki, and K. Shiraishi. Participants included 34 odonatologists living mostly in the Kanto District (Tokyo and the neighbouring prefectures).

The program was chaired by K. Miyakawa and included papers on Pantala flavescens by I. Wakana; Somatochlora clavata and S. viridiaenea by T. Someya; reproductive behaviour of three Calopteryx species by K. Miyakawa; and ovipositing behaviour of some Sympetrum species by H. Ishikawa. S. Asahina presented a short lecture on the problems of Sympetrum frequens, and S. Eda offered a new faunistical list of all Japanese odonata.

Future informal meetings will be held.

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FIRST INDIAN SYMPOSIUM OF ODONATOLOGY

April, 1983 is the date of the first announcement of the forthcoming Indian Symposium of Odonatology. The Symposium is being sponsored by the School of Biological Sciences, Madurai Kamaraj Univeristy, Madurai, India. The Department of Animal Physiology is in charge of arrangements.

The meetings will be held January 23 to 25, 1984. The National Office in India of S.I.O. was formed August 1981 during the Sixth International Symposium at Chur, Switzerland, and there are over 100 Indian members in the society. With the encouragement of S.I.O., the First Indian Symposium of Odonatology was planned and organized.

Information about registration (and the registration fee includes symposium materials, free boarding, lodging and local transportation during the symposium period) and other pertinent information may be obtained by writing to the Organising Secretary:

Dr. S. Mathavan, Organising Secret.
First Indian Symposium of Odonatology
School of Biological Sciences
Madurai Kamaraj University
MADURAI - 625 021, India

(Phone: 33171 extn. 269
Biology)

Registration fee and abstracts should be received in August. Request for travel assistance (for those submitting full paper) should be received before October 15, 1983.

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BRITISH DRAGONFLY SOCIETY

by
Peter Mill
U.K. National Ofice, S.I.O.

I am very pleased to announce the formation of the "British Dragonfly Society". The initial stages in the organization of the Society have been carried out by Bob Merritt, the Odonata Recording Scheme organizer for the U.K., and he would be pleased to answer any queries. His address is:

8 Somersby Avenue
Walton
Chesterfield
Derbyshire S42 7LY
England

The Society is affiliated to S.I.O. It will publish two newsletters per year and a meeting is being organized for early 1984, probably at the British Museum. Field meetings are being organized this year in Shropshire and in Sussex.

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BRITISH DRAGONFLY SOCIETY NEWSLETTER

The editors of SELYSIA have just received a copy of the British Dragonfly Society's NEWSLETTER No. 1 April, 1983, edited by R. Merritt, which includes information on dates of field meetings, survey reports, notes made of observations in the field (with references to particular species), and a scarce species report. It is very well done, with an attractive cover featuring a reproduction of a drawing of a perched dragonfly. Several other figures are included in the text of 18 pages.

Membership in the Society is open to anyone with an interest in the study of dragonflies, and who pays the annual subscription of 3 pounds to the British Dragonfly Society, in care of the Treasurer:

Roderick Dunn
The Northwood Social Club
Darley Dale
Matlock
Derbyshire DE4 2HQ

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COUNCIL OF EUROPE
(CONSEIL DE L'EUROPE)

A meeting of the Committee of Experts for the Conservation of Wildlife and Natural Habitats in Strasbourg, October 19 and 20, 1982 produced the Council of Europe Memorandum SN-VS (82) 22. This Memorandum, part of which is reproduced here, is of considerable interest to Odonatologists:

"protection of dragonflies and their biotopes"

"Dragonflies are good indicators of the dangers which threaten aquatic environments because of pollution or drainage. The aim of the project will be to identify those still or running waters which should be protected if the protection of dragonflies and their biotopes is to be assured.

"The Committee approved this project, which will have the following structure:

"A coordinator (such as Dr. Askew [United Kingdom] or Dr. Schmidt [Federal Republic of Germany], who are specialists with most of the relevant data available) would draft a list of the rarest species (not more than 50 taxa). By consultation with national contributors in each country, a list of key sites for the rare species, or of those which have an outstandingly rich fauna, would be identified, as would those types of dragonfly habitat most under threat.

"Background

There is evidence that sites with important dragonfly faunas have not been recognized as of conservation importance in the past for other elements of their fauna or flora. It is also evident that in some European countries 10 to 25% of the dragonfly fauna has become extinct during the present century and that many dragonflies are good indicators of levels of water pollution, disappearing as pollution levels rise. Thus this project would make a distinctive, original, and valuable contribution to the conservation of invertebrates in Europe. By selecting the dragonflies (a group for which there is already sufficient information on the distribution and status of the species) it would be possible to achieve a significant advance in the selection of European "wetland" sites for conservation without resorting to an expensive, long-term field research programme.

"Timetable

The list of rare species would be prepared by the end of 1983, and the list of sites for protection would be prepared by 1984/5. Distribution maps (on the European URM 50 km grid) for the rare species would also be prepared by 1986".

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REPRINT AVAILABLE OF PHILIP CORBET'S "A BIOLOGY OF DRAGONFLIES"

This book, published in 1962 and out of print for about 10 years, is to be reprinted in 1983. The reprint will be a facsimile of the original edition. Copies will be available, at 15 pounds each (this price includes postage and packing), from mid-May 1983. Send payment with order to:

E.W. Classey, Ltd.
P.O. Box 93
Faringdon, Oxon. SN7 7DR
England

The book has been reprinted now for two reasons: first, to meet the needs of odonatologists who have been unable to obtain a copy since the book went out of print; and second, to provide a complement to Philip Corbet's forthcoming book, THE ECOLOGY OF ODONATA, due to be published in 1984 by Weidenfeld and Nicolson of London.

The forthcoming book will concentrate on research undertaken since about 1960, and the author will hope to give priority in the bibliography to work published during that period. There will be severe pressure on the space needed for the bibliography. To avoid repeating references cited in the first book, the author plans to use it as a secondary source for publications up to 1960. In this way more space can be made available in the forthcoming book for recent references; and yet at the same time important findings of earlier odonatologists can still be attributed precisely to source where necessary. Thus it is intended that the two books will, to this extent, be complementary.

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DE LIBELLEN VAN NEDERLAND

The Editor of the publishing firm, Koninklijke Nederlandse Natuurhistorische Vereniging, has kindly sent to the Editors of SELYSIA a copy of the book by D.C. Geijskes and J. van Tol entitled DE LIBELLEN VAN NEDERLAND (The Dragonflies of the Netherlands). The green, cloth-bound cover with gold lettering (which also outlines the figures of 2 damselflies in oviposition) is an attractive introduction to this review of the Netherlands Odonata fauna, based on the evidence in collections up to and including 1980.

Chapters 1 through 5 present studies in population distribution, structural characters, behavioural and conservational aspects. Chapters 6 and 7 reproduce a checklist of the 69 species recorded from the Netherlands. Keys are provided for both adults and larvae. The text is illustrated with 539 text-figures and the bibliographic list contains some 400 references. The captions are in Dutch, followed by the English translation. There are eight color plates.

This excellent work may be ordered from the publishers at the address given below, and the cost is 50 Dutch Guilders, exclusive of postage and packing:

Koninklijke Nederlandse Natuurhistorische Vereniging
Burg. Hoogenboomlaan 24
1718 BJ Hoogwoud (N.H.)
The Netherlands

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NEW JERSEY ODONATA

Dr. Michael May of Rutgers University is currently compiling records of New Jersey Odonata and will publish a revised state list as a result of this effort. Dr. May would appreciate any contribution of information regarding all areas (especially the northern region) and all species, no matter how common. Anyone who can furnish data please contact Dr. Michael L. May, Department of Entomology and Economic Zoology, Rutgers University, New Brunswick, New Jersey 08903.

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

(Starred * names are those of new members).

ARGENTINA

Mola, Lic. Liliana Maria
Catamarca 490-4°E
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193 A Markham Street
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Arkadiankatu 7
SF-00100 Helsinki 10

GERMAN DEMOCRATIC REPUBLIC

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Frankfurter Strasse 23 b
DDR-1230 Beeskow
Deutsche Demokratische Rep.

GERMAN FEDERAL REPUBLIC

*Fischer, Dr. Heinz
Vogelmauer 33
D-8900 Augsburg
Bundesrep. Deutschland

Kikillus, Herrn Rudiger
Puller Weg 33
D-4005 Meerbusch 2
Bundesrep. Deutschland

Lohmann, Herrn Heinrich
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2511 VB Den Haag

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Van Ginnekenlaan 58
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JAPAN

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Department of Agriculture
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*Valley, Mr. Steven A.
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Albany, Oregon 97321

White, Dr. Tina Renee
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U.S.S.R.

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Ul. Kirova 76, Kv. 7
USSR-630102 Novosibirsk

YUGOSLAVIA

*Adamovic, Dr. Z.R.
Institute for Medical Research
P.O. Box 721
YU-11001 Beograd

NOTE: Dr. Elliot Pinhey will leave his home in Britain for a six-month trip to South Africa. His address there is not yet established. As there will be no mail delivered to his home in England, any correspondence to him should be addressed as follows:

The Editors
ODONATOLOGICA
State University of Utrecht
Department of Animal Cytogenetics
and Cytotaxonomy
Padualaan 8
Utrecht 2506, The Netherlands

with the words "For Dr. Elliot Pinhey" written or printed on the envelope. He plans to return to Britain in mid-May 1984.

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ABSTRACTS OF DOCTORAL DISSERTATIONS BY S.I.O. MEMBERS

A CONTRIBUTION TO THE KNOWLEDGE OF THE ODONATA

by

Frank Louis Carle
Dept. of Entomology
Va. Polytechnic Inst. and
State University
Blacksburg, Virginia U.S.A. 1982
(xv + 1095 pp.)

Theories concerning the origin of insect wings and flight are reviewed and a new scenario proposed for their origin. It is suggested that early Paleozoic landscapes were characterized by extensive seepage areas which provided relatively stable environmental conditions for early apterygotes. Increased dependence on the aquatic environment is envisioned as directing the development of pleural respiratory folds which could be ventilated by subcoxo-coxal muscles; pleural folds are not considered to be derived from pre-existing insect structures such as paranota or coxal styli. It is also suggested that wing development may have been influenced by a thermoregulatory or swimming function of wings, or both. Flight is considered to have evolved in the reproductive adult stage in response to a continuous downstream displacement during the juvenile stage; flight eventually augmenting other forms of locomotion during the migration to upstream oviposition and nursery areas. The polyphyletic origin of wings is considered improbable, although the Protodonata and Odonata are considered to be the sister group of the remaining Pterygota.

Development of the various homology and nomenclatural systems applied to the longitudinal wing veins of the Odonata are reviewed with special reference to apparent ambiguities. The pretracheation theory

and various wing-vein systems based on theories such as that of Comstock and Needham are considered invalid as demonstrated by several authors. The process of vein loss is evaluated in the Palaeoptera and a new system of wing-vein homology proposed for the Odonata. The odonate wing mechanism is analyzed and an important but heretofore overlooked component, the discal brace, is characterized and considered a suitable key character for recent Odonata. The absence of the discal brace and considerable basal fusion of CuP and the anal vein in Kennedya and its allies shed considerable doubt on the wing-vein and phylogenetic schemes proposed by Tillyard and Fraser. With Kennedya removed from the direct ancestry of recent Odonata the intercalated nature of Tillyard's IR_3 is without support; in the new system IR_3 is considered to be MA. New fossil evidence could support either system, although the new system is more consistent with evidence from phylogeny as determined from other morphological characteristics and the process of vein fusion and reduction throughout the Palaeoptera.

Odonate copulation is almost unique among the Pterygota in that the primary genitalia do not meet during copulation. Previous explanations concerning the evolution of the odonate copulatory process have been influenced by phylogenetic schemes which consider the narrow-winged Zygoptera the most generalized Odonata. However, fossil evidence and the comparative morphology of recent Odonata indicate that the broad-winged Zygoptera represent the most generalized Odonata among recent forms, supporting general evolutionary trends toward male domination of the copulatory process, and toward completion of the copulatory process in flight. One group of scenarios explaining the origin of the odonate copulatory process assumes the original direct transfer of sperm between primary genitalia. These scenarios require that oviposition originally be in tandem, and that sperm transfer to and from the male anterior abdominal sterna originally be accidental. Scenarios assuming the original indirect transfer of spermatophores as in the Apterygota avoid such problems and lead to an original copulatory sequence which, when slightly modified, is essentially that of existing Odonata. The proposed scenario differs from those previously put forward in that extraordinary postures are not envisioned, the process is originally completed at rest, and development of the odonate tandem hold occurs just prior to sperm transfer. The tandem hold is considered to have developed to prevent female predation of the male while the male guided her to his spermatophores.

Literature dealing with the Anisoptera of Virginia is surveyed and 123 anisopteran species found to be validly reported from the state. Collecting and preservation techniques are reviewed and the advantages of the "air pressure" collecting technique, and freeze drying and acetone injection preservation techniques discussed. Anisopteran morphology is covered with emphasis on taxonomically important characteristics. The phylogeny of the Anisoptera is treated and the suborder arranged into four extant superfamilies; Gomphoidea, Petaluroidea, Aeshnoidea, and Libelluloidea (including Cordulegastridae). The Gomphoidea and Petaluroidea are considered to exhibit relic Pangaean distributions with more ancient lineages concentrated in the northern hemisphere. The Aeshnoidea and Libelluloidea have originated in Gondwana and Laurasia, respectively. Virginia's anisopteran fauna is primarily composed of Mesozoic and Cenozoic representatives of a Hol-

arctic fauna, with the complement represented by Mesozoic North American endemics and Cenozoic derivatives of the Neotropical fauna. A correlation between the distribution limits of North American Anisoptera and the length of the frost-free period is observed and the preferred growing seasons of Virginia Anisoptera listed. Identification keys to 174 adult anisopterous species occurring in Virginia and surrounding states are also provided, along with a brief description of each family, genus, and species. Two subgenera and seven species and subspecies are described as new. Information on the biology, behavior, seasonal and geographical distribution of each species is also reported. Photographs of diagnostic characters and North American distribution maps are also provided for each species.

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ION BALANCE AND EXCRETION IN LIBELLULA QUADRIMACULATA (ODONATA : LIBELLULIDAE)

by

S. P. Nicholls
Dept. of Zoology
University of Bristol
Woodland Road
Bristol, UK 1982
(217 pp., 36 pls.)

Ionic regulation of the larvae of L. quadrimaculata was investigated by adapting animals to media of differing composition. Although ionic regulation in this species is well developed, a large part of their ability to survive in diverse conditions resides in their tolerance to large changes in haemolymph ion concentrations. In saline media, haemolymph concentrations of sodium and chloride are kept below those of the external medium, whilst haemolymph osmotic pressure remains close to or above that of the external medium. This is achieved by active regulation of the non-ionic fraction of the haemolymph, and serves to reduce the need to drink the external medium.

The functioning of the Malpighian tubules in vitro from normal, salt-water and de-ionized water adapted animals was also investigated. The results are discussed both in terms of the phylogenetic position of the Odonata, and of the physiological requirements of an aquatic insect.

The morphology and fine structure of the Malpighian tubules and hindgut are described, and discussed in relation to possible mechanisms of solute/solvent coupling.

The structure of the gut and Malpighian tubules and the physiology of the Malpighian tubules are described during the metamorphosis of the aquatic larva to the terrestrial adult. The results are discussed in relation to this gross change in physiological requirements.

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COMMUNITY DYNAMICS IN ODONATES: INTERACTIONS WITHIN AND BETWEEN LIFE STAGES

by

Patricia Marie Dillon
The University of Michigan
Ann Arbor, Michigan U.S.A. 1981

(This is an abstract appearing in Dissertations Abstracts International, Vol. 42, No. 09 March 1982; the dissertation is indicated as 177 pp. and can be ordered as Order No. DA8204637).

Factors influencing the coexistence of ecologically similar dragonfly species were investigated including: (1) timing of emergence and adult flight season, (2) territorial interactions among males, and (3) potential interactions among naiads.

Because females did not oviposit in their mates' territories, territory quality in terms of oviposition

site does not appear to be important in the libellulid dragonflies studied: Leucorrhinia intacta Say and Sympetrum internum Montgomery. Male aggressive behavior maximizes access to females by maintaining a clear flight path and minimizing interference from conspecific males.

Leucorrhinia intacta naiads showed a significant preference for large (10 mm) rather than small (5 mm) chironomid larvae. Preference tests utilizing damselfly naiads, tadpoles, amphipods, and chironomid larvae as prey indicated that handling time may be most important in determining prey choice. Mechanical and/or chemical defenses are effective deterrents to naiad predation as shown by naiad avoidance of chironomid larvae with gelatinous cases.

Movement patterns describe one facet of the impact of naiads on the littoral community. Marked libellulid naiads (sit-and-wait predators) moved an average of 50 cm/da whereas aeshnid naiads (active stalkers) moved an average of 65 cm/da.

Patterns of emergence appear tied to fluctuations in local conditions. Three emergence groups of odonates can be distinguished: spring dragonfly, midsummer damselfly, and late summer dragonfly species. These groups may arise as the result of competition between naiads of dragonflies and damselflies for food such that overlap of competing size classes is minimized.

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CONTACTBLAD
No. 5, May 1983

The editors have received from B. Kiauta a copy of the newsletter CONTACTBLAD produced by the dragonfly workers in the Netherlands affiliated with S.I.O. Dr. Kiauta has kindly enumerated the contents of the publication in English:

- Editorial (p. 1)
- Notes from the European Invertebrate Survey, The Netherlands Section (p. 2)
- Notes from S.I.O. (p. 3)
- Notes from the dragonfly group of the Netherlands Youth Federations of Nature Friends (A.C.J.N. and N.J.N.) (pp.4-6)
- Odonatological meetings (Report on the Eighth Colloquium of Dutch Dragonfly Workers, Tilburg, March 19, 1983) (pp.7-9)
- Notes on recent dragonfly research in the Netherlands (p. 10)
- Appeals for assistance in various research projects (pp. 11-14)
- Local field observations and records (pp. 15-16)
- Recent Dutch odonatological publications, and those important for the fauna of the Netherlands (pp. 17-20)
- New members and address changes (p. 20)

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EIGHTH INTERNATIONAL SYMPOSIUM
OF ODONATOLOGY
TO BE HELD IN PARIS, 1985
by
B. Kiauta, Chairman
Standing Committee for the
Organization of Internationl
Symposia of Odonatology

"Due to unexpected, last-minute technical difficulties, it became impossible to convene the next International Symposium of Odonatology in Taiwan. Upon the invitation of Dr. Jean Legrand, therefore, the EIGHTH INTERNATIONAL SYMPOSIUM OF ODONATOLOGY will take place in Paris, France, in summer 1985. The exact date will be published at a later date.

The address of the Chairman of the Organizing Committee is Dr. Jean Legrand, Laboratoire d'Entomologie, Museum National d'Histoire Naturelle, 45 rue de Buffon, F-75005 Paris, France; telephone: France 1-336.04.06.

Those who would need a formal "Letter of Invitation" should contact the Standing Committee for the Organization of International Symposia of Odonatology, Utrecht, Holland, stating the (preliminary) title of their scheduled presentation, the date by which the Letter should be in their possession, and all such details as they consider useful to be mentioned in the Letter. Only Letters addressed to the workers concerned will be issued. The Standing Committee is unable to conduct any correspondence relative to the participation at the Symposium with the employers and/or the Governmental Authorities of the individual workers.

The International Odonatological Society (S.I.O.) is unable to provide any travel grants."

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B.B.C. TO AIR PROGRAM ON DRAGONFLIES?

The following is an interesting excerpt from a letter to B. Kiauta from D. Allen Davies:

"In the meantime I have talked to the B.B.C. and got them to understand that dragonflies are something important for them to think about. So the result is that they have more or less decided to make a film on the subject. I drafted out a schema for them which includes a worldwide picture, based on the evolutionary theme. Kiyoshi Inoue has located an 8 mm film of all about Epio. superstes and arranged for me to buy a copy; the film was done by Sugimura; I wonder if you have seen that film when you were in Japan? Do you know of any other good films which would provide material as parts of a full sized programme? All full acknowledgements would be made of course."

Is there a SELYSIA reader who might be aware of such a film as that which Dr. Davies describes? Such information may be given to SELYSIA editors for sending on to Dr. Davies.

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ARBEITSKREIS LIBELLEN IM KANTON BERN

Formed on January 20, 1983, the ARBEITSKREIS LIBELLEN IM KANTON BERN (A Swiss Odonata Club) has as its objective the mapping of the odonate distribution in Kanton Bern, Switzerland. Twelve members are involved in this project.

Chairman of the new organization is Mr. Kurt Grossenbacher, who is staff member of the Natural History Museum of Bern, Switzerland. Mr. Grossenbacher's address is: Abeggstrasse 3, CH-3132 Ribbisberg, Switzerland.

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GESELLSCHAFT DEUTSCHSPRACHIGER ODONATOLOGEN

The Society of German-Speaking Dragonfly Workers is one of the most active of national societies involved in furthering the study of Odonata. Prof. Dr. Eberhard Schmidt of Bonn has kindly sent information about several of their recent meetings. September 4 and 5, 1982 were dates for meetings in Bonn, followed by a meeting in Coburg, Bavaria in February. The latter meeting was planned to include discussions on problems of field work and recording data of dragonfly fauna in certain habitats.

Many of the speakers at the June 11, 1983 meeting are also members of S.I.O. This meeting was the Second Colloquium on the Odonata of Lower Saxony, Federal German Republic, and was held in Grossburgwedel/Hannover. The organizer was Dr. R. Altmuller, and 160 participants were registered.