

## FLY TIMES

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Welcome to the latest *Fly Times*. As usual this issue contains our regular reports on meetings and activities, opportunities for dipterists, as well as information on recent and forthcoming publications.

The electronic version of the *Fly Times* continues to be hosted on the North American Dipterists Society website at <a href="http://www.nadsdiptera.org/News/FlyTimes/Flyhome.htm">http://www.nadsdiptera.org/News/FlyTimes/Flyhome.htm</a>. We will, of course, continue to provide hard copies to those without web access. We would greatly appreciate your independent contributions to this newsletter. We need more reports on trips, collections, methods, etc., with associated digital images if you provide them. Feel free to make requests and to share your opinions about what is happening in your area of study, or to pass on any ideas you have on how to improve the newsletter and the website.

The *Directory of North American Dipterists* is constantly being updated and is currently available at the above website. Please check your current entry and send all corrections to Jeff Cumming.

Issue No. 37 of the *Fly Times* will appear next October. If possible, please send your contributions by email, or disc, to either co-editor. Those of you without internet access may fax, or mail hard copy contributions. All contributions for the next *Fly Times* should be in by the end of September, 2006.

### **NEWS**

# Hurricane cannot stop meeting of the North American Dipterists' Society Symposium, held at the Annual Meeting of the ESA, 17 Dec 2005 Ft. Lauderdale, FL Convention Center

by Gary J. Steck Florida State Collection of Arthropods Gainesville FL 32614-7100; steckg@doacs.state.fl.us

This meeting had originally been scheduled for 8 November 2005, but because Hurricane Wilma badly damaged the Ft. Lauderdale area on 24 October, the organizers of the Annual ESA meeting were forced to reschedule the entire event to 15-18 December. Did I really write in my call for papers in the April 2005 Fly Times: "You can typically count on delightful weather in South Florida at that time of year, as attendees of 2002 will remember (and, not to worry, Hurricane season officially ends on November 1!)"?

Despite all this, the meeting did take place and only one of our scheduled speakers, Chris Thompson, was unable to attend. The formal presentations included:

- Steps toward a dipteran "Tree of Life", by Brian Wiegmann (North Carolina State University).
- Fossils, molecular clocks, and evolution of Therevidae, by Martin Hauser (University of Illinois).
- Atmospheric CO<sub>2</sub> levels and detritus consumed by *Culex* mosquitoes, by Joe Keiper (Cleveland Museum of Natural History).
- ATBI of Great Smoky Mountains National Park, by Gary Steck and Bruce Sutton (Florida State Collection of Arthropods).
- Trolling for tabanids, tephritids and other Diptera in tropical north Queensland, by Bruce Sutton and Gary Steck (Florida State Collection of Arthropods).

About 30 people were in attendance. I had intended to document the event with a group photo of attendees but got caught up in the general discussion afterwards. Eventually we were run out of the room by convention center staff after 10:30 p.m., and I never did get my photo. Maybe next time.

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#### **Annual Meeting of the North American Black Fly Association (NABFA)**

by Michael Spironello
Department of Zoology, University of Toronto & Department of Natural History,
Royal Ontario Museum, Toronto, Ontario Canada; mikesp@rom.on.ca

The 4th annual meeting of the North American Black Fly Association (NABFA) was held 28-31 January 2006 at the Archbold Biological Research Station in Lake Placid, Florida. The meeting was chaired by J.P. Overmyer of the University of Georgia, and organized by J.P. Overmyer and M. Spironello. Forty-two workers attended, including two workers from outside North America. The next annual

meeting will be held at the University of Georgia, Athens, Georgia, from February 7-9 2007. This change in venue will offer exciting new activities for participants, including touring the indoor black fly colony.

The NABFA website now has a permanent address (http://www.zoo.utoronto.ca/nabfa/NABFA.html), and is still the primary resource for NABFA members and any other entomologists interested in simuliidology and/or the association. Now that the website has been up for two years, we are archiving programs and abstracts from previous meetings. These can be downloaded from the website in pdf format.

Twenty-five presentations were given at the 2006 meeting. Anyone interested in the various topics covered by the presentations can download abstracts from the NABFA website, or by clicking the following url: http://www.zoo.utoronto.ca/nabfa/2006 Meeting Abstracts.pdf.

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#### Sixth International Congress of Dipterology, Fukuoka, September 2006

by Prof. Hiroshi Shima Biosystematics Laboratory, Graduate School of Social & Cultural Studies, Kyushu University, Ropponmatsu, Fukuoka, 810-8560 Japan 6icdrcb@mbox.nc.kyushu-u.ac.jp

The ICD6 will be held from the 23<sup>rd</sup> to the 28<sup>th</sup> of September, 2006 in Fukuoka, Japan. For important information about the Congress visit the ICD6 website at http://apollon.nta.co.jp/6icd. This site can also be accessed through the NADS website at http://www.nadsdiptera.org/ICD/ICDhome.htm.

It is our great pleasure to inform you that we are now planning to provide limited financial support for entomologists who wish to attend the 6ICD:

- (1) Number for financial support: 10 to 15 delegates.
- (2) Sum of financial support: 100,000 Japanese Yen per delegate. Qualifications of applicant are as follows:
  - (a) Delegates from developing countries and less than 46 years old.
  - (b) Delegates who have published at least one paper on Diptera in an international journal.
  - (c) Delegates who have completed registration, including a presentation abstract.

If you wish to receive financial support, please send via e-mail your name, title, the name and address of your university/institute/etc., date of birth, e-mail address, publication record, and the title of your presentation for 6ICD before April 30, 2006 to the address given above.

If there are more than 15 applicants, we will base our decisions on your application data. Selected applicants will be able to receive 100,000 Japanese Yen in cash at the registration desk on September 23, 2006.

## 16th International Chironomid Symposium - July 25-28, 2006 in Madeira, Portugal

Further information on these meetings can be obtained at www.uma.pt/chiro.symposium

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#### **BioSystematic Database of World Diptera**

by Irina Brake & F. Christian Thompson Systematic Entomology Lab., USDA, c/o Smithsonian Institution, MRC-0169 NHB, PO Box 37012, Washington, DC, 20013-7012, USA ibrake@sel.barc.usda.gov; cthompso@sel.barc.usda.gov

We, the Diptera community, stand tall among those representing the major groups of animals, as we have developed and disseminated the most comprehensive information source on names of one of the most important and biodiverse groups of organisms. We provide information on the nomenclature and taxonomy of some 150,000 species of Diptera, which represent about 10% of the World's biodiversity. No other major taxon has achieved this level. Last year we, for example, provided some 140,000 species to the Catalogue of Life, pushing them over half million species mark for the first time.

The master data files now include 213,745 name records representing 189 families, 10,923 extant genera and 148,407 extant species as well as 20,907 references. Version 7.5 was put online in October 2005. Our annual report for last year and other statistics on our progress are available online at the Diptera site (http://www.sel.barc.usda.gov/Diptera/biosys.htm), as well as our work plans for the coming years.

Shortly version 8.5 will go online. This will be complete through 2005 and current with Zoological Record volume 141. Hence, the version will serve as a bench mark to measure progress since the start of our science, Dipterology, with Fabricus 1805 Systema Antliaroum. We will report on that progress in future issues and at the Diptera Congress this September.

Other new developments are that Sherborn Index Animalium is now online (go to <a href="http://www.sil.si.edu/digitalcollections/indexanimalium/taxonomicnames/">http://www.sil.si.edu/digitalcollections/indexanimalium/taxonomicnames/</a>) and, as part of the new Biodiversity Heritage Library project (<a href="http://www.bhl.si.edu/">http://www.bhl.si.edu/</a>), we have now digitalized Kertész's Catalogus dipterorum hucusque descriptorum (1902 -1910, 7 volumes) and Becker et alia Katalog der Paläarktischen Dipteren (1903 - 1907, 4 volumes) and they should be online by the time you read this.

While much has been accomplished, much remains to be done. The critical tasks are 1) editing the data to meet our standards and providing for consistency and uniformity; 2) finding and adding missing data as well as correcting erroneous data; and 3) having all the data peer-reviewed by specialists to ensure that the highest scientific quality level is met. So, the BDWD team will be soon reaching out to all of you, for without your expertise we will fail.

Finally, we invite all to use the BDWD. If you are working on a catalog, faunistic list or what ever, please get in touch with us. We want to work with you so that we can improve our BDWD and hopefully help you. You will find us at www.diptera.org.

#### Request for Nematoceran Pupae

by Art Borkent 691-8th Ave. SE, Salmon Arm, British Columbia, V1E 2C2, Canada; aborkent@jetstream.net

I have initiated a study of the pupae of nematoceran families, worldwide, with two goals in mind. My first goal is to examine this poorly understood stage in the light of the phylogenetic relationships between the families of Nematocera. There are numerous problems in our understanding of the cladistic relationships at the family level and uncertainty regarding even the composition of some infraorders. My hope is that a closer study of the pupae will provide fresh insight. My second goal is to provide a good key to the pupae, something which is lacking in current synopses of our order.

I therefore would very much appreciate material of various families which you may have in your collection. Exuviae are excellent for interpreting some features and whole pupae for other character states, and for SEM study. Ideally I would like 5-10 specimens of both exuviae and whole pupae in ethanol. My intention is to concentrate on early lineages within each family but any species will be appreciated. If you have material you can donate to this research program, or material you can loan, please contact me before sending the specimens on.

So please keep me in mind as you are collecting this spring and summer. A group rearing of a given species will be much appreciated. And .... you get to have your name in my acknowledgment section in the final publication!

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"Send us your long coxa'd, your spurred tibia'd, your fungus-feeders and we shall sort them"

by Chris Borkent
2396 Estevan Ave, Victoria B.C. V8R 2S5, Canada; borkent@primus.ca
after August 15: c/o Terry Wheeler, Department of Natural Resource Sciences,
McGill University, Ste-Anne-de-Bellevue, Quebec, H9X 3V9, Canada; cborkent@alumni.uvic.ca

I'm talking about the Mycetophilidae (s.s.) of course. I am starting my Ph.D. with Terry Wheeler at the Lyman Museum, McGill University this September. My project will involve the systematics of one to a few genera within the Sciophilinae (choices pending availability of material). I would be glad to receive any material that is languishing in cabinets at the back of your Nematocera collections. I am willing to sort material (initially to subfamily and then to genus within the Sciophilinae) and will return the unused, determined specimens to you. I am particularly interested in material from the Palaearctic, Nearctic and Neotropical regions. Any rearing information (i.e. habitat, fungus spp. etc) or immature stages associated with specimens would also be highly useful and desired. If you have specimens that you would be willing to send me please email me at: cborkent@primus.ca (or cborkent@alumni.uvic.ca after August 15) and we can make the arrangements. All specimens will be housed at the Lyman Museum, and can be signed for by Terry if you need someone more official than a grad student on the loan forms. I hope I will be overloaded with material! Thanks in advance.

#### **Manual of Central American Diptera**

The editorial board is continuing to work on the final completion of the manual. Final stages of editing are nearly finished and plates are currently being completed and organized at INBio, in Costa Rica. Fortunately the Williston Diptera Research Fund has contributed \$10,000 to ensure that the art work is completed at INBio in a timely fashion.

The editors are currently approaching potential donators for funding to keep the cost of the final publication as low as possible.

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#### Myia

by Irina Brake & F. Christian Thompson
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**MYIA**, a traditional print publication, has made a step towards the future with a new online presence. Please go to its new web page at: http://www.sel.barc.usda.gov/Diptera/Myia/myia.htm.

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### Happenings in Georgia

by Frank E. French Georgia Southern University, P. O. Box 8042, Statesboro, Georgia 30460, USA; French@GeorgiaSouthern.edu

The major news from this site is that: [1] I am in the process of posting slide portraits of various Tabanidae stadia by Sturgis McKeever (100 images) and myself (20 images). Many of the images have been published elsewhere in color. We also have about 80 photos of miscellaneous less-known genera yet to submit, then on to a few other families that we have photographed. You can find the site at <a href="http://www.insectimages.org/">http://www.insectimages.org/</a> then search Diptera and photographer. I urge those of you who have photos, on slides or digital, that you are willing to share for education, to take up their offer to post them. Many families are not represented. [2] The spiroplasma bacteria from Tabanidae project is moving forward with sequencing and designation of about two dozen new groups and new species descriptions. This project is being driven by Laura B. Regassa and NSF support.

#### Syrphidae of Ontario

by Jeffrey H. Skevington
Agriculture & Agri-Food Canada, K.W. Neatby Building, 960 Carling Avenue
Ottawa, ON, Canada, K1A 0C6, Canada; skevingtonj@agr.gc.ca

Steve Marshall, Bill Crins, Dick Vockeroth and I have been working on a field guide to the flower flies (Syrphidae) of Ontario. We have now completed draft pages for 50 of the 73 genera that occur in the province and put the pages online at http://www.canacoll.org/Diptera/Staff/Skevington/Syrphidae/ Syrphidae.htm. Your comments and criticisms are welcomed. We are treating all 287 species that occur in Ontario as well as another 46 species that are likely to occur (333 species total). The idea of putting the pages online as we produce them is to stimulate interest in the project and attract additional comments and data. This has been very successful so far. Our target audience includes scientists interested in syrphid ecology, naturalists, extension personnel, and other systematists. We plan to follow this book with an interactive key to all of these species. This will provide two entry points for identification. The field guide will serve at the very least to identify most of the easy to moderately difficult species (~75% of the species) and the key will provide a more definitive method for identification of all the species. There are still some taxonomic hurdles to overcome that will leave some genera treated unsatisfactorily (for example, Chrysotoxum and Cheilosia require revision), but overall, we hope that this project will stir up interest in a fantastic group of flies, most of which are as easy to identify as dragonflies or butterflies. If we are successful with this project, we plan to extend this project into other regions. We expect to publish components of this work in the exciting new Canadian Journal of Arthropod Identification (http://www.biology.ualberta.ca/bsc/news24 2/projectupdate.htm).

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#### Pipunculidae Tree of Life

by Jeffrey H. Skevington Agriculture & Agri-Food Canada, K.W. Neatby Building, 960 Carling Avenue Ottawa, ON, Canada, K1A 0C6, Canada; skevingtonj@agr.gc.ca

For those interested in information on Pipunculidae, I have populated the Tree of Life web site with information on the main clades and all currently valid species names (http://tolweb.org/tree?group=Pipunculidae). The authors are not yet tied to the names but will be added as soon as I figure out how to do this in an efficient manner. Steve Marshall provided a wealth of great photos to illustrate the web site. I plan to add type photos as I obtain them (to see how this will look, see species in the genus *Collinias* - http://tolweb.org/Collinias/54648). Other pipunculid specialists have been encouraged to contact me and add their type photos and species level information to the pages.

I encourage others to populate the tree of life pages for your groups of interest. The web tools for creating the pages are easy to use and the kinks are rapidly being ironed out of them. At this time, the only other Diptera families that have significant coverage include: Acartophthalmidae (by Owen Lonsdale, http://tolweb.org/Acartophthalmidae/10629), Bombyliidae (by David Yeates and Christine Lambkin, http://tolweb.org/Bombyliidae/23894), Clusiidae (by Owen Lonsdale and Steve Marshall, http://tolweb.org/Clusiidae/10628) and Somatiidae (by Owen Lonsdale, http://tolweb.org/Somatia/10596).

#### **New Empidoidea Resources on NADS website**

by Scott Brooks & Jeff Cumming
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New Empidoid resources are now available on the NADS website. These web pages can be accessed by clicking on the "Empidoidea" link on the NADS homepage sidebar under the "Taxon-based pages" heading. This new site includes information on the diagnostic features, biology and diversity of the Empidoidea, characteristics and natural history of the traditional "Empididae" (i.e. the Empidoidea exclusive of the Dolichopodidae *s.str.*), characteristics and natural history of the Dolichopodidae *s.str.*, a review of the higher classification and phylogeny of the Dolichopodidae, and links to the relevant parts of the CNC Diptera Type Catalog that list the primary types of Empidoidea housed in the CNC. Also included is an up-to-date checklist of the Dolichopodidae *s.str.* of America north of Mexico, which is based on the recent catalog of Pollet et al. (2004). This checklist will be regularly revised as new taxa and changes in classification relevant to the fauna of America north of Mexico are published.

Pollet, M.A.A., S.E. Brooks and J.M. Cumming. 2004. Catalog of the Dolichopodidae (Diptera) of America north of Mexico. Bulletin of the American Museum of Natural History 283: 1-114.

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#### **Art Borkent's New Website**

Art has a new site at the following address: http://www.inhs.uiuc.edu/cee/FLYTREE/Borkent.html

It is similar to the site hosted at Bishop Museum but includes a world catalog of the Ceratopogonidae and a few other features. Check it out.

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#### R.V. (Bobbie) Peterson Passes Away

We regret to inform you that Bobbie Peterson died in Utah on 29<sup>th</sup> March 2006 at the age of 77. He was born on December 16, 1928. He worked as a research scientist in Ottawa at the Canadian National Collection of Insects for many years until 1984 and then at the Systematic Entomology Lab., USDA in Washington DC from 1984 until his retirement in 1994. Bobbie worked on many families of flies, but mostly on black flies. He authored or coauthored 83 scientific papers (including 7 genus group names and 67 species group names).

#### Pavel Andreyevich Lehr: 1923-2005

by Rob Cannings Curator of Entomology, Royal British Columbia Museum, Victoria, BC, V8W 9W2, Canada. rcannings@royalbcmuseum.bc.ca

Pavel Andreyevich Lehr, the prominent student of Palaearctic Asilidae, died on 15 September 2005 at the age of 82 years. Born on 27 September 1923 in Saratov, Russia, in 1941 he and his family were deported to a small village in South Kazakhstan after the liquidation of the German autonomous region in Povolzhye. From April 1942 to September 1943 he was held in a so-called labour army (really as a prisoner) in the South Urals but was "demobilized" because of starvation. But he survived. In 1953 Pavel Andreyevich graduated, cum laude, from Kazakh State University in Alma-Ata and subsequently taught high school with his wife Nina in North Kazakhstan. From 1956 to 1965 he headed the Laboratory of Biological Control in the Institute of Plant Protection in Alma-Ata and from 1965 to 1973 he was a teacher and later professor of Kazakh State University. In 1973 Pavel Andreyevich was made head of the Laboratory of Systematics and Zoogeography of Terrestrial Arthropods in the Institute of Biology and Soil Science, Vladivostok. From 1977 to 1979 he was Deputy Director of this Institute and from 1981 to 1991 he was Director. From 1991 until his death he was a consultant to the Russian Academy of Sciences.

Lehr's Ph.D. dissertation, "Asilid flies of South-East Kazakhstan", was defended in 1959; an additional doctoral dissertation, "Asilid flies of Kazakhstan and Middle Asia" was completed and defended in 1970. In 1987 he was elected a corresponding member of the Academy of Sciences.

In 1973 Lehr founded the Laboratory of Systematics and Zoogeography of Terrestrial Arthropods (later called the Laboratory of Entomology) in the Institute of Biology and Soil Science, Vladivostok. It was his idea to create the fundamental publication, "Key to the Insects of the Russian Far East", which deals with all the insects of the Russian Far East and adjacent territories. This long-term project (19 parts in 6 volumes) began in 1986; 16 parts treating more than 23,000 insect species, have already been published.

Pavel Andreyevich was a world authority on robber flies (Diptera: Asilidae). He investigated vast territories of the Russian Far East, Siberia, Kazakhstan and Middle Asia. He described one subfamily, four tribes, 34 genera and 292 species and subspecies, mainly from the Palaearctic region. His asilid collection, housed in the Institute of Biology and Soil Science, Vladivostok, numbers 40,000 specimens of 700 species, including the holotypes of 117 species and paratypes of 57 species. His sections on the Asilidae in the Catalogue of Palaearctic Diptera (1988) and the monograph "Robber flies of the subfamily Asilinae (Diptera, Asilidae) of the Palaearctic Region" (1996) are among the most important of his 89 scientific contributions. Pavel Andreyevich supported many young researchers - nine Ph.D. dissertations have been defended under his guidance and some of his students now hold prominent positions in Russian entomology. His colleagues have named two genera and 21 species after him; this number will surely increase in the years to come.

In 1993, I was one of Pavel Andreyevich's first foreign visitors after the dissolution of the Soviet Union. Vladivostok had been a closed city and impossible to visit earlier. I was in the early years of my study of *Lasiopogon*, and virtually all the material of this genus from eastern Asia was in Lehr's collection.

After weeks in the lab and field, I flew home with almost 1000 borrowed specimens and others that I had captured during my trip. These collections were critical to my work, as were the piles of Russian asilid papers that Pavel Andreyevich gave me during my stay (not only was he an accomplished systematist, but he wrote insightful papers on robber fly ecology). He was a gracious host and I will always cherish his generosity and friendship.

Perseverance, tenacity and dedication helped Pavel Andreyevich overcome the tribulations of his life. Integrity and honesty guided his actions and his work. His humanity and unquenchable interest in the insect world endeared him to his friends and colleagues. They will not forget him.

Pavel Andreyevich Lehr is buried in Sergiev Posad, near Moscow.

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#### **Another Photo of Two Dipterists From Past Years**



Here are (from left to right) Steve Marshall (University of Guelph), Terry Wheeler (McGill University) and, sadly having passed away last December, a noted coleopterist, Steve Ashe (University of Kansas). Steve Ashe was known to and a friend of many in our Diptera community.

This photograph was taken July, 1988 on top of Mt Raymond, Haida Gwai'i (Queen Charlotte Islands), British Columbia. Thanks to Robb Bennett (a spider worker from British Columbia) for the contribution.

#### S.W. Williston Diptera Research Fund and Others

by F. Christian Thompson Systematic Entomology Lab., USDA, c/o Smithsonian Institution, MRC-0169 NHB, PO Box 37012, Washington, DC, 20013-7012 USA; cthompso@sel.barc.usda.gov

The Diptera group in Washington is fortunate to have two small endowment funds to support Diptera Research. The first, the S.W. Williston Diptera Research Fund, was established in the 1970s and is opened to further donations to its principle by anyone. The principle has been slowly increasing over the years by donations from local dipterists, such as Norman Woodley, Steve Gaimari, Darlene Judd, and others. About \$5,000 is available annually to support current activities. A second fund, the Curtis W. Sabrosky, was established by Curt's will and is a closed fund (no new contributions accepted). From the Sabrosky Fund, about \$4,000 is available annually.

Support may be requested at any time. The selection committee meets a couple of times a year or as needed to evaluate proposals. This year, however, there will be a special competition for student travel grants for 6th ICD in Japan. They plan to award up to 4 grants of about \$3,000 USD to cover the basic travel, per-diem and student registration. Applications for Japan need to be submitted IMMEDIATELY. For complete information about these funds, go to the Diptera Web site and look under opportunities (http://www.sel.barc.usda.gov/Diptera/willisto.htm)

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## **Books and Publications**

(with thanks to Chris Borkent, Victoria, B.C., for completing a literature search)

Ballard, J.W.O. 2005. The population biology of mitochondrial DNA and its phylogenetic implications. Annual Review of Ecology Evolution and Systematics 36: 621-642.

Cerretti, P., S. Hardersen, F. Mason, G. Nardi, M. Tisato and M. Zapparoli (eds.). 2004. Invertebrati di una foresta della Pianura Padana, Bosca della Fontana. Secondo contributo [Invertebrates of a Padana Plain forest, Bosca della Fontana. Second contribution]. Conservazione Habitat Invertebrati 3: 1-304 [in English and Italian]. Copies are available from Dr Franco Mason, National Centre for Study and Conservation of the Forestry Biodiversity, Verona-Bosco della Fontana State Forestry Corps, Via Carlo Ederle 16/a, I-37100 VERONA (Italy), tel. + 39 45 8345445, fax + 39 45 8341569 email: fmason@tin.it. This attractively produced second study of the invertebrates of a small nature reserve in northern Italy is of interest because the area surveyed represents one of the few relatively undisturbed fragments of primary woodland which originally covered the Padana Plain (for an overview of the first study see Fly Times 29: 15). The entire survey is of particular interest to dipterists because the order is dealt with more comprehensively than many of the other groups and includes many excellent coloured figures of flies. In this second contribution for example, there are 5 chapters on Sciaroidea, Culicidae, Stratiomyidae, Asilidae and Tachinidae, as well as short notes on Bibionidae, Bombyliidae, Cecidomyiidae, Chaoboridae, Drosophilidae, Ephydridae, Periscelididae, Sarcophagidae, Scatopsidae, Sepsidae and Syrphidae, authored by numerous specialists. Direct collecting and a diverse series of trapping methods were used to survey the Diptera, including rearing.

- Day, J.C., S.J. Hunter and R.J. Post. 2006. Molecular taxonomy of British Simuliidae: a preliminary investigation. British Simuliid Group Bulletin 25:6-8.
- Gammelmo, O. 2004. Classification of Mycetophilidae (Diptera, Sciaroidea). Norwegian Journal of Entomology 51:145-149.
- Harbach, R.E. and I.J. Kitching. 2005. Reconsideration of anopheline mosquito phylogeny (Diptera: Culicidae: Anophelinae) based on morphological data. Systematics and Biodiversity 3(4):345-374.
- Hippa, H. and P. Vilkamaa. 2005. The genus *Sciarotricha* gen. n. (Sciaridae) and the phylogeny of recent and fossil Sciaroidea (Diptera). Insect Systematics & Evolution 36:121-143.
- Huenefeld, F. 2005. The sperm pumps of Strepsiptera and Antliophora (Hexapoda). Journal of Zoological Systematics and Evolutionary Research 43:297-306.
- Hurst, G.D.D. 2005. Problems with mitochondrial DNA as a marker in population, phylogeographic and phylogenetic studies: the effects of inherited. Proceedings of the Royal Society Biological Sciences Series B 272:1525-1534.
- Kotrba, M. and D. Burckhardt. 2005. Cum grano salis die neuen Hypothesen zur Insektenphylogenie. [Cum grano salis the new hypotheses for insect phylogenies]. Nachrichtenblatt der Bayerischen Entomologen 54(3-4):88-94.
- Krivosheina, A.G. 2005. Structure and position (topography) of spiracles in larvae of the lower Brachycera (Diptera, Brachycera, Orthorrhapha). Zoologicheskii Zhurnal 84: 1361-1373.
- Krivosheina, M.G. 2005. Plastron-universal structure for breathing in water and aerial medium, discovered in dipteran larvae [in Russian]. Doklady Akademii Nauk 401:271-274. English translation published in Doklady Biological Sciences 401:112-115.
- Lehrer, A. 2005. Bengaliidae du Monde (Insecta, Diptera) (Bengaliidae of the World (Insecta, Diptera)), ISBN 9546422444, Pensoft Publishers, Sofia-Moscow, 165x240, black and white drawings, descriptions of new taxa, keys, references, index. In French; keys and summary translated in English. Hardcover, 192 pp. Price EURO 58.80. Online ordering at: www.pensoft.net/notes/12499.stm. This monograph reveals the taxonomic diversity of the new myrmecophilous dipteran family Bengaliidae. The type and sole genus, *Bengalia*, has hitherto been placed in the family Calliphoridae. Based on a thorough revision and a detailed study of its morphology, Bengaliidae is shown to represent a distinct family phylogenetically distant from Calliphoridae. The new family actually comprises four subfamilies, 12 genera and 70 species, of which three subfamilies, ten genera and 49 species are described as new. (But see Rognes, K. 2006. Studia dipterologica 12 (2005): 443-471).
- Ozerov, A.I. 2005. World Catalogue of the Family Sepsidae (Insecta: Diptera). Zoologicheskie Issledovania (Zoological Studies), No. 8 (ISSN 1025-532x). 290x205, index, paperback. In English; title, contents and a summary in Russian. 76 pp. EUR 29.00. To order online: http://www.pensoft.net/notes/12952.stm
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## **Submission Form for Directory of North American Dipterists**

For those who have not yet sent in a synopsis of their interests for the *Directory of North American Dipterists*, the following form is provided. Please restrict yourselves to no more than 20 words when listing the titles of your major projects and the animals you work with. Should any of you like to expand or modify your entries from the last list, use the form to indicate the changes.

The information can be emailed, or the form completed and faxed or sent to the following address:

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Full name:\_\_\_\_\_\_\_Address:\_\_\_\_\_\_\_Telephone Number:\_\_\_\_\_\_

FAX Number:\_\_\_\_\_\_Email:\_\_\_\_\_\_

Projects and taxa studied:\_\_\_\_\_\_

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