

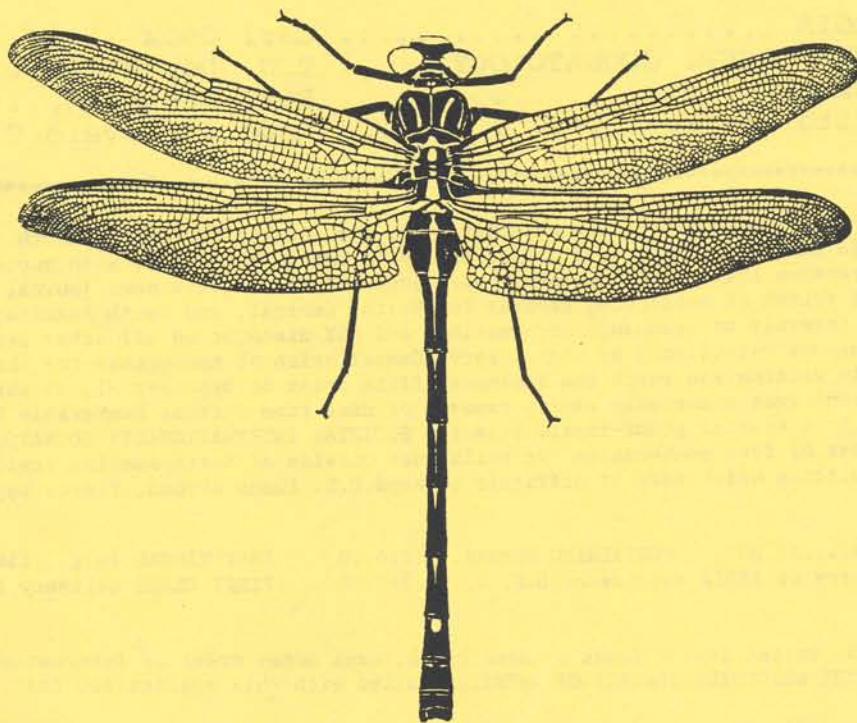
# ARGIA



THE NEWS JOURNAL OF D. S. A.

VOLUME 3, NO. 1

MARCH 15, 1991



PUBLISHED BY THE DRAGONFLY SOCIETY OF AMERICA

AN AFFILIATE OF THE  
SOCIETAS INTERNATIONALIS ODONATOLOGICA

# THE DRAGONFLY SOCIETY OF AMERICA

## EXECUTIVE COUNCIL

President .....	T.W. Donnelly, ...	United States
President Elect .....	George L. Harp, ...	United States
Immediate Past President .....	Carl Cook .....	United States
Vice President SIO Affairs .....	M.J. Westfall, Jr.,	United States
Vice President Canadian Affairs .....	R.A. Cannings, .....	Canada
Vice President Latin American Affairs .	Rodolfo Novelo G., .....	Mexico
Secretary .....	Sidney W. Dunkle, ..	United States
Treasurer .....	J.J. Daigle, .....	United States
Editor in Chief .....	Carl Cook, .....	United States
Regular Member .....	George L. Harp, ...	United States
Regular Member .....	Michael L. May, ...	United States

## EDITORIAL STAFF

Editor of ARGIA .....	Carl Cook, .....	United States
Editor of BULL. AMER. ODONATOLOGY .....	T.W. Donnelly, ....	United States
Associate Editor .....	R.A. Cannings, .....	Canada
Associate Editor .....	Rodolfo Novelo G., .....	Mexico

\*\*\*\*\*

Dues and memberships are by the calendar year, without regard for the month in which you join, and are payable with enrollment application and on or before March 1 of each succeeding year. All members will receive the current calendar year issues of the society news journal ARGIA; the special SEASON SUMMARY VOLUME of collecting records for North, Central, and South America; MEMBERSHIP LIST, with members' interest and exchange information; and 20% discount on all other periodicals and non-serial publications established by the society. Cancellation of membership for the forthcoming year must be in writing and reach the Business Office prior to December 31, of current year. Cancellation of current year membership and/or removal of name from current Membership List cannot be considered. NOTICE: A special grant-in-aid from the SOCIETAS INTERNATIONALIS ODONATOLIGICA provides for a certain number of free memberships for colleagues outside of North America residing in countries with fiscal policies which make it difficult to send U.S. funds abroad. Please apply.

REGULAR MEMBER....\$3.00	SUSTAINING MEMBER....\$10.00	INSTUTIONAL (e.g., libraries).....\$10.00
AIR MAIL delivery of ARGIA outside of U.S. ....\$10.00		FIRST CLASS delivery in U.S. .... \$7.00

Please remit in United States funds by bank check, bank money order or international money order to the order of THE DRAGONFLY SOCIETY OF AMERICA, mailed with this application to:

The Dragonfly Society of America, 469 Crailhope Road, Center, KY 42214, United States

## NOTICE TO CONTRIBUTORS

ARGIA accepts manuscripts (preferably under 2,500 words) on nearly every aspect of odonatology. Exceptions are taxonomic revisions, species descriptions and presentations more suitable for such journals as ODONATOLOGICA. All Ms. contributions for DSA publications, inquiries and applications for membership, and other society business should be addressed to the business office of the society at:

The Dragonfly Society of America  
469 Crailhope Road  
Center, KY 42214, USA

# ARGIA

THE NEWS JOURNAL OF THE DRAGONFLY SOCIETY OF AMERICA

VOL. 3, NO. 1

CENTER, KENTUCKY

MARCH 15, 1991

## OKLAHOMA REVISITED: UNPUBLISHED RECORDS

By George H. Bick

1928 SW 48th Avenue, Gainesville, FL 32608, USA

We have accumulated many Oklahoma county records since our (1957) paper.

Only a few have been published. These include: AHRENS (1938) [forgotten in BICK & BICK, 1957], BICK (1978, 1990), BICK et al. (1977), CRUDEN (1968), GARRISON (1984), KORMONDY (1960), RIES & CRUDEN (1966), STEWART & MURPHY (1968), TAI (1967), and WESTFALL (1974).

Most records result from persistent collecting by our dear friend, Lothar E. Hornuff. The present paper is dedicated to the memory of happy hours together with nets and cameras, hoping that it will substitute in a small way for his unfulfilled aim to write comprehensively on Oklahoma dragonflies. A study of the above literature and of our and Hornuff's files enabled us to prepare the following list of unpublished Oklahoma county records.

No literature records is repeated here. But a complete list of all county records, including those from the literature, will be filed with the DSA for potential use by whoever prepares the the Oklahoma catalog for BULLETINS OF AMERICAN ODONATOLOGY.

Calopteryx maculata (Beauvois). Bryan, Harmon, Johnston, Pontotoc, Rogers.

Hetaerina americana (Fabricius). Adair, Blaine, Bryan, Cherokee, Cimarron, Delaware, Ellis, Grady, Jefferson, Love, Oklahoma, Pontotoc, Stephens, Woodward.

Hetaerina titia (Drury). Beckham, Marshall.

Archilestes grandis (Rambur). Jefferson, Oklahoma, Stephens, Woodward.

Lestes alacer Hagen. Bryan, Coal, Kiowa, Marshall, Murray, Woodward.

Lestes disjunctus australis Walker. Beaver, Beckham, Bryan, Cimarron, Craig,

Delaware, Ellis, Grant, Haskell, Jefferson, Lincoln, Marshall, Muskogee, Ottawa, Pushmataha, Sequoyah, Woodward.

Lestes rectangularis Say. Oklahoma.

Argia alberta Kennedy. Jefferson

Argia apicalis (Say). Caddo, Choctaw, Cimarron, Coal, Ellis, Garfield, Garvin, Grant, Jefferson, Kay, Lincoln, Logan, Love, Nowata, Okfuskee, Ottawa, Pushmataha, Rogers, Seminole, Stephens, Woodward.

Argia bipunctulata (Hagen). Bryan, Choctaw.

Argia fumipennis violacea (Hagen). Adair, Atoka, Beaver, Beckham, Choctaw, Coal, Craig, Delaware, Ellis, Garvin, Harmon, Haskell, Jefferson, Logan, Love, Mayes, Nowata, Ottawa, Pittsburg, Pontotoc, Rogers, Sequoyah, Woodward.

Argia immunda (Hagen). Kiowa, Love, Woodward.

Argia moesta (Hagen). Alfalfa, Caddo, Choctaw, Cimarron, Coal, Craig, Delaware, Garvin, Harmon, Jefferson, Kay, Kiowa, Mayes, Nowata, Ottawa, Rogers, Sequoyah, Woodward.

Argia nehuana Calvert. Beckham, Blaine, Bryan, Cimarron, Ellis, Garvin, Jefferson, Kingfisher, Oklahoma, Pushmataha, Stephens.

Argia plana Calvert. Adair, Alfalfa, Cherokee, Cimarron, Delaware, Jefferson, Kay, Logan.

Argia sedula (Hagen). Adair, Beaver, Beckham, Bryan, Caddo, Coal, Comanche, Ellis, Garvin, Harmon, Haskell, Jefferson, Kiowa, Love, Oklahoma, Stephens, Woodward.

Argia tibialis (Rambur). Caddo, Coal, Ottawa,

Argia translata Hagen in Selys. Bryan, Comanche, Pontotoc, Pushmataha.

Enallagma antennatum (Say). Cimarron.

Enallagma aspersum (Hagen). Cherokee, Coal, Delaware, Marshall, Murray Sequoyah.

Enallagma basidens Calvert. Adair, Beaver, Beckham, Blaine, Bryan, Choctaw, Cimarron, Coal, Craig, Delaware, Ellis, Garvin, Grant, Harper, Haskell, Jefferson, Kay, Kingfisher, Kiowa, Logan, Love, McCurtain, Mayes, Nowata, Okfuskee, Ottawa, Pontotoc, Rogers, Seminole, Sequoyah, Stephens.

Enallagma civile (Hagen). Adair, Atoka, Beaver, Blaine, Bryan, Choctaw, Coal, Craig, Delaware, Ellis, Grant, Harper, Jefferson, Kingfisher, Lincoln, Logan, Mayes, Nowata, Osage, Ottawa, Rogers, Seminole, Sequoyah, Texas.

Enallagma divagans Selys. Delaware, McCurtain, Marshall.

Enallagma exsulans (Hagen). Adair, Caddo, Cherokee, Choctaw, Comanche, Craig, Delaware, McCurtain, Mayes, Nowata, Ottawa, Pittsburg, Pontotoc, Rogers, Sequoyah, Washita.

Enallagma geminatum Kellicott. Adair, Coal, Craig, Love, McCurtain, Marshall, Muskogee, Osage, Rogers.

Enallagma traviatum Selys. Haskell, Marshall, Pushmataha.

Ischnura barbari Currie. Grant

Ischnura damula Calvert. Cimarron.

Ischnura demorsa (Hagen). Beaver, Beckham, Cimarron, Ellis.

Ischnura denticollis (Burmeister). Alfalfa, Beaver, Cimarron, Ellis, Jefferson, Stephens.

Ischnura hastata (Say). Adair, Alfalfa, Bryan, Cherokee, Choctaw, Cimarron, Craig, Grant, Haskell, Jefferson, Kay, Kiowa, Logan, Love, McCurtain, Mayes, Ottawa, Pushmataha, Seminole, Stephens, Wagoner.

Ischnura kellicotti Williamson. Sequoyah.

Ischnura posita posita (Hagen). Adair, Alfalfa, Atoka, Blaine, Bryan, Cherokee, Choctaw, Comanche, Craig, Delaware, Garvin, Haskell, Jefferson, Kiowa, Logan, Love, Muskogee, Nowata, Oklahoma, Osage, Ottawa, Rogers, Seminole, Stephens, Wagoner, Woods.

Ischnura ramburi (Selys). Bryan, Coal, Jefferson, Latimer, Pittsburg.

Ischnura verticalis (Say). Adair, Atoka, Beaver, Beckham, Blaine, Bryan,

Cimarron, Coal, Craig, Delaware, Ellis, Garfield, Grant, Harper, Jefferson, Kingfisher, Kiowa, Logan, Mayes, Nowata, Osage, Ottawa, Rogers, Seminole, Sequoyah, Stephens.

Telebasis salva (Hagen). Alfalfa, Beaver, Bryan, Cimarron, Comanche, Jefferson, Johnston, Kingfisher, Muskogee, Stephens.

Tachopteryx thoreyi (Hagen in Selys). Latimer, Marshall.

Aeshna multicolor Hagen. Beaver, Cimarron, Texas.

Aeshna umbrosa umbrosa Walker. Oklahoma.

Anax junius (Drury). Bryan, Delaware, Ellis, Grant, Kay, Kingfisher, Kiowa, Logan, Pushmataha, Seminole, Sequoyah, Stephens.

Anax longipes Hagen. Cherokee.

Basiaeschna janata (Say). Osage

Epiaeschna heros (Fabricius). Bryan, Marshall.

Nasiaeschna pentacantha (Rambur). Johnston, Murray, Nowata, Rogers.

Arigomphus lentulus (Needham). Adair, Delaware, Nowata, Seminole, Wagoner.

Arigomphus submedianus (Williamson). Atoka, McCurtain, Ottawa, Rogers.

Dromogomphus spinosus Selys. Jefferson, Pushmataha.

Dromogomphus spoliatus (Hag. in Sel.). Atoka, Caddo, Cleveland, Coal, Jefferson, Kay, Kiowa, Logan, Pittsburg, Seminole.

Erpetogomphus designatus (Hag. in Sel.). Beaver, Caddo, Ellis, Garvin, Jefferson, Love, Pittsburg, Sequoyah, Stephens, Woodward.

Gomphus (Gomphurus) externus Hagen in Selys. Pushmataha.

Gomphus (Gomphus) graslinellus Walsh. Johnston.

Gomphus (Gomphus) militaris Hagen in Selys. Beckham, Bryan, Cherokee, Choctaw, Cimarron, Coal, Craig, Harmon, Haskell, Kingfisher, Kiowa, Logan, Nowata, Okfuskee, Stephens.

Hagenius brevistylus Selys. Murray.

Phyllogomphoides stigmatus (Say). Marshall, Murray.

Progomphus obscurus (Rambur). Choctaw, Ellis, Garvin, Jefferson, McCurtain, Murray, Pittsburg, Rogers, Sequoyah, Stephens, Woodward.

Stylogomphus albistylus (Selys). Otta-

wa.

Cordulegaster obliqua obliqua (Say). Muskogee.

Didymops transversa (Say). McIntosh, Osage.

Macromia georgina (Selys). Bryan, Love, McCurtain, Murray, Pushmataha, Sequoyah.

Macromia pacifica Hagen. Bryan, Caddo, Marshall, Pushmataha, Sequoyah.

Macromia taeniolata Rambur. Murray.

Epicordulia princeps (Hagen). Beckham, Bryan, Caddo, Jefferson, Kay, Murray, Nowata, Rogers, Seminole, Sequoyah, Stephens.

Somatochlora linearis (Hagen). Craig, Pittsburg.

Tetragoneuria cynosura (Say). Delaware, Marshall, Oklahoma, Osage.

Tetragoneuria petechialis Muttkowski. Cimarron, Latimer.

Brachymesia gravida (Calvert). Love, Marshall.

Brechmorhoga mendax (Hagen). Pontotoc.

Celithemis elisa (Hagen). Bryan, Choctaw, Craig, Delaware, Haskell, Johnston, Logan, Marshall, Seminole, Sequoyah.

Celithemis eponina (Drury). Atoka, Beaver, Beckham, Bryan, Cimarron, Coal, Craig, Ellis, Jefferson, Kay, Murray, Oklahoma, Pontotoc, Rogers, Seminole, Sequoyah, Stephens, Woodward.

Celithemis fasciata Kirby. Haskell, Logan, Love, Marshall, Sequoyah.

Celithemis verna Pritchard. Haskell, Latimer.

Dythemis fugax Hagen. Coal, Jefferson, Johnston, Kiowa, Love.

Dythemis velox Hagen. Bryan, Cleveland, Garvin, Jefferson, Logan, Pontotoc, Stephens.

Erythemis simplicicillis (Say). Adair, Beaver, Bryan, Cherokee, Choctaw, Cimarron, Coal, Craig, Delaware, Ellis, Garvin, Grant, Harper, Haskell, Jefferson, Kay, Kingfisher, McIntosh, Nowata, Okfuskee, Ottawa, Pittsburg, Pontotoc, Pushmataha, Rogers, Seminole, Sequoyah, Stephens.

Erythrodiplax minuscula (Rambur). Marshall.

Erythrodiplax umbrata (Linnaeus). Marshall, Oklahoma.

Libellula comanche Calvert. Harman, Murray.

Libellula croceipennis Selys. Bryan,

Oklahoma.

Libellula cyanea Fabricius. Adair, Bryan, Cherokee, Choctaw, Delaware, Haskell, Latimer, Marshall, Ottawa, Pushmataha, Rogers, Sequoyah.

Libellula deplanata Rambur. Osage.

Libellula flavida Rambur. Bryan.

Libellula incesta Hagen. Adair, Bryan, Carter, Choctaw, Coal, Comanche, Craig, Jefferson, Mayes, Okfuskee, Oklahoma, Pontotoc, Rogers, Sequoyah.

Libellula luctuosa Buremister. Adair, Beaver, Caddo, Cherokee, Choctaw, Cimarron, Coal, Delaware, Ellis, Garvin, Grant, Harper, Haskell, Jefferson, Kay, Kingfisher, Kiowa, Nowata, Okfuskee, Osage, Ottawa, Pittsburg, Pontotoc, Rogers, Seminole, Stephens, Texas.

Libellula lydia Drury. Adair, Atoka, Beckham, Bryan, Choctaw, Coal, Delaware, Garfield, Grant, Jefferson, Logan, Nowata, Osage, Ottawa, Pittsburg, Pontotoc, Rogers, Seminole, Sequoyah, Stephens.

Libellula pulchella Drury. Bryan, Cherokee, Harmon, Jefferson, Logan, Nowata, Rogers, Sequoyah, Stephens, Wagoner.

Libellula vibrans Fabricius. Bryan, Coal, Craig, Johnston, Marshall, Pittsburg, Pontotoc.

Orthemis ferruginea (Fabricius). Grant, Kiowa, Logan, Stephens.

Pachydiplax longipennis (Burmeister). Adair, Atoka, Beckham, Bryan, Cherokee, Cimarron, Coal, Craig, Garvin, Grant, Jefferson, Kay, Kingfisher, Kiowa, Nowata, Ottawa, Rogers, Seminole, Sequoyah, Stephens.

Pantala flavescens (Fabricius). Beaver, Bryan, Choctaw, Craig, Jefferson, Kay, Kiowa, Latimer, Murray, Pittsburg, Sequoyah, Stephens.

Pantala hymenaea (Say). Choctaw, Jefferson, Kay, Kiowa, Mayes, Ottawa, Sequoyah, Stephens, Texas, Woodward.

Perithemis tenera (Say). Adair, Atoka, Beaver, Beckham, Bryan, Caddo, Choctaw, Cimarron, Coal, Craig, Delaware, Ellis, Grant, Garfield, Harmon, Jefferson, Kay, Kingfisher, Latimer, Logan, Mayes, Nowata, Oklahoma, Ottawa, Pontotoc, Pushmataha, Rogers, Seminole, Stephens, Texas, Wagoner, Woods.

Sympetrum ambiguum (Rambur). Bryan, Choctaw, Marshall, Oklahoma, Woodward.

Sympetrum corruptum (Hagen). Craig, Delaware, Harmon, Ottawa.

Sympetrum vicinum (Hagen). Bryan, Craig, Haskell, Nowata, Rogers.

Tramea carolina (Linnaeus). Sequoyah.

Tramea lacerata Hagen. Atoka, Bryan, Choctaw, Cimarron, Craig, Custer, Delaware, Grant, Jefferson, Kingfisher, Kiowa, Logan, Mayes, Nowata, Ottawa, Ottawa, Pushmataha, Rogers, Seminole, Sequoyah, Stephens.

Tramea onusta Hagen. Beckham, Bryan, Delaware, Grant, Kingfisher, Kiowa, Logan, Love, Mayes, Nowata, Ottawa, Seminole, Stephens.

#### REFERENCES

AHRENS, C., 1938. A list of dragonflies taken during the summer of 1936 in Western United States. Ent. News 49: 9-16.

BICK, G.H., 1978. New state records of United States Odonata. Notul. odonato. 1(2): 17-19.

BICK, G.H., 1990. Unpublished records in Florida State Collection of Arthropods. Argia 2(1-4): 3-4.

BICK, G.H. & J.C. BICK, 1957. The Odonata of Oklahoma. Southwestern Nat. 2(1): 1-18.

BICK, G.H., J.C. BICK & L.E. HORNUFF, 1977. An annotated list of the Odonata of the Dakotas. Florida Ent. 60(3): 149-165.

CRUDEN, R.W., 1968. Chromosome numbers of some North American dragonflies. Canad. J. Genetics & Cytology. 10(1): 200-214.

GARRISON, R.W., 1984. Revision of the genus Enallagma of the US west of the Rocky Mountains and identification of certain larvae by discriminant analysis. Univ. Calif. Pubs. Ent. 105.

KORMONDY, E.J., 1960. New North American records of Anisopterous Odonata. Ent. News 71(5): 121-130.

RIES, M.D. & W. CRUDEN, 1966. New records for Anax longipes. Ent. News 77(7): 187-188.

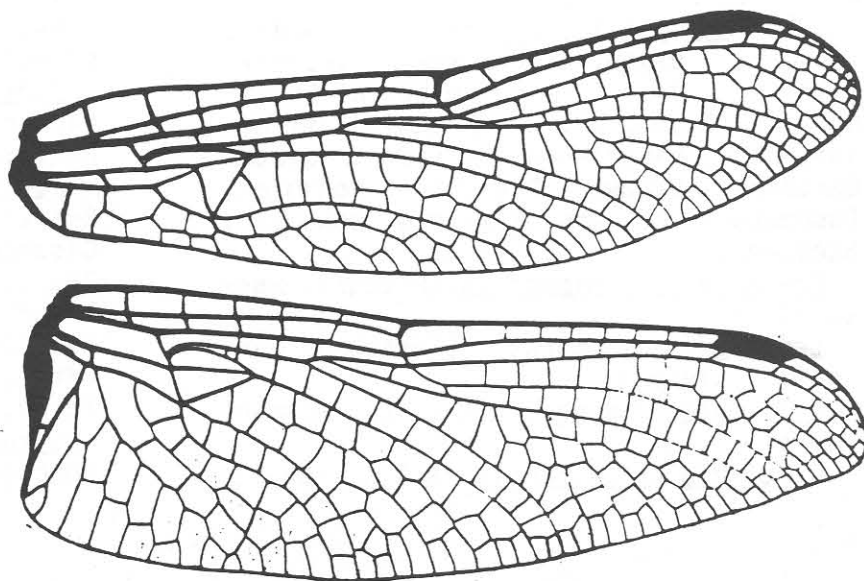
STEWART, K.W. & R. MURPHY, 1968. Notes on inter-pond dispersion of some marked adult dragonflies in Oklahoma. Texas J. Sci. 20(2): 177-182.

TAI, L., 1967. Biosystematic study of Sympetrum. PhD Thesis, Purdue Univ.

WESTFALL, M.J. Jr., 1974. A critical study of Gomphus modestus Needham, 1942, with notes on related species. Odonatologica 3(1): 63-73.

#### MYSTERY DRAGONFLY

How many can identify this mystery species? The correct identification will be published in next ARGIA, along with the name of first person sending in the correct answer. Clue- don't expect to see this species flying during the autumn!



# PROSPECTUS FOR A NEW JOURNAL FOR ODONATA FAUNAL STUDIES

By T. Donnelly

2091 Partridge Lane, Binghamton, NY 13903, USA

I propose the establishment of a new journal, **Bulletins of American Odonatology**, and I herewith solicit contributions to it. Although originally conceived as a vehicle to be restricted to Odonata faunal catalogs for the New World, it has occurred to me that its scope could be broader than that.

I have myself recently prepared a list of the Odonata of New York for this series. Before proceeding with publication, it is now necessary to obtain some additional commitments. Therefore, I am now canvassing the membership of the DSA to find out the names and proposed details of preparation of additional contributions.

My aim for this publication series is the publication of useful information about the Odonata of the New World. Because our membership is mainly in North America, I would anticipate that most of the earliest papers will deal with North America. However, I fully intend to submit manuscripts on Central America, and I hope others will seriously consider publications for anywhere in the New World.

The further aims are that the contributions be reviewed. Thus, a early task of the D S A will be to appoint an editorial board to organize this process. Also, it is my aim that the cost to the author will be zero (reprints at cost). The numbers will be priced so at the end of the year there is no profit or loss realized. I believe that with camera-ready copy and offset printing this can

be achieved for much less than 5 cents per page per copy, including mailing costs.

To achieve low cost, manuscripts will have to be submitted as ASCII files on floppy disk compatible with MS-DOS. I can probably achieve compatibility with other systems with advice from some of my more knowledgeable computer buddies. A possible alternative will be the submission of camera-ready copy. This might be more difficult for the contributors.

Aims of the regional catalog series:

1) To prepare lists as complete as possible for states or other regions of the New World. In some cases a complete state list might not be feasible (e.g. Texas) at this time, but another region (e.g. east Texas) might be of considerable value.

2) I have arbitrarily selected the county as the unit to be reported. The compiler might want to report distributions in some other fashion, and I urge a flexible approach.

3) I have not included county "dot" maps in my New York list. In my view, the inclusion of these maps would not justify the space required or the bother of compilation. A possible future map for larger regions ( e.g., eastern North America, Central America) might well profit from dot maps. I leave the decision to include or not include these maps to the compiler.

4) A list should include a literature search, information available from the compiler's collection, and, if possible, some search in well established Odonata collections. The compiler is strongly urged to solicit such information as can be obtained from current collectors, who, in turn, are urged to compile their information for such distribution.

5) To be really useful, the list should be at least partly annotated. For some species the reader will want to know (a) exactly where the record was, (b) who established it, and (c) is it valid? The goal is to achieve maximum useful information in an amount of space that can be kept as small as possible.

6) The compiler will have to make some taxonomic judgments. Many older records must be updated because of changing taxonomic concepts. Others were incorrect at the time of their publication. Obviously some errors are going to creep through this system, but we should do the best we can. Particularly difficult problems are posed by some records of females, teneral specimens, or larvae.

7) There are different opinions regarding taxonomy. I urge authors to be splitters with respect to this list. It matters little if I do not believe a split to be valid; if the information is presented in "split" form I can easily lump the species for my own purposes. However, I cannot easily take apart records of two species needlessly (in my view) lumped. Notes reflecting the compiler's taxonomic views may well be helpful to the reader.

8) I have no preferences for a specific generic / subgeneric nomenclature. I am comfortable

with *Anomalagrion* and *Stylurus*; others will not be. There exist many names which are completely obscure; I urge compilers to avoid these or explain what they mean.

9) In compiling the New York list I faced the problem of length. Several people were almost too helpful and heaped numerous records on me. I started out to include all records, and I quickly found that space prevented continuing this exercise. My list now has more or less complete records for about a third of the species - the species that I judged to be the most "interesting".

10) The problem of pricing still is not settled. The press runs will probably be 200. The tentative goal will be to set a break-even price based on a yearly subscription to four numbers.

11) I can easily produce camera-ready copy. If people submit manuscripts to me on a 5 1/4 inch floppy, in ASCII format, I can print them with little difficulty. The only requirement be that the disk be readable by a MS-DOS system. My preferred language is MICROSOFT WORD, But I can work with unformatted products of most (?all) other languages.

12) I would intend that each manuscript be reviewed. This will be a real review, and I prefer that the reviewers be known to the author. If the manuscripts are pre-reviewed, so much the better.

13) My only exercise in editorial judgment will be to format the manuscript to conserve space and to make the list comprehensible.

#### FURTHER AIMS OF THE B A O:

The B A O will be an official publication of the D S A. It can



only exist if it fills a need among the members, The scope of this journal is wide open, with the caveat that taxonomic contributions should not be published unless we make certain that certain distributional and other "official" details are taken care of.

Although I have founded the journal for the compilation of regional faunal information, I foresee other types of contributions:

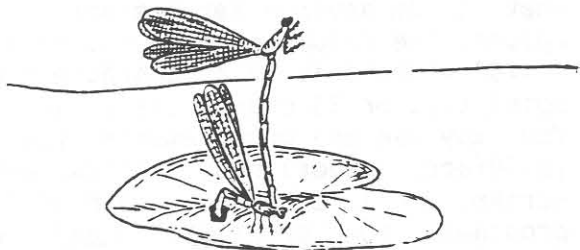
1) regional handbooks. A disadvantage might be that we do not have the advertising expertise to get these into the hands of non-Odonatists, which should be an important aim of such publications.

2) discussion of taxonomy of problem groups. How about an issue devoted to multiple contributions on the status of *Sympetrum*, *Libellula*, *Gomphus*, *Enallagma*, or some other genus that has been giving problems?

3) presentation of concise descriptions of larvae of various genera, or other life-history information.

4) general discussions of distribution, biogeography, evolution, or other matters of interest.

My aim is simply to start a publication that will be of real interest to all of us. The sky is the limit.



=|= |= |= |= |= |= |= |= |=|=

I would appreciate an early reply to this note, with answers to the following questions:

1) Would you consider a contribution to this series.

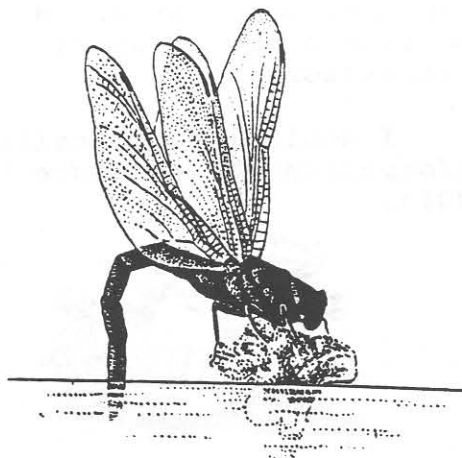
a) In the regional faunal catalogs?

b) some other topic?

2) If you plan a contribution, can you send a 5 1/4 inch floppy with an ASCII file of your manuscript? Do you prefer to submit camera-ready copy? If you have figures, can you submit these as PMT's of the correct size with their annotations already pasted on?

3) Finally, please tell me WHEN you can submit a contribution. Remember, to make this work we have to start off with about 3-4 contributions, and right now I have only one!

WHEN I HAVE THREE COMMITMENTS IN HAND, THIS SERIES WILL COMMENCE. PLEASE CONTACT ME NOW TO BE ONE OF THOSE THREE!



REQUEST FOR INFORMATION ON  
COMPUTERIZED DATA RETRIEVAL  
SYSTEMS

T. Donnelly, 2091 Partridge Lane,  
Binghamton NY 13903

I would appreciate information on the use of Personal computers (or similar systems) for compilation of data.

1) Do you use a PC for information on your collections? Do you use a PC to catalog information in your library?

For instance, can you instantly find your collections of *Progomphus obscurus*? Or your records from Tennessee?

Can you find the titles of papers in your library that give descriptive information for species of *Coryphaeschna*? The larvae of *Libellula*? The Odonata that have been recorded from Arizona?

2) What sort of computer do you use?

3) What programs do you use? Word processing? Data Base? Other?

4) Would you be willing to swap this information with others via floppy disks?

5) Should the DSA encourage using certain systems to facilitate the swapping of information?

I would like to collate this information for a future issue of ARGIA.



EDITORIAL RESPONSE

Nick's suggestion to use Personal Computers (which here-in-after will be referred to as "PC's") certainly gets a rave review from your editor!

I'm naturally lazy when it comes to doing something I don't enjoy, and re-typing a big bunch of pages to make them fit into a journal, just doesn't rate as high on my list of fun things to do as collecting gomphines on a sparkling stream. It's not that I don't feel ARGIA is worthwhile, I do, and if there weren't better methods, I would do the job with an old Underwood manual typewriter.

But most of you are already using a PC to write the articles you send in to ARGIA. However, you prepare the MS just as you have always been instructed to do by nearly all the journals you publish in. You double-space the lines and leave at least 1 1/2 " page margins. That's great for off-set printing and to permit the editor to proof-mark the MS so the printer knows what type fonts to use, etc. For ARGIA's editor? Well, it means he has to retype the whole works and probably add a half-dozen typos that you didn't originally have in the article!

What to do? That's where Nick's idea really shines. If you have a PC use it to produce easily processed copy.

I don't want anyone to get the idea that only PC produced copy will be accepted. If you don't have a PC keep the articles coming written anyway, we'll even take those written in long-hand!

If you DO have a PC you can help us save a lot of time, insure more accuracy and present the article just the way YOU want it to look. Here's how: There is only a few rules to follow-- (if you use a word-processor you will understand what I am saying) Set the words in a column; the column must be not more than 3 3/8" wide, this is 40 characters of 12 point type or 34 characters of 10 point; You may use any enhancements you wish (boldface, underlined, italics, double-strike, etc.); I have (or soon will) the programs to translate most word-

processors (WordStar, IBM Displaywrite, Word Perfect, Microsoft Word, etc.) so I can probably translate any that use ASCII files; the column may be any length to contain the article.

The following is the preferred procedure: prepare MS on word-processor; set text in columns not wider than 3 3/8"; submit on 5 1/4" floppy disk and

hard copy printout (that way I will be sure to have some usable method for easy formatting.

Two articles were submitted this way for this issue: Nick's were camera-ready hard copy, John's were on floppy disk which I formatted to my requirements and made print-outs in about 15 minutes.

Carl Cook, Editor

## NATURE CONSERVANCY ACQUIRES WETLANDS SITE IN WARREN COUNTY, KY.

By Susan Jennings

Western Kentucky State University, Bowling Green, KY 42102, USA

What biologists are calling one of the most important aquatic wildlife habitats remaining in southern Kentucky has been purchased by the Kentucky chapter of the Nature Conservancy.

The director of Kentucky's chapter, James Aldrich, announced the finalized purchase of two tracts of land totaling 169 acres, the site of Chaney Lake, just off US Highway 31-W at Woodburn, in southern Warren County.

According to Anne Nash, the spokesperson for the Conservancy, negotiation has been ongoing for several years with several different previous landowners in an attempt to purchase the site, but the asking price has been out of range for the conservancy's budget. "The present owners were just aware how important it is to preserve this site, and they were willing to work with us" said Nash. The Chaney Lake property is the third conservancy purchase in Warren County in recent years according to director Aldrich.

"This may be the best birding site in Kentucky," said Western Kentucky University biology professor Herbert Shadowen. "For years, the Kentucky Ornithological Society has had its annual spring meeting in Bowling Green because of the nearby Chaney Lake." Another site nearby, McElroy Lake, is considered just as ecologically significant, but may soon be damaged or destroyed because of adjacent farming operations. "I would like to see both properties preserved,"

said Carl Cook, a specialist on aquatic invertebrates. "The bird populations at these sites draws the most attention, but they are equally important as the habitat for a vast hoard of invertebrate species, and these in turn are a food source for the birds."

Because of the increased threat to this site from developmental projects in Bowling Green and Warren County, Chaney Lake's acquisition was among the conservancy's first priorities. "Its great they finally have it," said Cook.

The lake fluctuates greatly in both depth and area according to season. It is deepest after fall and winter rains fill underground caverns, artesian pressure from underwater springs then pushes up the lake level, and may even spread onto low-lying farmland surrounding the lake. During the dry summer months the lake shrinks to 25-30 acres of open water surrounded by swamp. One unique feature of the lake is an elevated "island" in the middle covered with a small forest and meadow.

"The lake serves as a resting place for migrating water birds. Christmastime counts have found more than 60 species of water and shore birds here, and sometimes we've seen as many as 600 birds afloat on the water at one time," said Shadowen. Cook added: "For anyone interested in dragonflies, a visit down here in September is truly unforgettable, literally thousands of scarlet Sympetrum are flying everywhere."

## HOLLYWOOD DRAGONFLIES

By Sidney W. Dunkle

International Odonata Research Institute, 1911 SW 34 St., Gainesville, FL 32608, USA

Be sure to catch the next TV commercial for Frito-Lay's "Sun-Chips," a health/snack food similar to potato chips. There should be some dragonflies in it provided by yours truly.

At 9 AM on Wednesday Feb 20, 1991, I received a call from Joyce in Hollywood, California, where it was 6 AM. She and others in her movie production company had been desperately trying for about a week to get live dragonflies for a television commercial. Biologists at several universities had told them that dragonflies were still in the larval state at this time of year in the USA, so they had even tried to get the insects from the Southern Hemisphere, New Zealand and Australia, but there were export-import problems.

At Gainesville I had seen a few adult dragonflies in early February, but there had been a hard freeze on Feb 17, I told Joyce I'd see what I could find. A visit to nearby ponds produced a few damselflies, but no dragonflies. When Joyce called back to hear what I'd found, it turned out the commercial was being made in Ocala, only 40 miles from Gainesville, and that damselflies were OK, but they really wanted dragonflies.

They were willing to pay \$3 for damselflies and \$10 for dragonflies. When my coleopterist colleagues heard "\$10 a dragonfly," they stood ready to go collect some dragonflies! This also spurred me to greater efforts, and I visited other ponds where at last a few Orthemis ferruginea and Tamea carolina were flying. These are unfortunately very quick, strong-flying species, and as collectors well know, when only a few individual dragonflies are present, each individual is more wary. By going back and forth, forth and back, in the deep mud along the edge of the pond all afternoon, I finally caught 2 Orthemis and 6 Tamea.

I bitterly regretted each missed \$10 net swing. I was definitely being corrupted! However, one of the Tameas was a I. onusta, only the second one ever caught in northern Florida, so

there was some scientific as well as financial compensation. I also got a new early date for Lestes vidua.

Sandy, the organizer for the commercial, told me to bring the dragonflies to Ocala on Thursday. Unfortunately, the time for the "shoot" was later changed to Saturday, so I had to put the dragons in the refrigerator with a moist paper towel and hope they would survive until Saturday. Friday was too cloudy to collect, so I arrived at the Ocala location, a rented cow pasture, at 10 AM on Saturday with 4 live I. carolina. The dragonflies were not actually filmed until about 7 PM, so during the day I looked at 3 ponds and lakes in the area, where I saw but could not get to 1 Orthemis. But again science was served when the only damselfly at one lake turned out to be Enallagma geminatum, the only one I've seen in northern peninsular Florida, and a southern range extension for the species!

Observing the filming of the commercial was very interesting. I had expected a bunch of people with big egos and hot tempers. Instead, these were some of the most pleasant people I've ever met. Maybe being well fed and well paid has something to do with it. Snacks and goodies were available continuously, and lunch was catered with elegant silver serving dishes. The weather was pleasant though cloudy, chiggers and mosquitoes were absent, and only a few houseflies were present, so the 7 people in the crew from Hollywood did not experience the "real" Florida.

The commercial had to do with having fun in the sun, especially when one was eating "Sun-Chips." During the day 3 shots of several hours each were taken, one of some senior citizens riding in a convertible with the top down, one of a picnic, and one of a baseball game. Probably 75 people were involved in all this. One interesting thing was that they had to use specially-made non-reflective bags of Sun-Chips for photography.

Finally, after dark, it was time to shoot the dragonflies. A rented 250 gallon aquarium was lined with gravel, and several inches of bottled water were added. During the day a special support had been built for the aquarium, and a screen lid made for the top. The camera was set up to film through the aquarium lengthwise. An artistic piece of driftwood served as a perch for the dragonflies, and floating Water Lettuce formed a background. Further in the background, outside the aquarium, was some Pampas Grass and some "mountains" painted on a back-drop. A huge arc-light provided the sun, and a dead I. carolina served as a "stand-in" for focusing purposes. The crew was being paid overtime to set up all of this.

After the immense effort and expense to get ready for this shot, everything depended on 4 dying dragonflies. About all they could do was cling to a perch and shiver their wings to warm up. Incredibly, this is more or less exactly what the director wanted! Dave and Dan, animal trainers from Orlando, Florida,

and I cooperated in rotating the dragonflies from cooler to aquarium. When a dragonfly fell sideways or plopped into the water, Dave would remove it and we would replace it with a fresher one. A technician raised and lowered the top as we added and removed dragonflies, but we soon found that we did not have to worry about them flying away. Another technician squeezed water from a wet rag to artistically add drops of "dew" falling into the water.

I think about 2000 feet of film were eventually taken, with 20 or 30 people cheering when a dragonfly was behaving properly. Of course, one of the best performances was given when the film was being changed. I think the overall effect of the shot will be of back-lit dragonflies awakening at the dawn of a sunny day. The overall effect on me was to send me smiling home after a very interesting day, well-fed, and for an entomologist, well paid.

Excuse while I go munch on some "Sun-Chips!"

## THE KENTUCKY NATURE CONSERVANCY; DEDICATED TO ECOLOGICAL CONSERVATION

By Richard Kaukas

Staff Writer, The Courier-Journal, Louisville, KY 40202, USA

Jim Aldrich, director of the Kentucky Nature Conservancy, knows his plants.

As he strolled along the edge of a field in Bullitt County on a recent Friday morning, he glanced across the tall grasses tipped with frost, leaned down and pointed to a dried gray blob at the end of a sere stalk. "that's a purple coneflower," he said. "This field is covered with them."

He pointed to another dry reed that didn't look much different from the first. "That's little blue stem." He pointed to a third. "And this is Indian grass."

He talked about the mustard glade cress, a tiny plant with white flowers that is an endangered species. So far, he said, it has been found growing in

Bullitt and Jefferson counties, but nowhere else in the world.

He talked about the buffalo that used to cross into Kentucky by the thousands at the Falls of the Ohio to graze on the kind of prairie grass that still grows on the Bullitt site- and in only a few other places in the state.

Aldrich paused on a ridge overlooking a low waterfall. Beside it, near a cedar tree, a huge white icicle dripped from the underside of a low cliff. You could hear little but the clear water spilling over the rocks. "It's incredibly beautiful here," he said. "We're 20 minutes from downtown Louisville. It's a high-quality site, a good place to get away from it all and get back to your ecological roots."

For about three years, Aldrich, 35,

a native of a little place called Carp Lake, Mich. has been head of the Kentucky branch of the Nature Conservancy, a non-profit organization based in Arlington, Va., with offices in most of the 50 states.

The conservancy's function is "to preserve plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and water they need to stay alive," according to published objectives and purposes of the organization.

Nationally, the conservancy claims about 600,000 members and says it has "saved" about 5.2 million acres, including 930,000 acres last year alone. It also says it has protected 1,200 species of plants and animals and set up about 1,200 preserves.

In Kentucky the conservancy has 5,400 individual and 30 corporate members, and has protected about 10,000 acres divided among about 30 sites.

The two largest sites it has protected so far were about 1,000 acres each— one along the Rockcastle River and the other at Bad Branch Gorge State Nature Preserve in Letcher County.

The Nature Conservancy sites are spread across the state from the Swan Lake area in Ballard County, on the state's far western edge, to Lilley Cornett Woods, bought in part with conservancy money and now managed by Eastern Kentucky University, in Pike County, near the southeastern border with Va. Boone County Cliffs State Nature Preserve is at the northern tip of the state, while Lulu Davis Barrens is close to the Tennessee line.

All of the conservancy's holdings are open to public visits— or eventually will be.

And if Aldrich has his way, you will hear more about the conservancy in the next few years. He wants to increase the conservancy's acreage fairly dramatically within the next few years by adding at least 20 preserves of 1,000 acres each. The conservancy is trying to raise \$2 million. So far it has received about \$1.2 million from individual and corporate donors.

Operating costs, mainly for the

conservancy's six-person office in Lexington, Ky., will total about \$300,000 for the fiscal year, Aldrich said. About \$700,000 will be spent on land acquisitions. \$105,000 will be spent for 120 acres in Bullitt County, near the Cedar Grove community. In February 1991, \$118,000 was paid for the Chaney Like site in Warren County (described in an accompanying article, Ed.) The site has been described by a Western Kentucky University professor as "The best birding site in the state."

He added that the conservancy is "in the middle" of a \$2-million fund drive. It has raised about \$1.2 million so far, and hopes to get the rest over the next six to nine months.

Aldrich has a range of roles: He's a scientist, an administrator, solicitor of corporate support, organizer of volunteers, and lobbyist for the environment, among other things. He and his staff must deal with landowners, put together real-estate packages, locate sites for future protection and maintain the ones the conservancy already owns.

"This job has been everything and more than I anticipated," Aldrich said. "It has stretched me."

He brought to it a fitting background. For starters, he has been playing and working outdoors most of his life. "When I was 9 years," he said, "I caught my first 12-inch brook trout, with a rod that I had bought by collecting returnable bottles for 2 cents apiece."

He earned undergraduate degrees in biology and environmental geography from Western Michigan University, spent a summer doing research on "the plant ecology of prehistoric Aleut Indian sites" in Alaska, spent a year in graduate school and worked for the Indiana Department of Natural Resources, eventually coordinating its natural heritage program.

In that job he had close contact with the Nature Conservancy in Indiana before moving into the Kentucky post. He and wife Sylvia have two children, Amy, 5, and Katie, 1.

"Jim puts in tremendous hours," said Richard Hannan, head of the Kentuc-

ky Nature Preserves Commission, a state agency that often works closely with the conservancy. "Like all of us, he wants to spend time with his family. I know that lots of times, on week-ends, he'll say, 'let's go for a drive' and they'll just happen to end up at a place the conservancy is interested in."

Hannan and Aldrich have worked together on several acquisitions. Typically, if a site that the conservancy and the commission agree should be protected comes on the market, the conservancy puts up the money to buy it.

"They can move more quickly than state government to buy an area," Hannan said. Then, when public funds are authorized, the commission buys the land from the conservancy.

Part of a wetlands area called Axe Lake in western Kentucky is being acquired this way.

The Kentucky conservancy has a similar relationship with the Daniel Boone National Forest in the eastern part of the state. When 1,000 acres along the Rockcastle River, adjacent to the forest, came up for sale, the forest didn't have the money to buy it. To make sure the property didn't end up in other hands, the conservancy bought it for \$500,000. Congress later appropriated money, and the forest bought all but 150 acres, which the conservancy retained as a preserve.

In general, Aldrich said, the conservancy's approach is "proactive." That means it tries to buy up property before it becomes the focus of a disagreement over how it should be used.

The conservancy's approach-- nationally and locally-- tends to be non-confrontational. It doesn't usually involve itself in such environmental battles as the fight over Union Underware's plan to pipe wastewater from a treatment plant into Lake Cumberland.

Nonetheless, many of the leaders involved in that battle offer positive comments about the conservancy. "Not everybody takes the same approach to environmental concerns, and I think they fill an incredibly important niche in the environmental community," said Baylor Landrum, III, executive director of the

Lake Cumberland Trust, which is using the courts to try to stop the pipeline.

"I've heard a lot of good things about them," said Phil Heeren, president of the trust. "I know they buy land that has ecological value because of the rarity of the species on it." At the same time, Heeren said he personally wished the conservancy would involve itself more actively in battles like the one his group is waging.

"Sometimes," he said, "their focus seems a little narrow to me. I mean it's nice and important to preserve the last half-acre of prairie. But there's also a whole bunch of other things in Kentucky that need help too."

Aldrich said that the conservancy tries to work with corporations by soliciting their support even if they have been involved in ecological controversies. Nationally they have received donations from several oil companies, including Exxon. And in Kentucky, Bruce Churton, superintendent of environmental health and safety for Ashland Oil's Catlettsburg refinery, is on the board of trustees.

A few times each year, Aldrich calls Arch Mineral Corp., which is partly owned by Ashland Oil and which has been involved in a controversy over plans to mine near Robinson Forest, owned by the University of Kentucky. He makes the calls not to criticize, but in the hope of starting a dialog that will someday lead to a preserve on top of Black Mountain, the highest point in the state, which Arch Mineral owns.

So far, he acknowledged, he hasn't made much progress.

Aldrich also said it wouldn't bother him to have a coal company representative on the conservancy's board of trustees. "I would love to have somebody -- let me rephrase that-- it would not be out of line to have an environmentally sound operator on our board. Everybody, including coal companies, needs to be doing more if we are going to protect our natural heritage."

Aldrich receives strong praise from members of the state conservancy board. "His strong suit is his ability to deal with the political component, as well as

running the office," said Joe G. Conley, a Louisville radiologist who heads the board. "Right now he's down at an auction, seeing if he can get some more land for us."

Barry Bingham, Jr., (a major financial contributor) said, "I have yet to point out a tree or a plant that he can't identify. He's very impressive. He's a young man, and he hasn't yet developed all his skills, but he's got a lot of energy and enthusiasm, and a phenomenal knowledge of rare and endangered species.

In the meantime, Aldrich tries to do his part on an individual level too.

On a recent morning, for instance, he drove his white Audi slowly past a fast-food place, glanced through the glass doors and didn't like what he saw going on in there. "Styrofoam cups," he said, headed toward a place down the road where the coffee came not in throw-away containers but in reusable glass mugs.

#### ECOLOGICALLY SIGNIFICANT AREAS ADMINISTRATED BY KENTUCKY NATURE CONSERVANCY

Ballard County- Swan Lake Area  
 Barren County- Brigadoon State Nature Preserve  
 Boone County- Boone County Cliffs State Nature Preserve  
 " " Dinsmore Woods  
 Bullitt County- Pine Creek Glades  
 Crittenden County- Crittenden Springs Glade  
 Henderson County- Canoe Creek  
 Hickman County- Murphy's Lake  
 Jessamine County- Jessamine Creek Gorge  
 LaRue County- Thompson Creek Glades  
 Lee County- Cave Hollow  
 Livingston County- Mantle Rock  
 " " Rosenfield Preserve  
 Logan County- Lula Davis Barrens  
 Lee County- Cave Hollow  
 Letcher County- Bad Branch Gorge State Nature Preserve  
 " " Lilley Cornett Woods  
 McCracken County- Metropolis Lake  
 Menifee County- Red River Gorge/Gladie Creek  
 Powell County- Pilot Knob State Nature Preserve

Pulaski County- Rockcastle River  
 Robertson County- Buffalo Trace  
 Simpson County- Flat Rock Barrens  
 Warren County- Chaney Lake  
 " " Sunset Barrens  
 " " Wocaburn Glade  
 Whitley County- Thunderstruck Shoals  
 Wolf County- Rock Bridge Fork

#### HOW TO GET INFORMATION

If you want information on protected sites, or if you're interested in visiting them, it is suggested that you call the Conservancy's Lexington office, (606) 259-9655, between 9 a.m. and 5 p.m. Monday through Friday.

You will be told if any activities are prohibited (usually, don't pick the flowers or trample rare plants!), and you'll get directions and other pertinent information, such as where to park if there is no parking lot available. In some instances the only nearby parking is off site on privately owned property. In such cases the conservancy may be able to arrange permission beforehand.

The conservancy can also provide information about the several field trips it conducts each year to various conservancy protected sites.

#### SITES OPEN TO THE PUBLIC

Several ecologically significant sites administered co-operatively by the Conservancy and the Kentucky Nature Preserves Commission are open to the public without any need to call for permission or instructions. However, if information about these is desired, the commission's phone number is (502) 564-2886.

These public access sites are, and directions to reach them from Louisville are:

(1) Boone County Cliffs State Nature Preserve, near Covington and Cincinnati. Take I-71 toward Cincinnati. Just before you reach Covington, take the Burlington exit, follow Ky. 18 through Burlington, and continue to Middle Creek Road. Turn left. A parking area is on the left side of Middle Creek Road. The 20- to 40-foot cliffs nearby were formed by glacial deposits.



(2) Bad Branch State Nature Preserve, in the far southeastern corner of the state, near Whitesburg. Take 1-64 through Lexington to Winchester, and then take the Bert Combs Mountain Parkway to the exit for Hwy. 15, then south to Whitesburg. Take US 119 south and turn left on Ky. 932, and go two miles to a small gravel parking lot on the left side of the road, across the road from a mobile home. This site includes a gorge on the south side of Pine Mountain. The main trail parallels Bad Branch, a crystal clear wild river, and passes a 60' high water-fall. The trail is about one mile long.

(3) Metropolis Lake, outside Paducah in the western part of the state. Take I-24 to Paducah, then follow US 60 west for about seven miles. Turn right on Ky.

996 and go 5.5 miles to a gravel road to the right about midway in a turn to the left. Follow the gravel road a few hundred feet through a gate, which is open Feb. 15 to Oct. 15. The site is a 50 acre flood-plain lake.

(4) Pilot Knob State Nature Preserve, in Powell County near Clay City, and Red River Gorge. From Louisville follow the same directions as above toward Bad Branch, but leave the Mountain Parkway at Clay City exit and follow Ky. 15 north 2.7 miles and turn right on Brush Creek Road. Continue to the gravel parking lot. The trail leads to a historical overlook where Daniel Boone first beheld the Kentucky Bluegrass region, but there are nearby locations suitable for entomological pursuits.

Carl Cook, Editor

## LANDFILL REQUESTS PERMIT TO EXPAND ONTO PROTECTED WETLANDS

(Public records of Jefferson County, Kentucky and excerpts from articles in the Louisville Courier-Journal have been utilized in preparing this article)

Federal and state environmental officials are questioning whether Waste Management of Kentucky, Inc. should be allowed to destroy protected wetlands as it opens new areas of its Outer Loop Landfill in southern Jefferson County.

But Louisville and Jefferson County officials are on record as supporting the company's plans, saying that expanding the county's only landfill is vital to ensure that the area continues to have somewhere to get rid of its garbage. If the the landfill runs out of space, the area's waste disposal options would be severely limited, the officials say.

Waste Management has applied to the Army Corps of Engineers for a permit to excavate about 200 acres of wetlands at the landfill site. The company says it will offset the environmental damage by building a new swamp nearby.

The US Environmental Protection Agency says other waste disposal options should be considered before the corps approves the company's plan. Both the EPA and the US Fish & Wildlife Service, in comments submitted to the corps, say

an artificial swamp may not provide the same flood control and wildlife habitat benefits as the natural wetlands.

Wetlands are areas in which the water level is at or near the surface for much of the year. They provide habitat for a wide variety plants and animals and serve as natural ground water filters and catch basins for flood runoff. More than 90 percent of the 1.6 million acres of wetlands Kentucky once had have been drained or filled. Only about 2,150 acres of wetlands remain in Jefferson County.

The corps has the final say on whether to grant Waste Management a permit to fill the wetlands. Landfill manager Sonny Hubbard has said that denial of the permit would cut the life expectancy of Jefferson County's principal waste disposal facility from 20 years to no more than 10.

A decision on Waste Management's permit is several months away, said Bob Kanziger of the Corps of Engineers. To get the permit, Waste Management must first prove that there are no practical alternatives to filling the wetlands and

then show that the new swamp will be an adequate replacement, he said.

Before a permit can be issued, the Kentucky Division of Water must certify that expanding the landfill would not harm water quality, something the division says it will not do until it is satisfied the wetlands can be replaced.

Waste Management has been asked to revise its analysis of alternatives and has yet to submit a comprehensive mitigation plan, Kanziger said. No decision has been made on whether to hold a public hearing on the permit application, he said.

Waste Management was told to apply for the federal permit after corps officials determined last spring that two areas into which Waste Management wants to expand the landfill are wetlands protected under the federal Clean Water Act. Waste Management holds a state permit, issued in 1989, to fill one of the tracts.

In an "Analysis of Practicable Alternatives" submitted to the corps, Waste Management contends that expanding the Outer Loop Landfill into wetlands is the only way to assure the county continues to have sufficient landfill space. Excavating the wetlands is the only way to expand the Outer Loop site and there are no other suitable sites in the county, the company says.

The EPA questions whether expanding the landfill is necessary to meet the areas waste disposal needs. Other options, such as recycling, incineration or use of a regional landfill should be considered, the EPA said in its comments. Until a better case is made for destroying the wetlands, Waste Management should be denied a permit.

Mitigating environmental damage caused by the landfill expansion will be difficult, the US Fish & Wildlife Service said in its response. Sites for new wetlands may be hard to find, it said. Until an acceptable mitigation plan is in place, the permitting process should be put on hold, the agency said.

The Kentucky Department for Environmental Protection also asks that approval of the permit be delayed until Waste Management submits a detailed plan

for replacing the wetlands.

Local agencies supporting Waste Management's bid include the Louisville Department of Solid Waste Management Services, the Jefferson County Environmental Planning Division and the Louisville and Jefferson County Health Department. All said, in documents submitted to the corps, that the continued availability of the Outer Loop Landfill is essential, although county environmental planning director Robert Schindler said wetlands losses should be offset.

Mike Mills of the Kentucky Division of Water Quality said that Waste Management's application for a certificate is under review, pending completion of a mitigation plan. Such applications are rarely denied, but are often issued with a long list of conditions attached, he said. The state's review does not include a public comment process, but those submitted to the corps will be considered, Mills said.

#### REPLACEMENT OF EXISTING WETLANDS WITH NEW OR "ARTIFICIAL" SITES IS CHALLENGED

The fact that someone has seriously proposed destroying a naturally occurring ecologically balanced wetlands site contrary to federal regulations is not very surprising.

It is also not very surprising that local city and county bureaucracies would support such actions and provide the necessary local permitting.

It is certainly not surprising that a commercial concern involved in the lucrative landfill business would go to extraordinary means to assure continued highest profitability for their operation. And that they would attempt to circumvent any regulations, federal, state, or local, which might reduce their profits or prevent future expansion.

What does surprise me is that the federal and state agencies, which are supposedly charged with environmental protection, and the preservation of our natural resources, would give any credence whatsoever to the plan proposed

by the Louisville based Waste Management Company, which proposes to "replace" destroyed natural wetland with "artificially created wetlands of equal extent" at some off site location.

Every elementary student knows that a wetlands habitat is not just a mud puddle, but a complex ecosystem that has taken centuries to grow and mature.

Can anyone tell me what actually is an "artificial" wetland? What happens to the plant and animal life forms in the destroyed site? Are they, each individual species, assured of a compatible micro-

habitat meeting their specialized needs at the new site?

The concept that it is ecologically feasible to "transfer or replace" naturally occurring habitat with, or into, newly formed structures is total bug frass. All conservation oriented organizations must stand together in total opposition to such a concept. We cannot allow this site to set a precedent.

Will someone next propose to "move" or "replace" the Florida Everglades? It's conceivable, if we allow this little insignificant project to set a precedent.

Carl Cook, Editor

## COLLECTING ODONATA IN TRINIDAD, WEST INDIES

By John Michalski

90 Western Avenue, Morriston, NJ 07960, USA

Hi! I guess most of you don't know me yet, so allow me a few words by way of introduction. This article isn't really an account of any single trip to Trinidad, so much as a general account of my travels in that country over the last seven years.

I met my wife, Caroline, at a research station in the Trinidad rain forest in 1985. She is Trinidadian by birth, and since our first meeting we spent many happy months each year slipping down Trinidad's muddy embankments and sloshing waist-deep in stagnant water, in search of sundry hexapods.

Paradise! And a great excuse for spending lots and lots of time in the American tropics!

For those of you so far unacquainted, Trinidad is the most southerly of the Caribbean islands, being a mere five miles from the coast of Venezuela, just ten degrees north of the equator. Its climate is therefore torridly tropical, its flora and fauna drawn from South America rather than the Greater Antilles.

The people and culture reflect the colonial influence of Great Britain, though a look at the map shows a greater leaning to the earlier exploits of the Spanish. The island itself is only

about fifty miles across (including its longish peninsulas) and about thirty miles north to south, so it's easy to get around. This combination of tropical richness and easy access make Trinidad a splendid destination for the naturalist, and birdwatchers, filmmakers, artists, and all sorts of professionals have been making the trip for generations.

Trinidad is home to many of the types of animals and plants we have come to expect from the tropics. Toucans, macaws, oil birds, and scarlet ibis - among hundreds of other species - populate the skies, while the bamboo and strangler fig forests below them are home to peccaries, ocelot, agouti, boas, fer-de-lance and myriads of smaller animals. The butterflies, such as the blue Morphos and multicolored Heliconius, are dazzling, as are the more-than-a-dozen species of hummingbirds.

Unless you're a dog, Trinidad is free from ticks and there is nothing on the island akin to poison ivy. (The chiggers more than make up for it.) There are amazing monkeys and abundant reptiles. Not to mention dozens of species of frogs. I recall bringing home small populations of seven species of tree frogs in 1984, and the customs men

at Kennedy actually let me through with them- the Bronx Zoo was baffled! (Yes, the frogs did just fine, on a diet of cockroaches and other bugs from the sweep-net.) But I digress!

Of course, what brought me to Trinidad in the first place was its insects, and my first rainy night stroll (with headlamp strapped to my forehead) introduced me to six species of stick insects (some with functional, bright red wings), huge katydids, many mantises, amazing and diverse ants, and other curiosities like tarantulas and the very peculiar *Peripatus*, a sort of evolutionary link between annelids and true arthropods.

The odonates of this small country are no disappointment- by the last count there are more than 120 species. These run the range from the ubiquitous *Orthemis ferruginea* and *Pantala flavescens* to island specialties like *Argia insipida* and *Acanthagrion kennedyi*. Besides some interesting populations of such things as *Oligoclada walkeri* and *Perithemis thais*, Trinidad also offers the magnificence of such giants as *Staurorhobia reticulata obscura* and the pseudostigmatid *Mecistogaster ornatus*.

Of course, these species are not all found together, and for the biologist Trinidad is perhaps most noteworthy for its incredible range of habitats in such a small space. Though on the decrease, there are still very large tracts of high rain forest, home to the *Morphos* and *Mecistogaster*; the rivers that wind through the mountain valleys produce three species of *Dythemis*, several *Brechmorhoga* and *Macrothemis*, five species of *Argia*, and rarities like *Protoneura tenuis*. Rarer still are the Gomphids found on the Arima River, *Phyllogomphoides cornutifrons* and a species of *Progomphus*.

I was with Jerrell Daigle when he caught the *Progomphus* and, since I had accidentally (I swear it, Jerrell, accidentally!) liberated one of his *Coryphaeschna adenxas* the day before, he really didn't want to let me near his *Progomphus*. Such is the ardor of a gomphid man!

There are also mangrove swamps and

freshwater swamps, where one can expect to see caiman and the occasional manatee; the seasonally flooded Aripo Savannahs where you can find the butterfly-like *Zenithoptera fasciata*, the almost neon red *Rhodopygia hollandi* and *Planiplex phoenicura*, and other curiosities like the Joan Corduliid of the island. The forest streams - really almost gullies - around the savannah are home to *Stauriphlebia* and *Oligoclada*, as well as several *Perithemis* (*mooma*, *thais*, and *electra*) and two species *Uracus* (*imbuta* and *fastigiata*). Along the unused railroad beds are found a lively colony of the bright red gomphid, *Aphylla producta*. In 1988, Jerrell Daigle and Sid Dunkle visited for a week, and on our trip to Aripo Savannah the two of them virtually loaded up on *Staurorhobia* - a species I have seen but never caught, naturally - and Jerrell, with his usual charmed fortune, took a pair in cop! they barely fit into his oversized net!

Though many of the country roads are not too good, there is almost no place on the island that cannot be reached in a short drive by car. Most of the interesting environments can be reached within an hour or so, with additional hiking if one wishes to reach really removed areas.

Yes, even with a population of 1.3 million, there are still large tracts of mountains in the northeast of the island that are largely unsettled - for the time being. There are parts of this country that are breathtakingly beautiful, and some of the less traveled nooks and crannies are near pristine, though the collector will probably find that the species diversity is just as good in easier-to-reach places.

For instance, I remember a three-day hike I took with two friends along the abandoned North Coast Road. This overgrown dirt track was in greatest use over one-hundred years ago, when this part of the Northern Range was filled with cacao, coffee and almond plantations. Nowadays you couldn't even ride a burro through the twenty-five miles we hiked. We saw only two or three people during the entire three days, and those few must have arrived at the coast by

boat.

Apart from the howler monkeys and otters that we went in search of (and found), this part of the island was great for such deep-forest insect inhabitants as Trinidad's Morpho peleides and Mecistogaster, as well as Argia oculata and the interesting libellulid, Dasythemis esmeralda - but I have also seen all of these in the much easier-to-reach Arima Valley.

If one wishes to visit Trinidad as a naturalist or collector, one of the very best places to stay would be the Asa Wright Nature Center, located in a reserve of several hundred acres of high rain forest in Trinidad's Northern Range. Though just about the most expensive place you can stay (around US \$70 a night, with three excellent meals included), it has the advantage of being right where you want to be. A half-hour stroll before breakfast will reward you with all sorts bird sightings and new discoveries, and night walks along the two-mile driveway will provide exciting catches every time.

The Center also provides, for a fee, half- and full-day excursions to most any place on the island, providing you with a land rover and a good driver who is extremely knowledgeable about many facets of the local fauna, and who can also steer you to some of the best local food on the way! Thus the first-timer to the tropics may find Asa Wright to be the easiest way to manage, since you needn't bother with car rentals and all such goings on.

Nestled in the same river valley, and operated by the Nature Center as well, is the Simla Tropical Research Station, once a great Mecca for tropical studies in the New World. Simla is not a hotel in the way that Asa Wright is, but is usually available for researchers who are prepared to handle their own food requirements and travel. Bring your own sheets, do your own shopping and cooking, and Simla has rooms, beds, a kitchen and shower, at a much reduced cost. When I stayed there in 1986, it ran about US \$10 per day, which is hard to beat! Both Simla and Asa Wright can be contacted via an agent called Caligo

Ventures, in New York. The Center itself has no phone, so you must contact them through the agent.

An alternative to either is the pleasant Mount Saint Benedict guest house, which is a part of a monastery overlooking the town of St. Augustine. They are not too expensive and are close to the University of the West Indies, which is nice - but you need to travel to get to any sort of natural habitats.

For anyone interested in further details on visiting Trinidad, we are always happy to offer what information we can. Caroline and I visit the island regularly - if not as often as we'd like - and we'd be happy to show interested naturalists around when we're in the country. If you decide to go, you certainly won't be disappointed with the wildlife or the collecting!

#### NEW DSA OFFICERS ELECTED FOR 1991-1992

Congratulations to DSA's newly elected officers who will be guiding the Society's affairs for the next two years.

Their term of office will begin in June 1991, at DSA's annual meeting to be held at Grantsburg, Wisconsin

President:	Thomas W. Donnelly
President Elect:	George L. Harp
Vice President:	Robert A. Cannings
Vice President:	Rodolfo Novelo G.
Vice President:	Minter J. Westfall, Jr.
Secretary:	Sidney W. Dunkle
Treasurer:	Jerrell J. Daigle
Editor in Chief:	Carl Cook

Regular members of the Executive-Council are elected at any annual meeting when there is a vacancy on the Council. Two were elected at the 1990 Jonesboro meeting to serve in 1990-1991:

Regular Member:	George L. Harp
Regular Member:	Michael L. May

# The ARGIA "Forum"

## ACROSS THE EDITOR'S DESK

We have continued with changes in ARGIA's appearance in this issue. One that you probably noticed as soon as you removed the wrapper is the new cover logo. We ask for contributions of suitable pin & ink drawings, or half-tone figures for future issues. Our plans are to change the logo at least on every volume, or possible on each issue if enough artwork is submitted. We will be interested in receiving original artwork (preferred) or a copy of classical works of historic interest and/or outstanding artistic merit.

Another important change is that volume 3 is being issued in separate numbers on a quarterly schedule at last! You, the members of DSA, are entirely responsible for that. An appeal was made in the last issue of ARGIA for as many members as possible to consider moving up to the sustaining membership class, and your response was very gratifying. I am pleased that DSA's financial condition for 1991 will, despite the recent increase in postal rates, support ARGIA's change to quarterly issues.

We hope a noticeable improvement may occur in the printing quality of this issue. Our printer has just installed completely new xerography equipment and some proofs they ran off for us looked very crisp. This equipment will even reproduce black and white photographs with nearly as good resolution as photo-offset printing. So we now seem to have the capability to publish photos in ARGIA at no extra cost. The printers have also added Canon color-laser equipment too, but that is a bit too pricey for DSA's budget just yet!

Speaking of photos for ARGIA, I want to make a second call for submissions. I know most of us are using mainly color film now, but why not shoot a roll of black & white now and then? Many of us have excellent older cameras put aside when we went to electronic and autofocus models. I am going to get out my old Minolta SRT and keep it loaded with black & white for ARGIA photos.

We would like to build up a stock collection of photos for future use. If

you have, or can take, photos of such things as habitat sites for interesting species, famous collecting spots, rivers or ponds, museum and library (outside & inside) shots, university entomology departments, people and events at meetings, anything of odonatological interest we would like to add it to our files.

Somewhere out there are old photos of our odonatological predecessors, why not send us copies of these?

It would also be great to include a photo and profile of DSA'S Presidents as they are elected. I KNOW the incumbents themselves aren't going to do anything about this request, so I am looking to wives and friends for help (please take notice Ailsa and Phoebe!)

The world has periodically experienced great technological revolutions, and nothing is ever the same again, fire, the wheel, manned flight, and electronics are examples. I think it was about 30 years ago that I saw my first computer, and at that time I couldn't have possibly foreseen any way it could assist a person who collected Odonata.

In one of Nick Donnelly's articles in this issue, he asks for information about who is using personal computers in our field of study and what they are using them for. Nick, I would like to make the following response:

Without my personal computer and word-processing program you would most likely not be reading ARGIA, at least, I would not be editing it. With word-processing I can edit, rewrite, remove, insert, reformat or rearrange text as easily as making moves on a chess board. I write the data-cards for my specimens on continuous-form index cards-- almost automatically. I maintain DSA's membership and mailing lists on floppy disks. Word-processing is equally as effective for writing scientific papers as it is for preparing ARGIA text. With my computer, I am almost keeping my correspondence current!

Two contributors of articles for this issue have sent computer prepared copy, Nick D., and John Michalski, this permitted me to format and insert their articles into copy-ready print-out in less than 15 minutes. It saves the

editor so much time that our policy from now on will be to submit copy on disk-ett (if you have access to a computer.) Please see Nick's article and our editorial response for more details.

If you collect dragonflies, and have to chose between your computer and your collecting net, throw away the net and keep the computer!

One of your Editor's more enjoyable occasions in recent weeks was attending a gathering of media and other interested persons at Chaney Lake, in Warren Co., Kentucky, for a sort of "show-and-tell" tour of the property after it was purchased by the Kentucky Nature Conservancy for presevation as a natural habitat for aquatic wildlife.

Although I have been aware of this organizaton's conservation work both in Kentucky and nationally, for quite some time, I had been not privileged to meet the officers of the Kentucky Chapter before this.

An article appeared in the Louisville Courier-Journal that highlights some of the projects the Conservancy has been involved with in Kentucky, and also provides a look at the Kentucky Chapter's Director, Jim Aldrich. ARGIA thanks the Courier-Journal for the opportunity to reprint that article.

The objectives of the Nature Conservancy and DSA are very similar in many respects. Both believe habitat preservation is the most vital single means for species conservation. Both believe selected natural habitats should serve both as a refuge for rare and endangered life forms and provide research and educational opportunities for continuing studies on these forms.

While the assured presevation of such sites as Chaney Lake is good news for everyone concerned with Kentucky's declining acreage of wetlands, other sites continue to be subjected to commercial and agricultural development.

Undoubtedly the most incerdulous proposal that I've ever heard of, was recently made by a Kentucky landfill operator in applying for permits to expand their landfill onto areas of protected wetland. Their proposal was to construct an "artificial swamp" nearby

to "replace" the destroyed natural swamp.

This seems to me to have about as much merit as painting a "new" Rembrandt to replace an original you wanted to destroy! This article, also first reported in the Louisville Courier-Journal, has been excerpted to provide background information for our editorial this issue.

Two of Wisconsin's DSA members, Tim Vogt and Bill Smith made headlines on national press release wire services a few weeks back. Their discovery of a new species of Ophiogomphus was the topic of interest. Most of the country's news papers picked up the story.

Hey fellows, how about acting as press agents for the rest of us poor hard working taxonomists who get published only in stuffy old research journals?

Be sure to check out Sid Dunkle's piece on dragonflying hollywood style! However, according to my latest intelligence reports from Gainesville, the person seen riding in the stretch limousine, wearing dark glasses, and having a bevy of bikini-clad starlets collecting his odonates, could not positively be identified as Sid!

Carl Cook, Editor

#### LADY CHANGES NAME TO "DRAGONFLY"

The following legal notice appeared in a Delaware newspaper recently:

IN THE COURT OF COMMON PLEAS FOR THE STATE OF DELAWARE, IN AND FOR NEW CASTLE COUNTY. IN RE: CHANGE OF NAME OF

Amy Elizabeth Leathrum, Petitioner  
TO  
Dragonfly Ame Leathrum

NOTICE IS HEREBY GIVEN that Amy Elizabeth Leathrum intends to present a Petition to the Court of Common Pleas for the State of the Delaware in and for New Castle County, to change her name to Dragonfly Ame Leathrum.

Amy E. Leathrum  
Petitioner

Item submitted by Hal White

CHINESE-GERMAN COOPERATIVE SURVEY OF  
CHINESE INSECTS ANNOUNCED

A recent joint press release by Dr. Ulf Eitschberger, The Entomological Museum, Markt-leuthen, Germany, and Prof. Hou Tao-Qian, Academia Sinica, Beijing, China, announces the formation of a new cooperative association for research on the insect fauna of China.

"The aim of this newly formed association of entomologists from the Academia Sinica in Beijing (Peking), China and from the Entomological Museum, Markt-leuthen, Germany is to form an appreciation of and to accumulate information about the insect species of China in as short a time as possible. The natural ecological balances in China are being upset daily. As this occurs, the natural ecological niches and also food chains and webs are being disturbed. Due to these factors, many species now found in China are on the verge, or are becoming extinct. Many of these species have yet to be discovered or noted by man."

"An important goal of the association is the close working relationship between entomologists in China and those from western countries. Thus it is urged that those interested western entomologists who have a scientific motive for their collecting activities should plan to visit China to gather and assimilate as much information as possible in the short time remaining."

"Published results may be made in the journal of choice of the author, but revisions of previous works will preferably be presented (in English) in Insects of China (Editor Hou Tao-Qian). The Chinese editors will translate MS into the Chinese language so that papers will appear in both languages."

"The joint Association will guarantee that entomologists may move freely throughout China to collect and observe insects. The entomologists who participate in the Association's programs should expect to work on the groups of insects that the Chinese researchers are working on at that time. Any entomologists wishing to participate in this program will be responsible for their travel costs to and from China. The Chi-

nese will arrange for food, lodging, transportation, etc., while inside their country. All activities will be under the sponsorship of the Academia Sinica."

"It should be understood that some of the collected insect specimens should remain in the collection of the Academia Sinica, and that the holotypes of any new species shall be deposited there."

"Anyone interested in assisting the Chinese in updating their entomological knowledge should contact: Professor Hou Tao-Qian, Institute of Zoology, Academia Sinica, 7 Zhongguancun Lu, Beijing (53), China 100080, or Dr. Ulf Eitschberger, The Entomological Museum, Humboldtstrasse 13A, D-8688 Markt-leuthen, Germany.

NEWS FROM THE BRITISH SIO OFFICE

The most recent society's newsletter concerning odonates, is KIMMINSIA, which is being published by the British National Office of SIO with Mrs. Jill Silsby as Editor.

Two issues have appeared to date in May and November, 1990 and future issues are scheduled to appear semiannually. It is free to SIO members in all British Commonwealth countries, but I suspect it would be made available elsewhere for a modest fee if requested. It will be primarily concerned with news relating to the U.K. membership, but I did notice an article in the first issue devoted to a species of the North American fauna: "An encounter with Tanypteryx hageni in the Cascade Mountains," by Robert Kemp. This would seem to indicate a willingness to publish interesting items from whatever province.

I can assure potential contributors of news items, speaking from personal experience, that Jill will welcome any and all. She may be reached at 1, Haydn Ave., Purley, Surrey CR8 4AG, U.K.

Congratulations, Jill, on a well organized and interesting new paper.



## NEWS FROM MRS. GLOYD AND MRS. KLOTS

In personal communications from Dr. Minter Westfall and Mr. John Michalski, your editor has received some items of news about two of our senior colleagues.

On February 13, 1991, Minter wrote that he had attempted to contact Mrs. L. K. Gloyd but that her son, Mr. Roger Gloyd, had answered the letter because Dolly was unable to respond herself.

Mr. Gloyd indicated his mother, who is in a nursing home nearby his place in Plano, Texas, is unable to read anymore and that he has to read her mail to her. He visits with her a couple of times a week to walk her in the hall, otherwise he says she just sits in her room. He thinks she would remember all of her old friends and would appreciate cards and letters from them. He will read them to her.

On March 8, 1991, John wrote me that he had asked Mrs. Elsie Broughton-Klots' daughter, a Mrs. Snell, if Elise was able to receive visitors and was advised by Mrs. Snell that she was too frail and weak. Her situation seems about the same as Dolly's, in that she is unable to read herself, and her daughter reads to her.

Perhaps I should add a note regarding my own mother, Mrs. Betty R. Cook, many friends continue to inquire about her after she broke a hip last summer. Of course, she was not an odonatologist herself, but shared 50% responsibility in creating one.

She will celebrate her 94th birthday August 15. She too is in a nursing home and mostly unable to move about except in a wheelchair, although she can take a short walk if partly supported. She is rather proud her son is president of DSA, but thinks he may not project the proper image of a presidency because of his "sloppy suits."

We feel sure all would be appreciative a greeting card or friendly note, they may be reached at:

Mrs. Leonora Gloyd, % Mr. Roger Gloyd,  
2625 Glen Forest, Plano, TX 75023

Mrs. Elsie Elsie Broughton Klots, % Mrs. Snell, R.R. #01, Box 99, Five Mile River Road, Putnam, CT 06260

Mrs. Betty R. Cook, % Metzmeier Nursing Home, 700 North Central Avenue, Campbellsville, KY 42718

## ROBERT MOYLAN GAMBLES, 1910-1990

Word has been received of the death of Dr. Robert Moylan Gambles on 11 December 1990. Dr. Gambles was perhaps the foremost authority on the Odonata of Nigeria. He described a long list of new species, and was the author of numerous papers concerning the West African Odonata fauna.

He was the recipient of many entomological honors, including the Presidency of SIO 1985-1987, Honorary Associate of the British Museum (Natural History), Fellow of Linnean Society, the Royal Entomological Society, and the Zoological Society of London.

His professional career was in veterinary science. He served as practising veterinarian in Cyprus and Nigeria. As a teaching veterinarian in Nigeria. And Research Officer in the U.K. Ministry of Agriculture. In spite of heavy professional duties, he still managed to make an extraordinary contribution to the science we loved-- Odonatology.

## INVITATION TO VISIT MILWAUKEE MUSEUM

I was pleased to learn Tim Vogt had arranged to host this Summer's DSA Meeting here in Wisconsin. I hope to attend and certainly would like to extend an invitation for anyone interested to visit the Milwaukee Public Museum.

The Odonata collection is small, but may contain material of interest i.e. Muttkowski material/archives, plus more recently collected specimens.

Susan Sullivan Borkin, Asst. Curator

## RESEARCH REQUESTS

### THE BICKS NEED MATERIAL OF EUTHORE

George and Juanda Bick wish to continue their studies of Polythoridae by investigating the Neotropical genus Euthore. Specimens seem to be very scarce. We would like to borrow specimens thought to belong in this genus which sometimes is confused with Cora and Polythore. Prompt study and return is promised. We no longer maintain a personal collection. The genus occurs in Guyana, Brazil (?), Venevuela, Colombia, Ecuador and Peru. Most specimens can be spotted by the two thickened antenodals.

Specimens and any information about these apparently rare damselflies will be appreciated.

George H. Bick  
1928 SW 48 Avenue  
Gainesville, FL 32608

material from North Carolina and Tennessee which I believe is true molesta.

Ken Tennesen has kindly loaned me his large series of Apalachicola adults, and Sid Dunkle has sent me larvae from the same location. I am strongly inclined to regard this form as Muttkowski's clara, but I need to see the holotype.

Sue Borkin has searched the collection at the Milwaukee Public Museum without finding it, but she sent copies of correspondence between Muttkowski and Charles Schaeffer which indicates the type was returned to the Brooklyn Institute, whose collection went to the US National Museum, where Oliver Flint has been unable to find any trace of it.

Does anyone know of its present whereabouts? I would be very grateful for any information.

Carl Cook  
469 Crailhope Road  
Center, KY 42214

### INFORMATION ON CHLOROGOMPHUS WANTED

Has anyone done any extensive work with the genus Chlorogomphus?

If so I would be interested in hearing from you. I am currently trying to classify specimens from Thailand and am hampered by lack of up to date text on the subject. I will swap specimens or data to anyone who can help.

Allen E. Barlow, Jr.  
411B Pasaic Street  
Hackensack, NJ 07601

### WHERE IS THE HOLOTYPE OF NEUROCORDULIA CLARA Muttkowski?

Several years ago Ken Knopf sent me a male Neurocordula collected at the Apalachicola River in Gadsden Co., Florida. He had identified it as molesta but it was not the same species as my

### MIKE MAY NEEDS RARE GENERA OF CORDULIIDAE

A couple of years ago I finished a revision of Neocordulia but, although there are two distinct species groups, I couldn't work out the phylogeny of the genus because I didn't understand how it related to other Neotropical gomphomacromiines. This led me into a study of the entire subfamily, which is gradually expanding to cover the whole Corduliidae.

Needed are the following genera which are seemingly very rare in collections: Synthemiopsis, Lauromacromia, Lathrocordulia, Nesocordulia, Syncordulia, Aeschnosoma, Libellulosoma, Metaphya, Paracordulia Pentatnemis, Neophya, and Idomacromia.

Any and all assistance will be much appreciated.

Michael L. May  
Dept. of Ent., Cook College  
Rutgers University  
P.O. Box 231  
New Brunswick, NJ 08903

## TOPIC FOR DISCUSSION

Having read CANNINGS & STUART's book The Dragonflies of British Columbia I was impressed by the numerous entries detailing species associations in various habitats. I have begun to note several such common associations here in New Jersey, where the appearance of one species will usually signal the presence of many others. For example, sites where I find Ladona julia typically foster populations of Argomphus furcifer, Dorocordulia libera, Leucorrhinia frigida, Aeshna clepsydra etc. It would be interesting if these various associations could be documented by DSA members in their respective areas, and the results summarized in ARGIA and/or DSA's annual Season Summary.

Allen E. Barlow, Jr.

### THE SYMPETRUM INTERNUM/RUBICUNDULUM QUESTION-- AGAIN!

Does anyone out there have a really good idea of what makes Sympetrum rubicundulum distinct from S. internum? Can anyone generate or produce some trustworthy illustrations of the hamules etc., for the rest of us poor wretches? I've got specimens, ID'd by reputable sources as internum that have hamules precisely like illustrations of rubicundulum, and, as far as I know I've never collected both species sympatricly at the same location.

Is there anyone out there brave enough to try to derive a nice, neat, once-and-for-all key to the genus for the North American Species?

John Michalski

(Editorial comments: Ah yes, how many of us have stumbled on Sympetrum's complexities? I can recall the late B.E. Montgomery's years of work on a revision of the genus. He got only the description of internum finished. What ever became of his partly completed MS and notes? Then I believe Ms L. Tai, who did her post graduate work at Purdue University, examined the systematics of the genus, but her PhD thesis was not

published in a journal and is not generally available or well known.

Several of us have specimens of the maverick east coast species which seems like a composite of rubicundulum and internum. Isn't this probably an undescribed species? Is there also two species confused under the name pallipes -- the light form with yellow legs from SW states versus a form from the Pacific NW with black legs and dark lateral stripe on abdomen? Could this be the form just now being described by Cannings & Garrison?

Sympetrum is surely one of the groups most in need of revision.)

## EXCHANGES AND NOTICES

**MICROSCOPES:** All types of compound and stereomicroscopes, accessories and optical components, new & used, sold, bought, and swapped. Antique microscopes especially wanted. Send for price list of items available.

C & K Instruments  
469 Crailhope Road,  
Center, KY 42214

**EXCHANGE WANTED:** I am interested in all families and material from all geographical areas. I have on hand approximately 1,000 - 1,200 different species at all times available for exchange. Particular wants are the several Nearctic species I lack: Ophiogomphus edmondo, Somatochlora brevicincta and S. septentrionalis, plus males of Coenagrion angulatum, Macromia margarita and M. rickeri, and ANY Gomphidae from ANYWHERE.

Carl Cook  
469 Crailhope Road,  
Center, KY 42214

**EXCHANGE WANTED:** Wants to exchange Odonata from North and Central America, and the Caribbean Islands.

Jerrell J. Daigle  
2166 Kimberly Lane,  
Tallahassee, FL 32301

I AM INTERESTED in corresponding and exchanging with anyone interested in neotropical Odonata. My collection for the U.S., Canada, and Alaska is almost complete. Lacking is: Enallagma lauranti, Ophiogomphus edundo, Somatochlora brevicincta and S. georgiana. Lacking from the Antilles are: Enallagma truncatum, Telebasis corallina, Gynacantha ereagris, Progomphus zephyrus, and Scapania archboldi.

Rosser W. Garrison  
1030 Fondale St.,  
Azusa, CA 91702-0821

EXCHANGE WANTED: Specimens and collecting data from the Republic of Malawi. I am trying to build as complete a list (with data) as possible to send along with specimens to Malawi Nat'l Museum. Will trade specimens from Malawi, Singapore, and Northeast US.

Allen E. Barlow Jr.  
411B Passaic St.  
Hackensack, NJ 07601

EXCHANGE WANTED: I am extremely interested in all Odonata from New Guinea, Philippines, Malaysia, Taiwan, Japan & SE Asia generally. Am anxious to receive any specimens and literature (I already have the seven-part Lieftinck series on PNG). In return I can offer many species from Trinidad (West Indies), eastern US (including NJ Pine Barrens), some Europe and Siberia, USSR. Will try to obtain anything physically possible to exchange with interested persons.

John Michalski  
90 Western Avenue  
Morristown, NJ 07960

DATA WANTED: The following people are known by the Editor to have regional lists in preparation and should welcome additional records from the states indicated: ALABAMA-- Ken Tennesen, 1949 Hickory Ave., Florence, AL 35630; KENTUCKY-- Carl Cook, 469 Crailhope Rd., Center, KY 42214; MISSOURI-- John F. Belshe, Dept. of Biology, Central Missouri State University, Warrensburg, MO 64093; NEW JERSEY-- Michael L. May, Dept. of Entomology, Rutgers University,

New Brunswick, NJ 08903; NEW YORK-- Thomas W. Donnelly, 2091 Partridge Lane, Binghamton, NY 13903; OHIO-- Robert C. Glotzhofer, Ohio Historical Society, 1982 Velma Avenue, Columbus, OH 43211-2497; VIRGINIA-- Frank L. Carle, 146 Mountain View Road, Warren, NJ 07060; WISCONSIN-- William A. Smith, E7618, Hwy. 14, Plain, WI 53577.

NEW BOOKS AVAILABLE: Two volumes that cover all known Odonata from Peninsula Florida, including vagrants, are now available. These books are illustrated with color photographs of each species, informal descriptions, and ecological information about each species. These books provide identifications for virtually all species that occur in the southeastern US, and nearly a third of the North American fauna. Dragonflies of the Florida Peninsula, Bermuda and the Bahamas, and Damselflies of the Florida Peninsula, Bermuda, and the Bahamas, by Sidney W. Dunkle. Available for \$14.95 (plus \$1.50 postage), each volume, from: Scientific Publishers  
P.O. Box 15718  
Gainesville, FL 32604

NEW BOOK REVIEW: A very nicely produced book has been published by the Zoology Department, University of the West Indies, St Augustine, Trinidad, as No. 6 of their Occasional Papers. It is A Catalogue and guide to the Dragonflies of Trinidad (Order Odonata), by John Michalski.

The contents and subjects covered are: In the introduction-- the classification of dragonflies, the structure of dragonflies, and collecting Odonata in Trinidad and some suggested collecting locales.

Part One consists of a catalogue of the Odonata of Trinidad known up to 1988 and also includes a listing of localities where the species have been collected in Trinidad.

Part Two is a rather informal identification guide to the species occurring within the covered area. This relies mostly on keys to the families, genera and species (quite well done) for identification purposes. Commentaries

are added about the identifying characteristics of some the more difficult to determine species, the well-drawn figures serve the same purpose nearly equally as well. The keys are exceptionally detailed, and in fact contain so much diagnostic information the guide is easily the best single source available to identify Trinidadian species.

An especially attractive feature of the book, and one that will be appreciated by visiting collectors, is an appendix listing species associations that may be expected in each particular Trinidadian habitat.

The book is well prepared, attractive, and modestly priced. If you are interested in Neotropical Odonata, it should be on your bookshelf.

(It can also serve another function for those who will be contributing to DSA's new series Bulletins of American Odonatology. This book was prepared on a PC word-processor in camera-ready format, so you can look at this book and see how attractive and versatile that medium can be done. This is essentially what issues of the BAO can be made to look like with a little imagination on the part of the author.)

CATALOGUE & GUIDE TO THE DRAGONFLIES OF TRINIDAD, by John Michalski, 1988. US \$10 postpaid, from Department of Zoology, University of the West Indies, St. Augustine, Trinidad.

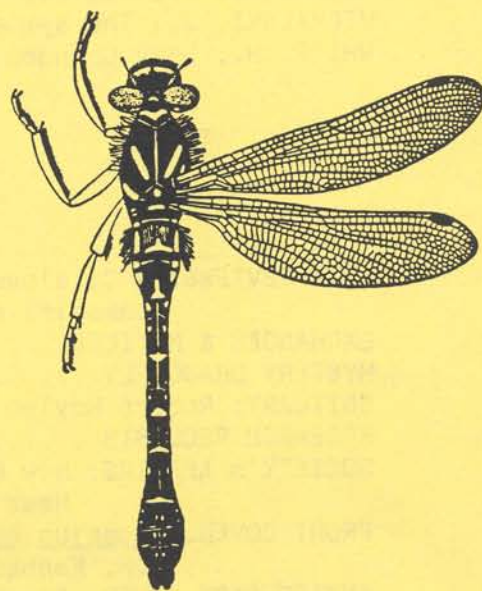
NEW BOOK REVIEW: Damselflies of Florida, Bermuda and the Bahamas, by Sidney W. Dunkle. This is the companion volume, covering the Zygoptera, of the same author's Dragonflies of the Florida Peninsula, Bermuda and the Bahamas which appeared in 1989.

It follows the same style of presentation as the first volume-- a rather informal treatment with language not too technical to scare off the weekend naturalist. As well as the same excellent photos of living damselflies. I thought photographs in the first volume would be difficult to surpass, but I believe these may do so, if for no other reason than the fact that damselflies are smaller, more difficult subjects to work with.

The descriptive prospectus on the

volume's back cover tells the book's story very well: "This is the first guide to the damselflies of any part of North America. All of the 46 species found in Florida, Bermuda, and the Bahamas are illustrated, a total that includes a third of all North American damselfly species. Over 100 color photographs depict all species in the area. The book minimizes technical language, yet is scientifically accurate and thorough, including line drawings to accurately identify species in the hand. The text includes chapters on classification, geographical distribution, anatomy, life history, photography, collecting techniques, damselflies in education, conservation, and a complete bibliography. Special features include a "Quick Guide" to Florida species, and checklists for Florida, Bermuda, and the Bahamas."

The book is available from Scientific Publishers, P.O. Box 15718, Gainesville, FL 32604



*EPIOPHLEBIA SUPERSTES*, FEMALE. Japan.

Adapted from De Selys with the wing-venation after Munz.

=====

CONTENTS

BARLOW, A.E., Jr., Topic for discussion .....	25
BICK, G.H., Oklahoma Revisited: Unpublished Records .....	1
BORKIN, S.S., Invitation to visit Milwaukee Museum .....	23
COOK, C., Editorial Response on computer use .....	8
COOK, C., Ecologically Significant Areas Adminstrated by KNC .....	14
COOK, C., How to get Information .....	14
COOK, C., Sites Open to Public .....	14
COOK, C., Landfill Requests Permit to expand onto Protected Wetlands ...	15
COOK, C., Replacment of Existing Wetlands with New or "Artifical Sites is Challenged .....	16
COOK, C., Across the Editor's Desk .....	20
COOK, C., News from Mrs. Gloyd and Mrs. Klots .....	23
DONNELLY, T., Prospectus for a New Journal for Odonata Faunal Studies ...	5
DONNELLY, T., Request for information on Computerized Data Retrieval.....	8
DUNKLE, S.W., Hollywood Dragonflies .....	10
EITSCHBERGER, U., Chinese-German Cooperative Survey Chinese Insects ....	22
JENNINGS, S., Nature Conservance Acquires Wetlands Site in KY .....	9
KAUKAS, R., The Kentucky Nature Conservancy; Dedicated to Ecological Conservation .....	11
MICHALSKI, J., Collecting Odonata in Trinidad, West Indies .....	17
MICHALSKI, J., The Sympetrum internum/rubicundulum Question-- Again! ...	25
WHITE, H., Lady Changes Name to "Dragonfly" .....	21

DEPARTMENTS

BOOK REVIEWS: A Catalogue and guide to the Dragonflies of Trinidad .....	26
Damselflies of Florida, Bermuda and the Bahamas .....	27
EXCHANGES & NOTICES .....	25
MYSTERY DRAGONFLY .....	4
OBITUARY: Robert Moylan Gambles, 1910-1990 .....	23
RESEARCH REQUESTS .....	24
SOCIETY'S AFFAIRS: New DSA Officers Elected for 1991-1992 .....	19
News from the British SIO Office .....	22
FRONT COVER: <u>Hagenius bervistylus</u> , a classical pin & ink drawing by C.H. Kennedy	
INSIDE BACK COVER: <u>Epiophlebia superstes</u> , a composite of classical drawings from De Selys and Munz	