



NEWSLETTER OF THE
AMERICAN MALACOLOGICAL SOCIETY

OFFICE OF THE SECRETARY

DEPARTMENT OF MALACOLOGY, ACADEMY OF NATURAL SCIENCES
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ANNOUNCEMENTS



The Meeting of the Americas

June 23 - 27 Mexico Distrito Federal

Malacology 2014: The Meeting of the Americas

23-27 June 2014

Mexico City

Submitted by Paul Valentich-Scott, president AMS

We have been working hard the past year to bring you a dynamic AMS meeting for 2014. This will be the first joint meeting of the AMS, the Western Society of Malacologists, the Asociación Latinoamericana de Malacología, and the Sociedad de Malacología de México, and we have entitled it **Mollusca 2014: The Meeting of the Americas**.

Our website is still being developed and all new information will be posted at:

http://www.mollusca2014.unam.mx/index_ing.html

We have an active Facebook page with updates on the meeting at: www.facebook.com/Mollusca2014. There are over 400 facebook members on Mollusca 2014, and we expect wide global participation at the meeting. Please "like" the page to be part of this active community.

We have a good number of exciting symposia in preparation. Below is the tentative list to date. If you are interested in participating in one of the symposia, please contact the symposium organizer directly.

1. Bivalvia of the Americas (marine and freshwater): Paul Valentich-Scott (pvcscott@sbnature2.org) and Diego Zelaya (dzelaya@bg.fcen.uba.ar)
2. Let's talk about Opisthobranchia: Andrea Zamora (Andrea.Zamora@bmuib.no), Ángel Valdés (aavaldes@csupomona.edu), and Jazmín Ortigosa (jazmin.ortigosa@gmail.com).
3. Mollusks and archaeology: Miguel Téllez (mtellez@uabc.edu.mx), Carlos Figueroa (carlosfigueroab@gmail.com) and Hans Bertsch (hansmarvida@sbcglobal.net).
4. Cephalopods of the Americas: Carlos Rosas Vázquez (crv@ciencias.unam.mx) and Unai Marcaida (umarkaida@ecosur.mx)
5. Invasive mollusks: Carlos Eduardo Belz (belzoceanos@gmail.com), Gustavo Darrigan (darrigra@way.com.ar), and Otto Samuel Mäder Netto
6. Current trends in student research projects on mollusks: Martha Reguero (reguero@cmarl.unam.mx), and Edgar Heimer (heimer@unam.mx)

The second circular for Mollusca 2014, with full information on registration, housing, events, tours, and abstract submission, will be available in late November 2014.

Several people have asked me about the safety of travel in Mexico City. Please look at the following page by the US State Department (look under Mexico City heading): http://travel.state.gov/travel/cis_pa_tw/tw/tw_6033.html. The bottom line is that Mexico City has a lower crime rate than most large US cities.

Any questions about the conference should be addressed to Paul Valentich-Scott, AMS president at pvalentich@sbnature2.org.

See you all in Mexico City!



OTHER UPCOMING MEETINGS

AMS-UMBS 2015

Submitted by Tom Duda

The University of Michigan Biological Station (UMBS), located in northern Michigan, offers an excellent and exciting venue for the 81st Annual Meeting of the American Malacological Society in 2015. The more than 100-year old station is situated on the shores of an inland lake (Douglas Lake); the surrounding areas of the UMBS are have been very well studied malacologically and contain a variety of terrestrial, wetland and aquatic habitats that host numerous gastropod and bivalve species. The contained and rustic setting of the meeting should create an informal and lively camp-like atmosphere that will provide plenty of opportunities for interactions, conversations and local field excursions!

The UMBS hosts ~150 buildings including a large 220-seat auditorium and adjacent 100-seat seminar room that can hold concurrent meeting sessions. The facility also offers dining hall services and various lodging options (70 one-room cabins, 30 two to six-room cabins and 14 dorm rooms). Additional options for lodging are available relatively nearby in the town of Pellston.



Due to scheduling constraints, the earliest that the meeting can take place is during the third week of August. The tentative schedule of the meeting (August 19-22, 2015) should not overlap with the beginning of the fall semester at most institutions and hence should not negatively impact attendance of AMS members with teaching or other university-related obligations. An abbreviated meeting schedule (one day less than previous ones) with concurrent sessions should also minimize the impact of holding the meeting at such a late date while still keeping the same number of sessions and talks as previous meetings. We will be conducting a poll to ensure that AMS members support an abbreviated meeting schedule and that a late meeting date does not affect members' ability to participate in the meeting due to conflicts with academic schedules. Please respond to the poll so that we are aware of members' opinions on these themes.



Octopus Symposium and Workshop II

Seattle Aquarium

Saturday, March 29, 7:30am-3:30pm

Submitted by Roland C. Anderson

Join the Seattle Aquarium for our one-day giant Pacific octopus workshop, highlighting current research on *Enteroctopus dofleini*, the world's largest species of octopus. The Seattle Aquarium has a long history of exhibiting octopuses—and giant Pacific octopuses are even found in the waters directly below our pier. The workshop will feature several papers and round-table discussions about octopus husbandry, biology, physiology, ecology and behavior. To speak contact Shawn Larson at s.larson@seattleaquarium.org. To register, visit our website at seattleaquarium.org/octopus-workshop.



OTHER NEWS & ANNOUNCEMENTS

Molluscan Musings AMS Blog

Contributed by Charles Lydeard

The AMS newsletter readers are reminded of the Molluscan Musings AMS blog that can be found at:

<http://molluscanmusings.blogspot.com/>

With over 2,400 page views the blog is getting good readership. AMS members interested in a guest contribution to contact me at c.lydeard@wiu.edu.



The Freshwater Gastropods of Mid-Atlantic States

Contributed by Robert T. Dillon, Jr.

We are pleased to announce that a new web-based resource, *the Freshwater Gastropods of Mid-Atlantic States* by R. T. Dillon, M. A. Ashton, and T. P. Smith, is now available from the FWGNA website:

<http://www.fwgna.org>

This is the sixth region to be added to the FWGNA site since its debut in 2003, extending our coverage from Georgia to the New York line, raising the total species reviewed from 79 to 87.

The new Mid-Atlantic site covers Delaware, Maryland, New Jersey, eastern Pennsylvania and the West Virginia panhandle. Our database of 2,893 freshwater gastropod records was developed from the collections of the US National Museum, the Academy of Natural Sciences of Philadelphia, the Carnegie Museum of Natural History, and the Delaware Museum of Natural History, the macrobenthic surveys of the Maryland DNR (Annapolis), the Pennsylvania DEP (Harrisburg), and the Delaware DNREC (Dover), as well as our own original fieldwork. The new website features a dichotomous key and a photo gallery for all 41 species recovered from the five-state area, as well as range maps and notes regarding their ecology, life history, taxonomy and systematics.

Also new for 2013 is an overall “Synthesis” combining our fresh Mid-Atlantic observations with data previously obtained from Virginia, North Carolina, South Carolina and Georgia to generate a distribution of commonness and rarity over the entire 67-species Mid-Atlantic freshwater gastropod fauna. We suggest a new (nonparametric) system of “incidence ranks” as a supplement to, if not necessarily a replacement for, the subjective system of “conservation status ranks” currently in vogue with natural resource agencies.

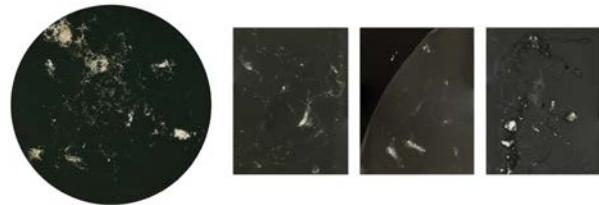


Exhibition: Supercluster Arion and Other Phenomena

Photographic art using slugs on silver gelatin paper
Contributed by Deanna Witman

Excerpt from the introduction to the work in the exhibition catalog by Dr. Alan Lightman:

“In this new work, Witman has taken a minimalist view of the art of photography. Not only has she dispensed with the lens of the camera. She has also dispensed with the whole camera, leaving herself only the naked film. And rather than impose lines and shadows on that film by her own design, she has chosen the commonplace slug – surely one of the slightest and most humble animals on earth – as her agent and accomplice. Her paintbrush is a living creature, and the image is created over time, unpredictably, as the that creature goes about its business of crawling, eating, defecating, unaware that it is achieving a bit of immortality in the traces it leaves behind.”



Although the exhibit has now come to an end, members of the AMS who are interested in Deanna Witman’s art work with slugs can access more information and images here:

http://dmwitman.com/gallery/genesis/#.UoDxBZS_dJt



MEMBERS CONTRIBUTIONS

2013 AMS Meeting

Contributed by Peter Marko



The 79th annual meeting of the American Malacological Society was held from July 21-28, 2013 in Ponta Delgada, Azores. 53 AMS members joined 343 other malacologists as part of the World Congress of Malacology for five days of posters, talks, and catching-up with the global community of malacologists. The AMS held its annual council

and business meetings and again hosted a popular and successful auction to raise money for the AMS student awards fund. Congratulations to Jingchun Li (University of Michigan) who won the Constance Boone award for best student presentation. The meeting wrapped up with the WCM Congress dinner at Coliseu Micaelense. AMS would like to thank WCM president Tony Martins and his local organizing committee for their help coordinating AMS activities. Photos from the events can be viewed online at <http://www.wcm2013.com>.

★

The Digestive Gland-Gonad and Kidney of *Biomphalaria glabrata* as Sites for Larval *Echinostoma caproni*

*Contributed by Bernard Fried
Lafayette College, Easton, PA 18042*

The *Echinostoma caproni* - *Biomphalaria glabrata* model is often used to study the biology of *Echinostoma* and echinostomiasis at various levels of investigation from the molecular to the ecological. One factor that contributes to the utility of this model is the ease of maintaining *E. caproni* larval stages in the laboratory in *B. glabrata* snails (Eveland and Haseeb, 2011). Adult stages of this echinostome are also easy to grow in laboratory mice or hamsters fed metacercarial cysts (Fried and Huffman, 1996).

Fried and Balaban (2013) recently reported on sporocyst development of this echinostomatid in the snail heart at one week post infection. That note emphasized the fact that relatively little information is available on the sporocyst - heart relationship and suggested that further studies are needed.

The purpose of this note is to report on later developmental stages in *B. glabrata*, mainly on daughter rediae and metacercarial cysts. Most parasitologists and malacologists who work on echinostomatids are more familiar with rediae and metacercarial cysts than the sporocysts.

Most workers who use *E. caproni* rely on getting the metacercarial cysts from experimentally infected snails at about 8 weeks post-miracidial infection. The metacercarial cysts localize in the snail kidney and that organ becomes enlarged with this stage as seen in Fig. 1. If the kidney is pierced with a needle, hundreds of cysts are released, often in the form of cyst packets containing about 50 to 100 cysts/packet (see Fig. 2). These cysts can be removed by pipet and placed in saline at 4°C for long term cyst storage. Such cysts maintained in

the cold in saline remain infective to mice and hamsters for at least 6 months. The cysts develop into sexually mature adults within about 2 weeks post-infection. The details of adult development have been reviewed in Fried and Huffman (1996). Relative to the cysts in the kidney, it should be noted that this host-parasite relationship has not been well-studied and more work on this topic is needed.



Fig. 1. The kidney (K) and digestive gland-gonad (DGG) regions of an experimentally infected snail at 8 weeks PI.



Fig. 2. A punctured kidney (K) at 8 weeks PI showing the release of metacercarial cysts (MC). A redia (R) can also be seen in the field.

Prior to the events that lead to the development of the metacercarial cysts in the kidney are the complex phenomena leading to the development of redial stages in the DGG. Rediae develop rapidly in the DGG by asexual reproduction (often referred to as polyembryony). In spite of considerable literature on this topic certain details of polyembryony and redial proliferation remain obscure. By 8 weeks PI, the rediae occupy the space of the DGG and may contain either cercariae or daughter rediae. Factors that lead to the development of either cercariae or rediae are not

well-known. By 8 weeks PI distinction between the gonad and digestive gland is no longer clear. The rediae are easily noticed by the black stripes (BS) in the redial gut (see Fig. 3). The BS reflects the appearance of hematin in the gut of the redia. Hematin is a metabolic waste product of hemoglobin deposited in the redial gut. The blood pigment in *B. glabrata* is hemoglobin as in vertebrate blood, but the hemoglobin is free in the snail plasma and not contained in cells as in our blood.

After the shell is removed from the snail as seen in the preparation in Fig. 3, rediae may emerge from the DGG into the saline. This may be a preparation artifact and such a phenomenon probably does not occur in the intact snail. What does occur typically in the infected snail is an enormous release of cercariae from the rediae that emerge from the aperture between the shell and the head foot region of the snail. These cercariae then enter the same snail or other snails in the aquaria via the nephridiopore; the cercariae then migrate to the kidney where they encyst to form the metacercarial cysts. As noted previously, removal of the cysts from the kidney of infected snails allows the investigator to continue the life cycle when the cysts are fed to an experimental vertebrate host in the laboratory. In the wild, various bird and mammalian hosts become infected by feeding on infected snails. Details of this aspect of the biology of *E. caproni* were covered in Fried and Huffman (1996).

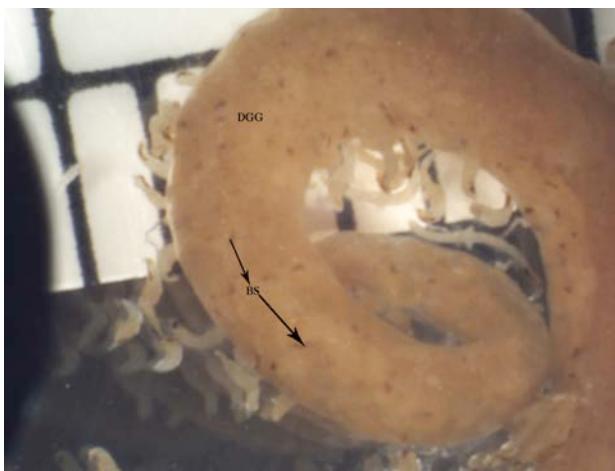


Fig. 3. A DGG in half-strength Locke's solution for about 1 hr. Many rediae have emerged from the DGG. The "black stripes" (BS) mentioned in the text are visible in larvae still within the DGG.

In summary, the main purpose of this note is to review and document with photomicrographs the redial and metacercarial stages in the DGG and kidney of experimentally infected *B. glabrata*.

Acknowledgements

I am grateful to Dr. Mathew Tucker, Head, Schistosomiasis Laboratory, Biomedical Research Institute, Rockville, Maryland for supplying *B. glabrata* snails used in this work through NIH-NIAID contract HHSN2722010000051.

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Eveland, L.K. and M.A. Haseeb. 2011. Laboratory rearing of *Biomphalaria glabrata* snails and maintenance of larval schistosomes in vivo and in vitro. In *Biomphalaria Snails and Larval Trematodes*. Toledo, R. and Fried, B. (Eds.) Springer Publishing Co., New York, pp. 33-55.

Fried, B. and A. Balaban. 2013. The heart of *Biomphalaria glabrata* as a site for the localization of *Echinostoma caproni* sporocysts. American Malacological Society Newsletter 44: 4-5.

Fried, B. and J.E. Huffman 1996. The biology of the intestinal trematode *Echinostoma caproni*. Advances in Parasitology 38: 311-368.



Ohio (River) Valley Unified Malacologists 2013 – OVUM 2013

Contributed by Timothy A. Pearce, G. Thomas Watters, and Charles F. Sturm

OVUM 2013 was held on 12 October 2013 at the Museum of Biological Diversity, Ohio State University. The meeting was hosted by G. Thomas Watters. There were 20 participants with 15 presentations. The presentations are outlined here:

1. Amy Barrett, Ohio State University. **Radioisotopes and nutrition in freshwater mussels.** This study looks at nutritional subsidies available and utilized by river freshwater mussels by using natural abundance isotope tracers. It used the isotopic tracers as quantitative tracers to estimate contributions of bulk resources to mussel diet.
2. Robert A. (Bob) Krebs, Cleveland State University. **Effects of dreissenid mussels on *Leptodea fragilis* in Lake Erie.** Age-size relationships were used to compare growth rates in the presence of dreissenids or not, contrasting different habitats spatially or in time. *L. fragilis* appears to be returning to Lake Erie in the presence of zebra mussels. He compared growth rates, as age versus shell length in fresh dead shells washed on the beach. Growth was slower for animals showing more byssal threads, indicating past attachment by zebra mussels, compared either to individuals with few byssal threads or for animals from populations where dreissenids were not present.

3. G. Thomas Watters, Ohio State University. **Land snails in Jamaica, Man.** A travelogue of a recent trip to collect DNA samples from some Jamaican land snails.

4. Jeremy Tiemann, Illinois Natural History Survey. **Reintroduction of two federally endangered mussels.** This presentation discussed the reintroduction of two federally endangered mussels to Illinois. The former range of these mussels, the Northern Riffleshell and Clubshell, include the former range of eastern Illinois, where they have been extirpated. The host fish is present in Illinois. A planned bridge project in Pennsylvania, that would destroy thousands of these mussels, presents the opportunity to transplant mussels to their former range in Illinois.

5. Ieva Roznere, Ohio State University (Ph. D. program). **Metabolic response to stress in the three ridge mussel *Amblema plicata*.** This presentation described using metabolomics to understand perturbations in biochemical pathways in response to starvation, relocation, and captivity. Monitoring glucose just gives part of (and misleading) stress status. She examined other metabolites from several different metabolic cycles and found that some show great promise as stress indicators.

6. F. Matthew Blaine, Curatorial Associate, Delaware Museum of Natural History. **Survey of freshwater mussels in Sussex County, Delaware.** This presentation presented a progress report of this project to date. Most rivers in Sussex County are brackish, but ponds do contain freshwater mussels. Gaining access because of private property can be a challenge.

7. Rebecca Winterringer, Ecologist, URS Corporation. **Stakeholder Meeting Announcement: Friends of the Lower Muskingum River and Muskingum Watershed Conservancy District.** A stakeholder meeting was held October 24, 2013 at the FLMR Park to discuss funding partnership opportunities and issues associated with a slope stabilization feasibility study near the Luke Chute dam on the Muskingum River in Morgan County, near Stockport, Ohio. This area of the Muskingum River is known to harbor unionids, including state and federally listed species. Interested parties were invited to the meeting or send comments to Rebecca Winterringer or Tom Evans of the URS Cleveland Office.

8. Nick Skomrock, Tom Watters, and Meg Daly, Ohio State University. **What to do when everything goes wrong?** Discussed was the ability to obtain DNA from low quality or museum

specimens of gastropods for molecular phylogenetics. They reviewed the ability to obtain specimens, gather usable sequences, and construct phylogenies with missing data in the context of the family Annulariidae.

9. Warren Pryor, Rosemary Morman, and Joseph Baumgartner. University of Saint Francis. **Upper Maumee Basin Centennial Unionid survey: Preliminary findings 1908-2008.** In 2008, we replicated part of Clark & Wilson's 1908 unionid survey by revisiting 11 of their stations on the Maumee River in Allen County, Indiana. Dominance changed from *Actinonaias ligamentina* and *Lasmigona costata* in 1908 to *Truncilla truncata* and *Leptodea fragilis* in 2008. Significant range reductions occurred in 9 species, and significant range increases happened in 2 species. Range changes could be explained by host availability in 2 species, habitat degradation in 5 species, and past harvest in 4 species. <email: Wpryor@sf.edu>

10. Warren Pryor, Rosemary Morman, and Alexandria Wright. University of Saint Francis. **An estimate of energy use by *Lampsilis siliquoidea* at Crooked Lake, Whitley County, Indiana.** We coupled previously determined Q10 and whole-animal oxygen consumption values with in situ temperature data to estimate energy consumption rates for a "standard" 70 g (live weight) adult *L. siliquoidea*. Our calculations suggest that more than half of the 27,190 cal estimated annual metabolic activity of a standard mussel occurred during July and August. <email: Wpryor@sf.edu>

11. Alexandra Meyer, Andrea Geyer, and Warren Pryor. University of Saint Francis. **Resuming the puzzle: developing a technique to estimate the energy available to *Lampsilis siliquoidea* at Crooked Lake, Whitley County, IN.** We collected and filtered samples from the water column above the mussel bed to determine the amount of particulate organic material available to *L. siliquoidea* living in Crooked Lake. The ash-free-dry-weight (AFDW) was determined for particles between 1.6 and 250 µm that had been filtered from water volumes between 4 and 12 L. AFDW values ranged between 0.77 and 1.37 mg/L between 1 July and 17 September 2012. The study is on-going. <email: meyeral@cougars.sf.edu>

12. Yurena Yanes, Department of Geology, University of Cincinnati. **Fossil land snails from the Canary Islands as paleoenvironmental archives.** The Canary Islands exhibit a large Quaternary record of well-preserved land snail shells that offer an excellent opportunity to infer past terrestrial ecosystems. The oxygen isotopic

composition of the shell records the environmental conditions (primarily relative humidity and rainfall) when snails grew their shells. Moreover, snail communities may fluctuate in response to paleoenvironmental change at the centennial to millennial scale. Results indicate that land snail richness and diversity from the Canary Islands declined over the last 50,000 years, likely as a response to a decline in relative humidity and a decrease in island area. Combining isotope geochemistry and paleoecological data allow us to reconstruct ancient ecosystems in a more informed and detailed manner.

13. Timothy A. Pearce and Harriet L. Yarroll, Carnegie Museum of Natural History and Chatham University. **Are slug shells thinner after egg laying? Preliminary findings.** Most slugs have internal shells. Are they useless vestiges or could they have a function? If used for calcium storage, they should be thinner, or less x-ray dense, after egg laying. X-raying slugs using dental equipment resolves shells well. Now we are waiting for slugs to lay eggs so we can check for a change in x-ray density of the shells.

14. Francisco J. Borrero, Academy of Natural Sciences of Philadelphia. **The molluscan type digitization project at ANSP.** An overview of the project goals, process, and expected and preliminary results is given, as well as challenges and opportunities faced. Techniques used include three imaging systems: camera, microphotography, and SEM.

15. Mac Albin, Aquatic Ecologist, Metro Parks, Ohio. **Darby Creek: Natural History Notes and Conservation Questions.** Discussed original vegetation and geology in Darby Creek watershed.



Front row (left to right): G.T. Watters, A. Sasson, T. A. Pearce, F. Borrero, Y. Yanes, Dona Blaine (front end), R. Esterline (between rows) Back row: N. Skomrock, A. Barrett, I. Roznere, J. Halmbacher, J. Tiemann, H. Yarroll, W. Pryor, A. Wright, M. Albin, A. Meyer, B. Kress (photo taken by Matt Blaine).

The next meeting of OVUM will be hosted by Dr. Yurena Yanes in 2014 at the University of Cincinnati, date to be announced.

★ Summary of the First Argentine Congress of Malacology (1 CAM)

Contributed by G. Darrigran^{1,2} and D. Gutiérrez Gregoric²

1. Jefe Sección Malacología – invasion@fcnym.unlp.edu.ar

2. División Zoología Invertebrados. Museo de la Plata (FCNyM-UNLP)-CONICET

The Argentine Association of Malacology (ASAM) organized from 18th to 20th September 2013, at the Universidad Nacional de La Plata, La Plata, Argentina, the First Argentine Congress of Malacology (1 CAM).

This scientific meeting brought together over 280 researchers in malacology throughout Argentina, with their students (fellows and PhD students). It also had the presence of renowned malacologists from several South American countries (Brazil, Chile, Uruguay, Cuba, Venezuela, Bolivia).

This First Argentine Congress of Malacology developed 8 main topics:

- Bioindicators, aquaculture and fisheries, health malacology, pests
- Biodiversity, bioinvasions, biogeography, conservation
- Biochemistry, molecular biology, genetics
- Archaeological malacology
- Paleontology
- Morphology, systematic, taxonomy, phylogeny
- Formal and non-formal education
- Official malacological collections

Among its organizers were recognized Argentine malacologists:

Honorary President: Pablo Penchaszadeh

President: Alejandra Rumi

Coordinator: Gustavo Darrigran

Secretaries: Andrés Averbuj & Javier Signorelli

Pro-Secretary: Robert Vogler

Treasurer: Stella Martin

Pro-Treasurer: Ariel Beltramino

Chair, Academic Committee: Guido Pastorino

Chair, Executive Committee: Diego Gutiérrez Gregoric

Chair, Editor Committee: Sandra Gordillo

Some 1 CAM statistics reflect the success:

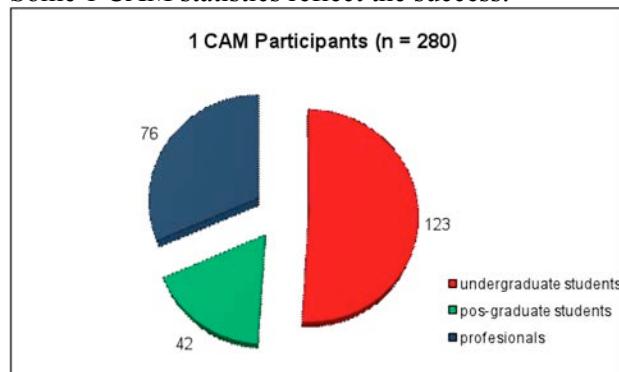


Fig. 1. It is evident and encouraging the interest in malacology of undergraduate students.

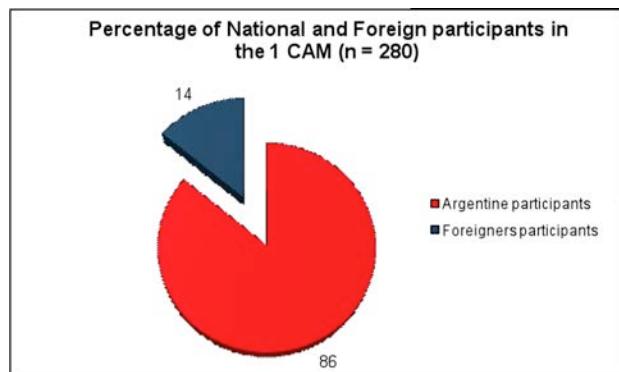


Fig. 2. The percentage of foreigners in the First Argentine Congress of Malacology, shows the importance of the development of this discipline reached in Argentina.

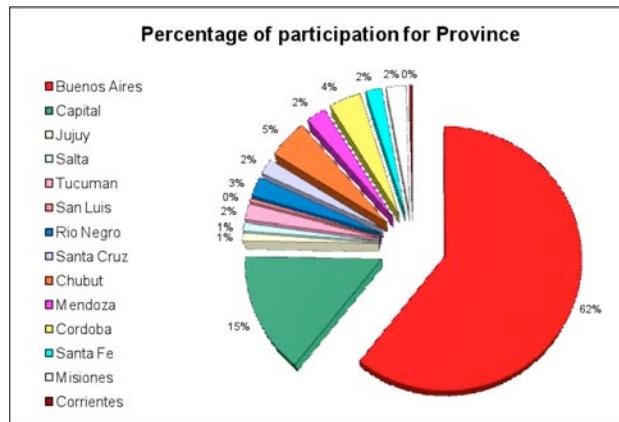


Fig. 3. Due to the proximity to the place of 1 CAM both, the Buenos Aires City ("Capital") and the Buenos Aires province are the most represented, but the participation of Chubut and Cordoba, which with Mendoza are outstanding malacological centre of Argentina, were also represented.

Different activities were developed, some of them simultaneously, with almost absolute attendance of its members and the optimal participation by registrants to 1 CAM. Some topics and titles of the activities were:

Mini - courses (total 3) were developed with the participation of over 60 registered to topics such as "Introduction to genetic analysis in mollusks" or "Using electron paramagnetic resonance spectroscopy (EPR) for the detection of free radicals in mollusks tissues".

Workshop on "Education molluscs as bioinvaders" with 35 participants.

Communications: A total of 99 communications, Oral (23) and Poster (76)

Symposia (total 8):

- Education in Malacology (with 2 semi plenary conferences, 5 expositions, and 3 book presentations)
 - III Latin American Symposium bioinvader mollusks (with 1 semi plenary conference, 8 expositions, and 1 book presentation)
 - Río de la Plata Symposium of Freshwater Bivalves (with 5 expositions)
 - Archaeology and Malacology (with 11 communications)
 - Malacological Collections (with 1 semi plenary conference and 5 expositions)
 - Fossils Mollusks from the South of South America (with 1 semi plenary conference and 4 expositions)
 - Ampullariidae Biology (with 3 semi plenary conferences)
 - Genetics and Mollusks (with 2 semi plenary conferences and 3 expositions)

Plenary Lectures (total 4) :

- Inaugural Conference: Dr. Paul E. Penchaszadeh.
- Land gastropods from Argentina: Dr. M. Gabriela Cuezzo.
- Marine Gastropods Taxonomy of Argentina: is All Done? Dr. Guido Pastorino.
- Freshwater Mollusks from Argentina: Dr. Alejandra Rumi.

Semi-plenary conference (total 10); between them:

- Ensino e Pasquisa em Malacologia-Como Estimular a Fornaçao de Novos Pesquisadores? Sonia Barbosa dos Santos.
- Panorama Atual Sobre os Estudos Moleculares aplicados a Malacofauna: Teofania H.D.A. Vidigal.
- Bioinvasions: A Story of Experience: Gustavo Darrigran

To view the abstracts of 1 CAM activities ("Libro de Resúmenes"), see:

<http://www.malacoargentina.com.ar/Contenidos/congresos.html>

The Second Argentine Congress of Malacology (2 CAM) will be held in Mendoza Province, Argentina, in 2016.

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Taxonomic and distributional study of freshwater bivalve populations "Naiads" (Mollusca: Bivalvia: Hyriidae) in Patagonia, Argentina.

Contributed by S. Torres and Darrigan, G.

Research Group on Bivalve Mollusks-Division of Zoology of the Museo de La Plata (FCNyM-UNLP). Argentina. invasion@fcnym.unlp.edu.ar

Populations of Naiads, very abundant in the past (31 species listed) (Rumi et al., 2008), have been displaced / extinct by habitat modification (Darrigan, 1999) and the invasion of bivalves (e.g. *Limnoperna fortunei* and *Corbicula fluminea*) (Darrigan and Damborenea, 2005). Globally the rate of extinction of freshwater bivalves is very high, and superior to other groups such as vertebrates. The IUCN report shows that of the 306 bivalve species assessed, 41% are seriously threatened (Baillie et al., 2004). These species are an important component of the infauna of lotic and lentic water bodies, living in silty and sandy bottoms, filter feeding, taking a role as recyclers of organic material (Bogan, 2008).

Being considered one of the most endangered groups at risk of extinction, distributional and systematic studies play an important role in conservation, allowing recognition of potential priority areas for protection (Bogan & Roe 2008).

During 2013, Santiago Torres, led by Gustavo Darrigan and Pablo Vigliano, will initiate a research project that includes a taxonomic and geographic distribution study of naiads present in the Patagonia Argentina. The numbers of studies on freshwater bivalve populations in the patagonic region are scarce, and most date back to the 60s and 70s (Torres et al. in press). The objectives outlined in the Project "Taxonomic and distributional study of freshwater bivalve populations "Naiads" (Mollusca: Bivalvia: Hyriidae) in Patagonia, Argentina" are:

- To know the current geographical distribution of naiads in Patagonia Argentina.
- To check the systematic of the populations to verify the number of species in the area.
- To estimate the population characteristics of naiads and assess their conservation status.

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IUCN Red List Of Threatened Species. A Global Species Assessment. IUCN, Gland, Switzerland And Cambridge, UK. XXIV + 191 pp

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MINUTES OF THE ANNUAL BUSINESS MEETING

Presented by Amanda S. Lawless, Secretary

July 26, 2013

North Amphitheater

University of the Azores, Ponta Delgada

The meeting was called to order by President Peter Marko at 1:20 pm.

A motion was made and passed to approve the minutes of the 2012 business meeting.

Executive and Committee Reports were presented:

President's Report: Presented by Peter Marko. The WCM meeting has over 400 participants (~80 from North America, ~60 AMS members). Our auctioneer this year was Michele Nishiguchi who did a great job with the auction netting \$1980.31 US.

President Elect: Presented by Paul Valentich-Scott. AMS along with the Western Society of Malacologists (WSM), the Asociación Latinoamericana de Malacología, and the Sociedad de Malacología de México will host The Meeting of the Americas at the Universidad Nacional Autónoma de México in Mexico City (not Madeira) from June 23-27, 2014. The meeting has many social media outlets (40% of Facebookers from Mexico, 20% from US). CLAMA meeting is tri-lingual (English, Spanish and Portuguese) but encourages English. Meeting expenses: university has offered facilities for free (room rental, AV). Still concerns about

travel to Mexico City. There will be no dorms, but hostels are available and there will be one main hotel (~\$60/night) with shuttle service to the meeting. Expecting ~300 attendees. Still working on symposia and workshops/field trips. The Mexican society, will handle the money and registration will be thru Paypal. AMS will host a joint oral and silent auction with WSM.
A motion was made and passed to accept the 2014 meeting venue.

Vice President: Presented by Tom Duda. Two venue options were given for the 2015 meeting. One option is to have the meeting in Ann Arbor on the University of Michigan campus in June/July. The second option is to have the meeting at the University of Michigan's Biological Station in northern Michigan in mid-August. Tom would like to poll the membership about their preference for meeting locations, dates and potentially holding a shorter meeting.

Treasurer's Report: Submitted by Charlie Sturm. A balance sheet was presented for 2012 with deposits totaling \$48,204.96 and expenses totaling \$34,813.13 for a balance of \$13,391.83 (as of 1/1/2013).

Audit & Budget Committee Report: Submitted by Charlie Sturm.

INCOME

Dues/subscriptions	\$8,500
Page charges	\$7,580
Auction	\$1,000
Bio One	\$11,000
Universal Publishers	\$400
Transfer from Symp/Student Endowment	\$9,000
Transfer from Life Member Endowment	\$420
Total Income	\$37,900

EXPENSES

Publications (AMB, editorial expenses)	\$21,250
Office expenses	\$450
Bank expenses	\$1,200
Web service	\$250
Carriker	\$3,000
Boone	\$500
AIBS	\$250
Symposium	\$6,000
Council expenses (travel)	\$5,000
Total Expenses	\$37,900

Motion to pass budget. Motion passed.

Endowment Committee Report: Presented by Rüdiger Bieler. The endowment committee report was tabled until further information could be obtained.

Membership Committee Report: Submitted by Beth Davis-Berg. AMS has a total of 191 members, 42 of which are students. Beth looked at the number of AMS members that did not renew from year to year and noted the high number of full members (long time and students) that are being lost from year to year. One key in gaining students is to recruit more PIs and retain them as they move on to new jobs. Beth would also like to do a survey of student members to find out what they would like to have at the annual meetings.

Editor and Publications Committee Report: Presented by Colleen Winters. The impact factor for 2012 was 1.000, a drop from 1.129 for 2011. Publication lags for submitted papers has dropped to 4-6 months with the publication of two issues/year. Publication lags for symposia remain close to 1-1.5 years. The rejection rate has increased to ~35%. AMB Vol. 31(2) published with 10 independent manuscripts and 4 research notes. AMB Vol. 32(1) in progress with 2012 AMS symposium, 2 manuscripts accepted, 11 under review/revision. Colleen presented two motions:

Motion – AMB page charges will not be waved for non-AMS members. Motion passed.

Motion – Permit the Biodiversity Heritage Library to copy and post all past issues of the AMB not currently on BioOne. Motion passed.

Nominating Committee Report: Presented by Gary Rosenberg. The Nominating Committee consisted of Jose Leal, Doug Eernisse, Peter Marko and Gary Rosenberg. The following were nominated: President – Paul Valentich-Scott, President-Elect – Thomas Duda, Jr., Vice President – Ángel Valdés, Past President (>10 Years) – Rüdiger Bieler, Councilors-at-Large – Jeanne Serb and Jingchun Li (student).

No nominations were received from the floor, and the slate was approved by motion.

Secretary's Report: Presented by Amanda Lawless. Highlights of the report were the continued maintenance and updating of the membership database, and assisting newsletter editor Christine Parent with the preparation and distribution of the 2012 fall and 2013 spring newsletters. Assisted Peter Marko with preparations for the 2013 meeting. Our webmaster, Marla Coppolino, stepped down and Peter Marko agreed to take her place until a replacement is found.

Conservation Committee Report: Submitted by Jay Cordeiro. Final drafts of Conservation Status of North American Freshwater Mussels and Snails manuscripts have been completed, the latter published in the June 2013 journal Fisheries. Jay is posting a quarterly listserv dealing with current/proposed US federal decisions by USFWS and NOAA regarding mollusks conservation. The reports are e-mailed to members, posted on the AMS

website and sent to relevant listservs. Also, the Magazine Mountain shagreen snail (*Inflectarius magazinensis*), was the first invertebrate species fully recovered and removed from listing under the Endangered Species Act.

Student Awards Committee Report: Submitted by Janet Voight. The 2013 Melbourne R. Carriker student research awards were given to the following students: Collin R. Funkhouser (Texas Tech University), Jenna Judge (University of California, Berkeley), Carl N. Keiser (University of Pittsburgh), and Kelley Leung (University of Hawaii at Manoa). The selection committee consisted of Janet Voight, Tim Pearce and Roland Anderson. The 2013 special travel awards to help students participate in the AMS/WCM meeting were awarded to Jingchun Li (University of Michigan), Cindy Bick (University of Michigan), and Samantha L. Flowers (University of Michigan). This year's meeting student awards committee consisted of Janet Voight and Peter Marko with the following award being presented: Constance Boone Award – Jingchun Li.

Systematics Committee Report: Submitted by Charles Lydeard. Charles accepted the invitation to serve as chair of the Systematics Committee. He worked with Peter to update Section 11 of the By-Laws concerning the Systematics Committee. In March 2013, Charles published a new blog entitled "Molluscan Musings" and has posted 4 articles. The blog has received 1,750 page views since July 2013 and can be accessed through the AMS website.

Resolutions Committee: Presented by Paula Mikkelsen. No new business.

Constitution & Bylaws Committee: Presented by Gene Coan. Rob Dillon has stepped down as chair of the committee and Gene has accepted the position. No activities to report by the committee in 2012-2013.

The following motions were presented to the membership:

Section 3. Reimbursement for the Secretary, Treasurer, Publications Editor, Student Councilor-at-large, and President-Elect can be approved by the Council, with priority given to the Secretary, Treasurer, and Publications Editor. Such reimbursements shall be restricted to those covering reasonable expenses incurred in the discharge of official duties and reasonable travel and accommodation expenses incurred in connection with attendance at annual meetings and which have not or will not be covered by support from institutions or granting agencies.

Section 11. The Systematics Committee shall consist of a chair appointed by the President and at least two additional members appointed by the chair. It is charged with promoting interest in molluscan systematics, expeditionary biodiversity research, taxonomy, systematic collections and the integration of these

different aspects of systematic malacology. The chair and committee also serves as a liaison to other groups or organizations involved in such matters.

Motion – Accept the amendments to the AMS Bylaws as proposed. Motion passed.

Paul presented Peter with a gift in appreciation for his past year as president and putting a great meeting together.

A motion to adjourn was made and passed.

Amanda S. Lawless, Secretary
Philadelphia, October 2013



MESSAGES FROM THE NEWSLETTER EDITOR

Contributions to the biannual AMS newsletter are always welcomed. Send articles, short notes or news items to **Christine Parent**, the newsletter editor, at the following address:

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