

# The Flyer



FALL 1986

FIRST ISSUE (2ND EDITION)

Compilers: Neal Evenhuis, Wayne Mathis & Chris Thompson

*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 first 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 First International Congress of Dipterology as well as reports of events such as the first meeting of Scandinavian Dipterists. László Papp, Art Borkent, Celuta Paganelli, Hugo Andersson, Graham Griffiths, Ken Kanmiya provided some items, but most of the information is from the compilers. 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

### United States National Museum of Natural History

Taxonomic entomologists of the U. S. Department of Agriculture (USDA) and those of the Smithsonian Institution (SI) have worked together closely and effectively for so many years that they are widely considered to be one organization: Entomology at the National Museum. This cooperation has been directed toward the common objective of developing the National Entomological Collections for research and reference. The United States National Museum was established in 1842, two years before the founding of the Smithsonian Institution. In the beginning, natural history collections of the National Museum accumulated in the care of the Patent Office until they were transferred to the Smithsonian in July 1858. By the 1860's, insects were distributed for study to distinguished collaborating specialists and hence were eventually deposited in other museums. Diptera went to Baron von der Osten Sacken and thence in part to Herman Loew in Germany. Thus, many early Diptera types collected on U. S. Government surveys are now deposited in the Museum of Comparative Zoology, Cambridge, Massachusetts. Later, in the early 1870's, insect material from the Smithsonian was deposited in the collection of the Department of Agriculture. In the Department of Agriculture, a collection of insects was one of the early exhibits. Professor J. H. Comstock, while Chief Entomologist, greatly furthered the development of the

collection by bringing in the most eminent entomologists of the United States to work on the collection. For example, Comstock was able to get Samuel Wendell Williston to spend the winter 1880-81 in Washington working on flies. In 1881, the USDA officially transferred its insect collection to the Museum. C. V. Riley, the Chief Entomologist of the USDA, was designated Honorary Curator of Insects at the Museum. He donated his private collection of insects, with the idea of using it as a nucleus for the development of a collection fitting the dignity of a national museum. Thus, the Museum and its collections owe a great deal to the foresight of this great USDA entomologist who insisted on one systematic collection to be housed in the National Museum. These efforts have been continued by USDA entomologists, who collectively have contributed more than 2,200 man-years to the development of the U. S. National Entomological Collections. Since the early 1960's the Museum entomology staff has greatly expanded to assume much more of the responsibility for the collection as well as developing a strong research program of its own.

The study of North American Diptera is generally considered to have started with the arrival in 1856 of Carl Robert, Baron von der Osten Sacken, a Russian diplomat. The Smithsonian Institution played a prominent part in this early development by publishing the first 4 parts (the only parts) of a monograph of the North American Diptera as well as the first 3 catalogs to that fauna. When Osten Sacken returned to Europe in 1877, he gave his superb Diptera collection to the Museum of Comparative Zoology at Cambridge, Massachusetts. His departure left a void that was not filled until years later when personnel of the Division of Entomology, USDA, began their investigations of Diptera. The USDA provided the nucleus of the USNM fly collections; it purchased the initial Diptera collection, the Burgess Collection (1885), and employed its first dipterist, S. W. Williston (1886), to study these collections. Thereafter, Williston left his collection of Syrphidae to the USNM, adding the first Diptera types. As USDA programs expanded, D. W. Coquillett (1893-1911) took charge of the Diptera investigations and was made a Smithsonian Honorary Custodian. Since Coquillett (who donated his valuable collection of western Diptera through USDA in 1894), there has been a continuous succession of USDA dipterists who have brought not only their expertise to the USNM but also their libraries and collections [C. H. T. Townsend, (1911-19), R. C. Shannon (1912-16), J. R. Malloch (1912-12), C. T. Greene (1919-49), D. G. Hall (1935-45), and A. Stone (1931-71)]. The present USDA staff of dipterists has continued the traditions of their predecessors, especially W. W. Wirth, who has collected and donated some 100,000 flies. The first and, until recently, the only dipterist employed by the Smithsonian Institution was J. M. Aldrich, who had been previously employed by the USDA. When Aldrich was appointed by the Smithsonian in 1919, he was truly the master of the North American Diptera fauna, having written a catalog for it (1905). As such, his eminence made the USNM the center for studies on New World Diptera. In 1923 Aldrich donated his insect collection and card catalog file; his great library and author cards did not join his other collections until 1953 when they came with the Melander Library and Collection. J. R. Malloch, another prominent dipterist, was associated with the USNM mainly through his employment with the Biological Survey of the USDA (1921-38). The Smithsonian purchased his personal collection and library.

## USNM Diptera Collection (cont'd)

R. C. Shannon was associated with the USDA Bureau of Entomology at the start of his career, but spent most of his life with the Rockefeller Foundation in many parts of the world. However, he never forgot his earlier ties with the Museum and left most of his library and collection to the Smithsonian. Shannon's collection is particularly noteworthy, being especially rich in Neotropical and Chilean material. Shannon and F. W. Edwards of the British Museum (Natural History) had made a joint expedition to Patagonia and southern Chile, which resulted in a series of monographs of the flies of that region.

The Diptera collection of the USNM is rather mixed in its coverage. The Nearctic region and the New World in general are represented best, although there is material from all faunal regions. In all families, there are good synoptic series of the genera and species; but only in a few areas are there long or complete series for most of the included taxa. The strengths of the USNM Diptera collection are outlined below.

The most important general Diptera collections in the USNM are those turned over by the USDA and its scientists, those by J. M. Aldrich and R. C. Shannon, and those purchased from C. P. Alexander, J. R. Malloch and A. L. Melander. With the exception of Alexander and Melander, all of these gentlemen were associated with the USNM as noted above. A. L. Melander was a general dipterist and a specialist on Empididae. His collection and library were acquired for the USNM jointly by the Smithsonian, USDA, and the National Institutes of Health. The collection contained numerous types and about a quarter of a million specimens; and the library, which incorporated that of Aldrich, was probably one of the finest in existence.

Among the nematocerous Diptera, 4 groups are particularly well represented at the USNM: the crane flies, mosquitoes, biting midges, and gall midges. The crane fly collection is unsurpassed by any in the world, as the Smithsonian has recently acquired the C. P. Alexander Collection: probably the greatest private collection of flies ever made. More than 11,000 of the 14,000 known species of crane flies are represented by types (8,000+ holotypes). The gall midges (Cecidomyiidae) were poorly represented in the USNM, but R. J. Gagné, the USDA scientist for this group, has significantly improved the collection with much fresh material. The E. P. Felt Collection, containing types of about 1,000 species of cecids, is on indefinite loan to the Systematic Entomology Laboratory from the New York State Museum in Albany. W. W. Wirth built up the Ceratopogonidae collection from an insignificant one to probably the largest in the world, now containing about 250,000 slides; almost half of these have been identified to species. There is also much reared associated material. The collection's coverage is world-wide, with strong representation not only for the New World but also for the Oriental and Australian regions.

The mosquitoes (Culicidae) have received considerable interest from the early 1900's when L. O. Howard served as Honorary Curator. Pioneering work, done on the collection by Howard, H. G. Dyar and F. Knab (all USDA employees), culminated in the publication of *The Mosquitoes of North and Central America and the West Indies*, 4 volumes (1912-17). However, it was not until 1931 that Alan Stone, a USDA dipterist, was able to devote a significant portion of his time to this family. Largely through his efforts, the USNM became known as a center for mosquito studies throughout the world. Aside from the early Dyar and C. S. Ludlow collections that were present when Stone arrived, significant collections were received from R. C. Shannon, W. V. King, H. Hoogstraal, K. L. Knight, J. L. Laffoon, L. E. Rozeboom, and D. C. and E. B. Thurman during the 40 years that Stone curated the collection.

In 1964, under the auspices of a Smithsonian contract with the U. S. Army Medical Research and Development Command, a definitive study was begun on the mosquitoes of Southeast Asia. This was continued until 1974 when a new contract was initiated for the Medical Entomology Project. From 1964 to date, these 2 projects have accessioned more than 250,000 specimens and have described 100 new species of mosquitoes. When this material is formally accessioned by the USNM, the combined holdings will total more than 300,000 specimens with 1,200 primary types.

The brachycerous Diptera are best represented by 3 families: the Bombyliidae, Asilidae, and Empididae. The USDA purchased the R. H. Painter Collection of Bombyliidae and placed it in the USNM in 1975. Painter, a specialist on these flies, amassed an excellent collection of Nearctic bee flies which is particularly rich in material from the southwestern U. S. and Mexico. The USDA also purchased the Bromley Collection of robber flies for the USNM. This collection along with that of A. E. Pritchard makes the USNM holdings of these predaceous flies outstanding. A. L. Melander was one of the 2 world specialists on Empididae at that time and his collection brought to the USNM one of the most extensive collections of these flies in existence.

Of the cyclorrhaphous Diptera, the acalyptate families are all well represented. Much significant acalyptate material was acquired with the collection of A. H. Sturtevant, G. C. Steyskal, and A. L. Melander. The strong and continuing interest of the USDA in fruit flies (Tephritidae), as represented by the work of A. Stone, R. H. Foote, and G. C. Steyskal, has made the USNM holding of these flies one of the finest. Allen Norrbom continues this research interest. The Sciomyzidae, snail-killing flies, are likewise well represented. L. V. Knutson, working with collaborators throughout the world on the biology and taxonomy of Sciomyzidae and their application to biological control, has greatly expanded the collection's representation. The Ephydriidae, or shore flies, also deserve particular note for the strong cosmopolitan collection built by W. W. Wirth and being continued by Wayne Mathis.

Holdings of Tachinidae, Sarcophagidae, and Calliphoridae stand out among the calyptate flies, although most of the families of this group are well represented. Most of the leading New World specialists on tachinid flies have worked with and left their collections to the USNM. This series of specialists began with D. W. Coquillett, who first monographed the Nearctic tachinids in 1897, and continued with C. H. T. Townsend, J. M. Aldrich, C. W. Sabrosky, and now with Norm Woodley. Many other tachinid workers have augmented the collection by adding their types to it, and the USDA greatly expanded its scope by purchasing the N. Baranov Collection, which included much tachinid and sarcophagid material from the Old World. Thus, the USNM collection of Tachinidae is unusually valuable. The collections of Sarcophagidae and Calliphoridae are also exemplary due to the contributions of such specialists as J. M. Aldrich, D. G. Hall, H. W. Allen, and H. de Souza Lopes. The Hockett Collection of Anthomyiidae and Muscidae was donated in 1979.

The collection holdings are summarized by the following table which lists the curator, number of drawers, estimated number of specimens and number of primary types (holo-, lecto- or syntypes). Material (including types) can be borrowed for study by qualified specialists. Exchanges are also desired. The Smithsonian Institution provides limited support for short-term visits, as well as pre- and post-doctoral fellowships. More detailed information can be obtained from the curator in charge of the particular family of interest. The USDA curators are Gagné, Knutson, Norrbom, Peterson, Sabrosky, Thompson and Woodley and should be addressed care of: Systematic Entomology Lab., NHB-168, US National Museum, Washington, D. C. 20560. All other curators can be addressed care of: Department of Entomology, Smithsonian Institution, NHB-105, Washington, D. C. 20560.

## DIPTERA HOLDINGS OF THE USNM AS OF 1986

Family	Curator	Drawers	Specimens	Types					
Acartophthalmidae	Norrbom	0.1	45	0	Nymphomyiidae	Peterson	0.1	2	0
Acroceridae	Knutson	5.0	975	32	Odiidae	Sabrosky	2.1	850	9
Agromyzidae	Norrbom	44.0	15,000	217	Oestridae	Woodley	20.0	3,500	17
Anisopodidae	Peterson	3.2	398	18	Opomyzidae	Norrbom	1.1	500	3
Anthomyiidae	Thompson	104.0	33,500	108	Otitidae	Norrbom	26.5	3,000	35
Anthomyzidae	Sabrosky	5.1	800	4	Pachyneuridae	Peterson	0.2	8	0
Apioceridae	Knutson	3.0	380	11	Pallopteridae	Norrbom	2.1	612	1
Asilidae	Knutson	231.0	140,000	249	Pantophthalmidae	Peterson	2.2	86	1
Asteiidae	Sabrosky	4.5	1,462	43	Pelecorhynchidae	Peterson	1.2	105	4
Athericidae	Peterson	2.2	552	1	Periscelididae	Mathis	1.2	360	6
Aulacigastridae	Sabrosky	0.6	350	11	Perissomatidae	Peterson	0.2	4	0
Australimyzidae	Sabrosky	0.1	45	0	Phoridae	Thompson	6.0	3,000	331
Axmyiidae	Peterson	0.2	11	1	Phytalmiidae	Norrbom	1.0	76	0
Bibionidae	Thompson	17.0	5,500	69	Phophiidae	Norrbom	4.2	2,824	20
Blephariceridae	Mathis	4.3	1,053	43	Pipunculidae	Thompson	10.0	3,700	54
Bombyliidae	Knutson	207.0	105,000	474	Platypozidae	Thompson	4.0	1,200	7
Braulidae	Thompson	1.0	26	0	Platystomatidae	Norrbom	16.7	2,500	52
Calliphoridae	Woodley	82.0	6,300	115	Psilidae	Norrbom	3.2	1,465	10
Camillidae	Mathis	1.1	235	1	Psychodidae	Peterson	6.8	10,925	124
Canacidae	Mathis	9.5	4,040	26	Ptychopteridae	Mathis	2.4	412	46
Camidae	Sabrosky	2.1	788	8	Pyrrotidae	Norrbom	5.2	1,165	16
Cecidomyiidae	Gagné	77.0	998,964	263	Rhagionidae	Peterson	13.2	3,500	35
Celyphidae	Mathis	2.3	452	13	Rhinophoridae	Sabrosky	2.0	1,000	0
Ceratopogonidae	Peterson	104.0	188,362	911	Rhinotoridae	Norrbom	0.3	25	0
Chamaemyiidae	Norrbom	6.4	2,774	22	Richardidae	Norrbom	5.2	2,400	16
Chaoboridae	WRBU	2.0	2,450	23	Risidae	Sabrosky	0.6	14	1
Chironomidae	Peterson	52.0	50,000	240	Ropalomeridae	Norrbom	0.8	100	3
Chloropidae	Sabrosky	197.0	459,150	231	Sarcophagidae	Woodley	123.0	99,000	389
Chyromyiidae	Norrbom	1.8	750	2	Scathophagidae	Thompson	13.0	4,650	45
Clusiidae	Norrbom	6.0	2,500	127	Scatopsidae	Gagné	5.3	12,240	51
Coelipidae	Mathis	3.1	925	7	Scenopinidae	Knutson	4.0	525	50
Conopidae	Thompson	19.0	6,200	112	Sciadoceridae	Thompson	1.0	19	0
Cryptochetidae	Norrbom	1.0	575	2	Sciariidae	Gagné	8.0	31,616	13
Culicidae	WRBU	3,103.0	1,318,000	1,087	Sciomyzidae	Knutson	44.0	20,000	89
Curtonotidae	Mathis	5.1	1,028	1	Sepsidae	Norrbom	13.0	6,050	27
Cypselosomatidae	Mathis	1.1	175	4	Simuliidae	Peterson	48.2	25,000	203
Deuterophlebiidae	Peterson	0.2	2	4	Somatidae	Norrbom	0.6	175	12
Diastidae	Mathis	2.1	403	1	Sphaeroceridae	Norrbom	26.0	1,075	90
Diopsidae	Norrbom	4.1	2,100	7	Stenomericidae	Sabrosky	3.1	1,610	7
Dixidae	WRBU	2.0	913	24	Stratiomyidae	Woodley	51.0	39,000	117
Dolichopodidae	Thompson	110.0	42,500	734	Streblidae	Peterson	2.7	350	16
Drosophilidae	Mathis	67.0	39,200	357	Strongylophthalmyiidae	Norrbom	0.6	48	2
Dryomyzidae	Mathis	3.2	1,225	11	Synneuridae	Gagné	0.2	20	0
Empididae	Knutson	155.0	95,000	663	Syringogastridae	Norrbom	0.3	250	4
Ephydriidae	Mathis	244.5	126,440	194	Syrphidae	Thompson	322.0	170,500	472
Fergusoninidae	Mathis	0.3	13	0	Tabanidae	Peterson	133.0	45,000	163
Glossinidae	Woodley	2.0	600	0	Tachinidae	Woodley	312.0	272,000	1,689
Heleomyzidae	Mathis	15.7	5,833	44	Tachiniscidae	Norrbom	0.1	2	0
Hilarimorphidae	Peterson	1.2	36	7	Tanyderidae	Mathis	0.1	14	36
Hippoboscidae	Peterson	7.7	2,500	18	Tanypezidae	Mathis	1.1	250	2
Lauxaniidae	Peterson	35.4	15,180	191	Tephritidae	Norrbom	146.0	20,420	327
Lonchaeidae	Norrbom	9.5	3,283	44	Teratomyzidae	Sabrosky	0.1	10	0
Lonchopteridae	Thompson	3.0	450	0	Tethinidae	Mathis	8.3	4,050	19
Megamerinidae	Norrbom	0.5	375	1	Thaumaleidae	Peterson	0.2	74	3
Micropezidae	Norrbom	12.7	5,000	38	Therevidae	Thompson	18.0	5,760	0
Milichiidae	Sabrosky	20.8	11,200	54	Tipulidae	Mathis	231.0	51,575	8,334
Mormotomyidae	Norrbom	0.1	4	0	Trichoceridae	Mathis	2.7	623	121
Muscidae	Gagné	221.0	995,328	376	Trixoscelididae	Mathis	5.0	2,400	30
Mycetophilidae	Gagné	59.0	141,984	198	Unplaced Species	Mathis	0.4	20	2
Mydidae	Knutson	8.0	700	4	Vermileonidae	Peterson	1.2	31	1
Nomestrinidae	Knutson	5.0	625	5	Xenasteiidae	Sabrosky	0.3	39	2
Neottiophilidae	Norrbom	1.0	49	0	Xylomyiidae	Woodley	2.1	600	1
Neriidae	Norrbom	4.1	1,200	10	Xylophagidae	Woodley	4.1	1,500	6
Neurochaetidae	Sabrosky	0.1	3	0					
Nothybidae	Norrbom	0.3	30	0					
Nycteribiidae	Peterson	0.5	131	10					

## TOTALS

WRBS = Walter Reed Biosystematics Unit

6,972 5,700,901 20,585

## THE FIRST DIPTEROLOGICAL SOCIETY

*Societas Dipterologica* was established in 1966 in Japan. The Society publishes *Makunagi* (*Acta Dipterologica*), an occasional journal (1 (1966) - 13 (1984)), and newsletter. Contributions to the journal include the results of original observations, research, news from abroad, techniques and other items on Diptera. Descriptions of new taxa are not included. The Current President is Dr. M. Tokunaga, and the manager is Prof. T. Saigusa. At the present the society has a membership of one hundred. Applications for membership and subscription should be addressed to: Soshi Gakkai, c/o Entomological Laboratory, Faculty of Agriculture, Kyushu University, Hakozaki 6-1-1, Fukuoka 812, JAPAN. Annual membership fee for those residing outside of Japan is \$8. Back numbers of *Makunagi* are \$3 for 1-7 and \$6 for 8-13. - Kenkichi Kanmiya.

## NEOTROPICAL DIPTERA CATALOG

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. Platypozidae, 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.



## BIOSYSTEMATIC DATABASE OF FLIES OF THE WORLD

Excellent progress has been made during the last year on the Biosystematic Database of Flies of the World. First of all, note the change in title. As the "Catalog of the flies of the World" will in fact be a computerized database containing diverse data, as well as being in hard-copy format, we feel that BD-CFW is more accurate. Last spring, the project description and a request for comments were sent to more than 1000 dipterists worldwide. In August, a meeting on the BD-CFW was held at the XVII International Congress of Entomology in Hamburg. Also that summer, the USDA Biosystematics and Beneficial Insect Institute's (BBI) Wang VS-80 computer system, on which the project is being compiled, was upgraded to a VS-100, allowing faster processing and drastically enlarged storage capacity. The PACE software package (a relational database management system) was purchased for use on the system and has been installed. On 31 January 1985, the USDA Agricultural Research Service National Publications Committee approved publication of all 140 fascicles of the BD-CFW, with a recommendation for 3000 copies of the first fascicles and responsibility for their distribution residing with the BBI.

An International Editorial Advisory Committee was established in 1984, consisting of the following researchers: N.L. Evenhuis, Honolulu, Hawaii; K.D. Ghorpade, Bangalore, India; D.E. Hardy, Honolulu, Hawaii; W.N. Mathis, Washington, D.C.; V. Michelson, Copenhagen, Denmark; A. Nagatomi, Kagoshima, Japan; N. Papavero, São Paulo, Brazil; A.C. Pont, London, England; C.W. Sabrosky, Washington, D.C.; Á. Soós, Budapest, Hungary; B.R. Stuckenberg, Pietermaritzburg, South Africa; I. White, London, England; D.M. Wood, Ottawa, Ontario, Canada; and Fan Zi-de, Shanghai, People's Republic of China.

Currently, we are reviewing the comments received over the past few months and incorporating accepted suggestions in the project description and protocol. Upcoming activities include distribution of accepted changes to project participants worldwide, merging of computer software to accommodate special project needs, and communication with potential authors of fascicles about preparation of their parts. L. Knutson & F. C. Thompson (editors).

## COMINGS and GOINGS

Dr. Richard Lane, formerly the head of the Medical Diptera Section of the British Museum (Natural History), has taken a position with the Department of Entomology at the London School of Hygiene and Tropical Medicine (Keppel Street, London, WC1E 7HT, ENGLAND). He will continue his research on sandflies, especially on the biology of sandflies in relation to leishmaniasis.

Dr. Allen L. Norrbom joins the staff of the Systematic Entomology Laboratory, USDA. He will head up their research program on acalyptrae phytophagous Diptera, especially fruit flies. Al finished his PhD at Pennsylvania State University under Dr. K. C. Kim in September. His new address is: Systematic Entomology Laboratory, USDA, c/o U. S. National Museum, NHB-168, Washington, D.C. 20560, USA

Dr. Nelson Papavero, formerly of Museu de Zoologia da Universidade de São Paulo, has taken leave to become the Scientific Director of the Museu Goeldi in Belem, Para, Brazil. Dr. Jose Henrique Guimaraes likewise has left the Museu at São Paulo and has taken a position with the Department of Parasitology on the University campus. He is joined by Dr. Sixto Coscaron, formerly of Buenos Aires, who has also hired by the same department. Their new address is Departamento de Parasitologia, Inst. de Ciencias Biomedicas II, Universidade de São Paulo, Caixa Postal 4365, 05508 São Paulo, SP, BRAZIL.

Dr. Daniel J. Bickel has been granted a research fellowship with the Australian Museum, Sydney, to study dolichopods. His address is Australian Museum, P. O. Box A-285, Sydney South, 2000 NSW, Australia.

Dr. Peter Cranston, Diptera Section of the British Museum (Natural History), has accepted a position with the Division of Entomology, CSIRO, Canberra City, Australia. He will replace Dr. Donald Colless who will retire this coming year.

Dr. David Grimaldi joins the staff of the American Museum of Natural History, New York. He will head up their research program on Diptera, especially drosophilids. Dave recently finished his PhD at Cornell

## FIRST INTERNATIONAL CONGRESS OF DIPTEROLOGY

In the interest of developing stronger and better cooperation among dipterists, the Biological Section of the Hungarian Academy of Sciences is organizing "The First International Congress of Dipterology," which will be held in Budapest during 17th through the 24th of August 1986. The first Circular was mailed on 15 February, a second sent out in the fall of 1985, and the program sent in July 1986. The program lists the following sections: 1/ Advances in biosystematics of Nematocera; 2/ Advances in biosystematics of Brachycera; 3/ Morphology, ultrastructure; 4/ Physiology of Diptera; 5/ Endocrine control mechanisms in Diptera; 6/ Genetics of Diptera; 7/ Behaviour and Evolutionary Biology of Diptera; 8/ Ecology and population dynamics of Diptera; 9/ Control of Phytophagous Diptera; 10/ Control of Blood-sucking Diptera; 11/ Blood-Sucking Nematocera; 12/ Flies as vectors of human and animal diseases; 13/ Microbial pathogens of Diptera; 14/ Interactions between dung-inhabiting flies and other arthropods; 15/ Veterinary dipterology; 16/ Workshops, a/ Cecidomyiidae, b/ Ceratopogonidae, c/ Culicidae, d/ Chironomidae, e/ Simuliidae, f/ Tephritidae, g/ Drosophilidae, h/ Agromyzidae, i/ Syrphidae, j/ Oestridae (sensu lato), k/ World Catalogue of Diptera, l/ Biosystematics services for the identification of Diptera, m/ Diptera collections of the Hungarian Nat. Hist. Museum,.

The basic program is given as: August 17 - Arrival to Budapest, Registration; August 18 - Opening ceremony, sessions, social gathering; August 19 - Sessions; August 20 - Holiday - Excursion to Dobókö; August 21 - Sessions; August 22 - Sessions; August 23 - Excursion - Kiskunság National Park & August 24 - Departure.

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 congress language, provided the author distributes copies of the English version of his paper before the presentation. Fifteen minutes will be allowed for each presentation. L. Papp, Secretary; Zoological Dept., Hungarian Natural History Museum, Baross u. 13, Budapest, H-1088, HUNGARY.

## MANUAL OF NEARCTIC DIPTERA, Volume 2

This volume contains separate chapters for each of the 65 families of the Muscomorpha (= Cyclorrhapha) that occur in the Nearctic Region, following the same style and format used in volume 1. It will also include a list of corrections and addenda for volume 1, as well as a comprehensive index covering both volumes. Volume 2 will have a somewhat large number of pages than volume 1, but otherwise it is expected to be a matching volume. 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 text and illustrations for all the chapters are completed. Scientific and technical editing has been completed for all of volume 2, and final editing of volume 3 is in progress. Corrections, small charges and additions can still be accommodated, but all authors are asked to forward such details to me as soon as possible. The text for volume 2 was submitted to the printer in 1985, and barring unforeseen difficulties, the printed version will appear in March of 1987. - J. F. McAlpine, Scientific Editor.

## FLIES OF THE NEARCTIC REGION

From the start of publication in 1980 up to the middle of 1986, 11 issues (amounting to about 1800 pages) 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.

Initially there was a problem with high cost (45 cents per page in 1980). This problem has been mitigated by increasing sales and the move of exchange rates in favor of the U.S. dollar. Current prices are ca. 30 cents per page, which (allowing for inflation over 5 years) is a reduction in real terms of over 40%. Prices are now in the same range as those charged for specialized books of high quality by North American publishers.

The first issue on Dolichopodidae (Hydrophorinae 1 by Richard Hurley) has been published. Different subfamilies of dolichopodids will be treated by different authors, because no one author would take the responsibility for the whole of such a large family. The fifth issues of my anthomyiid work and of Hall & Evenhuis' bombyliid work were published in early this year. Charles Hogue's work on Blephariceridae has been recently submitted.

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.

Reviews of the series have, in general, been very favorable, the main point of criticism being the method of serialization used for lengthy works (as in the bombyliid and anthomyiid treatments). As editor I have no control over this, but I can explain it. The publisher prefers to bind issues of works published serially in units of 16 pages, because this will facilitate rebinding in hardcover when each work is complete. Pages additional to the last 16-page unit are therefore held over until the next issue. This results in temporary inconvenience for readers. Authors who are able to submit their contributions complete are assured that their work will be published complete with nothing held over. Only manuscripts that are submitted serially will be published serially. - Graham C.D. Griffiths, Editor.

## CATALOGUE OF PALAEARCTIC DIPTERA

Akademia Kiado, Budapest, and Elsevier Science Publishers, Amsterdam, launched a new *Catalogue of Palearctic Diptera* in 1984. This work catalogues the main taxonomic, nomenclatorial and distributional data on some 25,000 fly species from the Palearctic Region. The complete series will comprise 14 volumes, 13 of which will list some 132 Diptera families while the fourteenth will contain the cumulative index. The treatment of each fly family will be accompanied by a concise introduction that describes the family, briefly characterizes the imago and (if known) larva, the life cycle, distribution, and the number of species. All volumes will also contain extensive references to the literature and separate indexes. The name of every taxon is followed by the author's name, date of publication of the original description, the main literature references, which again precede in the case of species, the type locality, and distribution data. The *Catalogue* contains every available valid and invalid name of the species occurring in the Palearctic Region. The editors for catalogue are Á. Soós and L. Papp of the Hungarian Natural History Museum, Budapest. The editorial board also includes Prof. G. Morge (deceased), E. P. Nartshuk, Prof. R. Rozkošný and V. F. Zaitzev.

The first 2 volumes were published by Akademia Kiado, Budapest, on 15 October 1984. Volume 9 contains 322 valid genera, 72 subgenera, 2759 species and 72 subspecies assigned to 28 families. In addition, 215 synonymous generic and 1135 synonymous specific names, together with nearly 540 emendations, errors, incorrect identifications, and doubtful genera and species are listed. Contents include: Introduction; Aims and Scope; Structure; Genera and their type-species; Species names, type-localities, distribution, literature data, references; Readers; Type-species designations in this Catalogue; Acknowledgements; Families: Micropezidae (Á. Soós), Neriidae (Á. Soós), Megamerinidae (E. P. Nartshuk), Tanypezidae (Á. Soós), Strongylophthalmyiidae (N. P. Krivosheina), Psilidae (Á. Soós), Pyrgotidae (Á. Soós), Platystomatidae (Á. Soós), Otitidae (Á. Soós), Ulidiidae (V. F. Zaitzev), Tephritidae (R. H. Foote), Helcomyzidae (K. B. Gorodkov), Coelopidae (K. B. Gorodkov), Dryomyzidae (Á. Soós), Sepsidae (J. Zuska, A. C. Pont), Sciomyzidae (R. Rozkošný, K. Elberg), Lauxaniidae (L. Papp), Celyphidae (L. Papp), Chamaemyiidae (V. N. Tanasijshtuk), Cremifaniidae (V. N. Tanasijshtuk), Periscelididae (L. Papp), Piophilidae (J. Zuska), Thyreophoridae (L. Papp), Neottiophilidae (Á. Soós), Pallopteridae (G. Morge), Lonchaeidae (G. Morge, V. G. Kovalev), Odiniidae (N. P. Krivosheina), and Agromyzidae (L. Papp); Bibliography; and Index.

Volume 10 contains 254 valid genera, 90 subgenera, 2222 species and 20 subspecies assigned to 26 families. In addition, 209 synonymous generic and 764 specific names, together with nearly 540 emendations, errors, incorrect identifications, and doubtful genera and species are listed. Contents: Explication to distribution; Type-species designations in this Catalogue; Families: Clusiidae (Á. Soós), Acartophthalmidae (L. Papp), Heleomyzidae (K. B. Gorodkov), Trixoscelididae (Á. Soós), Pseudopomyzidae (N. P. Krivosheina), Anthomyzidae (H. Andersson), Opomyzidae (Á. Soós), Chyromyidae (Á. Soós), Aulacigastridae (L. Papp), Stenomericidae (L. Papp), Asteiidae (L. Papp), Cryptochetidae (E. P. Nartshuk), Sphaeroceridae (L. Papp), Tethinidae (Á. Soós), Milichiidae (L. Papp), Carnidae (L. Papp), Canacidae (B. H. Cogan), Ephyridae (B. H. Cogan), Xenasteiidae (L. Papp), Risidae (L. Papp), Braulidae (L. Papp), Camillidae (L. Papp), Diastatidae (L. Papp), Drosophilidae (G. Bächli, M. T. Rocha Pité), Curtonotidae (L. Papp), Chloropidae (E. P. Nartshuk), and genera of uncertain family position; Bibliography; and Index.

The editors, Á. Soós and L. Papp, Hungarian Natural History Museum, Budapest, report that volumes 11 and 12 (calyptrate families) were published early in 1986. Volumes 3 and 4 should be published by the end of 1986, and the remaining volumes are awaiting completion of various manuscripts before they can be sent to the printer. The volume contents and scheduled dates of publication are as follows: Vol. 1 - Trichoceridae - Nymphomyiidae (1988); Vol. 2 - Psychodidae - Chironomidae (1987); Vol. 3 - Ceratopogonidae - Mycetophilidae (1986); Vol. 4 - Sciaridae - Anisopodidae (1986); Vol. 5 - Athericidae - Asilidae (1988); Vol. 6 - Therevidae - Empididae (1990?); Vol. 7 - Dolichopodidae - Platypezidae (1989?); Vol. 8 - Syrphidae - Conopidae (1989?); Vol. 9 - Micropezidae - Agromyzidae (1984); Vol. 10 - Clusiidae - Chloropidae (1984); Vol. 11 - Scathophagidae - Hypodermatidae (1985); Vol. 12 - Calliphoridae - Sarcophagidae (1985); Vol. 13 - Anthomyiidae - Tachinidae (1987); Vol. 14 - Index to volumes 1-13 (1990?).

Distribution and price is three-tiered: For those residing in Socialist countries the Catalog may be obtained from Kultura, Hungarian Foreign Trading Co., H-1389 Budapest for 800 Hbt (= US\$4.50); for USA & Canada, Elsevier Science Publishing Co. Inc., P. O. B. 1663, Grand Central Station, NY, NY 10163 (\$101.75); and all other countries, Elsevier Science Publishers, P. O. B. 211, 1000 AE Amsterdam, The Netherlands (Dfl. 275 (= US\$83.00)).

The *Catalogue of Palearctic 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.

## A NORDIC SYMPOSIUM ON FLIES (DIPTERA, BRACYCERA)

In Sweden there is a "Service Center for Taxonomic Zoology (Zoo-Tax Centralen)" affiliated with the Naturhistoriska Riksmuseet in Stockholm and guided by the "Committee for Taxonomic Zoology" formed by representatives from universities and biological institutes. Connected with the latter organization are four taxonomists working at various universities on their respective groups: marine Oligochaeta, Platyhelminthes, Acarina, and Diptera Brachycera, s. lat. I am responsible for the last group.

The Service Center and I organized a "Nordic Symposium on Flies (Diptera, Bracycera)" held at the Riksmuseum 18-19 April 1985, with 36 participants from Denmark, Norway, Finland, and Sweden.

A special invited guest lecturer, Dr Milan Chvála, Prague, gave an informative lecture on "The phylogenetic relations between Empidoidea and the lower (orthorrhaphous) and higher (cyclophorhaphous) Diptera, a proof of the periandrial theory."

The regular program covered both taxonomic and applied subjects. I gave an historical survey of the research on Brachycera in Sweden and also discussed the taxonomic importance of inconspicuous but constant characters versus obvious and highly adaptive ones. Prof. W. Hackman, Helsinki, commented on the taxonomy of calyptrate flies based on investigation of the costal venation among Diptera. V. Michelson, Copenhagen, gave a talk on the phylogenetic relationships of Pipunculidae and rejected the theory of a periandrium in Cyclophorhapha. The biology and distribution of various Diptera were discussed by the following: U. Qvick, Eskilstuna, Sweden (Swedish Platypodidae), T. Nielsen, Sandnes, Norway (Scandinavian Platypodidae), and R. Mehl, Oslo (Norwegian Hippoboscidae). Th. Jaensen, Uppsala, gave a lecture on the Tse-Tse and trypanosomiasis problem in Lambwe Valley, Kenya. Further lectures treated Swedish projects of economic importance. J. Chirico, Uppsala, presented a survey of flies functioning as vectors for bacteria causing infection of cow's udders (mastitis), and spoke on the biological control of *Musca autumnalis*, which is a vector of *Parafilaria* in Sweden. T. Wallgren, Linköping (Sweden), described the control of flies on grazing cows by pyrethroids fixed to cow's ears. B. Nedstam, Alnarp (Sweden), reported on the biological control of the mining fly *Liriomyza bryoniae* in greenhouses. Finally, L. Lyneborg, Copenhagen, described the present status of the numerous planned parts of Diptera for the *Fauna Entomologica Scandinavica*.

Some of the lectures, or at least abstracts of them, were published in *Entomisk Tidskrift* (vol. 107, pages 1-30) early in 1986. Unfortunately, the lectures by Chvála, Michelson, Nielsen were not included. - Hugo Andersson.

## CATALOG OF THE DIPTERA OF THE AUSTRALASIAN/OCEANIAN REGIONS

In October, 1983, the National Science Foundation approved funding to the Bishop Museum for a five-year project to catalog the Diptera of the Australasian and Oceanian Regions, with an appendix including the Diptera of Antarctic and Subantarctic Regions. This catalog will essentially complete the cataloging of Diptera from all the regions of the globe.

Manuscripts submitted are entered on a Wang OIS system to handle the catalog data. This system will enable continual updates as necessary up to and beyond the publication date of the catalog (presently projected publication date is late 1988). The project is being coordinated with both the *Biosystematic Database-Catalog of Flies of the World* and *Systematic Database of Diptera of America North of Mexico*, being organized by the USDA.

Fifty-four dipterists from 12 countries have agreed to contribute to the catalog. After the two years of work, some 55 manuscripts have been submitted and approximately 600 bibliographic citations entered into the master bibliography. There are an estimated 20,000 species of Diptera from the regions covered by this catalog. - Neal L. Evenhuis, Editor.

## SYSTEMATIC DATABASE OF DIPTERA OF AMERICA NORTH OF MEXICO

About three years ago publication of a *Checklist of Diptera of America north of Mexico* was formally proposed. With the *Catalog of Diptera of America north of Mexico* (1965) more than twenty years out of date and with a new *Manual of Nearctic Diptera* (1981- ), a new catalog is needed. However, the 1965 *Catalog* has been reprinted, and its valuable bibliography is again available. The new *Manual* includes descriptions of the dipterous families, keys to families and genera, and references to taxonomic revisions. So, the narrative portion of the 1965 *Catalog* need not be updated. A checklist including and revising only the nomenclatural data of the 1965 *Catalog* is all that is needed. Such a checklist could be produced by automated methods in about a year.

During the first year, the *Checklist* project was approved by USDA. The necessary computer equipment was ordered and put in place. An editorial board was selected (Drs. Wayne N. Mathis (Smithsonian Institution), Curtis W. Sabrosky (USDA), and Monty Wood (Agriculture Canada)). Data entry began in May 1984 and was completed early in 1985. Some 20,000 specific names and 3,400 generic names were entered. The data are now being revised by the contributing authors. By late 1986, the preliminary manuscript of the entire work should be ready for final review. Publication should be in early 1988 or approximately six months after the publication of the second volume of the Canadian *Manual*.

The *Biosystematic Database-Catalog of flies of the World* project and the *Checklist* are interconnected. The *Checklist* will serve as a pilot test of the automated methods to be used for the *Catalog* project. While the *Checklist* will include only a very small subset of the data items to be included in the *Catalog*, it will use the same data and file structures, program, and computer equipment. Also, the *Checklist* project is being coordinated with the *Catalog of the Diptera of the Australasian and Oceanian Regions*. So, beyond the immediate benefit of a new checklist of North American Diptera, the *Checklist* will be the start of the first comprehensive data base of taxonomic information on a major order of insects. To emphasize this last point, the project has been renamed as *Systematic Database of flies of America north of Mexico*. - 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. The term "systematics" is defined here broadly as the classification of biological taxa using various techniques including morphology, biochemistry, genetics, evolution, etc. All information given in the attached questionnaire will be entered onto a computer data base and used as the source for a published Directory. Volume I of the Directory will be divided into 2 parts. The first part will give all names and addresses of systematists with a listing of their family specialties and taxonomic techniques they use. The second part of the volume will be a cross index by country of specialist, taxonomic specialty, zoogeographical region of work, and taxonomic technique. A second volume is tentatively planned to list all the Diptera holdings in museums, and private collections. A separate questionnaire for this Directory is in the planning stages and should be forthcoming in the next issue of this newsletter.

If you do not wish to be included in this directory or were put on the mailing list in error, please return this form with a statement saying such. Otherwise your name might inadvertently be entered into the final product.

## 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.

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DIPTERA SYSTEMATIST'S DIRECTORY QUESTIONNAIRE

LAST NAME(S) \_\_\_\_\_ FIRST NAME \_\_\_\_\_  
MIDDLE NAME(S) \_\_\_\_\_ TITLE \_\_\_\_\_  
ADDRESS \_\_\_\_\_

Address change? \_\_\_\_\_

CITY \_\_\_\_\_ STATE/PROVINCE \_\_\_\_\_  
COUNTRY \_\_\_\_\_ POSTAL CODE \_\_\_\_\_

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: \_\_\_\_\_