

The Flyer



SUMMER 1988

Compilers: Neal Evenhuis & Chris Thompson

SECOND (DRAFT) ISSUE

The Flyer is a newsletter for and about Diptera workers. The purpose of *THE FLYER* is to increase communication among people interested in flies, and, thereby, promote work on flies. The newsletter will include information on workers, their collections, major publications and on-going research. Exchange and address notices will also be included. *THE FLYER* is not a scientific publication and will not include formal nomenclatural actions.

This issue of *THE FLYER* illustrates the style and content of the newsletter. The newsletter is divided into several sections: Progress Reports on projects of interest, such as catalogs and monographic series; descriptions of major Diptera collections; write-ups of dipterists; announcements of events such as the International Congresses of Dipterology as well as reports of events such as the meetings of Russian Dipterists. Information is needed from all fly workers if this newsletter is to be successful. Please let us hear from you, if you enjoy this newsletter and want to see more of them. Please send your contributions to Chris Thompson, Systematic Entomology Lab., c/o U.S. National Museum, NHB-168, Washington, D. C. 20560, USA

DIPTERA COLLECTIONS

The Diptera Collection in the J. Linsley Gressitt Center For Research in Entomology, Department of Entomology, Bishop Museum, Honolulu

The Bishop Museum, founded in 1889 by Charles Reed Bishop in memory of his wife, Princess Bernice Pauahi Bishop, represents the third largest holdings of entomological specimens in the United States (over 13,500,000) and is the primary data and research center for entomology in the Pacific Basin. The Diptera collection also rates as one of the largest in North America (over 2 million specimens) and contains the largest holdings of New Guinea mosquitoes in the world.

Specimens from New Guinea comprise about 60-70% of the Diptera collection. This is due in large part to the efforts of Dr. J. Linsley Gressitt. Appointed as Head of the Division of Entomology in the Department of Zoology in 1953, he became the first chairman of the newly formed Department of Entomology in 1960, and helped to establish the Bishop Museum Field Station at Wau, Papua New Guinea (1961). This station was later independently incorporated as the Wau Ecology Institute (1971) and has served as the base of research activities in New Guinea since its inception. The latest collecting programs that have taken place there by museum staff include canopy fogging of *Lithocarpus* by W.C. Gagné and A. Allison (1985) and a vertebrate ectoparasite survey by A. Allison, F.J. Radovsky, and A. Engilis (1985-1986).

Gressitt's monumental contributions to entomology were recently acknowledged by the Trustees of the Bishop Museum who, in 1984, resolved to name the entomological collections and associated research activities the J. Linsley Gressitt Center for Research in Entomology (GCRE) in his memory.

Acquisitions of specimens from major collecting expeditions throughout the Pacific as well as past and current support, grant support from the National Science Foundation for storage facilities, curatorial support, and the building housing the Department, have helped make the GCRE unparalleled in its significance as a primary depository and resource base for systematic studies.

The department's first large acquisition of insect specimens included about one-third of the material collected by R.C.L. Perkins for Fauna Hawaiiensis. Since then, material has been received from expeditions including: Line Islands (1924), Samoa, Fiji, central Pacific atolls (1924), Marquesas and Society Islands (1929-1932), Society, Tuamotu, and Mangareva Islands (1934), Guam and Micronesia (1937-1938), Samoa (1940), SE Asia, New Guinea (1957), Antarctica, subantarctic islands (1959-1967), Ryukyus (1963-1965), central Pacific islands (1965), Laos (1966-1968), Marquesas, Society Islands (1977), Louisiades (1978), New Caledonia, Vanuatu (1979), Marquesas, Tuamotus (1984), plus continuing collections from New Guinea and Hawaii.

The first full-time curator of the entomological collections was E.H. Bryan, Jr. (1911-1927), who added greatly to knowledge of Hawaiian Diptera, especially Drosophilidae. The next dipterist to be hired for the Department was Dr. Lawrence W. Quate (1957-1968) who worked on Diptera of medical importance. His collection and type material in the museum is substantial, especially of Psychodidae from various parts of the world. Dr. Wallace A. Steffan (1962-1985) came to the museum after spending a year in the Antarctic trapping flies on board ships. His ability to obtain outside funding from various agencies helped increase the size and curatorial significance of the collection, especially with regard to Diptera of medical importance (Tabanidae, Culicidae) and Nematocera (especially, Scleridae). The mosquitoes of the Papan Subregion project (1964-1966, 1973-74), on which he was the principle researcher, helped amass the world largest collection of Culicidae from these areas.

Other dipterists who have worked in the Department at one time or other include T.C. Maa (1958-1973; Hippoboscidae, Nycteribiidae, Streblidae), J.R. Vockeroth (1966-1967; Muscidae), Joaquin A. Tenorio (1971-1978; Culicidae, Ephydriidae, Sphaeroceridae), JoAnn M. Tenorio (1971-1987; Celyphidae, Dolichopodidae), Neal L. Evenhuis (1975-date; Bombyliidae, Culicidae, Strongylophthalmyiidae, Diopsidae), and Ralph A. Stoaks (1978; Chironomidae).

Research and field associates have also added immeasurably to the systematic importance of the Diptera Collections. Dr. D.E. Hardy has published numerous papers and monographs on Hawaiian Drosophilidae and Pacific Bibionidae, Pipunculidae, and Tephritidae, based on the Bishop museum collections, and has deposited many holotypes in the collection. Other associates who have added to the collection through this fieldwork include Dr. Steven L. Montgomery (Drosophilidae, Calliphoridae), N.L.H. Krauss (various families), Dr. Mario Maffi (Culicidae), and Drs. T. Okada and H.L. Carson (Drosophilidae).

The type collections of the Diptera reflect for the most part the specialties of staff and associates. Large holding of type material are

The reprint and literature files in the Diptera section are large and fairly complete for the Pacific. Acquisition of articles dealing with Australasian and Oceanic Diptera systematics is presently underway in an attempt to make the GCRE the primary resource center for Diptera studies in the Pacific. — Neal L. Evenhuis & Gordon M. Nishida

[illegible]

The *Catalogue of Palaearctic Diptera* is destined to become a basic handbook that will serve pure and applied entomologists, taxonomists, and museologists for years to come. The volumes will also be useful to researchers in veterinary medicine, agriculture, silviculture and horticulture.

NEOTROPICAL DIPTERA CATALOG

No further information is available on this catalog project, so the same information previously published has been repeated. As noted elsewhere Nelson Papavero has returned to São Paulo, so perhaps we may again see fascicles published.

The Catalogue of the Diptera of the Americas south of the United States, begun in 1966 and published irregularly in family fascicles by the Museu de Zoologia da Universidade de São Paulo, N. Papavero, editor, is nearing completion. Most of the 106 families originally listed have been published. The following are the family fascicles that have yet to be published: 9. Deuterophlebiidae, 12. Culicidae, 15. Chironomidae, 20. Sciaridae, 31. Therevidae, 37. Acroceridae, 43. Phoridae, 44. Platypezidae, 65. Lauxaniidae, 66. Chamaemyiidae, 71. Lonchaeidae, 86. Trixoscelididae, 88. Anthomyzidae, 89. Opomyzidae, and 95. Unplaced genera. Of the families listed above, only the Sciaridae by W.A. Steffan is in manuscript to be submitted. Unfortunately however, there is no prospect of publishing it or any other fascicle in the near future. — Celuta H. Paganelli.

FLIES OF THE NEARCTIC REGION

From the start of publication in 1980 up to the middle of 1988, 15 issues have been published. The rate of publication (2 or 3 issues a year) has been slower than hoped, limited by the ability of authors to produce manuscripts. I am anxious to increase the rate of publication so that the project can be completed in my lifetime.

The instructions for authors have just been revised in the light of experience. Because of the improved pricing situation, greater use of maps will be encouraged and photographs accepted routinely. Proposals for contributors to the series should be addressed to me as editor. I am empowered to act for the publisher in selecting authors and drawing up contracts with them.

The agent for sales in the United States is Lubrecht & Cramer, RFD 1; Box 227 (Route 42 and Forestburgh Road), Monticello, NY 12791. — Graham C.D. Griffiths, Editor.

MANUAL OF NEARCTIC DIPTERA

A final volume is planned to deal with the phylogeny and classification of the Diptera. It will include 3 chapters, one on the Nematocera, second on orthorrhaphous Brachycera, and third on the cyclorrhaphous Brachycera. The final editing of volume 3 is in progress, and barring unforeseen difficulties, the printed version will appear this year. — J. F. McAlpine, Scientific Editor.

SYSTEMATIC DATABASE OF DIPTERA OF AMERICA NORTH OF MEXICO

The *Systematic Database of Diptera of America north of Mexico* is designed to replace the 1965 *Catalog of Diptera of America north of Mexico* and to complement the new *Manual of Nearctic Diptera* (1981-1987). Progress on the database has been slow, but steady. Since the project was started, the data from the 1965 has been entered and distributed for revision. Almost all of the data has been revised and returned. The quality of revised data is diverse. Hence, much editorial work is required, more than originally planned for. Also, support for the project by USDA has been virtually non-existent. These factors have affected our progress. Format for the published version should be finalized and preliminary manuscripts should be ready for review by this fall. Publication should be in late 1989 or approximately six months after the publication of the third volume of the Canadian *Manual* and Evenhuis' *Australasian/Oceanian Catalog*. — F. Christian Thompson, editor.

DIPTERA SYSTEMATISTS RESOURCE DIRECTORY

This project will accumulate names, addresses and specific research information on entomologists throughout the world who specialize in the systematics of Diptera. Some 1,400 questionnaire were mailed in late 1986, with less than 500 returned. If there is a questionnaire with this *FLYER* and you want to be in the directory, please fill it out and return it. If there is no questionnaire, then we thank you for providing us with one the first time.

The plan is to publish this information as a directory (see the first issue of the *FLYER*). However, discussions are being held with coordinators of other newsletters on the possibility of consolidating data to publish a directory of systematists for all Insecta and allied classes. So, one way or another, look for a directory to be published in the coming year. — Neal L. Evenhuis & F. C. Thompson, co-ordinators.

Attention Malaise trappers!!!

I am interested in obtaining phorid flies from any collector running Malaise traps with alcohol as a killing agent. Towards this end I offer the following deal: I will pull all specimens of your group from my Malaise residues and send them to you in exchange for your phorids. I have approximately 200 samples, mostly from the Guelph, Ontario, Canada area, but will be doing a lot of trapping at my new location (Edmonton, Alberta) as well. Also, I have collected extensively in Arizona, California and the Yukon Territory last summer and in Ecuador this spring. I hope to be able to produce a list of residues in my collection as soon as I can get it on computer. This will include locality, date, etc., as well as a list of taxa already removed. I run all my traps with 70% ethanol as a killing and preserving agent. Anyone who is interested, please contact: Brian Brown, Department of Entomology, University of Alberta, Edmonton, Alberta, Canada, T6G 2E3.

FIRST INTERNATIONAL CONGRESS OF DIPTEROLOGY

The First International Congress of Dipterology was held in Budapest during 17th through the 24th of August 1986. Some 300 people attended and an equal number of papers were presented. A volume of abstracts was published, copies of which can be obtained for \$5 USA from Chris Thompson, Systematic Entomology Lab., c/o U.S. National Museum, NHB-168, Washington, D. C. 20560, USA. The income will be used to support the activities of the Council for the International Congresses of Dipterology. At the conclusion of the Congress a series of resolutions were passed. These are listed below.

Resolutions of the The First International Congress of Dipterology.

Whereas Flies, Diptera, are a large and diverse group of insects important as agents of pollination, natural enemies of pests, scavengers, experimental organisms in biology and medicine, and also as pests and transmitters of diseases; and whereas there is an urgent need to scientifically study all forms of Diptera to better understand their function in this World:

Be It Resolved

1. That this Congress sincerely thanks the Biological Section of the Hungarian Academy of Sciences, Dr. Tibor Jermy and all members of the Organizing Committee for their hospitality and efficient organization of the First International Congress of Dipterology;
 2. That this Congress authorizes, Dr. Ludovit Weismann of the Slovak Academy of Sciences to organize the Second International Congress of Dipterology in Bratislava in 1990;
 3. That this Congress appoints a Council for International Congresses of Dipterology responsible for providing continuity and direction for the International Congresses of Dipterology, with the following membership: Dr. G. C. D. Griffiths (Canada) - Chairman; Dr. M. Chvála (Czechoslovakia) - Vice-Chairman; Dr. F. C. Thompson (USA) - Secretary-Treasurer; Dr. I. Bock (Australia), Dr. D. J. de C. Henshaw (UK), Dr. I. M. Ipe (India), Dr. H. Kurahashi (Japan), Dr. L. Papp (Hungary), Dr. R. Rozkošný (Czechoslovakia), Dr. C. W. Sabrosky (USA), Dr. H. Ulrich (West Germany), Dr. G. C. Unnithan (Kenya), Dr. V. Zaitzev (USSR).
 4. That this Congress instructs the above Council to adopt a constitution modelled on the constitution of the Council for International Congresses of Entomology within one year;
 5. That this Congress urges all agencies employing or funding dipterists to support the preparation of regional catalogs, monographs and faunal works, including the Biosystematic Database of the Flies of the World, the Catalogue of Palaearctic Diptera, Catalogue of the Diptera of the Americas south of United States, the Catalog of Diptera of the Australasian/Oceanian Regions, Die Fliegen der Palaarktischen Region, the Flies of the Nearctic Region and the Manual of Nearctic Diptera; and
 6. That this Congress deplores the considerable gaps in information on tropical Diptera, and urges governments, funding agencies and workers on Diptera to make concerted efforts to remedy this situation.
- I certify that the above is an authentic copy of the Resolutions of the First International Congress of Dipterology held in Budapest, Hungary, 17-24 August, 1986. Dr. T. Jermy, Member of the Hungarian Academy of Sciences.

SECOND INTERNATIONAL CONGRESS OF DIPTEROLOGY

The Second International Congress of Dipterology will be held in Bratislava, Czechoslovakia from August 28 to September 1, 1990. The Congress will have 5 days of meetings, with the last day devoted to a field excursion and/or sight-seeing bus tour to Prague. The first circular will be mail this summer, with the second circular scheduled for the spring of 1990. A list of sections and workshops proposed is given below, but the final organization depends on the actually announced lectures. There will be open space for other workshops and evening sessions, if requested by the participants.

The program will consist of: **SECTIONS** - 1/ Advances in biosystematics of Nematocera; 2/ Advances in biosystematics of Brachycera; 3/ Morphology, ultrastructure; 4/ Physiology of Diptera; 5/ Semiochemical communication in Diptera; 6/ Genetics of Diptera; 7/ Ethology of Diptera; 8/ Ecology and population dynamics of Diptera; 9/ Control of Phytophagous Diptera; 10/ Control of Blood-sucking Diptera; 11/ Flies as vectors of human and animal diseases; 12/ Pathogens of Diptera; 13/ Medical and Veterinary dipterology; 14/ Problems of Tropical Dipterology; 15/ Synanthropic Diptera; 16/ Diptera as Bioregulators. **WORKSHOPS**: a/ Cecidomyiidae, b/ Ceratopogonidae, c/ Culicidae, d/ Chironomidae, e/ Simuliidae, f/ Syrphidae, g/ Sciomyzidae, h/ Tephritidae, i/ Drosophilidae, j/ Agromyzidae, k/ Oestridae (sensu lato), l/ World Catalogue of Diptera. **POSTER SESSION**.

The official language of the Congress will be English as regards correspondence and abstracts, but it will be possible to read a paper in any other language, provided the author distributes copies of the English version of his paper before the presentation. Fifteen minutes will be allowed for each presentation. — M. Chvála, Vice-Chairman, Council for International Congresses of Dipterology; Department of Systematic Zoology, Charles University, Viničná 7, Praha 2, CS 128 44 Czechoslovakia

British Dipterists get together

Annually the fly swatters of the UK and neighbouring countries get together for talks, exhibits and fun, along with a Dipterists' supper at the British Museum (Natural History). This year's event is scheduled for 12 November. Contact Alan Stubbs (Nature Conservancy Council, Northminster House, Peterborough, Cambs PE1 1UA ENGLAND)

Russian Dipterists also gather regularly

All Union Entomological Society and the Zoological Institute of Academy of Sciences of USSR (Leningrad) sometime ago suggested an idea to have periodic symposia on Dipterology for Soviet workers. So far four symposia have been held. The programs covered both taxonomic and applied subjects. The first symposium was held at Zoological Institute of Academy of Sciences of USSR at Leningrad on 6-8 April 1976 and had more than 80 participants. The symposium was dedicated to the memory of the distinguished Soviet dipterologist, Professor A. A. Stackelberg. The principal lectures (23) were published in a separate book entitled *Systematics and evolution of Diptera (Insecta)*, 127 pp., Leningrad 1977 (Gorodkov, K. B., editor). The next three symposia were held in different parts of USSR and were organized with the help of other institutes and universities. The second symposium was held at Voronezh, 13-15 September 1978 and had nearly 100 participants. The sponsor was the Voronezh State University. Nearly all papers (49) were published in a book entitled *Ecological and morphological principles of Diptera Systematics*, 121

pp., Leningrad 1979 (Nartshuk, E. P., editor). The book was translated into English and was published in India with the title *Systematics of Diptera (Insecta): Ecological and morphological principles* (New Delhi, 1985). The third symposium was held at Belaja Zerkov near Kiev (Ukrainian SSR), 15-17 September 1982 and had nearly 130 participants. Kiev State University was the sponsor of the symposium. All lectures (93) were published in two volumes: *Diptera (Insecta), their systematics, geographic distribution and ecology* 156 pp., Leningrad 1983 (Nartshuk, E. P., editor); and *Diptera (Insecta) of the fauna of the USSR and their significance in ecosystems* 150 pp., Leningrad 1984 (Nartshuk, E. P. and Zlobin, V. V., editors). The fourth symposium was held at Alma-Ata (Kazakh SSR), 17-19 September 1986. The Institute of Zoology of the Kazakh Academy of Sciences was the sponsor. 162 participants attended. The program contained more than 150 lectures and posters. All the lectures were published in 3 separate volumes at Leningrad 1987: *Two-winged insects: Systematics, morphology and ecology* (Nartshuk, E. P., editor); *Parasitic and phytophagous Diptera and their importance for animal husbandary and agriculture* (Nartshuk, E. P., editor); and *The blood-sucking Diptera and their control* (Vinogradova, E. B., editor). Novosibirsk was chosen for the next (Fifth) symposium that is being planned for 1989 at the Institute of Biology of the Siberian part of the Academy of Sciences of the USSR. — E. P. Nartshuk, Zoological Institute, Academy of Sciences of the USSR, Leningrad.

North American Dipterists Get Organized!!!

One of the major outcomes of the dipterist's meeting at the Boston ESA meetings was a consensus that we should form a dipterist's society, and that society should meet on an annual basis for a workshop and meeting. It was agreed that for 1988 we would simply meet informally for a day in the field prior to the International Congress in Vancouver, but for 1989 we would have an organized meeting at Archbold Biological Station at Lake Placid, Florida. Information on both activities follows. It is imperative that we hear from you by October of 1988 if you plan on participating in the spring meeting in Florida, since we will have to book accomodation and arrange a program.

FIRST ANNUAL MEETING OF THE NORTH AMERICAN DIPTERIST'S SOCIETY to be held at ARCHBOLD BIOLOGICAL STATION, LAKE PLACID, FLORIDA from APRIL 15-18, 1989. Dr. Mark Deyrup, of the Archbold Biological Station, has kindly offered to help us organise a meeting at the station next spring. The station has comfortable accomodations, good collecting, and meeting facilities. Costs are very reasonable, at 8\$ per day for food, 5-12\$ for accomodation, and 2\$ per day station fee. We will convene on the Friday, with an informal gathering Friday night, then have a day of talks on Saturday. Sunday will be reserved for field trips, with a closing meeting Sunday evening. Some participants will stay Monday to collect Diptera on the station property. In order for us to plan this meeting, and to reserve adequate accomodation, we have to hear from you soon! Please let us know by early October whether you plan on attending, and whether you plan on giving a paper. Deadline for paper submission will be the date of the annual ESA meetings this fall. That way we will be able to rough out a program at that time. Papers on Diptera biology, regional biotas, collecting techniques are solicited. Less formal papers than those customary at larger meetings would be appropriate. Payment for accomodation and food should be made while at the station. Please notify one of the members of the organizing committee of your intention to attend. Organizing committee: Steve Marshall, Department of Environmental Biology, University of Guelph, Guelph, Ontario, Canada N1G 2W1 (519-824-4120, X2720); Chris Thompson, USNM (202-382-1800; Monty Wood, BRC (613-996-1665).

Newsletters for Dipterists

There are a number of specialized newsletters for those working on various groups of flies. These newsletters usually include listings of recent publications, research interests and addresses of workers, along with other topical information. Some are listed below. If you know of others, please let us know.

DIPTERA — The British Diptera recording schemes maintain a general newsletter about their activities, which is published bi-annually. Alan Stubbs of the Nature Conservancy Council (Northminster House, Peterborough, Cambs PE1 1UA ENGLAND) is the co-ordinator.

The **Societas Dipterologica** publishes a newsletter which must have many interesting items in it as I do occasionally recognize my name and those of colleagues. However, as it is printed in Japanese characters (Kongee?) I am unsure what is its name or who is the editor. The contact point is: Soshi Gakkai, c/o Entomological Laboratory, Faculty of Agriculture, Kyushu University, Hakozaki 6-1-1, Fukuoka 812, JAPAN

TACHINIDAE — The **Tachinid Times** was recently started by Jim O'Hara (Dept. of Entomology, Univ. of Alberta, Edmonton, Alta., T6G 2E3 CANADA) and Monty Wood (Biosystematics Research Centre, Canada Agriculture, Ottawa, Ont. K1A 0C6 CANADA).

SYRPHIDAE — The **Hoverfly Newsletter** has published 7 issues, usually once a year, although the new editor Graham Rotheray (Royal Museum of Scotland, Chambers Str., Edinburg EH1 1JF SCOTLAND) plans for two issues this year. **XYLOTA** is a hoverfly newsletter published by E. Torp (Norrevang 19, 7300 Jelling, DENMARK) in Danish for local collectors. Three issues have appeared so far. **SYRPHOS** was a general newsletter run by me (FC Thompson) which might someday arise again like the Phoenix!

SPHAEROCERIDAE — **SphaeroNews** is produced by Brian Pitkin (Entomology, British Museum (Natural History), Cromwell Road, London SW7 5BD ENGLAND). The most recent issue (#3) includes beautiful series of New Year's greeting cards produced by Jindrich Rohacek.

TEPHRITIDAE — **Fruit Fly News** is produced by Ernst F. Boller (Swiss Federal Research Station, CH-8820 Wädenswil, SWITZERLAND). This is a comprehensive source of information on all aspects of fruit flies and includes within it a **Tephritid Taxonomy and Biology Newsletter** edited by Ian White of the CAB International Institute of Entomology (56, Queen's Gate, London, SW7 5JR ENGLAND).

CHIRONOMIDAE — **Chironomus**, covering all midges, is produced by Dr. Friedrich Reiss (Zoologische Staatssammlung, Münchenhausenstrasse 21, D-8000 München 60, WEST GERMANY).

New Journal for Dipterology

Our colleagues in the UK, Ireland and northern European are launching a **Dipterists' Digest**. The first issue is already filled and is scheduled to be mailed this November. The contents of this issue will be: Syrphidae known from Temperate Western Europe: Potential additions to the fauna of Great Britain and Ireland (Speight); A provisional species list of Syrphidae for northern France (Speight); Hoverflies in a city environment: Experiences in Coventry (Wright); Egg structure in four species of *Dixella* (Goldie-Smith); Diptera of Buckinghamshire wetlands (Gibbs); Notes on the hoverflies of the North Merseyside coastal dune system (Palmer). Advanced subscriptions are welcome. A reduced pre-publication offer of £2.50 (£3.00 overseas) is available until 31 October 1988. Send payment, in Pounds Sterling, to D. Whiteley, 730 Ecclesall Road, Sheffield S11 8TB, ENGLAND

COMINGS and GOINGS

OTTAWA — Art Borkent has departed from the Diptera Unit of the Biosystematics Research Centre, Canada Agriculture, Ottawa. His new address is 2330 70th Street SE, Salmon Arm, British Columbia, V1E 4M3 CANADA. With Art gone the Diptera Unit is now officially down to two, Dick Vockeroth and Jeff Cummings. Jeff is a new addition. He is (or was) hymenopterist, having done his PhD on eumenids at Edmonton, but now is digging into the empids.

WASHINGTON — Curt Sabrosky has finally left Washington to "retire" in New Jersey. His new address is 205 Medford Leas, Medford, New Jersey 08055 USA. However, as everyone who knows Curt knows, he is still active. Since his official retirement a few years ago, Curt has finished his monographs on Nearctic *Cuterebra* (1986) and *Protocalliphora* (in press) and is now working on his famous Index/Catalog to family group names proposed for Diptera. Lloyd Knutson, having finally relieved of his burden as the leader for Biosystematics in USDA, will be assuming leadership of our Biological Control of Weeds Laboratory in Rome, Italy. Lloyd will now have more freedom to pursue research on Diptera biology, especially of the phytophagous species. Tom Pape from Copenhagen continues his revision of New World *Blaesoxipha* (Sarcophagidae) on a Smithsonian fellowship. Amnon Freidberg of Tel-Aviv will spend his sabbatical here working on sciomyzids and fruit fly (Tephritidae). This fall Jon Gelhaus, who recently completed a PhD at Kansas under George Byers and on *Tipula*, will be in residence and working on the Alexander collection of crane flies.

EDMONTON — While some institutes are losing dipterists, never fear as some excellent replacements are being developed by graduate program at University of Alberta. Congratulations are in order for Dr. Douglass Currie who recently defended his thesis that *Parasimulium* really is the sister to all other blackflies. Studying for their PhD degrees are two other outstanding students:

Brian V. Brown is working on the evolution, taxonomy and biogeography of the Phoridae, especially trying to sort out some monophyletic groups in the giant genus *Megaselia*. His current sideline projects are a revision of the species of *Gymnophora* in the Holarctic (published) and Neotropical regions. Naturally, he is also greatly interested in phorid flies associated with, and parasitic on, social insects.

Gregory Courtney is revising the Deuterophlebiidae of the World as well as trying to resolve the relationships of the group to other flies.

Naturally, to keep these students in line there are a few resident dipterists, ranging from Prof. George Ball (honorary), Dug Craig, Graham Griffiths, and Jim O'Hara. All may be addressed at Department of Entomology, University of Alberta, Edmonton, Alberta T6G 2E3 CANADA

SÃO PAULO — Dr. Nelson Papavero, formerly of the Museu Goeldi in Belem, has return to the Museu de Zoologia da Universidade de São Paulo, Brazil. His new address is Departamento de Entomologia, Museu de Zoologia, Universidade de São Paulo, Caixa Postal 4365, 05508 São Paulo, SP, BRAZIL.

A pocket sized, battery operated aspirator

The most valuable tool used in collecting small insects is the aspirator. Not only is it often the only convenient way to pick up insects too small or too fast to grasp, it is also a good way to pick up or transfer fragile specimens that would be damaged by other means of handling. There are several kinds of aspirators in popular use, almost all of which involve lung power - insects are picked up by suction created by an operator inhaling on an intake tube or by suction created by an operator exhaling through a venturi chamber in the aspirator. The latter type of aspirator is awkward and rarely produces enough suction to be useful in collecting active insects in the field, and the former type has the disadvantage of involving the inhalation of small particles from the insects or from the substrate being aspirated. This problem is particularly acute for persons collecting insects from unpleasant or dangerous substrates, such as feces, and has led to the development of vacuum aspirators based on battery operated automotive vacuum cleaners (Marshall, 1982). Such vacuum aspirators have proven very useful, especially for taking large numbers of insects from a given substrate. They are, however, somewhat awkward for collecting individual specimens, especially from cryptic habitats where a smaller aspirator is more useful. Existing vacuum aspirators are also slightly too large (about 8" x 4") to be conveniently carried on collecting trips, and so have not replaced the pocket sized, traditional "mouth aspirator" as the aspirator of choice for most collecting purposes. For these reasons, I have found a newly developed, shirt-pocket sized, battery operated aspirator quite useful. It has now been field-tested for one summer of collecting Sphaeroceridae from all sorts of cryptic habitats. It doesn't have the suction to pick up most beetles or larger flies, such as muscids, but works well for most Nematocera and acalyptrates.

This small (1" x 5") aspirator is a simple modification of the "mini-vac" manufactured by Mini-Vac Incorporated, P.O. Box 3981, Glendale, CA 91201. Two modifications are required. One is to build up the area around the on/off button using silicone glue or some other material. Otherwise the on button is constantly being triggered on if you try to carry it in your pocket. The other modification is to discard the cleaning tubes, which are normally inserted in the intake port, and replace them with collecting tubes. My collecting tubes are made from two pieces of plastic tubing bought at any local aquarium shop. The smaller one (8 mm od.) has a fine brass screen affixed to one end (I do this by heating the screening and melting the tube to it); the other end fits the intake port. A larger tube (8 mm id.) fits over the screened end of the small tube and makes the actual collecting chamber. For live collecting, I use several of these tubes equipped with corks to fit the larger tube. For collecting into alcohol, after aspirating a specimen, I dip the end of the set-up aspirator into a vial, thus transferring the newly aspirated insect from the aspirator to the vial. The aspirator works on a standard 9-volt transistor battery, which should last most collectors a full season. — S. A. Marshall, Department of Environmental Biology, University of Guelph, Guelph, Ontario, N1G 2W1 CANADA.

INSTRUCTIONS FOR COMPLETION OF THE QUESTIONNAIRE:

The success of this project depends on the timeliness of you, the systematist, in completing and returning this questionnaire. Your cooperation is most appreciated.

Updates of any information given will be allowed. Please make a copy of this questionnaire for your files. When you want to make changes or additions, please send a revised copy to us.

Name: Please list your full name as it would be entered alphabetically in a bibliography (last, first, middle). For title, please enter Mr., Dr., Prof., etc.

Address: Include as full an address as possible including street numbers, postal box numbers, postal codes, etc. If this address is different from the one that was sent to you, please indicate by ticking the box after "Address Change?"

Languages: List those languages, in order of preference, that you accept for correspondence.

Taxonomic Specialty(ies): List those taxa that you are most familiar with in a taxonomic sense. Since this is the most critical portion of the information that will be scanned by the reader, be as specific as possible by listing also if you are willing to do identifications (use the abbreviation "ID") and list those zoogeographical areas that you are most proficient with for that particular taxon. See sample line for a typical example. Abbreviations for zoogeographical regions are as follows: NE = Nearctic, NT = Neotropical, PA = Palaearctic, AF = Afrotropical(Ethiopian), OR = Oriental, AU = Australian, OC = Oceanian. Please list taxa as family-group names. If you need to specify below family-group level for some taxa, please note this under "Further Comments" at the bottom of the page. If you need more room to list taxa, list on the reverse of the sheet.

Techniques Used: Circle only those disciplines that you have used in your work and plan to continue to use in the future.

F. Christian Thompson
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Washington, D. C. 20560 USA

DIPTERA SYSTEMATIST'S DIRECTORY QUESTIONNAIRE

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LANGUAGES: 1. _____ 2. _____ 3. _____

TAXONOMIC TECHNIQUES(circle all those that apply): adults, immatures,
morphology, cladistics, phenetics, evolution, phylogeny, genetics,
electrophoresis/biochemical, paleontology(fossils/amber), biology, ecology,
behavior, other (please list) _____

FURTHER COMMENTS ON TECHNIQUES: _____

TAXONOMIC SPECIALTY(S)(list taxa in order of preference/experience):
[Sample line: BOMBYLIIDAE ID - NE, NT, OR, AU, OC]
Your specialty(s):

FURTHER COMMENTS ON TAXONOMIC SPECIALTIES: _____

