

CURCULIO

A NEWSLETTER DEVOTED TO DISSEMINATION OF
KNOWLEDGE ABOUT CURCULIONOIDEA

NO. 43 - DECEMBER 1998

CANADIAN MUSEUM OF NATURE

P.O. BOX 3443, STATION D
OTTAWA, ON. K1P 6P4
CANADA

EDITED BY
ROBERT S. ANDERSON



**Carlos Bordon working at his house in Maracay, Venezuela; June 1998.
Photo courtesy of Bob Anderson.**

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EDITORIAL COMMENTS

Last issue I commented on a new program being considered at the museum which recognized patrons of a fund in support of systematics with a species name in their honor. This fund and program will be launched December 16, 1998 at the Canadian Museum of Nature. We're looking forward to seeing the impact it will have on how the public perceives and appreciates taxonomic work. This brings me to an important point...just how important is what we do as systematists. I am of the opinion that very few people actually understand and appreciate what we do. To most, we are viewed as 'stamp collectors'; certainly we don't do real science. Real science requires lab coats, chemicals, experiments, lots of expensive equipment and lots of money. How do we change this view and demonstrate that taxonomic work has societal relevance and should be of general community interest and utility.

Frankly, I think we spend too much time 'preaching to the converted'...most of our products are technical scientific publications prepared for a very small and limited audience. This audience is generally our taxonomic colleagues! I won't suggest we abandon this approach entirely, but I do think we need to give more consideration to providing the community at large with information that can be seen as immediately valuable and pertinent. For instance, we can include systematics in environmental monitoring efforts, in regional and national biodiversity or sustainable development efforts, in general environmental training programs, and in the development of specific land management and conservation efforts...and, we need to write about systematics in a popular way such that the general public can understand and appreciate what we do. Further, systematists need to write about the organisms they study in terms that can be integrated with similar information from other fields. One of the problems with information about biodiversity in general is that it is scattered in so many different and often obscure places that accessing it all, or even assembling it all, is virtually impossible, except for the highly specialized and knowledgeable user. The development of on-line natural history collection databases and an increased use of electronic media (such as CD-ROM compilations or the Internet) to promote and distribute research results are at least two ways in which these goals can be achieved. "Traffic" on the Internet doubles every six months and if present trends continue, electronic media will soon become the standard means of information transfer and storage.

Systematics gives special insights into our current state of knowledge of biodiversity. Yet systematics resources throughout the world are declining. This decline is because those who fund systematic work are not seeing a return on their investment. Systematists argue that their work is of great importance in addressing the biodiversity crisis...but I do not see this reflected in their products. Systematics needs to provide information of direct use to many sectors of society not just the specialized or the expert.

*Bob Anderson
CMN, Ottawa*

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ANNOUNCEMENT

Due to the time it takes me to prepare each issue of CURCULIO and the amount of information that gets accumulated for distribution over the course of time, it is most efficient for me to produce CURCULIO once a year, hopefully in November or December. I always welcome contributions. They are what makes the newsletter interesting and informative. I can certainly fill the pages with my own ramblings but that is not the intent. So, send in your reports on field and museum work, views on issues related to the systematics and biology of weevils, copies of recent publications, suggestions, etc. Thanks

*Bob Anderson,
CMN, Ottawa*

CURCULIO ON THE INTERNET

Starting from this issue, all future issues of CURCULIO will be posted on the Internet. Thanks to the help and generosity of Wayne Clark of Auburn University, past numbers 37-42 of CURCULIO, and this number, can be accessed at

- www.auburn.edu/~clarkwe/curculio.htm

Its hoped that in this manner, CURCULIO will reach a broader audience, be accessible more rapidly following production, and be less expensive to produce and distribute. If you can access CURCULIO through the Internet I strongly urge you to do so, and to download and print copies for yourself and if you can, for your nearby colleagues. If you choose to do this, please let me know and I will cease to mail you the newsletter. However, if you cannot access the Internet... do not panic.... I will continue to mail you a copy of the newsletter. Please let me know. Thanks.

*Bob Anderson,
CMN, Ottawa*

RESEARCH ACTIVITIES AND INTERESTS

Robert Anderson, Canadian Museum of Nature, P.O. Box 3443, Station D, Ottawa, ON. K1P 6P4, Canada. Currently interested primarily in systematics and biodiversity of Neotropical leaf litter inhabiting weevils but has general interest in anything to do with weevils. Have submitted a paper with Steve Ashe (Staphylinidae) which compares and contrasts patterns of diversity and endemism in leaf litter weevils and staphs in cloud forests in Honduras. On-going work in Panama, Costa Rica and Venezuela continues this line of study. Also have in press papers on a new species of the subgenus Chionanthobius of the genus Ligynodes from Costa Rica, and new species of Sicoderus

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from the Virgin Islands. A paper assessing the weevil biodiversity of the western Canadian Montane Cordillera ecozone will soon be posted on the Internet (<http://www.cciw.ca>). Also on the Internet are travel reports (complete with photographs) of two of my most recent trips to Venezuela (1998; <http://www.nature.ca/english/bob98.htm>) and Costa Rica (1997; <http://www.nature.ca/english/fieldbob.htm>). Other current projects involve an inventory of the Dryophthorinae (formerly Rhynchophorinae) of Costa Rica (excluding *Dryophthorous*), descriptions of new genera and species of Galapagos Islands and Cocos Island weevils, and I still need to add the finishing touches to the ongoing revision of *Theognete* Champion.

Cesare Bellò, Via Vespucci n. 11/A I – 31033, Castelfranco, Veneto (Treviso), Italy. Interested in systematics and biogeography of Palearctic Peritelini. Is considering revisionary work on the North American Peritelini.

Nico Franz, Estudiante SEP, Escuela de Biología, Universidad de Costa Rica, Ciudad Universitaria Rodrigo Facio, Costa Rica. Generally interested in weevil evolution, ecology and plant reproductive biology with a focus on weevils as pollinators of Cyclanthaceae, Arecaceae and Araceae in Costa Rica, Central America. Presently completing a MSc on the reproductive biology of Cyclanthaceae and their associated weevils (Curculionidae: Derelomini) at La Selva, Costa Rica. Planning to do a systematics PhD on these weevils at a yet undetermined university.

Anne Howden, Canadian Museum of Nature, P.O. Box 3443, Station D, Ottawa, ON. K1P 6P4, Canada. Continues interest in New World tanymecinines. Presently is revising the remaining species groups of *Pandeleiteius* in South America.

David W. Langor, Canadian Forest Service, Northern Forestry Centre, 5320-122 Street, Edmonton, Alberta, T6H 3S5, Canada. Continues to work on the systematics of *Pissodes*. A manuscript describing two new species from SW China has been submitted. Work continues on a revision of the entire genus. A study of mtDNA variation and gene flow in *Pissodes strobi* is near completion. A new project on the epidemiology of spruce beetle, *Dendroctonus rufipennis*, in NW Alberta was started.

Massimo Meregalli, Dip. Biologia Vegetale, V.le Mattioli, 25, I-10125, Torino, Italy. Presently interested in the Molytinae of the Indian region starting with the study of small species in the genera *Stenanchonus*, *Leptanchonus*, *Falsanchonus*, *Microplinthus* and *Microniphades*. Loans of material are welcome.

Helio Pierotti, Via Umberto I n. 7/1 I- 31046, Oderzo, (Treviso), Italy. Interested in systematics and biogeography of Palearctic Peritelini. Is considering revisionary work on the North American Peritelini.

Jens Prena, Mozartstr. 24, D-18069 Rostock, Germany. Presently working on neotropical baridine weevils of the tribes Ambatini, Peridinetini, Pantotelini, Cyronichini

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and Optatini. Members of these tribes can be recognized by the completely covered pygidium and unidentate femora. A revision of the genus Pantoteles is nearly done. The next project will focus on the Mesoamerican species of Ambates. Is interested to see specimens of the above mentioned tribes, both from Central and South America.

Alexander Riedel, Zoologische Staatssammlung, Münchhausenstrasse 21, D-81247, München, Germany. Has just returned from a productive 5 months in Papua New Guinea. The main purpose of this trip was to get biological data on Euops species. Working conditions were difficult but it was possible to isolate and culture some of the fungi associated with these weevils. He reports that he has stopped work on all projects except Euops. A manuscript on the Euops spinosus group (10 species) has been submitted. A manuscript on the Euops pygmaeus group (14 species) associated with Nothofagus has been completed and a manuscript on the Euops simulans group (21 species) is almost done. All of these groups are exclusively Papuan. Will now start work on the Australian Euops quadrifasciculatus group (9 species) and the Euops eucalypti group (at least 10 species). Has just published a catalog of the Euops species.

Manuel Sanchez-Ruiz, Dept. de Biodiversidad y Biología Evolutiva, Museo Nacional de Ciencias Naturales (CSIC), Jose Gutierrez Abascal, 2, 28006 Madrid Spain. Currently conducting a systematic study of the genus Cycloderes Sahlberg (Tanymecini), and allied genera (only as a tool to help define Cycloderes). This is a first step for a phylogenetic revision of the tribe. Also working on a database of Tanymecini of the World, intended for 'online' publication on the Internet. Has recently completed a morphometric analysis of the genus Aspidiotes Schoenherr, (also Tanymecini) that will be published soon.

Marek Wanat, Museum of Natural History, Sienkiewicza 21 PL 50-335, Wrocław Poland. Current research activity: 1) revision of genera and species of the Apionidae of Melanesia. First two parts, expected to be completed in 1999, will cover generic revision of entire region and species (ca. 80) of New Caledonia and other islands except New Guinea. 2) origin of male genitalia in Curculionoidea and homologies with other Cucujiformia. The work, which developed from attempts to polarize characters of the apionid tegmen, was finally extended to all major groups of weevils, Chrysomeloidea, and at last to the cucujoid series. Results brought several new ideas concerning homology of the curculionoid and cucujoid aedeagus, particularly the parameres, and should be ready for presentation in late 1999.

Herbert Winkelmann, Attendorfer Weg 39A, D—13507. Berlin, Germany. Generally interested in the subfamily Hyperinae, especially the genera Donus, Hypera, Metadonus, Glanis, Macrotarrhus, etc. Plans some collecting trips to Turkey.

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ACCOLADES CONTINUE FOR DR. ELWOOD C. ZIMMERMAN

In the Queen's Birthday Honours of 8 June 1998 Dr Elwood C. Zimmerman received another award for his research. He was made a Member (AM) in the General Division of the Order of Australia "for service to entomology, particularly through scientific research in Australia and the Pacific region, and the philanthropic support of this research". These awards were widely reported in the Australian newspapers, and he appeared on the 19:00 news on one of the television channels as well. He was also honoured at the University of Hawaii later in June where he was presented with the Regents' Medal.



Dr. Elwood C. Zimmerman (Zimmie) and his wife Hannah during the reception for his Regents' Medal at the University of Hawaii on 24 June 1998.

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REQUESTS FOR LOANS

Alonso-Zarazaga, Miguel A. Departamento de Biodiversdad, Museo Nacional de Ciencias Naturales, Jose Gutierrez Abascal, 2, 28006, Madrid, Spain. Requests the loan of any Otiorhynchini, Tanymericini, Cyclopterini and Holcorhinini from the Iberian Peninsula and Balears.

Kirkendall, Lawrence R. Univ. Bergen, Dept. of Zoology, Allegaten 41, N-5007 BERGEN Norway. I have now started "phylobiology" research on Coccotrypes dactyliperda and Dactylotrypes longicollis, two dryocoetine bark beetles which breed in small palm seeds (such as date seeds). The former breeds by brother-sister matings, while the latter is outbreeding: two MSc students and I are studying the effects of genetic variation on life history evolution, resistance to parasites, intra- and interspecific competition, rates of population differentiation, and colonization success. the goal of this study is to better understand the role of genetic variation in nature, and this research will be complemented by similar work with tropical bark and ambrosia beetles (myself plus other MSc students). Most of the palm seed research is being carried out on the populations present in the Canary Islands. For genetic and phylogenetic purposes, we are looking for material (live or preserved) of these two species from other parts of the world. Dactylotrypes is endemic to the Canary Islands but has been introduced to single localities in several southern European countries as well as (our record) Morocco. Coccotrypes dactyliperda is almost world-wide in distribution. Look for tiny round holes in fallen palm seeds! If you think you might have material, please contact me (email: lawrence.kirkendall@zoo.uib.no).

CHANGES OF ADDRESS

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FREY COLLECTION AVAILABLE FOR STUDY

I have recently visited the Naturhistorisches Museum in Basel and am happy to report that the important Frey Collection is now available for study. If you wish to borrow any material from the collection, you should contact the curator, Mrs. Eva Sprecher at the Basel Museum of Natural History. In the weevils, some groups are better represented than others. Well represented groups include Alcidodes, Brachycerus, and Attelabidae whereas poorly represented groups include Cleoninae.

*Massimo Meregalli,
Torino, Italy*

Meeting of Weevil Workers at 1997 Entomological Society of America Meetings in Nashville

On Tuesday December 16 at the Entomological Society of America annual meeting in Nashville, Tennessee an informal meeting of persons interested in weevils was held. This meeting was attended by 14 persons. Each person gave a brief presentation on his present activities and answered any questions arising from them.

- Robert Hamilton, Loyola University, Chicago. Bob is working on finishing up the revision of Pterocolus and has just recently published a paper on a new Mexican species of the attelabid genus Euscelus.
- Xiaochun Zhang, Florida A&M University, Tallahassee. Xiaochun is a PhD student with Charlie O'Brien and is working on a review of the Attelabidae of China.
- Peter Kovarik, Florida A&M University, Tallahassee. Peter is a research associate of Charlie O'Brien and is working with Charlie primarily on the systematics of adults and immature stages of derelomine weevils on palms. He is also working with Charlie on a review of the species of Rhopalotria.
- Louis Lapierre, University of California, Los Angeles. Louis is a PhD student with Henry Hespeneheide. He works on the biodiversity of weevils on species of the plant genus Cecropia, also on two plant genera related to Cecropia. This weevil fauna is largely zygopines and Louis reports there are about 20 species of weevils associated with these plants. The weevils variously mine living and dead stems and petioles. His work is primarily at the La Selva Biological Station in Costa Rica.
- Henry Hespeneheide, University of California, Los Angeles. Henry is working on a revision of the species of Laemosaccus in North America, particularly those in the L. nephele group. These weevils are borers primarily in oak and mesquite. Laemoaccus texanus, the only other described North American species may be associated with

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Malvaceae. Henry reports that this has proved a more complex project than initially thought and he now has 13 species (11 new) in North America. Aside from this work he is also continuing the inventory of zygotines at La Selva Biological Station as part of the ALAS (Arthropods of La Selva) Project. He has already found over 520 species of zygotines at this site.

- Horace Burke, Texas A&M University, College Station (retired). Horace is continuing to work on anthonomine weevils and has just completed two significant projects; Anthonomus of Solanaceae (with Wayne Clark) and a revision of the Anthonomus grandis group in which three new species closely related to the boll weevil, but developing on native Hampea species, are described. This work on the A. grandis group is done with Robert Jones of Quereterro, Mexico and is the subject matter of his recently completed PhD work with Horace. He also reports that Bob Jones is finishing some work with Paul Fryxell (a botanist) on the phylogeny of Hampea species on which these Anthonomus species develop. Horace plans to start work (with Wayne Clark) on the small squamose anthonomines (genus Cnemocyllus and relatives), probably the most taxonomically problematic group of the North American anthonomines.
- Bob Anderson, Canadian Museum of Nature, Ottawa. Bob reported that he is continuing to work primarily on systematics and biodiversity of leaf litter weevils in Central America. He and Steve Ashe (systematist on Staphylinidae) are presently coauthoring a paper using leaf litter beetles as indicators for establishing conservation priorities in Honduran cloud forests and hope to prepare and submit a proposal for continuing this work into South America. He also plans to complete a revision of the litter weevil genus Theognete in the next year and from that proceed onto revisions of other taxa of lymantines. He is also working (with Stewart Peck) on the weevils of the Galapagos Islands and with INBio in Costa Rica on the “Dryophthorinae of Costa Rica” as an on-line identification guide and information source.
- Terry Seeno, California Department of Agriculture, Sacramento. Terry’s interest is in Chrysomelidae but he is frequently called upon to identify Curculionidae.
- Nico Franz, Universidad de Costa Rica, San Jose. Nico is a MSc student studying the floral biology of Cyclanthaceae, which have a rich weevil fauna as pollinators and flower feeders. Working with Charlie O’Brien, he has become interested in the systematics and natural history of these weevils. He is considering working on the systematics of these weevils as a possible PhD project.
- Brian Farrell, Museum of Comparative Zoology, Cambridge. Brian is working on the higher relationships of Curculionoidea using molecular systematics techniques. He is also using DNA sequencing to study the evolution of host associations in both Chrysomelidae and Curculionidae. His work on the higher level relationships is still in a data gathering phase and he seeks correspondence with people willing to provide suitable materials for inclusion. He is particularly interested in taxa of problematic

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placement or of likely primitive phylogenetic position (contact him for details). He is also working with Scott Kelly (PhD student at the University of Colorado) on molecular systematics of Dendroctonus bark beetles, and with Ben Normark, a recent postdoc at Harvard, on primitive bark beetles inhabiting southern conifers.



Left to right: Don Bright, Peter Kovarik, Tom Lockley, Xiaochun Zhang, Charlie O'Brien, Louis Lapierre, Nico Franz, Barry Valentine, Bob Hamilton, Henry Hesperheide, Bob Anderson, Horace Burke.

Photo courtesy Terry Seeno.

- Don Bright, Agriculture Canada, Ottawa. Don is finishing handbooks on the weevil fauna of Canada. Volume one treating the primitive Curculionoidea is already published and volumes two (to the genus Curculio) and three are in progress. He is also studying the Scolytidae of the Galapagos Islands, preparing a monograph of the Xyleborini (1000+ spp.), and continues bark beetle work in south-east Asia.
- Tom Lockley, address unknown. Tom is interested in Cylas formicarius (sweet potato weevil) and particularly in its detection in storage facilities, possibly using pheromone traps.
- Barry Valentine, Ohio State University, Columbus (retired). Barry is working on a review of the Nearctic Anthribidae including information about distribution and biology. There are 28 genera and 90 species described in North America...but this does not count what Barry says are another at least 30 undescribed species of Ormiscus. There are 4 new genera and 11 new species treated in this review. He is also working on the anthribids of Chile which have not been revised since Blanchard in 1854! He is also working (with Mike Ivie) on the anthribids of the Virgin Islands and on the anthribids of the West Indies as a whole. He is presently curating the

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California Academy of Sciences collection of Anthribidae and recently visited Ecuador.

- Charlie O'Brien, Florida A&M University, Tallahassee. Charlie is continuing working primarily on regional revisions of the genus Bagous. The western Palearctic work is in press, the eastern Palearctic (with Roberto Caldara) is in preparation as is the study of the African fauna. He is also planning to work (with Peter Kovarik) on a review of the species of Rhopalotria. He is planning to spend more time working on the systematics of derelomine weevils that attend flowers of palms and Cyclanthaceae. Along this line, a recently submitted PEET (Program for Enhancing Expertise in Taxonomy) proposal on derelomine palm weevils was unsuccessful but made it to the final stages of the competition. He noted that the Systematic Entomology Lab at the USDA in Washington DC has advertised a position for a weevil systematist (now filled by Dr. Alexander Konstantinov), that Florida A&M will soon be a Center of Excellence for Biological Control (and that he may be the head administrator which will take up at least 50% of his already limited research time!!).

*Bob Anderson
CMN, Ottawa*

Meeting of Weevil Workers at 1998 Entomological Society of America Meetings in Las Vegas

At the 1998 meeting of the Entomological Society of America in Las Vegas, Nevada, weevil enthusiasts met informally to discuss their research and other items of common interest. First around the circle was Jere Schweikert, Curatorial Assistant, California Academy of Sciences. Next, Frank Pelsue spoke of his work with Curculioninae (sensu stricto) of China, Taiwan and Tibet. Frank's new address is 1556 Iris Grove Drive, Corona, CA 91719-4049.

- Peter Kovarik, discussed his multiple projects with Charlie O'Brien: new species of Rhopalotria, new species of Eudiagogus, African Bagous, and Diaprepes. He has a large program set up for rearing and studying larvae and hopes to develop a universal nomenclature for their chaetotaxy.
- Don Bright hopes to finish the "Weevils of Canada" volume on the broadnose weevils by the end of next year. The 5-year supplement to the massive work on bark beetles of the world should appear next year. He is also working on the scolytid fauna of Sarawak as well as a new genus of scolytid from the southern US!
- Anthony Cognato expects to receive his Ph.D. from U.C. Berkeley next month. He is working on the systematics of Ips of the world using molecular techniques.

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- Horace Burke is continuing projects with Wayne Clark on the anthonomine groups Cnemocyllus, Magdalinops and Epimechus.
- Anne Howden continues revising the genus Pandeleteius and is now concentrating on the remaining South American species-groups.
- Barry Valentine now has the world bibliography and checklist of Anthribidae in manuscript. The review of Nearctic genera and species of Anthribidae will soon be published in *Insecta Mundi*. Barry still needs anthribids from Chile.
- Henry Hespenheide is finishing his work on Nearctic Laemosaccus nephele-plagiatus puzzle. The fogging operations in La Selva are constantly turning up new species. Henry is doing a unit on the biodiversity of beetles for an encyclopedia. Henry reports that Louis LaPierre is continuing to work on zygopines in leaf petioles.
- Charles O'Brien is now heading up a Center for Biological Control in Florida, one aspect of which will be an in-depth study of Diaprepes - its generic definition, taxonomy and biology. (Charlie is not easily intimidated!) On-going projects include studies on palm weevils of various genera; weevils of cyclanths with Nico Franz; and survey of weevils of Guanajuato.

Also seen at the meetings were David Langor, Derek Sikes, and Elbert Sleeper.

Rumor has it that Staphylinidae is now considered to have more species than Curculionidae!!! Ha, ha....

*Anne Howden,
CMN, Ottawa*

News from Querétaro, México

Although the economic situation is rather bleak here in Mexico, some positive aspects include the continued programs of the National Commission for the Knowledge and Use of Biodiversity in Mexico (CONABIO), which continues to fund basic systematic research and help in improving collection infrastructure. There is now also a regional system of federal funding which has allowed Universities and institutes outside of Mexico City to capture research funds. As for collection permits, the contemporary headache of us all, the process for the acquisition has been streamlined some and the turnaround time has been lessened. The granting agency for permits is the Instituto Nacional de Ecología, (part of the Secretaría de Medio Ambiente, Recursos Naturales, y Pesca : SEMERNAP), and now has a little more experience in the permit approval business. However, it took me about two months to get a recent permit, and as I had sent two applications for two completely different projects (a mistake, I know) they sort of combined the two in weird jumble of geographic localities and taxonomic groups (some apparently new to science). The permits must be associated with specific projects, although there is now a "Colector

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Nacional” permit if a revision of a taxonomic group requires you to collect throughout the country. I know of some Mexican nationals which have been granted this permit, but do not know what the chances are for a foreign scientist to obtain this permit. For more information on permits the email is ccortez@chajul.ine.gob.mx, the address is Instituto Nacional de Ecología, Dirección General de Vida Silvestre, Av. Revolución 1425, Nivel 20, Col. Tlacopaac, Deleg. Alvaro Obregón, C. P. 01040, Mexico, D. F.

On the home front, we finally have some green vegetation here in central Mexico after more than a year without a drop of water. Although, at first I thought there wasn't much in the vicinity, there are some interesting, highly seasonal, deciduous tropical “forests” surrounding Querétaro. With the heavy rains of this summer, (the El Niño rebound effect) the diversity and quantity of critters has been surprising. For areas a little further out, one can enter the large, newly designated “Sierra Gorda Biosphere Reserve” in a little over three hours (approx. 383,500 ha). This area has been minimally collected, (if at all) and offers some interesting vegetation types, which I have not had much time to explore. Although being designated a “Biosphere Reserve” offers some hope that what is left there will be preserved, it's basically what a friend calls “a typical megaproject with minifunds.”

I have begun an insect collection here at the University which I hope I can continue to justify and maintain with various projects, including basic IPM work and student projects. Anyone interested in collecting in the region or in collaborating on a specific project can contact me by email at rjones@sunserver.uaq.mx.

*Robert W. Jones
Universidad Autónoma de Querétaro
Querétaro, Mexico*

FORTHCOMING PUBLICATIONS ON WEEVILS

Alonso-Zarazaga, M.A. and C. H. C. Lyal. Titled “A WORLD CATALOGUE OF FAMILIES AND GENERA OF CURCULIONOIDEA (excepting SCOLYTIDAE Latreille, 1807 and PLATYPODIDAE Shuckard, 1840)”. This publication will cover more than 13,000 family and genus group names (including many misspellings). Original references have been checked for all names (except in 3-4 instances where references were unavailable. The reference list numbers over 3,000 items. Each family group name features author, date and type genus, plus a list of synonyms and variations in spelling (-ides, -inae, -ini, -idae, -oidea, etc.) and the first author who used it. Each genus group name will have author, date, gender, type species if available and kind of type species designation (original, monotypy, subsequent –including a reference to the designation). Type species will have the present valid name if different from the original. Genus names have their list of subgenera and synonyms with the same arrangement. An introduction, a summary of the system, two indexes (one for names, the other for species mentioned) plus at least two appendices will be added. One appendix will include

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descriptions of new taxa forwarded by some colleagues, the other will give a list of names not included in Neave or misquoted in this book. A lot of genera and tribes have been renamed.

Brenda May (1917-1998)

On the morning of the 7th of October, whilst Brenda was gathering her papers and tools for a demonstration of calligraphy, her heart simply stopped beating without a warning. She was 81.

Born in Essex, England, she emigrated in the 1950s with husband, children and dachshunds to New Zealand settling in Auckland where, in 1956, she joined the Plant Diseases Division, Department of Scientific and Industrial Research. She was a true lover of outdoors and nature enjoying and exploring not only urban gardens and parks but also and foremost the native forest, the subalpine and alpine environments of the mountains, and also the crannies and formations of the underworld of caves. She would participate in surveying and mapping huge complexes of limestone caves in her early years and, of course, looked for and found insects and other arthropods. She became a dedicated speleologist with the discovery of spectacular limestone formations and new cave beetles.



Brenda May with her husband Vic; Auckland, New Zealand 1981.
Photo courtesy of Anne Howden.

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Brenda's main contributions to science were in the biology of weevils and study of their immature stages. Apart from, or rather because of her artistic ability, she had an eye for details easily spotting minute blemishes on barks, twigs and leaves, many resulting from the workings of mostly tiny weevils. In this way Brenda worked out literally hundreds of weevil/plant associations. Her office and lab would hold at any one time dozens of samples carefully prepared for rearing, and Brenda would meticulously record the observations and draw the larval and pupal stages in the hope that at the end some specimens would pull through to adults for a tie-up to a particular species.

The quality of Brenda's work was superb. Her scope kept on increasing by trying to cover not just the New Zealand and Australian faunas, but also those of the rest of the world to finally become the undisputed world authority in the knowledge of the immature stages of weevils. Out of 62 papers published, 28 dealt with weevils. Her involvement with weevils culminated with two major works, one a systematic overview published in 1993 as volume 28 of *Fauna of New Zealand* with 223 pages, the other dealing with the immature stages of Australian Curculionoidea issued in 1994 in Zimmerman, E. C. *Australian Weevils*, volume 2: 365-726. The contents of these two works helped to clarify to a good extent the interrelationships of a number of higher taxa, particularly of the orthocerous groups.

Brenda was a multifacetedly talented person with interests and commitments beyond speleology and entomology. She loved playing the piano, was fond of classical music, belonged to dancing groups, and was to the very day of her death devoted to calligraphy. In all her activities throughout her long and happy life, Brenda had in her husband Vic full and unfailing support. Vale!

G. (Willy) Kuschel
Auckland

RECENT PUBLICATIONS ON CURCULIONOIDEA

Aeschlimann, J.-P. 1995. Lessons from post-release investigations in classical biological control: The case of Microctonus aethiopoides Loan (Hym., Braconidae) introduced into Australia and New Zealand for the biological control of Sitona discoideus Gyllenhal (Col., Curculionidae). Pp. 75- 83. In, Hokkanen, H.M.T. and J.M. Lynch (eds.). *Biological Control: Benefits and Risks*. Cambridge University Press.

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