FLY TIMES

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This issue of the *Fly Times* includes reports on recently held meetings and those soon to be, some new internet resources, interesting publications, and several miscellaneous submissions. Please remember, that without your input, this newsletter is of more limited value. We hope to hear from many of you for our next issue.

As indicated in other issues, this newsletter is also available through the ECORC website as follows: http://res.agr.ca/ecorc/program2/entomology/flytimes/flytime.htm

The *Directory of North American Dipterists* has been updated recently and can be accessed at the following address: http://res.agr.ca/ecorc/program2/entomology/diptera/dipteras.htm

Issue No. 24 of the *Fly Times* will appear next April as both hard copy (for those of you without Internet access) and on the Web. If possible, please send either editor your contributions by email, or on disc; electronic contributions make putting the *Fly Times* together much faster. Those of you with hard copy contributions (last possible choice) may fax, or mail your message to Art Borkent at the above listed address. All contributions for Issue No. 24 should be sent by the end of March, 2000.

NEWS

North American Dipterological Society Informal Conference, Entomological Society of America, Atlanta, Georgia, December 1999

by Scott Fitzgerald

Looking forward to seeing people at the NADS meeting this December. The following two invited talks will be given:

Preliminary cladistic analysis of the family Aulacigastridae sensu lato (Diptera, Cyclorrhapha) by Alessandra R. Baptista (Dept. of Entomology, University of Maryland).

Abstract.- The Aulacigastridae sensu lato (superfamily Opomyzoidea) is a poorly known family of acalyptrate Diptera with worldwide distribution. Besides the core genus *Aulacigaster* Macquart, it includes genera currently classified in the family Periscelididae (*Planinasus* Cresson, *Stenomicra* Coquillett, *Cyamops* Melander) and Neminidae (*Ningulus* McAlpine, *Nemo* McAlpine, *Nemula* McAlpine). The limits of the Aulacigastridae and its phylogenetic relationships are in dispute, in part because, like other acalyptrates, aulacigastrids present a puzzling combination of highly homoplastic and highly derived characters. In addition, previous phylogenies for the group rest in part on incompletely specified, a priori assumptions about hypothetical ancestors, character evolution and weighting schemes. A cladistic analysis was carried out with two main goals: to define the boundaries and phylogenetic relationships of the Aulacigastridae, and to evaluate the performance of characters employed by previous studies. The in-group consisted of representative species of a subgroup of the Opomyzoidea defined by a single character, "femora robust", and includes the families Aulacigastridae, Periscelididae and Neurochaetidae. Outgroups were chosen among the opomyzoid families Clusiidae, Anthomyzidae and Asteiidae. A matrix with 27 exemplar species and 91 morphological characters was analyzed using PAUP.064. Multistate characters were treated as non-additive. Analysis under equal character weights was followed by successive weighting. Support levels were measured using bootstrap and decay indices. The results support the classification of *Stenomicra*, *Planinasus* and *Cyamops* in the Periscelididae, and the exclusion of the Neminidae genera from the Aulacigastridae. The genus *Aulacigaster* was found to be more closely related to the Anthomyzidae. When assessed on the new phylogeny estimates, previous assumptions of irreversibility for characters in the male and female terminalia were found to be highly unparsimonious. An inordinate proportion of the homoplasy in the data is due to the inclusion of a single taxon, the Periscelididae sensu stricto, supporting previous arguments that this family does not belong in the Opomyzoidea.

Ceratopogonidae of Norway by Daniel V. Hagen, Enken Hassold, Bjarke Kynde (Dept. of Biology, Georgia Southern University, Statesboro, GA 30460); Ryszard Szadziewski (University of Gdanski, Gdynia, Poland); and William L. Grogan, Jr. (Salisbury State University, Maryland 21801).

Abstract.- The Norwegian Forest Research Institute (NISK) in Bergen, Norway conducted a study in collaboration with Georgia Southern University to investigate the biodiversity in Norwegian forests. Samples of the arthropod fauna were collected in June 1998 at two sites; a pine dominated boreal forest in eastern Norway (Sigdal, Buskerud) and a coastal pine forest in western Norway (Kvam, Hordaland). Among the Diptera, species of Ceratopogonidae were found very abundant. The objectives of this study were to identify the species of Ceratopogonidae present, their abundance and distribution at the two sites. The ethanol-preserved specimens were mounted on microscope slides and examined using light microscopy. The majority of specimens from Buskerud were predaceous genera of midges, which was dominated by *Brachypogon* (96.67%). Other genera were *Culicoides* (1.66%), *Dasyhelea*, *Ceratopogon* and *Atrichopogon* (all <1%). The ceratopogonids from the site near Kvam were *Dasyhelea* (53.03%), *Brachypogon* (27.96%), *Culicoides* (10.67%), *Ceratopogon* (5.19%) and *Forcipomyia* (1.15%). A small number of *Atrichopogon*, *Serromyia*, and *Bezzia* were found (all <1%).

After the talks, brief updates will be given on: the progress of the PEET grant research by Kevin Holston, University of Illinois; the current status of the Diptera section of the ATBI (All Taxa Biodiversity Inventory) in Costa Rica, by Darlene Judd, Oregon State University; and the 1999 NADS field meeting and Smoky Mountain National Park faunal survey by Brian Wiegmann, North Carolina State University.

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NADS Field Meeting and Biting Fly Workshop, Boone, North Carolina, 24-28 May 1999

by Brian Wiegmann

The biennial NADS field meeting was held jointly with the annual Biting Fly workshop at Camp Broadstone near the town of Boone in Western North Carolina. More than 40 participants enjoyed several days of collecting and sorting flies in a convenient, inexpensive, and diverse mountain setting. Collecting was productive in the Pisgah National Forest as the group explored streamside, riparian, and mountain top habitats. Evenings were spent pinning the day's catch and sharing the task of sorting numerous malaise trap samples.

Highlights from informal presentations included descriptions of new websites for dipterological information from the CNC in Ottawa (http://res.agr.ca/ecorc/cnc/diptera.htm), discussion of congruent patterns of synanthropic fly distribution and diversity, and a number of interesting ecological and taxonomic reports on biting flies including pitcher plant mosquitoes, ceratopogonids and horse flies.

A joint NADS / Biting Fly business meeting was also conducted. NADS members voted unanimously to pursue formal incorporation of the North American Dipterists Society as a non-profit scientific society. In addition, a 4 person committee was formed (Chris Thompson, Monty Wood, Norm Woodley, Brian Wiegmann) to draw up the documents necessary to incorporate the society in Washington D. C. Biting fly workshop participants agreed to begin planning for a summer 2000 meeting in Cape Cod

Massachusetts organized by Jeff Freeman. The next NADS business meeting will be held during the National Meeting of the ESA in Atlanta.

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All Taxon Biotic Inventory (ATBI) of the Great Smoky Mountains -- Nature Quest

by Brian Wiegmann

Following the NADS meeting, about 25 dipterists visited the Great Smoky Mountains National Park for the memorial day weekend as part of the ATBI Nature Quest. The Nature Quest was a "kick-off" for the ATBI project designed to increase public awareness and get a number of scientific teams started in their effort to sample and tally the biotic diversity of the park. The fly team obtained samples by sweep netting and also set up a large number of malaise traps in high and low elevation sites. Many new records, and at least a few new species, are likely to emerge from the large amount of material collected during just that first weekend. Probable "new species" have already been identified, including a new species of *Xylota* flower fly, family Syrphidae, that was collected during the Nature Quest along the road near Elkmont campground, as well as several Scathophagidae identified by Dick Vockeroth through comparison of recent material to CNC specimens obtained previously from the park.

The many cool wet habitats in the park, especially near seeps and stream edges make the Diptera an extremely diverse and abundant group of insects in the GSMNP.

To be successful, the Discover Life in America ATBI project urgently needs taxonomic specialists to get involved in the scientific efforts to sample and identify Smoky Mountain fauna and flora at the species level. The Diptera TWIG (Taxonomic Working Group) specifically needs your help working with the Diptera collected from the park. If you would like to get involved in the ATBI survey of fly diversity in the Smokies, please contact a member of the Diptera Twig (Peter Adler, padler@clemson.edu; Steve Marshall, smarshall@evbhort.uoguelph.ca; or Brian Wiegmann, bwiegman@unity.ncsu.edu), or simply sign in to the "Get Involved" section of the Discover Life website (http://www.discoverlife.org).

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The Dipterology Fund - Call for Applications

from Terry Wheeler

The Dipterology Fund was established in 1994 to provide grants in support of research on North American Dipterology. Each year up to four grants will be made to a maximum value of CAD$1000 each. Preference will be given to studies involving whole-organism biology in the fields of systematics, faunistics, ecology and related areas.

Student Research and Travel Grants are available to students or postdocs in dipterology and may be used to support travel to conferences, museums or other research institutions, or field work for collecting or study. **Development Grants** are for proposals in areas other than those described above. This would include, but not be restricted to, grants to bring visiting scientists to North American Diptera collections, and to support research activities of individual dipterists who are not full-time students and who lack other conventional means of research support.

Applications must include a 1-2 page research proposal or justification of the proposed activities and an estimated budget for the proposed research or activity (including consideration of funding available from other sources). Applicants must also include a 1-2 page CV. Applications for the 2000 competition must be received by the Chair of the Grants Committee on or before 01 March 2000. All applications will be reviewed by a Grants Committee made up of seven dipterists who will transmit their rankings and comments to the Chair. Decisions will be announced as soon as possible thereafter. Any questions regarding the application procedure or The Dipterology Fund should be directed to the Chair. Applicants are strongly encouraged to submit their applications by email (as Word or WordPerfect attachments) to the Chair of the Grants Committee:

Dr. Terry A. Wheeler
Department of Natural Resource Sciences
McGill University, Macdonald Campus
Ste-Anne-de-Bellevue, QC, H9X 3V9, CANADA
email: wheeler@nrs.mcgill.ca

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The Dipterology Fund - Report on the 1999 Grants Competition

by Terry Wheeler

Four applications were received for funding in the 1999 competition. The Grants Committee recommended two of these for support. We are pleased to announce that this year's Grant recipients are **Vanessa Crecco** (McGill University) who received support for field work on the diversity of Agromyzidae in tallgrass prairies, and **Jade Savage** (McGill University) who visited the California Academy of Sciences and UC Berkeley Diptera collections to work on their Muscidae, and to collect muscids in northern California.

The number of applications to the Fund has been low in the past 3-4 years, and the success rate has been hovering just under 50% (for example, no grants were awarded in 1998). We know that there are students out there doing good work on Diptera systematics, faunistics and ecology and we would encourage them to apply for support. Potential applicants should spend the appropriate amount of time and effort to ensure that their applications are complete and well-justified.

Diptera Homepage
Canadian National Collection of Insects, Arachnids and Nematodes Web Site

by Jeff Cumming

Please bookmark the Diptera Page of the CNC Web Site, which is now available at http://res.agr.ca/ecorc/cnc/diptera.htm

Documents such as the the *Fly Times*, the *Tachinid Times*, the Directory of North American Dipterists, and Diptera Types in the CNC (to mention a few) can be accessed through this page. The entire CNC site (http://res.agr.ca/ecorc/cnc/) organizes all the scattered entomology and arachnology documentation found on the ECORC site, and gives pertinent information on each curatorial unit, staff, and related links. In addition, introductory sections include documents on the Role and Uses of the CNC, the History of the CNC, and the CanaColl Foundation

The CNC Diptera page also functions as a useful jump-off site for internet resources on flies by linking to a large number of on-line products including directories of dipterists, Diptera journals, Diptera type holdings for certain collections, and several family-level home pages.

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Update of Tachinid Names in Arnaud's (1978) Host-Parasite Catalog

by Jim O'Hara

Website address: http://res.agr.ca/ecorc/isbi/cat/arnaud.htm (available late October 1999)

There are few works dealing with North American Tachinidae more valuable to the applied entomologist than Paul Arnaud's (1978) publication "A host-parasite catalog of North American Tachinidae (Diptera)" (U.S.D.A. Miscell. Publ. 1319: 1-860), which collected under one cover all the literature pertaining to tachinid hosts published between 1841 and 1969. Arnaud's (1978) catalog continues to be a much-valued resource for pre-1970 tachinid host-parasite literature. However, a considerable number of the tachinid names contained therein have changed over the years making it difficult for a non-specialist to determine the currently accepted name of a tachinid species listed in the catalog. To alleviate this problem I have prepared this web document which compares names used by Arnaud (1978) with the currently accepted names, following the online "Checklist of Tachinidae of America North of Mexico" by O'Hara & Wood (1999) (http://res.agr.ca/ecorc/isbi/cat/cathom.htm).

Updated Information on Web Versions of Diptera Catalogs

by Neal L. Evenhuis

In a recent fit of madness, I have been spending quite a few late nights updating two web Diptera catalog sites: the Australasian/Oceanian Diptera Catalog (originally published in 1989) and the World Fossil Fly Catalog (originally published in 1994). Only a few families remain to be uploaded for the A/O Catalog (which hopefully will be on the web by the time you read this) and pretty much all the original family chapters have been uploaded for the fossil fly catalog.

Over the succeeding years since their respective publication dates, I have been gathering reprints and xerox copies of articles that pertain to taxa within the scope of each catalog. In that regard, I have almost completed the updating for the A/O Catalog (to a cut-off date of June 1999) and have begun updating the fossil family chapters.

In concert with these updates are updated literature cited sections for each catalog as well. I still try as best as possible to obtain accurate dates of publication, which for some articles and books can be a time-consuming task, but has ultimately helped in cases where knowledge of priority of publication was necessary. Thanks to the many of you who have helped me with dating of various of these publications.

The updated web sites for each catalog can be seen at:
A/O Diptera Catalog -- http://www.bishopmuseum.org/bishop/ento/aocat/
World Fossil Fly Catalog -- http://www.bishopmuseum.org/bishop/ento/fossilcat/

Any corrections, omitted taxa, articles I missed, etc. that you know of -- please send them to me and I will incorporate them to make these sites as valuable a reference tool as possible.

On a side note, I have in the embryonic phases a website devoted to dates of publications for natural history journals and books. A few journals with dates of publication are already uploaded and many more will be uploaded as time permits.

You are welcome to visit this site and help provide information on any journals that are not yet in the "hopper" as it were (http://www.bishopmuseum.org/bishop/ento/dating/).

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Asilid Mailing List

by S. W. Bullington
R. D. 1, Box 306, Falls Creek, PA

I have started a mailing list for those interested in robber flies (Diptera: Asilidae). The list is intended for professional Dipterists, although anyone can join. It will cover any and hopefully every aspect of asilid taxonomy, systematics, and ethology/natural history, on a world-wide basis.

The web page for the list is at "http://www.key-net.net/users/swb/asilidae/asilidae.html". The list can also be accessed through "http://asilidae.listbot.com". To join, go to one of these two URL's and follow the instructions.

In addition, I would like to announce a new Web Site dedicated to the taxonomy, systematics, and ethology of the robber fly tribe Laphriini in North America north of Mexico. This tribe consists of the genus *Laphria* Meigen and its close relatives.

The site now includes information only on the genus *Laphria* sensu stricto. It currently includes synopses and color photos of males and females for most of the 30 described species in North America, as well as integrated keys to the eastern and western species. By the time this notice is circulated it will also include verbal redescriptions of all the species, and perhaps some drawings of terminalia as well. An introductory section for both the tribe and genus is also included. I will be adding essays on general morphology, mimicry, and sexual dimorphism in the genus ASAP. I will also be adding descriptions and photos of five new species, once I have these published elsewhere.

Before the end of the year I will have re-formatted the contents of my dissertation and a separate revision of the genus *Choerades* Walker., and added them to the site. This material will include much more than just photos, keys, and descriptions. In it, I will describe two new genera of North American Laphriini and an additional 10 new species, once again, after I have published them elsewhere. The site will also include the first drawings ever of the female terminalia for all species, from dorsal, ventral, and lateral views, including the spermathecae and associated structures, as well as drawings for the males. A detailed distribution map will also be provided for each species. I have about 7,000 locality records which I may also eventually add as a searchable database (I haven't figured out how to do this yet). And of course I plan to post all the synonymies, descriptions, etc. that constitute the bulk of the three revisions. This will include phylogenies for all the groups.

Here is the address for this new website: http://www.key-net.net/users/swb/laphria/laphriini.htm

If you have any suggestions regarding how the site might be improved, please e-mail or contact me.

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New Entomological Taxa Web Resource

from Adrian Pont
Goring-on-Thames, Reading RG8 0EP, UK

There is a new entomological resource on the web entitled "New Entomological Taxa", which is the equivalent of the Zoological Record for entomology. There is a listing of new titles, new descriptions, taxonomic changes, etc. The information can be accessed by author, group or region. There is a modest subscription charge. The site can be found at http://www.sciref.org/net/index.htm

Costa Rican Biodiversity Resources Development Project Needs Your Advice

from Manuel Zumbado

INBio (Instituto Nacional de Biodiversidad) in Costa Rica has received funds to buy a Critical Point Dryer. If any of you know of a particularly worthy source to obtain a good quality CPD unit with a chamber of substantial size (so that it can do many samples in one run), please contact Manuel Zumbado at the following address:

Sr. M.A. Zumbado,
Curador de Diptera,
Instituto Nacional de Biodiversidad,
A.P. 22-3100 Santo Domingo de Heredia,
Costa Rica.
email: mzumbado@inbio.ac.cr

[In addition, the editors encourage contributors to write appraisals for the *Fly Times*, in order to report on the best units available].

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Drawing Flies on the Donner Pass: Field Notes From a Trip to California

by Jade Savage and Scott Brooks
Lyman Entomological Museum and Research Laboratory, McGill University

In August of the past summer we spent two and a half weeks in California with the dual purpose of visiting the Diptera collection of the California Academy of Sciences in San Francisco and collecting flies primarily in the northern Sierra Nevada mountain range. Our trip was initiated out of a mutual need for southwestern material of our respective groups of study, namely the genus *Thricops* (Muscidae) and the subfamily Dolichopodinae (Dolichopodidae). Funding for our trip was provided by the California Academy of Sciences, the Dipterology Fund and an NSERC grant to our supervisor Terry Wheeler.

We arrived at the San Francisco International Airport in the late afternoon of August 3rd only to find it much colder than Montreal. Having a strictly TV-based impression of California, we were both shocked and underdressed. By the end of our stay we came to know and understand the words of Mark Twain who said "the coldest winter I've ever known was a summer in San Francisco". With our collecting equipment and a 17-day supply of underwear in tow, we hailed a cab and made our way to Moffat House, a modest bed & breakfast that would serve as our home for the next 10 days. Being only a 10 minute walk from the Academy, it was the ideal place to set up our San Francisco headquarters. Moreover, the rooms were very cheap ($50 US per night, double occupancy) and Ruth, the proprietor, served up a tasty breakfast every morning. We would recommend Moffat House to anyone visiting the CAS or the San Francisco area (for reservations call: 1-415-661-6210).

The following morning we were greeted at the doors of the Academy by Dr. Norm Penny who

immediately directed us to the Diptera section. Flies represent the second largest component of the CAS collection and the holdings of both dolichopodids and muscids are very impressive. Furthermore, the entire pinned collection has been entered into an Access database which allowed us to quickly retrieve a list of both determined and unsorted holdings, as well as locality data for each specimen.

Scott, who is currently working on the higher classification of the subfamily Dolichopodinae, spent the majority of his time curating unsorted Nearctic and Neotropical material. He was also able to find numerous species of *Paraclius, Pelastoneurus, Tachytrechus* and *Sarcionus* required for his research. With over 15,000 specimens, the Dolichopodinae is one of the best represented dolichopodid subfamilies in the collection.

Muscids were the focus of Jade's curatorial work. Her M.Sc. project involves the revision of the genus *Thricops*, which is mainly arctic and alpine in distribution. Of the fourteen species of *Thricops* recorded in the Nearctic, 9 occur in California, and of those, 4 are endemic to the western regions of the continent. The predominance of *Thricops* species in the western Nearctic made the CAS an extremely valuable source of material for her research. One of the highlights of our time at the Academy was meeting Dr. Paul Arnaud. Dr. Arnaud made our visit particularly interesting by sharing his knowledge of Diptera and the Academy collection, to which he has contributed an amazing number of specimens. He also took us on a day trip to the Essig Museum at UC Berkeley where we met with Museum Scientist Cheryl Barr and spent the afternoon working in the Diptera collection. Although the Essig collection is considerably smaller than that of the CAS, it should not be missed when in the San Francisco area.

Our collection efforts began on the beach. Armed with our nets and a few vials of alcohol we boarded the N-Judah Streetcar and rode it to the end of the line. After narrowly avoiding a group of undesirables crowded around a public toilet we crossed the Great Highway and made our way to the beach. Although it was cool and overcast the flies were quite active and abundant, especially those associated with the numerous piles of wrack washed up on the sand. The catch of the day included large numbers of coelopids and *Parathalassius* (Empididae).

On the morning of August 13 we packed up the rental car and hit the road bound for Folsom Lake State Park located just outside Sacramento. Although this was not our preferred campground, as it is illegal to collect in State Parks, our choice was restricted by a frenzy of late summer campers who booked nearly every available campsite in Northern California. Nevertheless, we managed to find a legal and productive collecting site on the shore of Folsom Lake, a man-made reservoir used for recreational purposes. Dominant families in this highly disturbed habitat included Sphaeroceridae and Ephydridae. The next day we left Folsom Lake and the central valley and headed to the higher grounds of the Sierra Nevada. Our destination was the UC Berkeley Sagehen Creek Field Station located 15 km north of Truckee which served as our base of operations for the remainder of our trip. Sagehen was perfectly suited to both our collecting requirements as it has high elevation preferred by *Thricops* as well as ample riparian habitats favoured by dolichopodids. Other interesting collecting sites within the boundaries of the field station included a sedge meadow, a large fen and a pine forest with an *Artemisia* understory. The accommodations at Sagehen exceeded our expectations. We were assigned the faculty cabin complete with fridge, stove, showers and heat all for the low low price of $20 US a day. Sagehen Field Station should not be missed when collecting in northern California. Arrangements can be made by contacting Warren Schifini, the station manager, at sagehen@sierra.net or http://cois.chance.berkeley.edu/research/30/sagehen.html.

During our last 5 days we collected extensively at the station and numerous sites surrounding Truckee using yellow pans, flight intercept traps and sweep nets. Of particular note was the Donner Summit site which fulfilled Jade's need to collect at high elevation (2227 m). Hydrophorine dolichopodids and micropezids were also quite abundant along the margin of a large pond and Scott even took a hippoboscid in his net. Jade spent most of her time chasing muscids and asilids in the drier forested and open rocky areas. Although we were very hungry after a day of collecting we decided against stopping for lunch at the Donner Party Memorial Picnic Grounds for obvious reasons.

Muscoids dominated pan trap catches at Sagehen and dolichopodids, especially *Dolichopus*, were also abundant in traps along the creek margin. Other notable catches included a snakefly (not a real fly but cool nonetheless), which we took (intact) from our car windshield and a *Laphria* with termite prey. As we process our specimens, we expect to find a number of interesting species that will reflect our late summer collecting period.

California struck us with its incredible array of habitats and drastic transitions in geography, vegetation and climate as we drove from the coast to the mountains. All in all our experience was fantastic, although we would advise against drinking Truckee Lager...horrible stuff.

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Moving Flies in Utah

By C. Riley Nelson

Greetings from Utah. I accepted a position as associate professor at Brigham Young University as of the end of August. I am missing Texas and the good things I experienced there, but look forward to more good things in the future. I hope this will give me more time to do research on Asilidae. I am certainly happy to be back in the mountains although I expect to make frequent visits to my Devils River site in Texas on the Mexican border as well as the Monahans Sandhills in far west Texas. I still have many flies from those areas if anyone wants to identify their favorite groups. I have also begun an intensive project to survey the insects of the new Grand Staircase Escalante National Monument in southern Utah. This is an immensely beautiful area (over two million acres) on the Colorado Plateau which is dissected by countless narrow canyons and washes surrounded by peaks of nearly 10,000 feet. This area is administered by the U. S. Bureau of Land Management, a twist from the regular management scheme for National Parks and Monuments (which are administered by the U. S. National Park Service). This agency is also guiding and funding my survey activities.

It is a pleasure to work in such a congenial environment. I expect to be working in this area for at least the next five years. I will be generating malaise trap and pitfall samples. I am debating on using many pan traps, but would welcome your suggestions. This area should be interesting to many of you from a biogeographic standpoint because it is a rather under sampled part of the U. S. southwest that is wedged between the hot deserts to the south and southwest; the cold desert of the Great Basin; and the short-grass prairie influence to the southeast. Of course the boreal components will be represented as well and I will be doing longitudinal sampling (especially for aquatics) along several of the streams running from

the Aquarius Plateau at 10,000 feet to Lake Powell at 3700 feet. Let me know if you would like to participate in some informal fashion.

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The Fourth Edition of the International Code of Zoological Nomenclature

by Alessandro Minelli

The fourth edition of the International Code of Zoological Nomenclature is currently with the printer and will be available in two months. The new Code will supersede the current third edition by January 1st, 2000. Main distributors of the Code will be the ICZN Secretariat c/o The Natural History Museum - Cromwell Rd. - LONDON SW7 5BD - UK (contact person J.D.D. Smith; e-mail: jdds@nhm.ac.uk) and, in North America, the American Association for Zoological Nomenclature - MRC-159 - National Museum of Natural History - Washington D.C. 20560-0159 - USA (contact person D. G. Smith; e-mail: smithd@nmnh.si.edu).

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Alan Stone: 1904 - 1999

We are sad to report that Alan Stone passed away on March 4, 1999. An obituary is published in the latest issue of the Proceedings of the Entomological Society of Washington (101: 911-913).

Books and Publications

Bugledich, E.-M.A. 1999. Diptera: Nematocera. *In* Wells, A. and W.W.K. Houston (eds.). Zoological Catalogue of Australia. Vol. 30.1. Melbourne: CSIRO Publishing, Australia. xiii + 627 pp.

Burger, J.F. (editor), 1999. Contributions to the knowledge of Diptera. A collection of articles on Diptera commemorating the life and work of Graham B. Fairchild. Memoirs on Entomology, International Volume 14.
This volume includes 2 introductory chapters discussing the life of G.B. Fairchild, 22 papers on Tabanidae, two on Simuliidae and one on Muscidae. It is available from Associated Publishers, P. O. Box 140103, Gainesville, Florida 32614-0103.

Grimaldi, D.A. 1999. The co-radiations of pollinating insects and angiosperms in the Cretaceous. Annals of the Missouri Botanical Garden 86: 373-406.

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Get Your Copy Now

The Oxford University Museum of Natural History is offering signed copies of "The Type-material of Diptera (Insecta) described by G.H.Verrall and J.E.Collin" by A.C. Pont (1995, Oxford University Press) at the reduced price of 40 GB pounds. If you are interested, please contact: Dr. G.C.McGavin, University Museum of Natural History, Parks Road, Oxford OXI 3PW, UK (E-mail Address: george.mcgavin@oum.ox.ac.uk).

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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Systematic Entomology Program, ECORC
Agriculture & Agri-Food Canada,
K.W. Neatby Building, C.E.F.
Ottawa, Ontario, CANADA, K1A 0C6

FAX: (613) 759-1927
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Full name:_____ **Address:**_____

_____ **Telephone Number:**_____

FAX Number:_____ **Email:**_____

Projects and taxa studied:_____

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