



Newsletter of the Freshwater Mollusk Conservation Society
 Volume 13 – Number 3
 September 2011

Who We Are

Who We Are	1
Society News	2
Recent Publications	3
Upcoming Meetings	3
Contributed Articles	4
FMCS Membership List	24
FMCS Officers	44
FMCS Committees	45
Parting Shot	46

Several pages in this issue are devoted to presenting the current Membership List for our Society. While any FMCS member could look up other members on our web site, putting the full membership list in *Ellipsaria* gives all of us a quick reference to the full list and reads into our permanent record exactly who was a member way back in 2011. Working up this list also gives us a chance to look at the variety of people who have decided it is worth their time and money to become members of this society -- to see who we are.

For starters, there now are 541 of us, more than 2 ½ times the 200 members on the first published list, just eleven years ago (in August 2000). And our members are spread out, coming from 10 countries (Australia, Brazil, Canada, Israel, Luxembourg, Portugal, Singapore, Spain, the United States, and the United Kingdom) and 44 of the 50 United States (all of the states except Alaska, Connecticut, Montana, Rhode Island, Utah, and Vermont).

The institutional affiliations we listed (or not) also indicate the range of our diversity. In decreasing order of occurrence, we are affiliated with colleges or universities (31%), federal governments (19%), state and local governments (16%), private companies (15%), “not indicated” (11%), museums and zoos (3%), and non-governmental conservation groups (3%). The “not indicated” group appears to include retirees and others who are just interested in freshwater mollusks.

All in all, our 13-year old society is now composed of over 500 individuals representing diverse geographic areas, job requirements, and personal interests; but with a shared desire to know more about and to improve the conservation status of freshwater snails and mussels. Thank you for being part of who we are.

Society News

Committee Goals and Plans

Much of the work that gets done by our society is accomplished by the chairs and members of our various committees. Since several committees now have new leadership, this seems like a good time to let the new chairs present their long-term goals and immediate plans. Here are the statements from four of these committees.

Ecosystem Services Committee

Freshwater mollusks represent one of the most imperiled groups of organisms in North America and are currently in an unprecedented state of decline in both richness and abundance. Despite this, their functional significance to ecosystems and societal importance remains largely understudied. The primary goal our committee is to synthesize and build upon research addressing the functional importance of freshwater mollusks. We also recognize that public outreach and conservation awareness programs are best served when links to the human condition can be made. As such, our secondary goal is to evaluate how freshwater mollusks provide ecological services that benefit society, and to help translate these benefits to the public. To achieve these goals, we encourage collaboration among other committees within the society.

Areas of interest to our committee include but are not limited to:

- 1) Indicator populations, species, and communities which can be monitored to gauge changes in environmental health and climate effects.
- 2) Mollusks as vectors for contaminant and disease movement and/or mitigation.
- 3) The capacity for mollusks to ameliorate water quality issues via filtration, biotransformation, and biodeposition activities
- 4) The supply of energetic and nutritive benefits to aquatic food webs Habitat engineering benefits such as substrate stabilization
- 5) The potential for mollusk restoration and propagation as a tool to restore ecosystem services.

Proposed activities to achieve the committee's goals

- 1) Synthesize and promote research to evaluate the ecological roles of freshwater mollusks.
- 2) Promote studies that evaluate quantitative changes in community composition and abundance. These data can then be used to forecast mollusk-derived services at the population, community and watershed scale.
- 3) Develop models to predict ecosystem services that are applicable to various scales, geographic regions, and with changing watershed conditions.
- 4) Develop realistic models that estimate the economic value for mollusk-derived ecological services. In turn, these models can be used for conservation outreach activities and for assessing mitigation penalties and success for managers.
- 5) Promote comparative research to evaluate the functional similarities and differences among services provided by native and invasive mollusks.

If you have an interest in joining or assisting this committee, please contact either of us.

Co-chairs: Daniel Spooner and Danielle Kreeger

Awards Committee

The Awards Committee is responsible for the administration and oversight of all FMCS awards, but approval of those awards, unless otherwise stated, is granted by the Executive Board. The duties of the Awards Committee are to:

- 1) solicit nominations and recommend recipients for each professional award given by the Society;
- 2) administer awards to students, including selecting the awardees in conjunction with a panel of independent judges; and
- 3) coordinate all award activities with the FMCS Treasurer and Executive Board to ensure the timely and smooth implementation of award programs.

Co-chairs: W. Gregory Cope, greg_cope@ncsu.edu ; Teresa Newton, tnewton@usgs.gov ; and Emy Monroe, emy.monroe@usd.edu

Symposium Committee

At the meeting in Louisville, the membership of the Symposium Committee was formalized to include the chairs and co-chairs of the immediate past and upcoming symposia and workshops, and the Society officers. It now will be chaired by the President Elect. All members of this committee will rotate on and off as the events occur and new officers are elected. This committee helps plan and execute all workshops and symposia, including making recommendations for locations, dates, themes or topics, and hosts. It helps provide for smooth transitions from event to event by maintaining files and standard operating procedures, and conveying lessons learned to upcoming event teams. The committee is currently helping with the planning for the 2012 workshop at Athens, Georgia, and the 2013 symposium at Guntersville, Alabama. Submitted by: Patricia Morrison, Chair

Regional Mollusk Meeting Ad-Hoc Committee

At the Louisville Symposium, President Vaughn asked Susan Oetker and Steve McMurray to head up an ad-hoc committee to look into the relationship between FMCS and the many informal regional mollusk meetings that are held each year around the country. This topic has been the subject of an ongoing discussion of the Executive Board for many years following proposals from some of these regional groups to form Chapters of the Society.

The ad-hoc committee was tasked with developing a survey or questionnaire to research the relationship between the regional meetings and FMCS to find ways that we can work together to achieve our common goal: bringing those of us who work with freshwater mollusks together to conserve the fauna. As we develop this survey, there is one important piece of information that we are missing: **CONTACT INFORMATION!** So, if you lead, are involved with, or know someone who coordinates one of the many regional mollusk meetings, please forward contact information to either Susan (Susan_Oetker@fws.gov) or Steve (Stephen.McMurray@mdc.mo.gov).

Recent Publications

Hinck, J.E., Ingersoll, C.G., Wang, N., Augspurger, T., Barnhart, M.C., McMurray, S.E., Roberts, A.D., and Schrader, L, 2011, Threats of habitat and water-quality degradation to mussel diversity in the Meramec River Basin, Missouri, USA. US Geological Survey Open File Report 2011-1125, 18 p.

Upcoming Meetings

FMCS 2012 Workshop

The 2012 FMCS workshop will be held on April 19 and 20 at the Holiday Inn adjacent to the University of Georgia Campus in Athens, Georgia. The theme of the workshop is "Environmental Flows, Climate Change and Freshwater Mollusks". Registration details will be posted on our web site, in *Ellipsaria*, and emailed to the membership once they are available.

The Holiday Inn is located on the corner of the North Campus, which contains the original buildings of the University of Georgia. It is also located on Broad Street at the edge of downtown Athens. In addition to being the home of the University of Georgia (How 'bout them Dawgs!), Athens is noted for its vibrant music and cultural life. The Holiday Inn is two blocks from the Georgia Theater, a noted stop for touring musicians. Athens is home to more than 100 eateries, ranging from brew pubs to regionally noteworthy restaurants. Many of these restaurants are within walking distance of the

Holiday Inn.

Those traveling by air can fly into Atlanta's Hartfield-Jackson International Airport and have the option of taking either shuttle service to downtown Athens or flights by regional air carrier into the Athens Ben Epps airport. More information on Athens can be found at: <http://www.visitathensga.com/>

Other Upcoming Meetings

October 1, 2011 - Ohio River Valley Unified Malacologist Meeting, Thomas More College Biology Field Station, northern Kentucky. Meeting information and directions are available at www.thomasmore.edu/fieldstation

November 13 – 17, 2011 – 32nd North American Annual Meeting, Society of Environmental Toxicology and Chemistry (SETAC) Hynes Convention Center, Boston, MA, USA. Theme: *Navigating Environmental Challenges: Historical Lessons Guiding Future Directions* <http://boston.setac.org/>

November 28 – December 2, 2011 – International Congress for Conservation Biology, Christchurch NZ Theme: *Engaging Society in Conservation*. <http://www.conbio.org/Activities/Meetings/2011/index>

April 19 & 20, 2012 -- FMCS Workshop Holiday Inn, Athens Georgia Theme: "*Environmental Flows, Climate Change and Freshwater Mollusks*"

May 20 – 26, 2012 -- North American Benthological Society Annual Meeting, Marriott Louisville Downtown, Louisville, Kentucky Theme: [to be determined] <http://www.benthos.org/Annual-Meeting/Future-Meetings.aspx>

March 11 – 15, 2013 -- FMCS 8th Biennial Symposium, Guntersville, State Park, Alabama Theme: [to be determined]

Contributed Articles

The following articles have been contributed by FMCS members and others with interest in freshwater mollusks. These contributions are incorporated into Ellipsaria without peer review and with only minimal editing. The opinions expressed are those of the authors.

Lake Michigan Drainage Records in Wisconsin for the Pink Heelsplitter, *Potamilus alatus* (Unionidae, Lamprosilinae)

Joan P. Jass, Milwaukee Public Museum, 800 W Wells St, Milwaukee, WI 53233, jass@mpm.edu <http://www.mpm.edu/collections/research/invertebrates/mussels/>

Potamilus alatus has a current State Conservation Status of "Apparently Secure" in Wisconsin as designated by NatureServe. Hay et al. (2003) warned that the distribution for this species should be characterized as "Presently widespread but declining." No records for the pink heelsplitter in the state were cited by Klocek et al. (2008), who mapped both pre-1975 and post-1975 sites, and whose mapping boundaries included southeastern Wisconsin.

Baker (1928) gave the Wisconsin distribution of this unionid as the Mississippi, the Wisconsin, and the Fox River plus several Lake Michigan drainage rivers which he hypothesized it may have entered "by way of the old Lake Chicago of Pleistocene days." For example, among the records that he cited under the subspecies *Proptera alata megaptera*, Baker (1928) included a number of localities to the east and south of the Mississippi River drainage, such as the Milwaukee River (Chadwick 1906) as well as unspecified "southern Wisconsin" sites (Wiswall 1897).

In order to document the historic presence of *Potamilus alatus* in this eastern Wisconsin part of its range, records from the collection of the Milwaukee Public Museum (MPM) are recounted here. The earliest MPM pink heelsplitter specimens (MPM Mollusk #3511/Z11073) from this geographic area are dated 1897, a purchase from the Mrs. E.C. Wiswall of Kenosha who authored the southern Wisconsin species listing cited by Baker (1928). In 1902, with the support of the state Natural History Society,

George H. Chadwick began a project at the museum to document the Wisconsin molluscan fauna, depositing vouchers and citing MPM Zoology accessions for a few selected lots in his publication (Chadwick 1906). These early Zoology accession numbers, now appended to those in a subsequent Mollusk catalog system, identify specific MPM specimens with historic records in Chadwick (1906) and Baker (1928). Five MPM lots of the pink heelsplitter collected as part of the Chadwick project are: 3 from the Milwaukee River in Milwaukee County, 1 from Two Rivers in Manitowoc County--further north along the Lake Michigan shoreline, and 1 from Lake Winnebago in Calumet County--adjacent to Manitowoc County to the west.

Within a narrow, 4-county zone slightly further to the west in central Wisconsin, Mathiak (1979) mapped 6 Lake Michigan drainage localities for this unionid (Fig. 1). Among these are his vouchers from the Embarrass River in Green Lake County and the Fox River in Shawano County, which he deposited in The Ohio State Museum of Biodiversity and the University of Wisconsin Zoological Museum. Detailed data for these lots can be viewed on the MPM website documenting Mathiak's 5-year statewide survey <http://www.mpm.edu/collections/research/invertebrates/mussels/>. These more recent collection records in the state are those reflected in the Cummings and Mayer (1992) range map, not older localities such as Chadwick's (1906). Whether *Potamilus alatus* persists in any of the historic collecting sites further to the east and south in the Lake Michigan drainage in Wisconsin is questionable, but it may be a question worth pursuing, given the apparent ability of this species to retain a secure status elsewhere.



Figure 1. Lake Michigan drainage indicated in color on Mathiak's (1979) pink heelsplitter spot map; shown with MPM Mollusk #3511, note repaired damage to left valve interior.

References:

- Baker, F. 1928. The freshwater Mollusca of Wisconsin. Part II. Pelecypoda. Bulletin 70. Wisconsin Geological and Natural History Survey, Madison, 495 p.
- Chadwick, G.H. 1906. Notes on Wisconsin Mollusca. Bulletin of the Wisconsin Natural History Society, 4(3):67-99.
- Cummings, K.S. & Mayer, C.A. 1992. Field guide to freshwater mussels of the Midwest. Illinois Natural History Survey, Champaign. 194 p.
- Hay, R.; Heath, D. & L. Kitchel. 2003. Freshwater mussels of the Upper Mississippi River. Wisconsin Department of Natural Resources, Madison, 60 p.

Klocek, R.; Bland, J. & L. Barghusen. 2008. *A field guide to the freshwater mussels of Chicago Wilderness*. http://fm2.fieldmuseum.org/plantguides/guide_pdfs/CW6_mussel_guide.pdf
 Mathiak, H.A. 1979. *A river survey of the unionid mussels of Wisconsin 1973-1977*. Sand Shell Press, Horicon, Wisconsin, 75 p.
<http://www.mpm.edu/collections/research/invertebrates/mussels/links/>
 Wiswall, E.C. 1897. Shells of southern Wisconsin. *Natural Science Journal*, I(2):47-48.

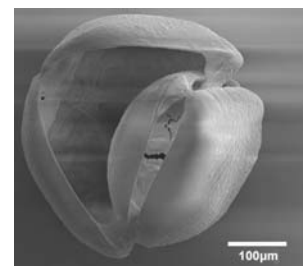
Additional Suitable Hosts Identified for Rock Pocketbook (*Arcidens confragosus*)

Mark Hove^{1,3}, Alex Fulton¹, Kiru Wolf¹, Bernard Sietman², Dan Hornbach³, Sarah Boyer³, and Nicole Ward²

¹ Univ. of Minnesota, 1980 Folwell Ave., St. Paul, 55108, mark_hove@umn.edu

² Minnesota Dept. of Natural Resources, 500 Lafayette Road, St. Paul 55155

³ Macalester College, 1600 Grand Ave., St. Paul, MN 55108



Rock pocketbook glochidia

We continued host suitability studies initiated during 2010 to identify fishes that facilitate metamorphosis of rock pocketbook, *Arcidens confragosus* (Say, 1829) glochidia; a species listed as endangered in Minnesota. Locations where fish and mussels were collected and methods used were the same as described in Ward *et al.*, (2010).

We exposed to rock pocketbook glochidia to 15 fish species (7 families), held them at 20 °C, and observed that seven species facilitate metamorphosis (Table 1). This study adds to our understanding of rock pocketbook life history. We confirmed that banded killifish, creek chubs, and white suckers are suitable hosts (Ward *et al.*, 2010.) and identified for the first time that brook stickleback, shorthead redhorse, and yellow perch are potential hosts for rock pocketbook. Additional research is needed to enlarge the number and diversity of fishes to better elucidate host relationships. We plan to continue host suitability trials during fall 2011 and attempt to collect fishes naturally infested with rock pocketbook from the St. Croix or Mississippi rivers.

Table 1. Results of rock pocketbook host suitability trials.

Common name (Scientific name)	No. of individuals inoculated	No. of fish survivors	Juvenile recovery period (days)	No. of juveniles recovered
common carp (<i>Cyprinus carpio</i>)	1	1	13	1
creek chub (<i>Semotilus atromaculatus</i>)	3	3	13-20	23
white sucker (<i>Catostomus commersoni</i>)	2	2	11-22	287
shorthead redhorse (<i>Moxostoma macrolepidotum</i>)	5	5	11-20	80
banded killifish (<i>Fundulus diaphanus</i>)	3	2	13-25	147
brook stickleback (<i>Culaea inconstans</i>)	10	2	15-27	11
yellow perch (<i>Perca flavescens</i>)	3	3	13-15	5

Fish species (mean number of fish per trial, last day to rejection) that did not facilitate glochidia metamorphosis: longnose gar (2, 4), shortnose gar (5, 7), brassy minnow (5, 13), burbot (1, 18), Johnny darter (8, 15), blackside darter (2, 15), river darter (1, 18), and sauger (3, 15)
 Partial funding for this research was provided through Minnesota’s State Wildlife Grants Program.

Literature Cited

Ward, N., B. Sietman, M. Hove, K. Baumann, A. Edgcumbe, and C. Weggler. 2011. Suitable host fishes for the rock pocketbook, *Arcidens confragosus*. *Ellipsaria* 13(1): 27-28.

New or Confirmed Potential Host/Mussel Associations

Trisha Gibson, Jennifer Cecil & G. Thomas Watters

Department of Evolution, Ecology & Organismal Biology, The Ohio State University, and
Columbus Zoo & Aquarium Freshwater Mussel Conservation and Research Facility

Pleurobema clava – Allegheny River, PA

Fish	Days to first transformation	% Transformed	# Transformed/fish
Blacknose dace	22	18%	8
Bluntnose minnow	20	26%	19
Common shiner 1	19	38%	7
Common shiner 2	16	28%	42
Common shiner 3	13	40%	57
Creek chub	26	50%	3
Fathead minnow	22	29%	5
Hog sucker	24	37%	80
Stoneroller 1	24	31%	32
Stoneroller 2	13	13%	21
Stoneroller 3	20	3%	7
Yellow bullhead	-	0%	0%

Pleurobema cordatum – Muskingum River, OH

Fish	Days to first transformation	% Transformed	# Transformed/fish
Creek chub 1	15	2%	5
Creek chub 2	15	42%	179
Creek chub 3	15	2%	4
Creek chub 4	15	19%	87
Creek chub 5	15	25%	74
Bluegill	-	0%	0%
Green sunfish	-	0%	0%
Largemouth bass	-	0%	0%
Pumpkinseed	-	0%	0%

“Villosa” fabalis – Allegheny River, PA

Fish	Days to first transformation	% Transformed	# Transformed/fish
Spotted darter	21	13%	2
Tippecanoe darter	21	11%	3
Creek chub	-	0%	0%
Largemouth bass	-	0%	0%
Longeared sunfish	-	0%	0%
Rainbow darter	-	0%	0%
Sand darter	-	0%	0%

All transformations at ca. 17° C. % Transformed = transformed juveniles/(dead glochidia+transformed juveniles)* 100. Common names of fishes are those recognized by the American Fisheries Society.

Study funded by the Ohio Department of Natural Resources Division of Wildlife, the U.S. Fish & Wildlife Service, and the Columbus Zoo & Aquarium.

Additional Information Concerning the Conquest of Europe by the Invasive Chinese Pond Mussel *Sinanodonta woodiana*. 25. News from Austria, Belgium, Bulgaria, Germany, Hungary, Italy, the Netherlands, Slovakia, and Poland

Henk K. Mienis

National Collections of Natural History, Dept. Zoology, Tel Aviv University, IL-69978 Tel Aviv, Israel, and National Natural History Collections, Berman Building, Hebrew University, IL-91904 Jerusalem, Israel
mienis@netzer.org.il

The presence of the exotic Chinese Pond mussel *Sinanodonta woodiana* (Lea, 1834) in Europe remains a popular topic among the malacological studies carried out in that part of the world. In this issue publications dealing with this invasive species in ten countries are briefly reviewed. Of particular interest is the long-awaited first record of *Sinanodonta* from the Netherlands (van Peurseem, 2011). This species is known to be on sale there in most garden centers and shops for aquarium requisites at least far more than 10 years and warnings for its possible presence in that country has been published several times since 1999 (Mienis, 1999 & 2003a-b). In addition, the Round goby *Neogobius melanostomus* may be added to the growing list of host species on which glochidia of *Sinanodonta woodiana* develop with success.

Austria

Specimens of the Round goby *Neogobius melanostomus* caught near Orth, in the Austrian part of the Donau, turned out to be infected with glochidia of *Sinanodonta woodiana* (Francová et al., 2011). *Neogobius melanostomus* is a new intermediate host of the Chinese Pond mussel.

Belgium

On 27 April 2011, Koen Berwaerts published a photograph of a large freshwater mussel on the website "waarnemingen.be" (Observations Belgium). The shell had been observed in an aquatic biotope near the Balkestraat, west of Wilder, Kampenhout, Flemish Brabant, Belgium, and was thought to represent the Swan mussel *Anodonta cygnea* (Linnaeus, 1758). However, the form of the shell, especially the rounded ventral margin, shows that we are dealing here, in fact, with another record of the invasive Chinese Pond mussel from Belgium.

www.waarnemingen.be/foto/view/2052096



Figure 1: The Chinese Pond mussel *Sinanodonta woodiana* (Lea, 1834) from Kampenhout, Flemish Brabant, Belgium (Photograph K. Berwaerts).

Bulgaria

Round gobies *Neogobius melanostomus* caught near Ruse and Vidin in the Donau turned out to be infected by glochidia of the invasive Chinese Pond mussel (Francová et al., 2011). The Round goby is a new host species for the glochidia of *Sinanodonta woodiana*.

Germany

Wirtz (2011) published merely a warning concerning the expansion potential of the Chinese Pond mussel, a species widely sold as an aquarium and garden pond mussel in Germany. His short note is illustrated by good figures previously published by Adam (2010).

Hungary

A survey of the aquatic fauna at 17 localities of the river Rába in Austria and Hungary revealed the presence of *Sinanodonta woodiana* only at the three most northern localities in that river in Hungary: Nick, Arpás and Győr (Kovács et al, 2011).

Italy

Mazza et al. (2011) paid attention to the highly overlooked statement in Berni et al. (2004) that the invasive Chinese Pond mussel has been released intentionally in some Italian rivers for the production of freshwater pearls! Ciutti et al. (2011) mention *Sinanodonta woodiana* as an abundant invasive species in Lake Garda.

The Netherlands

Two large specimens of the Chinese Pond mussel were recovered from a reclaimed garden pond in the neighbourhood of Utrecht (van Peursen, 2011). Koi carp were the only fish species which had inhabited that pond. Although this find has not been done in so-called open water, it represents the first long awaited record from the Netherlands.

Poland

Empty shells of the Chinese Pond mussel were found in a complex of fish ponds near Spytkowo in the valley of the Vistula River in southern Poland. These ponds are not heated and also harbor a population of the Swan mussel *Anodonta cygnea* (Linnaeus, 1758), which is considered a protected species in Poland. *Sinanodonta woodiana* is new for that part of Poland; however, its influence on the Swan mussel population has remained unknown.

Slovakia

In a short article dealing with the first find of *Achatina fulica* in Slovakia, Steffek & Kušik (2009: 15) published as an example of another recent introduction a picture of *Sinanodonta woodiana*.

References

- Adam, B., 2010. L'Anodonte chinoise *Sinanodonta woodiana* (Lea, 1834) (Mollusca, Bivalvia, Unionidae). Une espèce introduite qui colonise le bassin Rhne-Méditerranée. *MalaCo*, 6: 278-287.
- Berni, P., Bitossi, S., Salvato, M., Orlandi, M., Salvati, J., Silvestri, M., Megale, P., Orlandi, P. & Billiard, R., 2004. Valorizzazione del territorio attraverso produzioni alternative di perle di acqua dolce di elevate qualità. Con tecniche di policoltura eco-sostenibile. International Workshop "Tinca e acquacoltura nelle acque interne", Ceresole d'Alba, Italy: 179-185.
- Ciutti, F., Beltrami, M.E., Confortini, I., Cianfanelli, S. & Cappelletti, C., 2011. Non-indigenous invertebrates, fish and macrophytes in Lake Garda (Italy). *Journal of Limnology*, 70 (2): 315-320.
- Francová, K., Ondračková, M., Polačik, M. & Jurajda, P., 2011. Parasite fauna of native and non-native populations of *Neogobius malanostomus* (Pallas, 1814) (Gobiidae) in the longitudinal profile of the Danube River. *Journal of Applied Ichthyology*, 27: 879-886.
- Kovács, K., Csányi, B., Deák, Cs., Kálman, Z., Kovács, T. & Szekeres, J., 2011. [Results of the Rába survey 2009 on aquatic macroinvertebrates 1. Faunistical results.] *Acta Biologica Debrecina Oecologica Hungarica*, 26: 135-151. (in Hungarian)
- Mazza, G., Agostini, N., Aquiloni, L., Cianfanelli, S., Tricarico, E. & Gherardi, F., 2011. Ecological characterization of streams invaded by the New Zealand mud snail *Potamopyrgus antipodarum* (Gray 1843): the case study of a National Park in Italy. *Ethology, Ecology & Evolution*, 23: 151-164.
- Mienis, H.K., 1999. Komt de Chinese zwanenmossel in Nederland voor? *De Kreukel*, 35 (8): 128.
- Mienis, H.K., 2003a. Additional information concerning the conquest of Europe by the invasive Chinese Pond mussel *Sinanodonta woodiana* 8. Where are the records from the Netherlands? *Ellipsaria*, 5 (3): 14-15.
- Mienis, H.K., 2003b. Wie vindt eerste Chinese vijvermossel? *Voelspriet*, 2 (2): 4.

- Najberek, K., Strzałka, M. & Solarz, W., 2011. Alien *Sinanodonta woodiana* (Lea, 1834) and protected *Anodonta cygnea* (Linnaeus, 1758) (Bivalvia: Unionidae) in the Spytkowice Pond complex. *Folia Malacologica*, 19 (1): 31-33.
- Peursen, A.D.P. van, 2011. Eerste melding van de Chinese vijvermossel *Sinanodonta woodiana* (Lea, 1834) uit Nederland. *Spirula*, 380: 62.
- Steffek, J. & Kušik, P., 2009. *Achatina žravá* (*Achatina fulica*) – d'alší introdukovaný ulitník na Slovensku. *Chránené územia Slovenska*, 78: 15-17.
- Wirtz, P., 2011. *Sinanodonta woodiana* Die ‚gelbe Gefahr‘. *Die Aquarien- und Terrarienzeitschrift*, 7 (2011): 35.

***Pyrgophorus* in Israel: Additional Localities**

Henk K. Mienis

National Collections of Natural History, Department of Zoology, Tel Aviv University, IL-69978
Tel Aviv, Israel. E-mail: mienis@netzer.org.il

Since the discovery of the presence of a *Pyrgophorus* species in Israel in November 2010, this New World species has been reported from three different areas: the Tanninim River basin (Nahal Tanninim and Enot Timsah) (Mienis et al., 2011), the Dahlia River basin (the Difla swamps), and a brackish water canal near Sede Eliyyahu (Mienis, 2011). Additional fieldwork carried out by rangers of the Israel Nature Reserves and National Parks Protection Authority has revealed that this exotic species is also present in the basins of the Zippori River and the Yarqon River. This information is based on the following new records:

ISRAEL: Nahal Zippori near Ras Ali, leg. Y. Hershkovitz, 16 May 2011 (TAU MO 73207/4); "Mekorot"-canal near the Nuphar Pond in the upper region of the Yarqon River, leg. U. Suleimani, 13 January 2011 (TAU MO 73212/3).

Especially the latter locality is of some concern. The "Mekorot"-canal diverts water from the National Water Carrier to the upper part of the Yarqon River. If *Pyrgophorus* indeed lives in the National Water Carrier then we may expect this species in the near future at numerous additional localities in Israel. On the other hand, we have also to check whether *Pyrgophorus* is also living in the Sea of Galilee, which is the major source of the water in the National Water Carrier.

Acknowledgements

I like to thank Dr. D. Milstein, Dr. Y. Hershkovitz and Mr. U. Suleimani (all of the Israel Nature Reserves and National Parks Protection Authority) for their constant support and for lodging the collected material in the Mollusc Collection of the National Collections of Natural History of the Tel Aviv University.

References

- Mienis, H.K., 2011. On the further spread of *Pyrgophorus* in Israel. *Ellipsaria*, 13 (2): 28.
- Mienis, H.K., Rittner, O. & Vaisman, S., 2011. Another riddle from Israel: How can we explain the presence of a *Pyrgophorus* species in the Tanninim River basin? *Ellipsaria*, 13 (1): 17-18.

Will the Uncontrolled Sale of the Snail-eating Gastropod *Anentome helena* in Aquarium Shops in Israel Result in Another Disaster for Israel's Native Freshwater Mollusc Fauna?

Henk K. Mienis

National Collections of Natural History, Dept. Zoology, Tel Aviv University, IL-69978 Tel Aviv, Israel, and
National Natural History Collections, Berman Building, Hebrew University, IL-91904 Jerusalem, Israel
mienis@netzer.org.il

During the past 100 years the freshwater mollusc fauna of Israel had to cope with one disaster after another. Among these disasters we may mention:

- the drainage of all the major coastal swamps and the inland Lake Hula and its swamps;
- the pollution of all the coastal streams;
- the over-pumping of the aquifer resulting in a drastic lowering of the groundwater level;
- the unintended and intended import of freshwater snails.

The first three items all directly influenced aquatic biotopes and have led to the extinction of some local species among the freshwater mollusc fauna like: *Heleobia longiscata* (Bourguignat 1856), *Acroloxus lacustris* (Linnaeus 1758), *Biomphalaria alexandrina* (Ehrenberg 1831), *Gyraulus crista* (Linnaeus 1758), *Segmentina nitida* (Müller 1774), *Leguminaia saulcyi* (Bourguignat 1852) and *Pisidium milium* Held 1836, and the possible extinction of *Potomida littoralis delesserti* (Bourguignat 1852), *Unio mancus eucirrus* Bourguignat 1857 and *Unio terminalis delicatus* Lea 1863.

The unintentional and intentional import of freshwater snails has altered the composition of the local mollusc fauna completely. The American gastropod *Haitia acuta* (Draparnaud, 1805) is at this moment the most common species in any aquatic biotope: spring, stream, canal, pond or small lake. Two other species of American origin: *Pseudosuccinea columella* (Say, 1817) and *Planorbella duryi* (Wetherby, 1879), turn up more and more in widely separated areas, usually but not always, in the neighbourhood of human settlements. These three species are well-known aquarium and garden-pond snails, which are distributed unintentionally by means of the sale of infected aquatic plants.

During the last ten years some snails of tropical origin have also invaded the natural waters of Israel: *Tarebia granifera* (Müller, 1774) and *Thiara scabra* (Müller, 1774). These are species which had been imported intentionally for the aquarium trade in Israel; however, they multiply at such a fast rate that they often become a nuisance in aquariums. Since aquarists consider themselves "nature lovers" they release their excess snails in nearby natural aquatic biotopes. This already has turned *Thiara scabra* into the most common snail species in the Sea of Galilee, the only natural and major source of drinking water in Israel. It also managed to invade the National Water Carrier and, if no proper measurements will be taken, then *Thiara* will turn up soon all over Israel in suitable habitats.

The presence of these and other exotic freshwater snails may endanger in the long run any autochthonous species living in the same habitat. However much more danger is hovering over Israel's native freshwater mollusc fauna: since shortly *Anentome helena* (von dem Busch, 1847) [some prefer to call it *Clea (Anentome) helena*], Family Buccinidae, is on sale in most shops selling aquarium equipment. These Helena snails (or Assassin snails, Killer snails or Bumble Bee snails), native to S.E. Asia: Thailand, Malaysia, and Indonesia, are fierce predators of any aquatic snail ranging in size from a few millimetres to a fist-sized Apple snail *Pomacea* species. Although these Helena snails are not cheap -- they are sold for about US \$ 10 each in Israel -- there seems to be a good market for them. My question reads: How long will it last before we will encounter also these predators in the wild? As soon as that doomsday arrives then we may place the extinct sign in front of almost every entry in the checklist of freshwater molluscs of Israel.

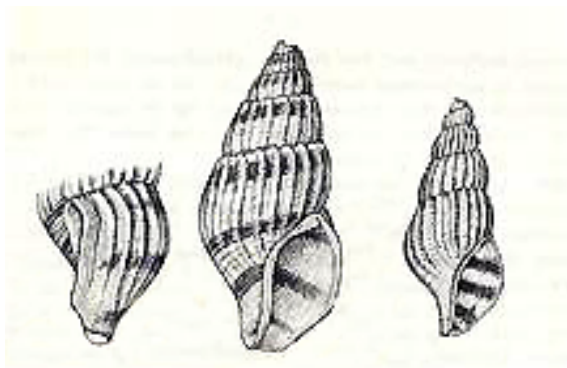


Figure 1. *Anentome helena* (von dem Busch, 1847), Fam. Buccinidae, height of largest specimen about 20 mm. Indonesia, Java, Sukabumi. (drawing Abdulkadir in Butot, 1954: Penngemar Alam, 34 (3-4): Ill, fig. 1.)

History of South American Continental Malacology: The Malacological Contribution of the German Entomologist Fritz Plaumann (1902 - 1994) in Santa Catarina State, Southern Brazil

A. Ignacio Agudo-Padrón

Project “Avulsos Malacológicos – AM”, Caixa Postal (P. O. Box) 010, 88010-970 Centro,
Florianópolis, Santa Catarina - SC, Brasil. ignacioagudo@gmail.com
<http://noticias-malacologicas-am.webnode.pt>

Fritz Plaumann was born on May 02, 1902, in the city of Preussich Eylau, in the north of Eastern Prussia, near Königsberg (now Kaliningrad, Lithuania). He was, therefore, a German citizen (the Kaliningrad region, at the border with Poland, was granted by the 3rd Reich to the Soviet Union in 1945 and is nowadays independent). He arrived in southern Brazil in November 1924 with his parents and reached the west of Santa Catarina, SC – specifically “Nova Teutônia”, a little village and valley near Seara Municipal District, in the southwest of the State (Agudo-Padrón 2010 b: 11) (Figure 1). This was a region strongly influenced by the culture of Italians and Germans who colonized the county in the end of the nineteenth century. He was a farmer, photographer, teacher, musician, trader, and worked in several other activities. He devoted himself to the observation, recording, and collection of specimens of the fauna around him – mostly insects, but also regional freshwater and terrestrial mollusks (Haas 1959; Agudo-Padrón 2010 b: 11).



Figure 1.- Seara Municipal District, headquarters of the “Nova Teutônia” Valley in the context of the western Santa Catarina State - SC territory, southern Brazil region (left) and the outstanding German naturalist Fritz Plaumann (right)

Plaumann kept intense correspondence – he wrote in German, English, French, Italian and Spanish – and active collaboration with national and international researchers in the discipline of South American malacology (Haas 1959: 364-368¹⁺; Breure 1975: 101, 103, 108; Paraense 1975: 123; Paraense 1982), those who impressed him by the relevance of their research activities in entomology. This is neither generally known nor well published.

He also kept and preserved the specimens he collected according to the rigorous taxonomic standards of his time. His years of intensive scientific activity – most in perfect solitude, discussing and

¹⁺ Several of the continental mollusk species named for this author, collected by Plaumann at various localities of Santa Catarina - SC (Nova Teutônia, Tatú Creek, Engano River, Chapecozinho River, Xanxere, Pinhal-Preto, Linha Falcão, São Carlos) and Rio Grande do Sul - RS (Rio Douradinho, Erechim, Rio Aratiba) States, are referred and included in synonymies by Simone (2006: 41, 42, 46, 162, 179-180, 186, 228, 230-233, 235, 238, 300) and Simone (2008: 31). Other species are still related for “Nova Teutônia” in Agudo-Padrón (2010 b: 11).

arguing by mail with renowned researchers -- brought to him an accurate, reflective and diligent frame of mind.

The result of his disciplined commitment to natural history, a personal collection of preserved and classified specimens, can today be consulted in the “Fritz Plaumann Museum of Entomology” located close the house where he lived in the Nova Teutônia Valley (Agudo-Pradrón 2010 b: 11). It holds approximately 80,000 specimens of 17,000 different species, 1,500 of them new species – result of 70 years of collecting in the Upper Uruguay River Basin region and adjacent territories (Haas, 1959: 364-365).

Unlike the outstanding German naturalist Fritz Müller (1821 - 1897), who preceded him in the Santa Catarina State localities of “Blumenau” – Itajaí River Valley region – and “Florianópolis” (West 2003), Plaumann was openly opposed to Charles Darwin's evolutionary ideas (Prof. M.Sc. Kay Saalfeld, ECZ/CCB/UFSC, Florianópolis, Pers. comm.), and objected to it in his book titled “Die Entstehung des Lebens” (The Origin of the Life), written entirely in “Nova Teutônia” in the German language (1943) and only printed once in 1949, in Germany. Today the book is exhibited in the Museum that takes the author's name (Martini 2008).

A considerable part of the collection was obtained prior to the use of pesticides in the agriculture of the county (Agudo-Pradrón 2010 a: 34-35, 2011: 60). Plaumann himself documented changes in the insects and other invertebrate fauna. Estimates today are that approximately 75% of the collection represents species that are now extinct in the region, some of them perhaps totally extinct.

Plaumann died on September 22, 1994 aged 92 years. He was considered by the Californian Academy of Science as the most prolific collector of insects in Latin America in the 20th Century. However, being a contemporary of the pioneer of Brazilian malacology Morretes (1949, 1953), Fritz Plaumann modestly maintained that his work would contribute to building another important chapter in the malacology of Southern Brazil and Santa Catarina State, SC in particular. This sentiment reflected that made by Haas (1959) and was mainly due to the valuable resource he left and which is lodged in the Museum that today perpetuates his name and his scientific contribution to the region's natural history (Agudo-Pradrón, 2010 b: 11).

Species List of the Southern Brazil Continental Mollusks Collected by Fritz Plaumann*

(Including 50 representatives – 46 Gastropoda and 4 Bivalvia)

I. Freshwater/limnic forms

(19 species – 15 Gastropoda and 4 Bivalvia)

Class GASTROPODA

Subclass Prosobranchia/Caenogastropoda

Family AMPULLARIIDAE

Asolene (Pomella) megastoma (Sowerby, 1825)¹

Family HYDROBIIDAE

Littoridina australis (d'Orbigny, 1835)¹

Littoridina charruana (d'Orbigny, 1840)^{2, 3, 4, 5, 8}

Potamolithus catharinae Pilsbry, 1911^{1, 8}

Potamolithus lapidum (d'Orbigny, 1835)^{1, 10}

Potamolithus philippianus Pilsbry, 1911⁸

Subclass Pulmonata

Family CHILINIDAE

Chilina fluminea (Maton, 1809)¹

Chilina parva Martens, 1868¹

Family ANCYLIDAE

Uncancylus concentricus (d'Orbigny, 1835)^{1, 12}

Family PHYSIDAE

Aplexa (Stenophysa) marmorata Guilding, 1828^{1, 12}

Family LYMNAEIDAE

Lymnaea columella (Say, 1817)^{8, 12}

- Lymnaea rupestris* Paraense, 1982¹
 Family PLANORBIDAE
Acorbis petricola Odhner, 1937¹
Biomphalaria tenagophila tenagophila (d'Orbigny, 1835)^{1, 11}
Drepanotrema pfeifferi (Strobel, 1874)¹

Class BIVALVIA

Order Unionoida

Family MYCETOPODIDAE

- Anodontites elongatus* (Swainson, 1823)¹
Anodontites patagonicus (Lamarck, 1819) (Fig. 2)¹



Figure 2. Specimens of freshwater naiad *Anodontites patagonicus* (Lamarck, 1819) in the “Fritz Plaumann Museum of Entomology”, Nova Teutônia Valley, SC Photos: A. I. Agudo- Padrón

Family HYRIIDAE

- Diplodon multistriatus* (Lea, 1834)¹

Order Veneroida

Family SPHAERIIDAE

- Pisidium globulus* Clessin, 1888¹

II. Terrestrial forms

(31 snail species – 3 Caenogastropoda and 28 Pulmonata)

Class Gastropoda

Subclass Prosobranchia/Caenogastropoda

Family Helicinidae

- Oxyrhombus densestriatus* Wagner, 1910¹
Alcacia iheringi Wagner, 1910¹

Family Diplommatinidae

- Adelopoma paraguayana* Parodiz, 1944^{1, 7}

Subclass Pulmonata

Family Charopidae

- Lilloiconcha gordurasensis* (Thiele, 1927)^{1, 7, 9}
Radiodiscus bolachaensis Fonseca & Thomé, 1994^{1, 9}
Radiodiscus costellifer Scott, 1957¹
Radiodiscus goeldii (Thiele, 1927)¹
Rotadiscus schuppi (Suter, 1900)¹
Zilchogyra clara (Thiele, 1927)^{1, 7, 9}

Family Systrophiidae

- Happia insularis* (Boettger, 1889)^{6, 9}
Happia microdiscus Thiele, 1927¹

Happiella grata (Thiele, 1927)¹
Miradiscops brasiliensis (Thiele, 1927)¹

Family Euconulidae

Pseudoguppya (= *Habroconus*) *semenlini* (Moricand, 1846)^{1, 7}

Family Subulinidae

Leptinaria monodon (C. B. Adams, 1849)¹

Family Vertiginidae

Vertigo ovata Say, 1822¹

Family Bulimulidae

Drymaeus poecilus (d'Orbigny, 1835)¹

Mesembrinus interpunctus (Martens, 1887) (Fig. 3)¹

Naesiotus eudioptus (Ihering in Pilsbry, 1897)¹

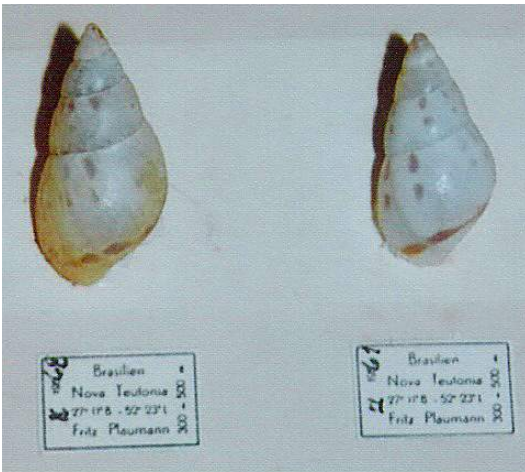


Figure 3. Specimens of tree snail *Mesembrinus interpunctus* (Martens, 1887) in the “Fritz Plaumann Museum of Entomology”, Nova Teutônia Valley, West SC Photo: A. I. Agudo-Padrón

Family Amphibulimidae

Simpulopsis (*Eudioptus*) *araujai* Breure, 1975¹

Simpulopsis (*Simpulopsis*) *pseudosulculosa* Breure, 1975¹

Simpulopsis (*Simpulopsis*) *wiebesi* Breure, 1975¹

Family Megalobulimidae

Megalobulimus gummatus (Hidalgo, 1870)¹

Megalobulimus oblongus (Müller, 1775)¹

Family Odontostomidae

Cyclodontina tudiculata (Martens, 1868)¹

Macrodontes fasciatus (Sowerby, 1824)¹

Macrodontes gargantua (Férussac, 1821) (Fig. 4)¹

Macrodontes odontostomus (Sowerby, 1824)¹



Figure 4. Rare jagged tree snail *Macrodontes gargantua* (Férussac, 1821) specimen in the “Fritz Plaumann Museum of Entomology”, Nova Teutônia Valley, West SC Photo: A. I. Agudo-Padrón

Family Bradybaenidae

Bradybaena similaris (Férussac, 1821)¹

Family Gastrodontidae

Zonitoides arboreus (Say, 1816)¹

Family Zonitidae

Oxychilus nitidus (Müller, 1774)¹.

A curious and controversial taxonomic situation, still unresolved Salgado & Coelho (2003:154) and Thomé *et al.* (2007:28) include the exotic species "*Oxychilus nitidus* (Müller, 1774)", in the Family Zonitidae, while Simone (2006:310) mentions this same exotic species as "*Zonitoides nitidus* (Müller, 1774)", in the Family Gastrodontidae. For their part, Poppe & Tagaro (2006: 10) mention the Family Zonitidae in their broad classification but not the Gastrodontidae.

***Collection localities:**

- 1 – Nova Teutônia Valley, Santa Catarina State - SC
- 2 – Palmeira Municipal District, Santa Catarina State - SC Plateau
- 3 – Tatú Creek, Santa Catarina State - SC
- 4 – Engano River, Santa Catarina State - SC
- 5 – Chapecozinho River, Santa Catarina State - SC
- 6 – Xanxerê, Santa Catarina State - SC
- 7 – Pinheiro Preto, Santa Catarina State (... non "Pinhal Preto", Paraná - PR State)
- 8 – Linha Facão or Falcão, Santa Catarina State - SC
- 9 – São Carlos, Santa Catarina State - SC
- 10 – Rio Douradinho, Rio Grande do Sul State - RS
- 11 – Erechim, Rio Grande do Sul State - RS
- 12 – Rio Aratiba, Rio Grande do Sul - RS

References:

- Agudo-Padrón, A. I. 2010 a. The mollusc fauna of Santa Catarina State, Southern Brasil: knowledge gained from 13 years of research. *IUCN/SSC Internet Newsletter Tentacle*, (18): 32-37. Available online at: http://www.hawaii.edu/cowielab/tentacle/Tentacle_18.pdf
- Agudo-Padrón, A.I. 2010 b. Mollusk fauna of Santa Catarina's State, SC, Southern Brazil region: 14 years synthesis of knowledge and research. *FMCS Newsletter Ellipsaria*, 12(1): 10-15.
- Agudo-Padrón, A. I. 2011. Threatened freshwater and terrestrial mollusks of Santa Catarina State, Southern Brazil (Mollusca, Gastropoda et Bivalvia): check list and evaluation of regional threats. *Biodiversity Journal*, Palermo, 2(2): 59-66. Available online at: http://www.biodiversityjournal.com/pdf/2_59-66.pdf
- Breure, A.S.H. 1975. Notes on Bulimulidae (Gastropoda, Euthyneura), 2. On a small collection of *Simpulopsis* Beck, 1837, from southern Brazil, with description of three new species. *Basteria*, 39: 97-113.
- Haas, F. 1959. Inland mollusks from Venezuela, Southern Brazil, and Peru. *Fieldiana (Zoology)*, Chicago, 39 (31): 363-371. Available online at: <http://www.archive.org/stream/inlandmollusksfr3931haas#page/n7/mode/2up>
- Martini, F. 2008. A saga de Fritz Plaumann. Seara, SC: Portal SEARA. Available online at: http://www.portalseara.com.br/arquivos_materias/imprimir.php?id=1
- Morretes, F.L. 1949. Ensaio de Catálogo dos Moluscos do Brasil. *Arquivos do Museu Paranaense*, Curitiba, 7(1): 5-216.
- Morretes, F.L. 1953. Addenda e Corrigenda ao Ensaio de Catálogo dos Moluscos do Brasil. *Arquivos do Museu Paranaense*, Curitiba, 10 (2): 37-76.
- Paraense, W.L. 1975. Estado atual da sistemática dos Planorbídeos brasileiros. *Arquivos do Museu Nacional*, Rio de Janeiro, 55: 105-128.
- Paraense, W.I. 1982. *Lymnaea rupestris* sp. n. from Southern Brazil (Pulmonata: Lymnaeidae). *Memórias do Instituto Oswaldo Cruz*, Rio de Janeiro, 77(4): 437-443.

- Poppe, G.T. and Tagaro, S.P. 2006. The new classification of gastropods according to Bouchet & Rocroi, 2005. VISAYA Net, February 23, 2006: 1-11. Available online at: <http://www.conchology.be/?t=41>
- Salgado, N.C. & Coelho, A.C. dos S. 2003. Moluscos terrestres do Brasil (Gastrópodes operculados ou não, exclusive Veronicellidae, Milacidae e Limacidae). *Revista de Biología Tropical*, Costa Rica, 51(Supl. 3): 149-189. Available online at: http://www.ots.ac.cr/tropiweb/attachments/suppls/sup51-3%20malacol/10-CAMPOS_42.pdf
- Simone, L.R.L. 2006. Land and freshwater molluscs of Brazil. São Paulo, SP: FAPESP, 390 p.
- Simone, L.R.L. 2008. Corrigenda for the book “Land and Freshwater Molluscs of Brazil” (2006). *Strombus*, São Paulo, 15(2): 30-31.
- Thomé, J.W.; Arruda, J.O. & Silva, L.F. da. 2007. Moluscos terrestres no Cone Meridional da América do Sul, Diversidade e distribuição. *Ciência & Ambiente*, UFSM - RS, (35): 9-28.
- West, David A. 2003. *Fritz Müller: A naturalist in Brazil*. Blacksburg, Virginia - USA: Pocahontas Press, 376 pp.

A Little South American Freshwater Mussel/Naiad Taxonomic Controversy: *Rhipidodonta* or *Diplodon* ?

A. Ignacio Agudo-Padrón

Project “Avulsos Malacológicos – AM”, Caixa Postal (P. O. Box) 010, 88010-970 Centro, Florianópolis, Santa Catarina - SC, Brasil ignacioagudo@gmail.com <http://noticias-malacologicas-am.webnode.pt/>

Based in the production of parasitic (with presence of teeth) or non-parasitic (with no teeth) “glochidium” larval forms, Simone (2006: 255, 264) separates the South American freshwater mussel/naiads of the genus *Diplodon* Spix, 1827 (representatives of the family Hyriidae Fleming, 1828 and subfamily Hyriinae Swainson, 1840) in two genera: *Diplodon* Spix, 1827 and *Rhipidodonta* Mörch, 1853 (Simone 2006: 29), generating parallel resulting synonymies. However, Mansur and Pereira (2006: 1143-1144) consider that these taxa actually correspond to subgenera of the genus *Diplodon* Spix, 1827, representative of the tribe Diplodontini Ihering, 1901.

For its part, Pimpão and Mansur (2009: 382) raised the subgenera (*Diplodon*) *Rhipidodonta* and *Diplodon* (*Diplodon*) to generic level based on only one character of the glochidium larvae, of which the reason for adopting more conservative classification would be that the larvae of most species of this tribe are not known, making it therefore necessary to find other morphological characters, especially in adults, so you can set best generic separation proposed by Simone (2006).

All this has been generating a complicated and confusing situation regarding the correct taxonomic treatment to be applied to certain regional species involved, clearly reflected - for example - in Agudo-Padrón (2008: 167-168, 2011 a: 6, 2011 b: 24, 2011 c: 63-64).



Rhipidodonta charruana (d'Orbigny, 1835) or *Diplodon aethiops* (Lea, 1860) ?



Rhipidodonta charruana (d'Orbigny, 1835) variations or *Diplodon* spp ?

For more information about parasitic larvae of regional freshwater mussel/naiads, see Aguido-Padrón (2010).

References:

- Aguido-Padrón, A.I. 2008. Listagem sistemática dos moluscos continentais ocorrentes no Estado de Santa Catarina, Brasil (Systematic list of freshwater and land molluscs of Santa Catarina State, Brazil). *Comunicaciones de la Sociedad Malacológica del Uruguay*, Montevideo, 9(91): 147-179. Available online at: <http://redalyc.uaemex.mx/redalyc/pdf/524/52412049003.pdf>
- Aguido-Padrón, A.I. 2010. Larvas gloquídeas. In: Notícias Malacológicas, Projeto "Avulsos Malacológicos - AM", Florianópolis, SC. Available online at: <http://noticias-malacologicas-am.webnode.pt/larvas-gloquideas/>
- Aguido-Padrón, A.I. 2011 a. Mollusca and environmental conservation in Santa Catarina State (SC, Southern Brazil): current situation. *Biodiversity Journal*, Palermo, 2(1): 3-8. Available online at: http://www.biodiversityjournal.com/pdf/2_3-8.pdf

- Aguido-Padrón, A.I. 2011 b. Freshwater mollusc additions to inventory of Santa Catarina's State, SC, Southern Brazil Region, with brief comments about some little-known continental forms. *ELLIPSARIA*, 13(2): 20-25.
- Aguido-Padrón, A. I. 2011. Threatened freshwater and terrestrial mollusks of Santa Catarina State, Southern Brazil (Mollusca, Gastropoda et Bivalvia): check list and evaluation of regional threats. *Biodiversity Journal*, Palermo, 2(2): 59-66. Available online at: http://www.biodiversityjournal.com/pdf/2_59-66.pdf
- Mansur, M.C.D. & Pereira, D. 2006. Bivalves límnicos da bacia do rio dos Sinos, Rio Grande do Sul, Brasil (Bivalvia, Unionoidea, Veneroidea e Mytiloidea). *Revista Brasileira de Zoologia*, São Paulo, 23(4): 1123-1147.
- Pimpão, D.M. & Mansur, M.C.D. 2009. Chave pictórica para identificação dos bivalves do baixo Rio Aripuanã, Amazonas, Brasil (Sphaeriidae, Hyriidae e Mycetopodidae). *Biota Neotropica*, 9(3): 377-384.
- Simone, L. R. L. 2006. Land and freshwater molluscs of Brazil. São Paulo, SP: FAPESP/ MZUSP, 390 p.

Colonization of Anthropogenic Spaces by Freshwater Mollusks in the Southern Brazil Region, South American Atlantic Slope

A. Ignacio Agudo-Padrón

Project "Avulsos Malacológicos - AM", Caixa Postal (P. O. Box) 010, 88010-970 Centro, Florianópolis, Santa Catarina - SC, Brasil ignacioagudo@gmail.com - <http://noticias-malacologicas-am.webnode.pt>

River basins, wetlands, and other smaller waterbodies are the basic/ frequent natural habitat of freshwater/ limnic mollusks in southern Brazil (Agudo-Padrón 2007, 2008 b). However, many of them – a nurtured number of species – can successfully adapt to the artificial conditions imposed by man in this region (Fig. 1), including irrigated rice fields (Agudo-Padrón & Oliveira 2008), artificial lakes for fish farming (Fig. 3), agricultural irrigation channels (Agudo-Padrón 2007 b, 2008 a) (Fig. 3), aqueducts and reservoirs (Agudo-Padrón 2010: 11) (Fig. 4), and even channels for water runoff in great industries (Fig. 2):



Figure 1. Freshwater exotic asian mussel *Limnoperna fortunei* (Dunker, 1857) "macrofouling" in Oil Refinery installations, Sinos River Basin region, Canoas Municipal District, Rio Grande do Sul State - RS. Photo: Paulo Lenhard.



Rhipidodonta charruana (d'Orbigny, 1835)



Pomacea canaliculata (Lamarck, 1804)



Anodontites patagonicus (Lamarck, 1819)

Figure 2. Oil refinery channel for water runoff located in the Sinos River Basin region (upper left) and your limnic mollusk fauna (below and right), Canoas Municipal District, Rio Grande do Sul State - RS. Photos: Paulo Lenhard.



Mycetopoda legumen (above) and *Anodontites patagonicus* (below)



Pomacea canaliculata
(Lamarck, 1804)



Corbicula fluminea
(Müller, 1774)



Anodontites trapesialis (left) and *Leila blainvilleana* (right)



Rhipidodonta charruana (d'Orbigny, 1835)



Rhipidodonta grata (Lea, 1866)



Figure 3. Artificial lakes for fish farming (upper left), agricultural irrigation (rice) channels (lower right) and your limnic inhabitants, EEA/ IRGA, Gravataí River Basin region, Cachoeirinha Municipal District, Rio Grande do Sul State – RS. Photos: Paulo Lenhard.



Pomacea canaliculata (Lamarck, 1804)

Figure 4. Reservoir area called “Banhado do Shopping” (upper – left) and eutrofized dam of the City Garden “Chico Mendes” (upper right), Cachoeirinha Municipal District, Gravataí River Basin region; Temporary lagoon, Canoas Municipal District, Sinos River Basin region (lower right); and your limnic inhabitants (lower left), Rio Grande do Sul State – RS. Photos: Paulo Lenhard/ Agudo-Padrón.

Involved aquatic mollusk forms in the northern region of the “Great Porto Alegre”, Rio Grande do Sul State – RS, Southernmost Brazil

(Ref.: Agudo-Padrón, 2009)

Total of 14 species – 6 Gastropoda & 8 Bivalvia; Systematic arrangement based on Simone (2006)

Class GASTROPODA

- Subclass ORTHOGASTROPODA
(= PROSOBRANCHIA)
- Order CAENOGASTROPODA
- Superfamily AMPULLARIOIDEA
- Family AMPULLARIIDAE

- Genus *Pomacea*
- Pomacea canaliculata* (Lamarck, 1804)
- Genus *Asolene*
- Asolene platae* (Maton, 1809)

- Infraclass HETEROBRANCHIA
- Superorder EUTHYNEURA

- Order PULMONATA
- Suborder BASOMMATOPHORA
- Superfamily PHYSOIDEA
- Family PHYSIDAE

- Genus *Aplexa*
- Subgenus *Stenophysa*

Aplexa (Stenophysa) marmorata
(Guilding, 1828)

Superfamily PLANORBIOIDEA
Family PLANORBIDAE
Subfamily PLANORBINAE

Genus *Drepanotrema*

Drepanotrema depressissimum
(Moricand, 1839)

Genus *Biomphalaria*

Biomphalaria t. tenagophila (d'Orbigny, 1835)
Biomphalaria t. guaibensis Paraense, 1984

Class BIVALVIA

Subclass PALEOHETERODONTA
Order UNIONOIDA
Superfamily UNIONOIDEA
Family HYRIIDAE
Subfamily HYRIINAE

Genus *Rhipidodonta*

Rhipidodonta charruana (d'Orbigny, 1835)
Rhipidodonta grata (Lea, 1866)

Superfamily MUTELOIDEA
Family MYCETOPODIDAE

Genus *Anodontites*

Anodontites patagonicus (Lamarck, 1819)
Anodontites trapesialis (Lamarck, 1819)
Mycetopoda legumen (Martens, 1888)
Leila blainvilleana (Lea, 1835)

Subclass PTERIOMORPHA

Order MYTILOIDEA

Family MYTILIDAE

Genus *Limnoperna*

Limnoperna fortunei (Dunker, 1857)

Order VENEROIDA

Superfamily CORBICULOIDEA

Family CORBICULIDAE

Genus *Corbicula*

Corbicula fluminea (Müller, 1774)

Acknowledgements:

To the technical colleagues Paulo Lenhard, Project "Avulsos Malacologicos - AM", Canoas, RS, and José Luis ("Galo") Rosa dos Santos, EEA/ IRGA, Cachoeirinha, RS for the photographic material and opportune field assistance.

References:

- Agudo, A. I. 2007. Preliminary report of continental mollusks in the Central Paraná State Region, Southern Brazil, with additional information. *FMCS Newsletter Ellipsaria*, Illinois, 9 (2): 5-7.
- Agudo, A. I. 2008 a. Non-marine mollusc diversity in Paraná State, Southern Brasil. *IUCN/SSC Internet Newsletter TENTACLE*, Honolulu, Hawaii - USA, (16): 10 - 13. Available online at: http://www.hawaii.edu/cowielab/tentacle/tentacle_16.pdf
- Agudo A. I. 2008 b. Freshwater mussel news (Unionoidea: Hyriidae) from Paraná State, Southern Brazil region. *FMCS Newsletter Ellipsaria*, Illinois, 10(1): 17-18.
- Agudo-Padrón, A. I. 2009. Recent terrestrial and freshwater molluscs of Rio Grande do Sul State, RS, Southern Brazil region: a comprehensive synthesis and check list. *VISAYA Net*, Cebù, Philippines (May 14, 2009): 1-13. Available online at: <http://www.conchology.be/?t=41>
- Agudo-Padrón, A. I. 2010. Continental mollusks occurrence in the North region of Paraná - PR, Southern Brazil, with additional new records and observations for the State territory. *FMCS Newsletter Ellipsaria*, Illinois, 12(2): 10-13.
- Agudo-Padrón, A. I. & OLIVEIRA, J. V. de. 2008. Mollusk fauna occurrence in irrigated rice fields of the Southern Brazil: a preliminary general report. *FMCS Newsletter Ellipsaria*, 10(1): 13-16.
- Simone, L. R. L. 2006. Land and freshwater mollusks of Brazil. São Paulo, SP: FAPESP/ MZUSP, 390 p.

FMCS Membership List - 2011

The following list presents the name and contact information for FMCS members based on data available as of mid August, 2011. A complete entry includes the member's name, affiliation, mailing address, telephone number, and e-mail address. We apologize for any errors made during the transcription of the information into this format. If you find errors in your listing or would like to make your entry more complete, please go to the Members Page on the FMCS web site and update your profile there.

- Sandy Abbot**, U.S. Fish and Wildlife Service, Ft. Benning, GA, USA 31995
706-544-7518 Sandy.Abbot@fws.gov
- Jae Abel**, 310 Victoria Place, Palo Alto, CA, USA 94306-4150
650-493-7921 yerolpal@yahoo.com
- Erin Abernethy**, Appalachian State University, Aiken, SC, USA 29803
abernethyef@appstate.edu
- A. Ignacio Agudo-Padrón**, Projeto "Avulsos Malacológicos – AM," Tte. Joaquim Machado, no. 73 (casa), Capoeiras Florianópolis, Santa Catarina – SC, Brasil, 88070-440
(048)9903.7948 ignacioagudo@gmail.com
- Steve Ahlstedt**, PO Box 460, Norris, TN, USA 37828.0
865-776-9510 bigshelldaddy@bellsouth.net
- John Alderman**, Alderman Environmental Services, Inc., 244 Red Gate Road, Pittsboro, NC, USA 27312.0 919-444-9576 aldermanjm@gmail.com
- Joseph Alderman**, Alderman Environmental Services, Inc., 244 Red Gate Road, Pittsboro, NC, USA 27312 919-883-1608 aldermania@hotmail.com
- James Alexander**, Department of Biology, University of Louisville, Louisville, KY, USA
502-852-7243 jealex01@louisville.edu
- Daniel Allen**, University of Oklahoma, 1408 Beaumont St., Norman, OK, USA 73071
daniel.c.allen@gmail.com
- Doug Aloisi**, U.S. Fish and Wildlife Service/Genoa NFH, WI, USA
608-689-2605 doug_aloisi@fws.gov
- Cristian Ruiz Altaba**, Laboratory of Human Systematics Department of Philosophy and Social Works, University of Balearic Islands, Palma, , Spain 7071 cristianr.altaba@uib.es
- Richard Anderson**, Western Illinois Univ., Dept. Biological Sciences, Waggoner Hall 381, Macomb, IL, U.S.A. 61455 309-298-2408 r-anderson1@wiu.edu
- Robert Anderson**, U.S. Fish and Wildlife Service, 315 South Allen Street Suite 322, State College, PA, U.S.A. 16801 814-234-4090 robert_m_anderson@fws.gov
- Rafael Araujo**, Museo Nacional de Ciencias Naturales, Jose Gutierrez Abascal, 2, Madrid, Spain 28006 rafael@mncn.csic.es
- Jennifer Archambault**, North Carolina State University, 550 E. Baltimore Ave, Pinebluff, NC, U.S.A. 28373 919-306-5107 jmarcham@ncsu.edu
- Elizabeth Ashcraft**, Arkansas State University - Newport, 7648 Victory Blvd., Newport, AR, U.S.A. 72112 870-512-7897 betsy_ashcraft@asun.edu
- Matt Ashton**, Maryland DNR, 580 Taylor Avenue, C-2, Annapolis, MD, U.S.A. 21401
(410) 260-8604 mashton@dnr.state.md.us
- Carla Atkinson**, University of Oklahoma, Oklahoma Biological Survey, Norman, OK, U.S.A. 73019 706-614-2915 carlalatkinson@gmail.com
- James Atkinson**, Dept. Zoology, Michigan State University, East Lansing, MI, U.S.A. 48824-1115 517-353-2269 atkinso9@msu.edu
- Tom Augspurger**, U.S. Fish and Wildlife Service, 551-F Pylon Drive, Raleigh, NC, U.S.A. 27606
919-856-4520 x21 tom_augspurger@fws.gov
- Nathan Badgett**, Ecological Specialists, Inc., 1417 Hoff Industrial Dr., O'Fallon, MO, U.S.A. 63366 636-281-1982 nbadgett@ecologicalspecialists.com
- Peter Badra**, Michigan Natural Features Inventory, Mason Building, PO Box 30444, Lansing, MI, U.S.A. 48909 517-241-4179 badrap@michigan.gov

- Travis Bailey**, KY Dept Fish and Wildlife, 500 E. Adair St., Oventon, KY, U.S.A. 40359
502-750-1769 travis.bailey@ky.gov
- Steve Bakalitz**, National Park Service, 4564 Leatherwood Rd., Oneida, TN, U.S.A. 37841
423-569-2404 steve.bakaletz@nps.gov
- Jonathan Baker**, University of Wisconsin-La Crosse, 105 Colonial Dr, Knoxville, TN, U.S.A.
37920 865-387-8904 jbaker18@utk.edu
- Sarah Bales**, Illinois Natural History Survey, 1816 S. Oak St., Champaign, IL, U.S.A. 61820
217-333-2165 sabales@illinois.edu
- Holly Barclay**, Aquatic Ecology Group, Zoology Dept., University of Cambridge, New Museum
site, Downing St, Cambridge, Cambridge Shire, UK CB2 3EJ hb271@cam.ac.uk
- Joyce Barkley**, Virginia Tech, 9 Overlook Drive, Apt. C10, Christiansburg, VA, U.S.A. 24073
315-250-2900 barkleyj@vt.edu
- Chris Barnhart**, Missouri State Univ., Dept. of Biology, 219 Temple Hall, Springfield, MO,
U.S.A. 65897 417-836-5166 chrisbarnhart@missouristate.edu
- Stephanie Barton**, Tennessee Cooperative Fisheries Research Unit, 3050 Dodson Branch Rd,
Cookeville, TN, U.S.A. 38501 sdbarton42@students.tntech.edu
- Joe Bartoszek**, U.S. Fish and Wildlife Service, 64 Maple St, Burbank, WA, U.S.A. 99323
509-546-8338 joe_bartoszek@fws.gov
- Michelle Bartsch**, U.S. Geological Survey-UMESC, 2630 Fanta Reed Road, LaCrosse, WI,
U.S.A. 54603 608-781-6285 mbartsch@usgs.gov
- Braven Beaty**, The Nature Conservancy, 146 E. Main Street, Abingdon, VA, U.S.A. 24210
276-676-2209 bbeaty@tnc.org
- Chris Bedel**, Cincinnati Museum Center, 19 Abner Hollow Road, Lynx, OH, U.S.A. 45650
937-544-2880 eoahughes.net
- Eric Belt**, Ecological Specialists, Inc., 1417 Hoff Industrial Dr., O'Fallon, MO, U.S.A. 63366
636-281-1982 ebelt@ecologicalspecialists.com
- Paul Benton**, 283 Ladora Drive, Dallas, GA, U.S.A. 30157
770-262-7260 justfound@hotmail.com
- David Berg**, Department of Zoology, Miami University, 212 Pearson Hall, 700 E. High Street,
Oxford, OH, U.S.A. 45056 513-785-3246 bergdj@muohio.edu
- Matt Berg**, Endangered Resources Services, LLC, 572 N Day Rd., St. Croix Falls, WI, U.S.A.
54024-9454 715-483-2847 dfly@centurytel.net
- Clarissa Bey**, Ohio State University, bey.22@osu.edu
- Joseph Bidwell**, Oklahoma State University, Stillwater, OK, U.S.A. 74075
405-744-9668 joe.bidwell@okstate.edu
- Richard Biggins**, 55 Pyfrom Drive, Swannanoa, NC, U.S.A. 28778
828-299-9128 rgbiggins@aol.com
- Susie Bily**, 1259 Fulton St, San Francisco, CA, U.S.A. 94117 susiebily@yahoo.com
- Sophie Binder**, Sophie Binder Designs, PO box 300321, Saint Louis, MO, U.S.A. 63130
sbinder@sbinderdesigns.com
- Cristi Bishop**, EA Engineering Science and Technology, 15 Loveton Circle, Sparks, MD, U.S.A.
21230 410-598-7545 cbishop@eaest.com
- F. Matthew and Dona W. Blaine**, 908 West Street, Laurel, DE, U.S.A. 19956-1932
302-875-2517 mblaine@rcn.com
- Jennifer Block**, Murray State University, Murray, KY, U.S.A. 42071
270-474-2272 jennifereblock@murraystate.edu
- Kylie Bloodsworth**, University of New England, 30 MacArthur Circle, South Portland, Maine,
U.S.A. 04106 khbloodswort@gmail.com
- Cory Bloyd**, Third Rock Consultants LLC, 2526 Regency Road, Suite 180, Lexington, KY,
U.S.A. 40503 859-977-2000 cbloyd@thirdrockconsultants.com
- Chad Boeckman**, Oklahoma State University, Stillwater, OK, U.S.A. 74078
405-744-9691 chadjb@okstate.edu
- Arthur Bogan**, N.C. Museum Natural Sciences, 11 West Jones St, Raleigh, NC, U.S.A. 27601
919-733-7450 ext 753 arthur.bogan@ncdenr.gov
- Willie Booker**, Orangeburg National Fish Hatchery, PO Box 410, Orangeburg, SC, U.S.A.
29116 803-534-4828 Willie_Booker@fws.gov

- Francisco Borrero**, Cincinnati Museum Center, 12 E. Interwood Place, Cincinnati, OH, U.S.A.
45220 513-368-6515 borrerof@countryday.net
- Frank Borsuk**, USEPA, 1060 Chapline Street, Suite USEPA, Wheeling, WV, U.S.A., 26003
304-234-0241 borsuk.frank@epa.gov
- Ben Bosman**, Missouri State University, 901 S. National Ave, Springfield, MO, U.S.A., 65897
920-912-6974 b.r.bosman@gmail.com
- Bonnie Bowen**, Iowa State University, Dept. Ecology, Evolution & Organismal Biology,
253 Bessey Hall, Ames, IA, U.S.A. 50011-1020 515-294-6391 bsbowen@iastate.edu
- Emily Bowers**, Southeast Missouri State University, 18151 Route 37, Johnston City, IL, U.S.A.
62951 ebbowers1s@semo.edu
- David Braatz**, Streamside Systems, P.O. Box 16377, Fernandina Beach, FL, U.S.A. 32035
904-310-6814 dbraatz@streamsideways.com
- Megan E. Bradley**, Missouri State University, 1458 W. Lark St. Apt# 302, Springfield, MO,
U.S.A. 65810 540-354-5154 mebrad11@vt.edu
- Tony Brady**, Natchitoches National Fish Hatchery, 615 South Drive, Natchitoches, LA, U.S.A.
71457 318-352-3524 tony_brady@fws.gov
- Jean Brennan**, US Fish and Wildlife Service, Blacksburg, VA, U.S.A. brennanj@vt.edu
- Robert Bringolf**, University of Georgia, 180 E. Green St, Athens, GA, U.S.A., 30605
706-372-1477 rbringolf@warnell.uga.edu
- Bobby Brown**, Tennessee Wildlife Resources Agency, 931-484-9571 Bobby.Brown@tn.gov
- Kenneth Brown**, Louisiana State University, Louisiana State University, Baton Rouge, LA,
U.S.A. 70803 225-578-1740 kmbrown@lsu.edu
- Travis Brown**, Eco-Tech Consultants, 100 West Court Ave., Suite 102, Jeffersonville, IN,
U.S.A. 47130 812-280-2200 tbrown@ecotechinc.com
- Sue Bruenderman**, KY Division of Water, 200 Fair Oaks Road 4th Floor, Water Quality,
Frankfort, KY, U.S.A. 40601 502-564-3410 sue.bruenderman@ky.gov
- Thomas Bryan**, Tri State River Products, 334 Insurance St, Beaver, PA, U.S.A. 15009
Tombryan@bryanmaterialsgroup.com
- Steve Buck**, University of Illinois, Committee on Natural Areas, 606 E. Healey St., Champaign,
IL, U.S.A. 61820 217-333-6458 sbuck@illinois.edu
- Jorge Buening**, U.S. Fish and Wildlife Service/ Genoa NFH, 55689 State Hwy 35, Genoa, WI,
U.S.A. 54632 608-689-2605 jorge_buening@fws.gov
- Michael Buntin**, Alabama Aquatic Biodiversity Center, Marion, AL, U.S.A.
michael.buntin@dcnr.alabama.gov
- John Burch**, Univ. of Michigan, 1109 Geddes Ave., Museum of Zoology, Ann Arbor, MI, U.S.A.
48109-1079 734-647-2189 jbburch@umich.edu
- Lyubov Burlakova**, Research Scientist, Great Lakes Center, Buffalo State College, 1300
Elmwood Ave., Buffalo, NY, U.S.A. 14222 716-878-4504 burlakle@buffalostate.edu
- Katrina Burnside**, Confederate Tribes of the Umatilla Indian Reservation, 46411 Timine Way,
Pendleton, OR, U.S.A. 97801 541-429-7123 burnsidekatrina@gmail.com
- Janet Butler**, U.S. Fish and Wildlife Service, 3868 Waverly Road, Williamstown, WV, U.S.A
26187 304-422-0752 janet_butler@fws.gov
- Jason Butler**, U.S.A.
- Robert Butler**, U.S. Fish and Wildlife Service, 160 Zillicoa Street, Asheville, NC, U.S.A. 28801
828-258-3939 bob_butler@fws.gov
- Scott Byrne**, 73 Elm Street, Dover, NJ, U.S.A. 07801-2813
973-989-5326 scottbyrne@gmail.com
- Mieko Camp**, Tennessee Tech University, 907 Lower Rebecca Rd, Fitzgerald, GA, U.S.A.
31750 478-251-0042 mieko.camp@yahoo.com
- Cara Campbell**, U.S. Geological Survey N. Appalachian Research Lab, 176 Straight Run Rd.,
Wellsboro, PA, U.S.A. 16901 570-724-3322 ccampbell@usgs.gov
- David Campbell**, The Paleontological Research Institution, 1259 Trumansburg Road, Ithaca,
NY, U.S.A. 14850 607-273-6623 X21 pleuronaia@gmail.com
- Richard Cassell**, 1278 Parkway Gardens Ct., Louisville, KY, U.S.A., 40217
richardcassell@bellsouth.net

- Jennifer Cecil**, Ohio State University, 1315 Kinnear Road, Columbus, OH, U.S.A. 43212
cecil.48@osu.edu
- Stephanie Chance**, U.S. Fish and Wildlife Service, TN Ecological Services Field Office, 446 Neal St., Cookeville, TN, U.S.A. 38501 931-528-6481 x211 stephanie_chance@fws.gov
- Melissa Cheung**, Neosho National Fish Hatchery, Neosho, MO, U.S.A. 64850
417-451-0554 melissa_cheung@fws.gov
- Ronald Cicerello**, 576 Hopi Trail, Frankfort, KY, U.S.A. 40601
502-695-8969 rrckyl@gmail.com
- Serena Ciparis**, Department of Entomology, Virginia Tech, 300A Price Hall, Mail Code 0319, Blacksburg, VA, U.S.A. 24061 540-231-4039 sciparis@vt.edu
- Stephanie Clark**, Ekosystem Services LLP, 6535 North Mozart St. Apt 3f, Chicago, IL, U.S.A. 60645 205-310-9942 sclark@ekosystemsservices.com
- Janet Clayton**, WV Division of Natural Resources, Rt 2, Box 595, Philippi, WV, U.S.A. 26416
304-637-0245 janet.l.clayton@wv.gov
- Mariah Clements**, Marshall University, 2145 Dixon St. Apt. 11, Ashland, KY, U.S.A. 41101
859-229-7112 clements5@marshall.edu
- Jeffrey Cole**, 46 Cooleyville Road, New Salem, MA, U.S.A. 01355
607-738-9577 jccole10@gmail.com
- Sean Collins**, University of Cincinnati, 4720 Hamilton Ave, Cincinnati, OH, U.S.A. 45223
740-464-8746 sean_e_collins@hotmail.com
- Joyce Coombs**, University of TN, 2431 Joe Johnson Drive 274 Ellington PSB, Knoxville, TN, U.S.A. 37996-4563 865-974-7229 jcoombs@utk.edu
- W. Gregory Cope**, North Carolina State Univ., Dept. Environmental and Molecular Toxicology, Box 7633, Raleigh, NC, U.S.A. 27695-7633 919-515-5296 greg_cope@ncsu.edu
- Marla L. Coppolino**, 384 Pleasant Valley Road, Groton, NY, U.S.A. 13073
347-495-9861 marlacoppolino@gmail.com
- Jay Cordeiro**, c/o Biology Dept., UMASS, Boston, 100 Morrissey Blvd., Boston, MA 02125 jay.cordeiro@umb.edu
- Mark Cornish**, US Army Corps of Engineers, P.O. Box 1/1/2004 Clock Tower Bldg., Rock Island, IL, U.S.A. 61204-1/1/2004 309-794-5385 mark.a.cornish@usace.army.mil
- Daniel Counahan**, Pennsylvania Department of Environmental Protection
412-442-5866 dcounahan@state.pa.us
- Todd Crail**, University of Toledo, 2348 Sherwood Ave, Toledo, OH, U.S.A. 43614
419-530-8372 Todd.crail@utoledo.edu
- Kendall Cranney**, Ecological Specialists, Inc., 1417 Hoff Industrial Dr., O'Fallon, MO, U.S.A. 63366 636-281-1982 kcranney@ecologicalspecialists.com
- Christian Crow**, CCR Environmental, Inc., 3783 Presidential Pkwy Suite 123, Atlanta, GA, U.S.A. 30340 770-458-7943 ccr@ccrenvironmental.com
- Betty Crump**, USDA Forest Service, PO Box 1270, Hot Springs, AR, U.S.A. 71902
501-321-5236 bcrump@fs.fed.us
- Jacob Culp**, KY Dept of Fish and Wildlife Resources, 3761 Georgetown Road, Frankfort, KY, U.S.A. 40601 502-573-0330 ext 228 jacob.culp@ky.gov
- Kevin Cummings**, Illinois Natural History Survey, 607 E. Peabody Dr., Champaign, IL, U.S.A. 61820 217-367-4233 ksc@inhs.illinois.edu
- Traci Cummings**, WVDOT, 1900 Kanawha Blvd. East, Charleston, WV, U.S.A. 25305
304-541-7509 traci.L.cummings@wv.gov
- Kevin Czaja**, 37 Dracut Street, Dorchester, MA, U.S.A. 2124
617-825-5016 kczaja@fas.harvard.edu
- Wesley Daniel**, Louisiana State University, 325 Meadow Bend Drive, Baton Rouge, LA, U.S.A. 70820 225-953-2935 wdanie7@tigers.lsu.edu
- Joseph Daraio**, NC State University, 11019 Becontree Lake Dr. Apt 405, Reston, VA, U.S.A. 20190 joe_daraio@ncsu.edu
- Chris Davidson**, U.S. Fish and Wildlife Service, 110 South Amity Road Suite 300, Conway, AR, U.S.A. 72032 501-513-4481 chris_davidson@fws.gov
-

- Ben Davis**, KY Dept Fish and Wildlife, 8000 John Davis Dr. Apt# 309, Frankfort, KY, U.S.A.
40601 423-309-1015 Ben.Davis@Ky.gov
- John Davis**, Columbus State University, Columbus, GA, U.S.A. 31907
706-569-3020 davis_john@colstate.edu
- Mike Davis**, MN DNR, 1801 S. Oak Street, Lake City, MN, U.S.A. 55041
651-345-3331 mike.davis@state.mn.us
- Andre Delorme**, Valley City State University, 101 SW College St, Vally City, ND, U.S.A.
58072 701-845-7573 andre.delorme@vesu.edu
- Jessi DeMartini**, Forest Preserve Dist. DuPage County, P. O. Box 5000, Wheaton, IL, U.S.A.
60189-5000 630-871-7548 jdemartini@dupageforest.com
- Sara Denham**, McHenry County Conservation District, 6419 Giant Oaks Road, Wonder Lake,
IL, U.S.A. 60097-8126 815-728-8307 sdenham@mccdistrct.org
- David Dettman**, Univ. of Arizona/Geosciences, 1040 4th Street Room 208, Tucson, AZ, U.S.A.
85721 520-621-4618 dettman@email.arizona.edu
- Julie Devers**, U.S. Fish and Wildlife Service, 177 Admiral Cochrane Dr., Annapolis, MD,
U.S.A. 21401 410-573-4508 julie.devers@fws.gov
- Jason Dickey**, Cardno ENTRIX, 2420 W. Lakeshore Drive Suite 100, Tallahassee, FL, U.S.A.
32312 850-681-9700 jason.dickey@cardno.com
- Tom Dickinson**, The Catena Group, 410-B Millstone Drive, Hillsborough, NC, U.S.A., 27278
919-732-1300 tdickinson@thecatenagroup.com
- Rob Dillon**, College of Charleston, Dept. of Biology, 66 George St., Charleston, SC, U.S.A.
29424 843-943-8087 dillonr@cofc.edu
- Gerald Dinkins**, Dinkins Biological Consulting, PO Box 1851, Powell, TN, U.S.A. 37849
865-938-7739 biodink@frontiernet.net
- Tony Dodd**, Georgia Power Company, 5131 Maner Rd., Smyrna, GA, U.S.A. 30080
404-799-2142 ardodd@bellsouth.net
- Barbara Douglas**, U.S. Fish and Wildlife Service, 694 Beverly Pike, Elkins, WV, U.S.A.
26241 304-636-6586 barbara_douglas@fws.gov
- Michael & Marlis Douglas**, INHS, 1816 South Oak Street, Champaign, IL, U.S.A. 61820-0904
217-333-3685 med@inhs.uiuc.edu
- Lee Droppelman**, Eco-Tech Consultants, 100 West Court Ave., Suite 102, Jeffersonville, IN,
U.S.A. 47130 812-280-2200 ldroppelman@ecotechinc.com
- Amanda Duncan**, Virginia Dept. of Game and Inland Fisheries, 1724 Buller Hatchery Rd.,
Marion, VA, U.S.A. 24354 276-783-2138 amanda.duncan@dgif.virginia.gov
- Heidi Dunn**, Ecological Specialists, Inc., 1417 Hoff Industrial Park, O'Fallon, MO, U.S.A.
63366 636-281-1982 hdunn@ecologicalspecialists.com
- Jon Duyvejonck**, U.S. Fish and Wildlife Service, 1511-47 Ave., Moline, IL, U.S.A. 61265
309-757-5800 ex 207 jon_duyvejonck@fws.gov
- Stan Dvorak**, FMNH, 3512 Woodside Ave., Brookfield, IL, U.S.A. 60513
708-387-0687
- Chris Eads**, NC State University, 4700 Hillsborough Street, Raleigh, NC, U.S.A. 27606
chris_eads@ncsu.edu
- Nathan Eckert**, US Fish & Wildlife Service, S5631 State HWY 35, Genoa, WI, U.S.A. 54632
608-689-2605 nathan_eckert@fws.gov
- Chase Ehlo**, Tennessee Cooperative Fishery Research Unit, P.O. Box 5114, Cookeville, TN,
U.S.A. 38505 chase.ehlo@gmail.com
- Curt Elderkin**, Department of Biology, The College of New Jersey, PO Box 7718, Ewing, NJ,
U.S.A. 8628 609-771-2819 elderkin@tcnj.edu
- Raissa Espejo**, ABC Labs, AL, U.S.A. 618-203-2912 espejor@abclabs.com
- William Ettinger**, Normandeau Associates, Inc., 23723 Woods Dr., Lewes, DE, U.S.A.
19958-3314 302-945-3567 wettinger@normandeau.com
- Brian Evans**, U.S. Fish and Wildlife Service, 330 Cummings St, Abingdon, VA, U.S.A. 24210
276-623-1233 brian_evans@fws.gov
- Na'Tasha Evans**, Cleveland State University, 2121 Euclid Ave Mc 219A, Cleveland, OH, U.S.A.
44115 216-548-3348 na.evans@yahoo.com

- Ryan Evans**, Kentucky DEP - Division of Water, 200 Fair Oaks Lane, Frankfort, KY, U.S.A.
40601 502-564-3410 ryan.evans@ky.gov
- Michael Everhart**, West Virginia Division of Natural Resources, PO Box 67, Elkins, WV, U.S.A.
26241 304-637-0245 mike.e.everhart@wv.gov
- Lovell Facemire**, WVDOT, 1900 Kanawha Blvd. Bld. 5 Rm A450, Charleston, WV, U.S.A.
25305 304-558-9752 Lovell.R.Facemire@wv.gov
- Scott Faiman**, MDC, 1110 S. College Ave, Columbia, MO, U.S.A. 65201
573-882-9880 scott.faiman@mdc.mo.gov
- Joseph Ferraro**, Virginia Dept. of Game and Inland Fisheries, 1724 Runner Hatchery Road,
Marion, VA, U.S.A. 24354 276-783-2138 joseph.ferraro@dgif.virginia.gov
- Courtney Fint**, WVDOT, 1900 Kanawha Blvd. E., Charleston, WV, U.S.A. 25305-0430
304-558-7421 courtney.p.fint@wv.gov
- Brant Fisher**, Indiana Department of Natural Resources, Atterbury Fish & Wildlife Area,
7970 S. Rowe St., P.O. Box 3000, Edinburgh, IN, U.S.A. 46124-3000
812-526-5816 bfisher@dnr.in.gov
- William Fleece**, Stantec Consulting, Loveland, OH, U.S.A. cody.fleece@stantec.com
- James Flowers**, NC State University, 4700 Hillsborough St., Raleigh, NC, U.S.A. 27606
919-513-6404 james.flowers@ncsu.edu
- S. Tyler Flynt**, Murray State University, Murray, KY, U.S.A. 42071
270-474-2272 steven.flynt@murraystate.edu
- Todd Fobian**, Missouri State Univ., Dept. of Biology 219 Temple Hall, Springfield, IL, U.S.A.
65897
- Craig Fortenbery**, Mainstream Commercial Divers, 322 C.C. Lowry Dr., Murray, KY, U.S.A.
42071 270-753-9654 craig@mainstreamdivers.com
- Thomas Fox**, NCSU, 2149 Pine Drive, Raleigh, NC, U.S.A. tom.fox@ncsu.edu
- Steve Fraley**, NC Wildlife Resources Commission, 50 Trillium Way, Clyde, NC, U.S.A. 28721
828-627-8414 stephen.fraley@ncwildlife.org
- Paul Freeman**, The Nature Conservancy, Birmingham, AL, U.S.A. 35203
205-251-1155 pfreeman@tnc.org
- Andrea Fritts**, Warnell School of Forestry and Natural Resources, 180 E. Green Street,
University of Georgia, Athens, GA, U.S.A. 30605
706-410-6896 frittsa@warnell.uga.edu
- Steve Galarneau**, Wisconsin DNR, 1155 Pilgrim Road, Plymouth, WI, U.S.A. 53073
920-892-8756 stephen.galarneau@wisconsin.gov
- Ron Gamble**, Natural Science and Metroparks, 2270 Melbourne Ave., #1210, Dexter, MI,
U.S.A. 48130-2502 explorenature223@gmail.com
- Michael Gangloff**, Appalachian State University, 572 Rivers St. Box 32027, Boone, NC, U.S.A.
28608-2027 828-262-7790 gangloffmm@appstate.edu
- Alissa Ganser**, University of Wisconsin - La Crosse, 2630 Fanta Reed Rd, La Crosse, WI,
U.S.A. 54603 aganser@usgs.gov
- Jeff Garner**, Alabama Division of Wildlife and Freshwater Fisheries, 350 County Road 275,
Florence, AL, U.S.A. 35633 256-767-7673 bleufer@aol.com
- Ean Garvin**, Tribal Environmental Management Services, PO Box 335, Miami, OK, U.S.A.
74355 918-533-1883 ean-garvin2@utulsa.edu
- Meredith Garvin**, Tribal Environmental Management Services, PO Box 335, Miami, OK, U.S.A.
74355 918-533-1883 m-garvin@earthlink.net
- Andrew Gascho Landis**, Auburn Univ., 813 Ridgewood Ct, Opelika, AL, U.S.A. 36801
717-823-0650 andrewmgl@gmail.com
- Catherine Gatenby**, U.S. Fish and Wildlife Service, White Sulphur Springs NFH, 400 East
Main Street, White Sulphur Springs, WV, U.S.A. 24986
304-536-1361 catherine_gatenby@fws.gov
- Jay Gerber**, Pennsylvania DEP, 230 Chestnut Street, Meadville, PA, U.S.A. 16335
814-964-8203 jaygerber@state.pa.us

- Alan Gettleman**, . 2225 Tanglewood Lane, Merritt Island, FL, U.S.A. 32953-4287
321-536-2896 Lychee@cfl.rr.com
- Trisha Gibson**, Columbus Zoo Mussel Facility/Ohio State University, 1315 Kinnear Road,
Columbus, OH, U.S.A. 43212 740-817-2869 gibson.458@osu.edu
- Eric Giebelstein**, INHS, 501 W Jefferson, Patoka, IL, U.S.A. 62875
618-432-9971 e_giebelstein@yahoo.com
- Bob Gillespie**, Missouri Department of Conservation, 2302 County Park Dr., Cape Girardeau,
MO, U.S.A. 63701 573-290-5730 robert.gillespie@mdc.mo.gov
- Leighann Gipson**, USACE, 167 N. Main St., Room B202, Memphis, TN, U.S.A. 38103
901-544-4015 leighann.c.gipson@usace.army.mil
- Stephen Golladay**, J.W. Jones Ecological Research Center, Route 2 Box 2324, Newton, GA,
U.S.A. 39870 229-734-4706 sgollada@jonesctr.org
- Stephanie Goodman**, Republic Services, 14008 Pendleton Mills Court, Ft. Wayne, IN, U.S.A.
46814 260-616-0086 goodmans@repsrv.com
- David Goodwin**, U.S.A.
- Jeff Grabarkiewicz**, University of Toledo, 1517 W. Temperance Rd, Temperance, MI, U.S.A.
48182 734-206-2685 unio@inbox.com
- Daniel Graf**, University of Alabama, 409 MH Bryant, Box 870345, Tuscaloosa, AL, U.S.A.
35487 205-348-2537 dlgraf@bama.ua.edu
- Lane C. Graham**, Dept. of Biological Sciences, The University of Manitoba, Winnipeg,
Manitoba, Canada R3T 2N2 204-474-6021 lcgrahm@cc.umanitoba.ca
- Matthew Gray**, Partnership for the Delaware Estuary, 110 South Poplar St Suite 202,
Wilmington, DE, U.S.A. 19801 302-655-4990 matthew-w-gray@yahoo.com
- Rena D. Greiner**, North Carolina State Univ., 103 Kelly Point Court, Apex, NC, U.S.A. 27502
919-513-6425 renae.greiner@ncsu.edu
- Julie Groce**, Institute of Renewable Natural Resources, AL, U.S.A. jegroce@ag.tamu.edu
- Darin Grulkowski**, U. of Iowa Hygienic Laboratory, 6210 Meadow Crest Dr. Apr. #204,
Johnston, IA, U.S.A. 50131 grulkodp@gmail.com
- Debbie Guelda**, Bemidji State University, MN, U.S.A.
218-755-2786 dguelda@bemidjistate.edu
- Wendell R Haag**, U.S. Forest Service, 1000 Front Street, Oxford, MS, U.S.A. 38655
662-234-2744 whaag@fs.fed.us
- Andrew Hager**, Valley City State University, UCSU Box 374 230 Viking Drive, SW, Vally City,
ND, U.S.A. 58072 701-240-3352 hagerandrew@hotmail.com
- Ed Hammer**, USEPA, 5711 Lenox Road, Lisle, IL, U.S.A. 60532-2644
630-353-1933 ejhammer@sbcglobal.com
- Rex Hanger**, Dept. of Geography, University of Wisconsin - Whitewater, 800 West Main St.
Whitewater, WI, U.S.A. 43190 262-472-5258 hangerr@uww.edu
- Shane Hanlon**, U.S. Fish and Wildlife Service, 330 Cummings St., Abingdon, VA, U.S.A.
24210 276-623-1233 shane_hanlon@fws.gov
- Willard Harman**, SUNY - Oneonta, Biological Field Station 5838 State Hwy 80, Cooperstown,
NY, U.S.A. 13326 607-547-8778 harmanwn@oneonta.edu
- Andrew Harris**, Central Michigan University, 906 E. Bellows Apt. B, Mount Pleasant, MI,
U.S.A. 48858 906-399-7872 harri1at@cmich.edu
- John Harris**, Arkansas State University, 12301 Pleasant Forest Drive, Little Rock, AR, U.S.A.
72212 501 658-5298 omibob1@gmail.com
- Julian R. Harrison**, College of Charleston, 738 Swanson Avenue, Charleston, SC, U.S.A.
29412-9140 843-795-1694 harrisonj@cofc.edu
- Michael Hart**, Auburn University Department of Fisheries and Allied Aquacultures, 230
Crowne Pointe Rd., Unit 306, Dadeville, AL, U.S.A. 36853 Goose67@gmail.com
- Jonathan Hartsell**, The Catena Group, PO Box 1632, Burnsville, NC, U.S.A. 28714
919-417-1998 jhartsell@thecatenagroup.com
- Andrew Hartzog**, Columbus State University, #7 Shirley Drive, Pittsview, AL, U.S.A. 36871
hartzog_andrew@colstate.edu

- Cassandra Hauswald**, The Nature Conservancy, 5885 Wulfman Road SE, Laconia, IN, U.S.A.
47135 812-737-2087 chauswald@tnc.org
- Marian Havlik**, Malacological Consultants, 3412 Levy Lane, La Crosse, WI, U.S.A.
54601-4969 608-782-7958 havlikme@aol.com
- David Hayes**, Eastern Kentucky University, 521 Lancaster Ave, Richmond, KY, U.S.A. 40475
318-355-7306 david.hayes@eku.edu
- Peter Hazelton**, University of Georgia, Interdisc. Toxicology Prog. & Warnell Sch. For Nat. Res.,
282 Johnson Dr., Athens, GA, U.S.A. 30605
706-372-3275 hazeltonp@warnell.uga.edu
- William Heard**, Florida State University, Dept. Biological Sciences, Tallahassee, FL, U.S.A.
32306 904-644-5748 Heard@bio.fsu.edu
- Gale Heffinger**, U.S. Fish and Wildlife Service, 330 Cummings St, Abingdon, VA, U.S.A.
24210 276-623-1233 gale_heffinger@fws.gov
- Don Helms**, Helms & Associates, 814 North 7th Street, Bellevue, IA, U.S.A. 52031-9321
563-872-4563 helmsdon@ivuenet.com
- Jesse Helton**, Tennessee Tech, 1100 North Dixie PR 205, Cookeville, TN, U.S.A. 38505
423-748-7778 jshelton21@tntech.edu
- Max Henschen**, IN Finance Authority / IN Dept. of Env. Management, 3023 Winfield Ave.,
Indianapolis, IN, U.S.A. 46222-1951 317-926-6430 mhensche@ifa.in.gov
- Tyler Hern**, Tennessee Cooperative Fisheries Research Unit, 2505 Dodson Br. Rd. Apt F1,
Cookeville, TN, U.S.A. 38501 304.532.6440 thern@tntech.edu
- Karen Herrington**, U.S. Fish and Wildlife Service, 1601 Balboa Ave., Panama City, FL, U.S.A.
32405 850-769-0552 karen_herrington@fws.gov
- Tharran Hobson**, The Nature Conservancy, 11304 N. Prairie Road, Lewiston, IL, U.S.A.
61542 309-547-2730 Thobson@tnc.org
- Rachael Hoch**, Appalachian State University, 8025 Kensington Dr., Fuquay-Varina, NC, U.S.A.
27526 hoch.rachael@gmail.com
- Michael Hoggarth**, Otterbein University, Dept. Biology & Earth Science, Westerville, OH,
U.S.A. 43081-1115 614-823-1667 mhoggarth@otterbein.edu
- Ellet Hoke**, Midwest Malacology, Inc, 1878 Ridgeview Circle Drive, Manchester, MO, U.S.A.
63021 636-391-9459 ellethoke@charter.net
- Jordan Holcomb**, Appalachian State University, Boone, NC, U.S.A. 28608
holcombjm@appstate.edu
- Daniel Hornbach**, Macalester College, 1600 Grand Ave., St. Paul, MN, U.S.A. 55105
651-696-6101 hornbach@macalester.edu
- Erin Hotchkiss**, University of Wyoming, Dept. Zoology, Laramie, WY, U.S.A. 82071
307-766-4156 ehotchki@uwyo.edu
- Rebecca Houtman**, Albuquerque Biological Park, Albuquerque, NM, U.S.A.
505-248-8514 RShaw@cabq.gov
- Mark Hove**, Macalester College/UMN, 1824 Tatum St., Falcon Heights, MN, U.S.A. 55113
651-472-3182 mark_hove@umn.edu
- Charles S. Howard**, Tennessee Valley Authority, 400 W. Summit Hill Dr. WT-11C-K, Knoxville,
TN, U.S.A. 37902 865-632-2092 cshowar1@tva.gov
- Daryl Howell**, Iowa DNR, Wallace State Office Bldg 502 East Ninth Street, Des Moines, IA,
U.S.A. 50319-0034 515-281-8524 daryl.howell@dnr.iowa.gov
- Heather Howell**, Alabama A&M University, 475 County Road 507, Princeton, AL, U.S.A.
35766 heather.howell@aamu.edu
- Robert G. Howells**, Biostudies, 160 Bearskin Trail, Kerrville, TX, U.S.A. 78028
830-367-5940 bobhowells@hctc.net
- Dan Hua**, Virginia TECH, Blacksburg, VA, U.S.A. 24060 huad@vt.edu
- Don Hubbs**, TN Wildlife Resources Agency, PO Box 70, Camden, TN, U.S.A. 38320
731-584-9032 tnmussels@aol.com
- Robert G. Hudson**, Presbyterian College, Biology Dept. 503 S. Broad Street, Clinton, SC,
U.S.A. 29325 864-833-8448 rhudson@presby.edu
- Lana Huehner**, . 8104 Newark Road, Mount Vernon, OH, U.S.A. 43050
724-301-0644 huehnerll@my.hiram.edu

- Martin Huehner**, EnviroScience, Inc.
330-688-0111 mhuehner@enviroscienceinc.com
- Paul Hughes**, Marshall University, 310 Echols Lane, Lewisburg, WV, U.S.A. 24901
pwhughes@suddenlink.net
- Joshua Hundley**, U.S. Fish and Wildlife Service, 101 Park DeVille Dr., Suite A, Columbia, MO,
U.S.A. 65203 573-232-2132 Joshua.Hundley@fws.gov
- Courtney Hunt**, Third Rock Consultants, LLC, 2526 Regency Road, Suite 180, Lexington, KY,
U.S.A. 40503 Chunt@thirdrockconsultants.com
- Jennifer Hurley-Sanders**, NCSU, 1001 Stallings Glen Lane, Raleigh, NC, U.S.A. 27603-8554
919-376-7589 jlhurley@ncsu.edu
- Roberta Hylton**, U.S. Fish and Wildlife Service, SW VA Field Office 330 Cummings Street,
Abingdon, VA, U.S.A. 24210 276-623-1233 roberta_hylton@fws.gov
- Marc Imlay**, Sierra Club, Maryland Chapter, 2321 Woodberry Drive, Bryans Road, MD, U.S.A.
20616 301-442-5657 ialm@erols.com
- Kentaro Inoue**, Miami University, Oxford, OH, U.S.A. 45056
870-275-1804 ken1008@mac.com
- Pascal Irmscher**, The University of Oklahoma at Norman, 111 East Chesapeake Street,
Norman, OK, U.S.A. 73019 405-325-4034 Pascal.Irmscher-1@ou.edu
- Will Jaeckle**, Illinois Wesleyan Univ., Dept. Biology, P.O. Box 2900, Bloomington, IL, U.S.A.
61702-2900 309-556-1063 wjaeckle@iwu.edu
- Joan Jass**, Milwaukee Public Museum, 800 W. Wells Street, Milwaukee, WI, U.S.A. 53233
414-278-2761 jass@mpm.edu
- John Jenkinson**, 305 Revere Avenue, Clinton, TN, U.S.A. 37716
865-457-0174 jjjenkinson@hotmail.com
- Kurt Jirka**, EcoLogic, LLC, 19 North Landon Rd., Ithaca, NY, U.S.A. 14850
607-244-4894 kjirka@ecologicllc.com
- Jennifer Johnson**, University of Georgia, 1140 Cherokee Circle, Athens, GA, U.S.A. 30606
906-221-3350 johnsonj@warnell.uga.edu
- Kelly Johnson**, Eastern Kentucky University, 6449 Kentucky Highway 1194, Stanford, KY,
U.S.A. 40484 606-346-5502 kelly.johnson@eku.edu
- Matt Johnson**, Texas A&M University, 2632 Broadway, Suite 301 South, San Antonio, TX,
U.S.A. 78215 m_johnson@tamu.edu
- Nathan Johnson**, US Geological Survey, 7920 NW 71st Street, Gainesville, FL, U.S.A. 32653
540-239-0876 floridamussels@gmail.com
- Paul D. Johnson**, Alabama Aquatic Biodiversity Center, 2200 Highway 175, Marion, AL,
U.S.A. 36756-5769 334-683-5000 paul.johnson@dcnr.alabama.gov
- Richard I. Johnson**, 124 Chestnut Hill Road, Chestnut Hill, MA, U.S.A. 2467
617-493-2468
- Jess Jones**, U.S. Fish and Wildlife Service, 106 a Cheatham Hall Virginia Tech, Blacksburg,
VA, U.S.A. 2461-0321 540-231-2266 Jess.Jones@fws.gov
- Thomas Jones**, Marshall University, 110 Heather Court, Scott Depot, WV, U.S.A. 25560
Jonest@Marshall.edu
- Bryan Kalb**, Duke Energy, AR, U.S.A. 317-838-1736 Bryan.Kalb@duke-energy.com
- David Kamms**, 7784 E. Linden Lane, Parma, OH, U.S.A. 44130
440-845-7545 dek610@cox.net
- Cindy Kane**, U.S. Fish and Wildlife Service, Virginia Field Office 6669 Short Lane, Gloucester,
VA, U.S.A. 23061 804-693-6694 cindy_kane@fws.gov
- Alexander Karatayev**, Great Lakes Center, 349 Woodbridge Ave., Buffalo, NY, U.S.A. 14214
716-878-5423 karataay@buffalostate.edu
- Eugene Keferl**, 5280 East Glynn Ave., Brunswick, GA, U.S.A. 31523
912-265-0143 EPKeferl@adelphia.net
- Dan Kelner**, U.S. Army Corps of Engineers, St. Paul District, 8036 Fairchild, Mounds View,
MN, U.S.A. 55112 651-724-2244 daniel.e.kelner@usace.army.mil
-

- John Kent**, 394 Cub Creek Rd, Chapel Hill, NC, U.S.A. 27517-6327
919-933-5650 jkent@tmug.org
- Tim King**, U.S. Geological Survey-BRD Leetown Science Center, 11649 Leetown Rd.,
Kearnysville, WV, U.S.A. 25430 304-724-4450 tlking@usgs.gov
- Dawn Kirk**, US Forest Service, P. O. Box 10, Natural Bridge Station, VA, U.S.A. 24579
540-291-2188 dkirk@fs.fed.us
- Lisie Kitchel**, WDNR - BER, 101 S. Webster St., Madison, WI, U.S.A. 53715
608-266-5248 lisie.kitchel@wisconsin.gov
- Roger Klocek**, Openlands and Huff and Huff Inc., 22713 Bass Lake Rd, Plainfield, IL, U.S.A.
60544 312-863-6276 rklocek@huffnhuff.com
- Michael Klunzinger**, Murdoch University, 13 Barclay Street, Kardinya, Western Australia,
Australia 6163 +61 8-9360-7419 m.klunzinger@murdoch.edu.au
- Leroy Koch**, U.S. Fish and Wildlife Service, 2057 Harrington Mill Road, Shelbyville, KY, U.S.A.
40065 502-695-0468 leroy_koch@fws.gov
- Richard Koch**, Bemidji State University, MN, U.S.A. rkoch@bemidjistate.edu
- Martin Kohl**, Tennessee Dept of Environ. & Conservation, 3003 Greenway Drive, Knoxville, TN,
U.S.A. 37918 865-594-5597 martin.kohl@tn.gov
- Chris Koutouzakis**, EcolSciences, Inc., 75 Fleetwood Drive, Suite 250, Rockaway, NJ, U.S.A.
07866 973-366-6500 ckoutouzakis@ecolsciences.com
- Jeff Kovatch**, Marshall University, 1 John Marshall Dr. Dept. of Biol. Sciences, Huntington,
WV, U.S.A. 25755 304-696-7147 kovatch@marshall.edu
- Robert Krebs**, Cleveland State University, Dept. Biology, Geology, Envir. Sci. 2121 Euclid Ave.,
Cleveland, OH, U.S.A. 44115 216-523-7553 r.krebs@csuohio.edu
- Danielle Kreeger**, Partnership for the Delaware Estuary, 110 S. Poplar St., 1 Riverwalk Plaza,
Suite 202, Wilmington, DE, U.S.A. 19801
302-655-4990 dkreeger@DelawareEstuary.org
- Kody Kuehnl**, Franklin University, U.S.A. 614-947-6104 kuehnlk@franklin.edu
- Amanda Kunzmann**, Hoosier National Forest, 248 15th Street, Tell City, IN, U.S.A. 47586
akunzmann@fs.fed.us
- Jennifer Kurth**, U. of Maine, Dept. of Wildlife Ecology, 5755 Nutting Hall, Drono, ME, U.S.A.
4469 207-581-1340 jennifer.kurth@umit.maine.edu
- Luke Kusilek**, U. of Minnesota, 1800 W. Larpenteur Ave. Apt. 5, Falcon Heights, MN, U.S.A.
55113 507-271-6496 kusil002@umn.edu
- Brian Lang**, New Mexico Dept. Fish and Game, One Wildlife Way, Santa Fe, NM, U.S.A. 87507
505-476-8108 brian.lang@state.nm.us
- Gerald Lang**, Carnegie Museum of Natural History, PO Box 420, White River, SD, U.S.A.
57579 814-332-0390 gerald.lang@siutegleska.edu
- Raven Lawson**, Clemson University, 1147 N. Boxley Ave, Fayetteville, AR, U.S.A. 72704
501-940-5814 raven.lawson@gmail.com
- James Layzer**, TN Coop. Fish. Res. Unit, TN Tech Univ., Box 5114, Cookeville, TN, U.S.A.
38505 931-372-3032 jim_layzer@tntech.edu
- William Lellis**, U.S. Geological Survey, 176 Straight Run Rd., Wellsboro, PA, U.S.A. 16901
570-724-3322 wlellis@usgs.gov
- Jeremy Leonard**, NC State University, Raleigh, NC, U.S.A.
252-646-2517 jaleonar@ncsu.edu
- Jay Levine**, North Carolina State University College of Veterinary Medicine, 4700 Hillsborough
St., Raleigh, NC, U.S.A. 27606 919 513-6397 Jay_Levine@ncsu.edu
- Todd Levine**, 561 Emma Dr., Murray, KY, U.S.A. 42071 tlevine@murraystate.edu
- Chad Lewis**, Lewis Environmental Consulting, LLC, 3967 Browns Grove Rd, Murray, KY,
U.S.A. 42071 270-435-4141 lewis_environmental@yahoo.com
- Matt Lindsey**, The Nature Conservancy, Little Rock, AR, U.S.A. 72205.0
870-995-3480 mlindsey@tnc.org
- Douglas Locy**, Aquatic Systems, Inc., 4621 Baptist Road, Pittsburgh, PA, U.S.A. 15227
412-427-2758 aquatic.systems@comcast.net

- Cynthia Loftin**, ME Coop. Fish & Wildlife Unit, 5755 Nutting Hall, Univ of Maine, Orono, ME, U.S.A. 04469-5755 207-581-2843 cyndy_loftin@umenfa.maine.edu
- Paul H. Lord**, SUNY - Oneonta, Biological Field Station, 101 Sunset Ridge Rd., Cooperstown, NY, U.S.A. 13326 607-435-4989 lordp@usa.net
- Caitlin M. Luebke**, University of Wisconsin - Stevens Point, 105 Neale Hall 433 Isadore St., Stevens Point, WI, U.S.A. 54481 608-697-9265 clueb461@uwsp.edu
- Kristen Lundh**, U.S. Fish & Wildlife Service, Rock Island, IL, U.S.A. 61201.0 309-793-5800 kristen_lundh@fws.gov
- Mark Lyons**, Cleveland State University, Dept. B.G.E.S. 2121 Euclid Ave., Cleveland, OH, U.S.A. 44115-2403 440-396-8976 lyons.ms@gmail.com
- Steve Lysne**, U.S. Fish and Wildlife Service, 1387 S. Vinnell Way, Boise, ID, U.S.A. 83709 208-685-6956 Steve.Lysne@fws.gov
- Gerry Mackie**, Univ. of Guelph, Water Systems Analysts 23 Avra Court, Guelph, Ontario, Canada N1H 7B2 519-767-6684 gerry.mackie@sympatico.ca
- Jaqueline Madill**, Canadian Museum of Nature, Research Services, Box 3443, Station D, Ottawa, Ontario, Canada K1P 6P4 613-566-4786 jmadill@mus-nature.ca
- Amy Mahar**, NYS Department of Environmental Conservation, 309 Ryan Way, Avon, NY, U.S.A. 14414 ammahar@gw.dec.state.ny.us
- Rachel Mair**, U. S. Fish and Wildlife Service, 400 East Main, White Sulphur Springs, WV, U.S.A. 24986 304-536-1361 ext 125 Rachel_Mair@fws.gov
- Roger Mangham**, The Nature Conservancy, Little Rock, AR, U.S.A. 72205 501-663-6699 rmangham@tnc.org
- Kevin Markham**, Environmental Services, Inc., Raleigh, NC, U.S.A.
- Holly Martin**, Arkansas State University, Jonesboro, AR, U.S.A. 72467 870-371-0329 holly.martin@smail.astate.edu
- Scott Martin**, Chemical Abstracts, 712 Harley Drive, Columbus, OH, U.S.A. 43202-1808 614-447-3600 smartin@cas.org
- David Martinez**, U.S. Fish and Wildlife Service, 6315 E. 57th Place, Tulsa, OK, U.S.A. 74135-8122 918-581-7458 david_martinez@fws.gov
- Don Mason**, Normandeau Associates, Inc., 25 Nashua Road, Bedford, NH, U.S.A. 03110 dmason@normandeau.com
- Lawrence L. Master**, NatureServe, P. O. Box 310, Lake Placid, NY, U.S.A. 12946 518-523-2214 lawrencemaster@gmail.com
- Charles Mather**, Univ. Sci. & Arts of Oklahoma, 2503 S. 16th St., Chickasha, OK, U.S.A. 73018 405-574-1282 facmathercm@usao.edu
- Philip Mathias**, Central Michigan University, 624 S. Washington, Apt. A, Mount Pleasant, MI, U.S.A. 48858 419 340-2487 mathi1pt@cmich.edu
- John Matkowski**, EA Engineering Science and Technology, 15 Loveton Circle, Sparks, MD, U.S.A. 21152 410-771-4950 jmatkowski@eaest.com
- Lindsey Matt**, The Nature Conservancy, Little Rock, AR, U.S.A. 72205 870-995-3480 m.lindsey@tnc.org
- Marsha May**, Texas Parks and Wildlife Department, 9602 Cheryl Lynn Dr., Austin, TX, U.S.A. 78747 512-389-8062 marsha.may@tpwd.state.tx.us
- Christine Mayer**, Illinois Natural History Survey, 1816 South Oak Street, Champaign, IL, U.S.A. 61820 217-244-2354 camayer@illinois.edu
- Jason Mays**, U.S. Fish and Wildlife Service, 17 Union Chapel Rd, Weaverville, NC, U.S.A. 28787 919-270-9213 jason_mays@fws.gov
- Celeste Mazzacano**, Xerces Society for Invertebrate Conservation, 4828 SE Hawthorne Blvd., Portland, OR, U.S.A. 97215 503-232-6639 celeste@xerces.org
- James McCann**, MD Dept. Natural Resources NHP, Appalachian Lab 301 Braddock Rd, Frostburg, MD, U.S.A. 21532 301-689-7105 jmccann@dnr.state.md.us
- Mary McCann**, HDR|DTA, 970 Baxter Boulevard, Portland, ME, U.S.A. 04103 207-775-4495 mary.mccann@hdrinc.com
- Brent McClane**, McClane Environmental Services, St. Louis, MO, U.S.A. 63114 314-890-8524 bmcclane@swbell.net

- Megan McCormick**, Appalachian State University, 190 Eli Hartley Dr. Unit 206, Boone, NC, U.S.A. 28608 706-346-8447 mmccormick11@gmail.com
- Henry McCullagh**, 2735 Holly Point Road East, Orange Park, FL, U.S.A. 32073.0 904-264-8384 hmcstjohns@comcast.net
- Krista McDermid**, Zara Environmental LLC, AL, U.S.A. (512) 757-7676 krista@zaraenvironmental.com
- Andrew McDonald**, Kentucky State University/ KY Fish and Wildlife, Frankfort, KY, U.S.A. 40601 502-320-6689 andrewtmcdonald@gmail.com
- Leigh Ann McDougal**, USDA Forest Service, 1720 Peachtree Rd. NW Suite 700, Atlanta, GA, U.S.A. 30309 404-347-4082 lmcdougal@fs.fed.us
- Daryl McGoldrick**, Environment Canada, Natl. Water Res. Inst., PO Box 5050 867 Lakeshore Dr., Burlington, Ontario, Canada, 905-336-4790 daryl.mcgoldrick@ec.gc.ca
- Monte McGregor**, Kentucky Dept. of Fish and Wildlife Resources, 3761 Georgetown Road, Frankfort, KY, U.S.A. 40601 Monte.McGregor@ky.gov
- Stuart McGregor**, Geological Survey of AL, P.O. Box 869999, 420 Hackberry Lane, Tuscaloosa, AL, U.S.A. 35486 205-247-3629 smcgregor@gsa.state.al.us
- Dan McGuire**, McGuire Consulting, PO Box 764, Espanola, NM, U.S.A. 87532 505-901-2147 dmcguire555@windstream.net
- Derek McKinney**, Marshall University, Huntington, WV, U.S.A. 25755 304-222-4398 mckinney51@marshall.edu
- Stephen McMurray**, MO Dept. of Conservation, 1110 S. College Ave., Columbia, MO, U.S.A. 65201 573-882-9909 stephen.mcmurray@mdc.mo.gov
- Kelly McNichols**, Univ. of Guelph, 189 Dawn Ave, Guelph, Ontario, Canada N1G 5J9 519-767-5243 kmcnico@uoguelph.ca
- Sarah McRae**, NC Natural Heritage Program, 2312 Summit Dr., Hillsborough, NC, U.S.A. 27278 919-732-9421 supersarah@rocketmail.com
- Jason Meador**, U. Georgia, 104 Puritan Lane, Athens, GA, U.S.A. 30605 706-410-8040 jmeador@uga.edu
- Neil Medlin**, NCDOT, 207 Plantation Road, Clayton, NC, U.S.A. 27520 919-715-1447 knmedlin@dot.state.nc.us
- V. Malissa Mengel**, Tennessee Tech, 223 Cherry Ave Apt. I, Cookeville, TN, U.S.A. 38501 931-252-0731 vmengel21@tntech.edu
- Jacob Mertes**, Valley City State University, 655 2nd St. NE, Vally City, ND, U.S.A. 58072 701-845-0373 jacob.mertes@vcsu.edu
- Elizabeth Meyer**, Pennsylvania Natural Heritage Program, Western Pennsylvania Conservancy, 800 Waterfront Drive, Pittsburgh, PA, U.S.A. 15222 724-504-7178 emeyer@paconserve.org
- Teresa Michaelis**, Manchester College, 604 East College Avenue, North Manchester, IN, U.S.A. 46962 260-982-5101 tmmichaelis@manchester.edu
- Maurice Mickens**, U.S. Fish and Wildlife Service, Orangeburg NFH, P.O. Box 410, Orangeburg, SC, U.S.A. 29116 803-534-4828 Maurice_Mickens@fws.gov
- Henk Mienis**, Hebrew University of Jerusalem, N. Mollusc Coll., Dept. Evolution, Systematics & Ecology, IL-91904, Jerusalem, Israel IL-91904 00972-8-9278320 mienis@netzer.org.il
- Ed Miller**, Kansas Dept. Wildlife & Parks, Operations Office 513 SE 25th Ave., Pratt, KS, U.S.A. 67124-8174
- Glenn Miller**, U.S. Fish and Wildlife Service, 2800 E. Lakeshore Drive, Ashland, WI, U.S.A. 54806 715-682-6185 glenn_miller@fws.gov
- Steve Miller**, U.S. Fish & Wildlife Service, 1205 Stillwater Rd., Anniston, AL, U.S.A. 36207 256-310-9194 stephen_a_miller@fws.gov
- Carrie Miller-DeBoer**, University of Oklahoma, 109 Crestland Dr. #D, Norman, OK, U.S.A. 73071 717-380-4462 cmiller4462@ou.edu
- Mellissa Milligan**, Arkansas State University, Jonesboro, AR, U.S.A. 72432 501-690-3415 mellissa_milligan@yahoo.com
- Kendall Moles**, Tennessee Cooperative Fishery Research Unit, 1100 North Dixie, 205 Pennebaker Hall, Cookeville, TN, U.S.A. 38505 931-372-6205 kmoles@tntech.edu

- Emy Monroe**, University of South Dakota, Biology Dept, 414 E Clark St., Vermillion, SD, U.S.A. 57069 605-659-0599 emyymm@hotmail.com
- William Monroe**, Middle Tennessee State University, 1723 Old Lascassas Road, Murfreesboro, TN, U.S.A. 37130 513-594-4760 2001RC51@gmail.com
- William Montgomery**, 66 Gorman Lane #B, Reading, OH, U.S.A. 45215.0 513-733-0448 montgomeryenviron@yahoo.com
- Travis Moore**, MO Dept of Conservation, 653 Clinic Road, Hannibal, MO, U.S.A. 63401 573-248-2530 travis.moore@mdc.mo.gov
- Todd Morris**, Fisheries and Oceans Canada, 867 Lakeshore Rd., Burlington, Ontario, Canada L7R 4A6 905-336-4734 Todd.Morris@dfo-mpo.gc.ca
- Cheryl Morrison**, US Geological Survey, Leetown Science Center 11649 Leetown Road, Kearneysville, WV, U.S.A. 25430.0 304-724-4464 cmorrison@usgs.gov
- Patricia Morrison**, U.S. Fish and Wildlife Service, Ohio River Islands NWR 3982 Waverly Road, Williamstown, WV, U.S.A. 26187 304-375-2923 patricia_morrison@fws.gov
- Shad Mosher**, US EPA, 129 Lady Bug Lane, Chapel Hill, NC, U.S.A. 27516 919-541-1548 shadowfax008@hotmail.com
- Tyler Mosley**, 203 Swingle Hall, Auburn University, Auburn, AL, U.S.A. 36849 mosletl@auburn.edu
- Tara Muenz**, J.W. Jones Ecological Research Center, Route 2 Box 2324, Newton, GA, U.S.A. 39870 229-734-4706 tmuenz@jonesctr.org
- Rachel Muir**, US Geological Survey, 2171 Cabot's Point Lane, Reston, VA, U.S.A. 20191 703-648-5114 rachel_muir@usgs.gov
- Renee Sherman Mulcrone**, 366 Glenmoor, Whitmore Lake, MI, U.S.A. 48189 734-645-4744 rsherman@umich.edu
- Thierry Muller**, Hellef fir Natur, xxx, Kierchestross 2, heinerscheid9753, Luxembourg, t.muller@luxnatur.lu
- Katherine Murcko**, 100 W Baraga Ave Apt 4H, Houghton, MI, U.S.A. 49931 kmurcko@emich.edu
- Bradley Musser**, Marshall University, Huntington, WV, U.S.A.
- Tatsuaki Nakato**, 618 Pine Ridge Rd., Coralville, IA, U.S.A. 52241-1039 319-351-2504 mollusk007@gmail.com
- Anndrea Navesky**, The Nature Conservancy, Tulsa, OK, U.S.A. 74114 918-293-2916 anavesky@tnc.org
- Tim Nehus**, Civil & Environmental Consultants, Inc., 405 Duke Dr. Suite 270, Franklin, TN, U.S.A. 37067 615-333-7797 tnehus@cecinc.com
- Glenn Nelson**, U.S. Geological Survey, 11649 Leetown Road, Kearneysville, WV, U.S.A. 25430 304-724-4474 grnelson@usgs.gov
- Archives and Research Library, New Brunswick Museum**, 277 Douglas Ave., St. John, NB, U.S.A. 205-991-1234
- Teresa Newton**, U.S. Geological Survey, Upper Midwest Environ. Sci. Center 2630 Fanta Reed Road, LaCrosse, WI, U.S.A. 54603 608-781-6217 tnewton@usgs.gov
- Donna Nez**, Confederated Tribes of the Umatilla Res. (CTUIR), 46411 Timine Way, Pendleton, OR, U.S.A. 97801 541-429-7123 donnanez@ctuir.com
- Robert Nichols**, North Carolina Wildlife Resources Commission, 1412 Tawny View Lane, Raleigh, NC, U.S.A. 27603 919-896-6254 rob.nichols@ncwildlife.org
- Betsy Nightingale**, MDEQ, 695 East Square Lake Road, Troy, MI, U.S.A. 48085 248-835-1263 nightine@michigan.gov
- Christine O'Brien**, Browns River Environ. Consultants, 130 Sesame St., Waynesville, NC, U.S.A. 28785 christine.amblema@gmail.com
- Kathleen O'Brien**, NY Dept Environ Conservation, 625 Broadway, Albany, NY, U.S.A. 12233-4754 518-402-8864 kmobrien@gw.dec.state.ny.us
- Susan Oetker**, U.S. Fish and Wildlife Service, 2105 Osuna NE, Albuquerque, NM, U.S.A. 87113 505-761-4761 susan_oetker@fws.gov
-

- Amanda Oliver**, U.S. Army Corps of Engineers, AL, U.S.A.
314-331-8478 amanda.j.oliver@usace.army.mil
- Chelsey Olson**, Third Rock Consultants, 2526 Regency Road, Suite 180, Lexington, KY,, U.S.A.
40503 859-977-2000 olson@thirdrockconsultants.com
- William Olson**, Third Rock Consultants, LLC, 2526 regency rd suite 180, Lexington, KY,
U.S.A. 40503 859-977-2000 colson@thirdrockconsultants.com
- Brian O'Neill**, Redwing Ecological Services, 1139 S. Fourth Street, Louisville, KY, U.S.A.
40203 502-625-3009 boneill@redwing.win.net
- Rachel Osborn**, 17712 N. Territorial Road, Chelsea, MI, U.S.A. 48118
248-514-6365 osborn.rachel@gmail.com
- Brett Ostby**, Virginia Tech, 100 Cheatham Hall, Blacksburg, VA, U.S.A. 24061-0321
540-230-1042 bostby@vt.edu
- Christopher Owen**, Kentucky State University, KY, U.S.A.
502-648-8082 musseldoc@gmail.com
- Nick Owens**, Huff & Huff, Inc., 915 Harger Rd. Ste 330, Oak Brook, IL, U.S.A. 60523-8771
630-684-9100 nowens@huffnhuff.com
- Angela Padeletti**, Partnership for the Delaware Estuary, 110 South Poplar St Suite 202,
Wilmington, DE, U.S.A. 19805 302-655-4990 apadeletti@delawareestuary.org
- Ian Palmer**, Auburn University-Fisherieis and Allied Aquacultures, 464 Oakridge Dr,
Rochester, NY, U.S.A. 14617-2513 rpalmer1@rochester.rr.com
- Tamara Pandolfo**, NC State University, Dept. Environmental and Molecular Toxicology, Box
7633, Raleigh, NC, U.S.A. 27695 919-515-5296 tjpandol@ncsu.edu
- Matthew Patterson**, U.S. Fish and Wildlife Service, 400 East Main Street, White Sulphur
Springs, WV, U.S.A. 24986 304-536-1361 matthew_patterson@fws.gov
- Tim Pearce**, Carnegie Museum of Natural History, 4400 Forbes Ave, Pittsburgh, PA, U.S.A.
15213 pearcet@carnegiemnh.org
- Andrew Peck**, The Nature Conservancy, 405 Briarwood Drive, Jackson, MS, U.S.A. 39206
601-709-2991 apecck@tnc.org
- Cianna Pender**, Rhodes College, 1/1/2000 North Parkway, Memphis, TN, U.S.A. 38112
penci@rhodes.edu
- Wendell Pennington**, Pennington and Associates, Inc., 250 McGee Lane, Cookeville, TN,
U.S.A. 38501 931-526-6038 kingpenn@citilink.net
- Kathryn Perez**, Duke University, Dept. of Biology, Box 90338, Durham, NC, U.S.A. 27708
205-239-2871 keperez@duke.edu
- Samantha Perkins**, University of Alabama -Department of Biology, 1747 Jack Warner Parkway
#211, Tuscaloosa, AL, U.S.A. 35401 910-546-1427 slperkins@crimson.ua.edu
- Melissa Petty**, Virginia Tech, 610 Montgomery St., Blacksburg, VA, U.S.A. 24060
540-250-2182 mepetty@vt.edu
- John E. Petzing**, 1018 Prickett Ave, Edwardsville, IL, U.S.A. 62025
618-307-5312 jepetzing@yahoo.com
- John Pfeiffer**, University of Alabama, 9732 Elizabeth Lake Road, Wite Lake, MI, U.S.A. 48326
Jmpfeiffer@ua.edu
- Jason Phillips**, U.S. Fish and Wildlife Service, AR FO, Augusta, AR, U.S.A.
870-347-1617 jason_phillips@fws.gov
- Malcolm Pierson**, Pierson Environmental Consulting, 204 Stetson Lane, Alabaster, AL, U.S.A.
35007-4708 250-790-7557 sgpjmp@bellsouth.net
- John Pike**, Duke Energy, AL, U.S.A.
317-838-6218 John.Pike@duke-energy.com
- Michael Pillow**, U.S. Fish & Wildlife Service, 5770 Timberline Trail, Flagstaff, AR, U.S.A.
86004 574-596-5975 Michael.Pillow@fws.gov
- Michael Pinder**, VDGIF, 2206 S. Main St. Suite C, Blacksburg, VA, U.S.A. 24060
540-961-8387 mike.pinder@dgif.virginia.gov
- Leonard Pitcher**, U.S. Army Corps of Engineers, 336 W. McGuire Rd, Makanda, IL, U.S.A.
62958 618-534-8322 lenpitcher@gmail.com

- Madeline Pletta**, MNDNR/BSU, MNDNR/BSU, Rochester, MN, U.S.A. 55901
507-421-3375 madeline.pletta@st.bemidjistate.edu
- LeRoy Poff**, Colorado State University, Fort Collins, CO, U.S.A. 80523
970-491-2079 poff@lamar.colostate.edu
- Bill Posey**, Arkansas Game & Fish Commission, P.O. Box 6740, Perrytown, AR, U.S.A.
71801 870-777-5580 brposey@agfc.state.ar.us
- Gerald Pottern**, Robert J. Goldstein & Assoc., 1221 Corporation Parkway, Suite 100, Raleigh, NC, U.S.A. 27610 919-872-1174 gpottern@rjgacarolina.com
- Jeffrey Powell**, U.S. Fish and Wildlife Service, 1208 B Main St., Daphne, AL, U.S.A. 36526
251-441-5858 jeff_powell@fws.gov
- Lisa Preister**, Columbus State University, Phenix City, AL, U.S.A. 36867
706-566-2346 preister_lisa@colstate.edu
- Trevor Prescott**, Cleveland State University, 2314 Brook Haven Lane, Hinckley, Ohio, U.S.A.
44233 T.Prescott@csuohio.edu
- Alison Price**, Illinois Natural History Survey, 1816 S Oak Street, Champaign, IL, U.S.A.
61820 217-333-2165 alprice@illinois.edu
- Gary Pritchard**, Golder Associates Ltd, 121 Commerce Park Drive, Unit L, Barrie, Ontario, Canada L4N8X1 705-722-4492 gpritchard@golder.com
- James Pritchard**, Iowa State University, 339 Science II Dept. Natural Resource Ecology & Management, Ames, IA, U.S.A. 50011-3221 515-294-8830 jpritch@iastate.edu
- Sharon Prochazka**, NC State U., Dept. Environmental and Molecular Toxicology, Box 7633, Raleigh, NC, U.S.A. 27695-7633
- Warren Pryor**, University of St. Francis, Biology Department, 2701 Spring Street, Fort Wayne, IN, U.S.A. 46808 260-434-7640 wpryor@sf.edu
- Sandy Pursifull**, U.S. Fish and Wildlife Service, 1601 Balboa Ave., Panama City, FL, U.S.A.
32405 850-769-0552 sandra_pursifull@fws.gov
- Allen Pyburn**, Tennessee Wildlife Resources Agency, 345 Masters Drive, Lexington, TN, U.S.A.
38351 Allen.Pyburn@tn.gov
- Mark Pyron**, Ball State University, Dept of Biology, Muncie, IN, U.S.A. 47306
765-285-8852 mpyron@bsu.edu
- Eric Rahm**, Ecological Specialists, Inc., 1417 Hoff Industrial Dr., O'Fallon, MO, U.S.A.
63366 636-281-1982 erahm@ecologicalspecialists.com
- Morgan Raley**, NC State Museum of Natural Sciences, Research Laboratory, MSC #1626, Raleigh, NC, U.S.A. 27699-1626 919-733-7450 ext 759 morgan.raleyn@ncdenr.gov
- Charles Randklev**, U. of North Texas, 12208 Sweetbirch Ct., Keller, TX, U.S.A. 76248
817-966-3235 crr0096@unt.edu
- Brenda Rashleigh**, U.S. EPA, 960 College Station Road, Athens, GA, U.S.A. 30605
706-355-8148 rashleigh.brenda@epa.gov
- Judith Ratcliffe**, NC Natural Heritage Program, 1117 Woodbrook Way, Garner, NC, U.S.A.
27529 919-715-7807 judith.ratcliffe@ncdenr.gov
- Joe Rathbun**, 2010 Greenwich Court, Lansing, MI, U.S.A. 48910
517-373-8868 rathbunj@michigan.gov
- Donna Ray**, U.S. Forest Service, 91 New Smith Rd., Abbeville, SC, U.S.A. 29620
864-366-5558 donnabray@hotmail.com
- Sean Reese**, Bucknell University, 123 South 12th Street, Lewisburg, PA, U.S.A. 17837
570-713-5566 spr016@bucknell.edu
- Joaquim Reis**, University of Lisbon, Lisbon, Portugal, j.oaqreis@gmail.com
- Bert Remley**, Third Rock Consultants LLC, 2526 Regency Road, Suite 180, Lexington, KY, U.S.A. 40503 859-977-2000 bremley@thirdrockconsultants.com
- Judith Rhymer**, U. of Maine Dept. of Wildlife Ecology, Orono, ME, U.S.A. 4469
207-581-2863 judith.rhymer@umit.maine.edu
- Patricia Ries**, University of Wisconsin - La Crosse, 6220 Kelvin Ave N, Stillwater, MN, U.S.A.
55082 651-357-4082 patty.ries@gmail.com
- Andy Roberts**, U.S. Fish and Wildlife Service, Columbia, MO, U.S.A.
Andy_Roberts@fws.gov

- Amy Robinson**, University of Waterloo, 401-18 Esson Street, Kitchener, Ontario, Canada, N2M 2T9 robinson.amy.v@gmail.com
- Angie Rodgers**, NC Natural Heritage Program, 580 Fox Cove Rd., Mars Hill, NC, U.S.A. 28754 828-689-5783 angeline.rodgers@ncmail.net
- Kevin Roe**, Iowa State University, Natural Resource Ecology and Management, 339 Science II, Ames, IA, U.S.A. 50011-3221 515-294-8332 kjroe@iastate.edu
- Jann Rose**, Osage Nation, 100 W. Main Suite 211, Pawhuska, OK, U.S.A. 74056 918-287-5531 jrose@osage-tribe.org
- Wayne Rossiter**, Rutgers University, 25 Kearny Ave, Apt. 7A, Edison, NJ, U.S.A. 8817 732-985-0646 wrossiter@aesop.rutgers.edu
- Bill Roston**, Box 623, Forsyth, MO, U.S.A. 65653 417-683-3733 info@gardenofdreamswedding.com
- Nick Rowse**, U.S. Fish and Wildlife Service, 10704 Prescott Ct., Burnsville, MN, U.S.A. 55337 612-725-3548 nick_rowse@fws.gov
- Louie Rundo**, 420 Countryside Drive, Broadview Heights, OH, U.S.A. 44147 216-402-4492 rundol@bbhcsd.org
- Ann Runstrom**, U.S. Fish and Wildlife Service, 555 Lester Ave, LaCrosse, WI, U.S.A. 54650 608-783-8433 ann_runstrom@fws.gov
- W. D. Russell-Hunter**, 711 Howard Street, Easton, MD, U.S.A. 21601-3934
- Andrew Rypel**, Washington University in St. Louis, U.S.A. andrewrypel@yahoo.com
- Brandi Sangunett**, Federal Energy Regulatory Commission, 5977 New England Woods Dr, Burke, VA, U.S.A. 22015 202-502-8393 brandi.sangunett@ferc.gov
- Tim Savidge**, The Catena Group, Inc., 410-B Millstone Drive, Hillsborough, NC, U.S.A. 27278 919-417-2314 tsavidge@thecatenagroup.com
- Robert Schanzle**, IL DNR, One Natural Resources Way, Springfield, IL, U.S.A. 62702-1271 217-785-4863 bob.schanzle@illinois.gov
- Beth Schilling**, 11931 Couch Mill Road, Knoxville, TN, U.S.A. 37932 865-691-8267 tnbirder@gmail.com
- John Schmerfeld**, U.S. Fish and Wildlife Service, 6669 Short Lane, Gloucester, VA, U.S.A. 23061 804-693-6694 john_schmerfeld@fws.gov
- Kathryn Schneider**, Stuyvesant Envir. Consulting, 16 Frisbee Lane, Stuyvesant, NY, U.S.A. 12173 518-799-3457 schnekat@hvcc.edu
- Astrid Schwalb**, University of Waterloo, University of Waterloo, Waterloo, Ontario, Canada 519-884-4381 aschwalb@uwaterloo.ca
- John Schwegman**, 3626 River Point Lane, Metropolis, IL, U.S.A. 62960 618-543-9429 botany@wkbblue.net
- Dan Scoggin**, Ecological Specialists, Inc., 1417 Hoff Industrial Dr., O'Fallon, MO, U.S.A. 63366 Dano718@sbcglobal.net
- Josh Seagraves**, Arkansas Highway and Transportation, Dept., 1, Little Rock, AR, U.S.A. 72203-2261 501-569-2083 josh.seagraves@arkansashighways.com
- Sara Seagraves**, U.S. Fish and Wildlife Service, P.O. Box 160, Mammoth Spring, AR, U.S.A. 72554 sara_seagraves@fws.gov
- Jeanne Serb**, Ecology, Evolution & Organismal Biology, 253 Besey Hall, Iowa State University, Ames, IA, U.S.A. 50011-3523 515-294-7479 serb@iastate.edu
- Price Sewell**, Copperhead Consulting, P.O. Box 73, Paint Lick, KY, U.S.A. 40461 859-925-9012 psewell@copperheadconsulting.com
- Diane Shasteen**, Illinois Natural History Society, 800 Sneed Road, Carbondale, IL, U.S.A. 62902 diane.shasteen@illinois.gov
- William Sheftall**, Rhodes College, 1/1/2000 North Parkway Rhodes Box 2353, Memphis, TN, U.S.A. 38112 229-224-8769 shewl@rhodes.edu
- Josh Sherwood**, Western Illinois University, Macomb, IL, U.S.A. josh.sherwood@gmail.com
- Peggy Shute**, U.S. Fish & Wildlife Service, 446 Neal Street, Cookeville, TN, U.S.A. 38501 931-528-6481 ext 212 peggy_shute@fws.gov
-

- James Sickel**, Murray State University, 24 Richmond Drive, Savannah, GA, U.S.A. 31406
912-308-4468 jim.sickel@murraystate.edu
- Bernard Sietman**, Minnesota DNR, 500 Lafayette Road, St. Paul, MN, U.S.A. 55155
651-259-5139 bernard.sietman@state.mn.us
- Bryan Simmons**, U.S. Fish & Wildlife Service, 101 Park DeVille Drive, Suite A, Columbia, MO,
U.S.A. 65203 5732342132 bryan_simmons@fws.gov
- Jeff Simmons**, Tennessee Valley Authority, 1101 Market Street, PSC IX-C, Chattanooga, TN,
U.S.A. 37402 423-876-4012 jwsimmons0@tva.gov
- Thomas Simpson**, McHenry County Conservation District, 6512 Harts Road, Ringwood, IL,
U.S.A. 60072 815-678-7644 tsimpson@mccdistrct.org
- David Sims**, TN Wildlife Resources Agency, Portland, TN, U.S.A. 37148
615 3256486 david.m.sims@tn.gov
- Erin Singer**, Appalachian State University, 572 Rivers St., Boone, NC, U.S.A. 28608
901-647-7562 eesinger@hotmail.com
- Allan K. Smith**, Pacific NW Native Freshwater Mussel Workgroup, 16661 SW Chehalem Way,
Hillsboro, OR, U.S.A. 97123 503-628-7825 mxasmith@upwardaccess.com
- Brook Smith**, The Ohio State University, Columbus, OH, U.S.A. 43210
614-724-3611 smith.3731@osu.edu
- Geoffrey Smith**, Marshall University, 411 Cabell Court, Huntington, WV, U.S.A. 25703
570-660-4884 smith1090@marshall.edu
- Jamie Smith**, NC Museum of Natural Sciences, Mail Service Center 1626, Raleigh, NC, U.S.A.
27607 919-733-7450 ext 762 jamie.smith@ncdenr.gov
- Mark Smith**, USACE, 1651 Dorset Drive, Memphis, TN, U.S.A. 381170
901-544-0670 mark.r.smith@mvm02.usace.army.mil
- Matt Smith**, Environmental Services, Inc., Raleigh, NC, U.S.A.
- Richard Smith**, Progress Energy, P.O. Box 1511, PEB 4, Raleigh, NC, U.S.A. 27602-1511
919 812-4271 rick.smith@pgnmail.com
- Tamara Smith**, U.S. Fish & Wildlife Service, 4101 American Blvd. East, Bloomington, MN,
U.S.A. 55425 tamara.ann.smith@gmail.com
- Mary Sollows**, University of New Brunswick, St. John, 18 Ranch Ave., Quispamsis, NB,
Canada 506-847-9068 Mary.Sollows@ndm.mnb.ca
- Bryan Sowards**, Fort Hays State University, 105 W. 14th St., Hays, KS, U.S.A. 67601
bjsowards@scatcat.fhsu.edu
- Chan Sow-Yan**, 79 Jalan Girang, Singapore, 359248
chansowyan@gmail.com
- Rick Spear**, PADEP, 400 Waterfront Drive, Pittsburgh, PA, U.S.A. 15222
412-442-5874 rspear@state.pa.us
- James Spence**, U.S. Army Corps of Engineers, 63 Aspen Place, Huntington, WV, U.S.A.
25705 304-617-5741 james.b.spence@usace.army.mil
- Beverly Spurlock**, 6676 Merritts Creek Road, Huntington, WV, U.S.A. 25702
304-736-2238 bevsbees@verizon.net
- Barbara St. John White**, Biodiversity, 46 Cooleyville Road, New Salem, MA, U.S.A. 01355
814-933-6877 stjohn.white@gmail.com
- David Stansbery**, Museum of Biological Diversity, Ohio State University, 1315 Kinnear Rd,
Columbus, OH, U.S.A. 43212-1192 614-292-8560 stansbery.1@osu.edu
- Cliff Starliper**, U.S. Geological Survey, Leetown Science Center 11649 Leetown Road,
Kearneysville, WV, U.S.A. 25430 304-724-4433 cstarliper@usgs.gov
- Brian Steffen**, 7403 Beechview Way, Louisville, KY, U.S.A. 40219
502-969-0631 bwstf01@gwise.louisville.edu
- Michelle Steg-Geltner**, TNC, 2034 SW Madison St., Portland, OR, U.S.A. 97205
msteg@tnc.org
- Bruce Stephen**, Southeast Community College, 3418 Randolph St., Lincoln, NE, U.S.A.
68510 402-730-9365 bstephen@mac.com
- Charrish Stevens**, U.S. Fish and Wildlife Service, AL, U.S.A.
281-286-8282 Charrish_Stevens@fws.gov

- Philip H. Stevenson**, Creek Laboratory LLC, PO Box 953, Fredricksburg, VA, U.S.A. 22404
540-368-9227 phil@creeklab.com
- Timothy Stewart**, Iowa State Univ, Dept. Natural Resources, Ecology and Management, Ames,
IA, U.S.A. 50010 152-941-644E9 twstewar@iastate.edu
- James A. Stoeckel**, Auburn University, 203 Swingle Hall, Auburn, AL, U.S.A. 36849
334-844-9249 jimstoeckel@auburn.edu
- Sara Strassman**, American Rivers, 1225 S. 15th St., LaCrosse, WI, U.S.A. 54601
717-829-5670 runsara@gmail.com
- David Strayer**, Cary Institute of Ecosystem Studies, P.O. Box AB, Millbrook, NY, U.S.A.
12545 845-677-5343 strayerd@caryinstitute.org
- Carson Stringfellow**, Columbus State University, 4225 University Ave. College of Science,
Columbus, GA, U.S.A. 31907 706-568-5320 stringfellow_carson@colstate.edu
- Brian Stumph**, AL, U.S.A.
- Gregory Styborski**, Civil & Environ. Consultants, Inc., 333 Baldwin Road, Pittsburgh, PA,
U.S.A. 15202 412-429-2324 gstyborski@cecinc.com
- Meg Sugita**, Miami University, 5515 Edie Dr., Hilliard, OH, U.S.A. 43026
614-439-7501 sugitamg@muohio.edu
- Gerald Summers**, University of Missouri, 114 Lefevre Hall, Columbia, MO, U.S.A. 65211
573-882-4369 summersg@missouri.edu
- Beth Swartz**, Maine Dept. Inland Fisheries & Wildlife, 650 State Street, Bangor, ME, U.S.A.
04401 207-941-4476 beth.swartz@maine.gov
- Casey Swecker**, Environmental Solutions & Innovations, Inc., 781 Neeb Road, Cincinnati, OH,
U.S.A. 45233 513-451-1777 cswecker@environmentalsi.com
- Doug Sweet**, Ohio Division of Wildlife, London State Hatchery, 2470 Robert's Mill Road SW,
London, OH, U.S.A. 43140 740-852-5865 sweets4@att.net
- Robert Szafoni**, Illinois DNR, 1660 W. Polk Street, Charleston, IL, U.S.A. 61920
217-345-2420 robert.szafoni@illinois.gov
- Judy Takats**, World Wildlife Fund, 2021 21st Ave S., Ste 200, Nashville, TN, U.S.A. 37212
615.279.1814 judy.takats@wwfus.org
- Marilyn Tarver**, Savannah, GA, U.S.A. 31406
912-398-3326 m_tarver45@bellsouth.net
- Michael S Taylor**, Southeast Missouri State University, Dept. of Biology, MS 6200, Cape
Girardeau, MO, U.S.A. 63701 mtaylor@semo.edu
- Ralph Taylor**, Marshall University (Ret.), 2 Francis Circle, Barboursville, WV, U.S.A. 25504
304-638-6324 wvmussels@comcast.net
- Ellen Tejan**, The Nature Conservancy, Tulsa, OK, U.S.A. 74114
918-306-1131 e.tejan@tnc.org
- Pam Thiel**, U.S. Fish and Wildlife Service, 555 Lester Ave, La Crosse, WI, U.S.A., 54601
608-783-8431 pam_thiel@fws.gov
- Frankie Thielen**, Natur & Umwelt (Fondation Hellef fir d'Natur), Project Life Freshwater Pearl
Mussel Kierchestrooss 2, Heinerscheld, Luxembourg, L-9753
352-2690-8127 f.thielen@luxnatur.lu
- Jackie Thornton**, WVDOH, 624 Depot Street, Parkersburg, WV, U.S.A. 26101
304-532-7472 Jackie.n.thorton@wv.gov
- Jeremy Tiemann**, Illinois Natural History Survey, 1816 South Oak Street, Champaign, IL,
U.S.A. 61820 217-244-4594 jtiemann@illinois.edu
- Richard Tippit**, USACE Nashville District, 212 Glenwood Drive, Goodlettsville, TN, U.S.A.
37072 615-736-7958 richard.n.tippit@usace.army.mil
- Lori Tolley-Jordan**, U. of Alabama, 5723 Blanford Street, Irondale, AL, U.S.A. 35210
205-951-9032 tolle004@bama.ua.edu
- Maude Tremblay**, University of Guelph/Fisheries and Oceans Canada, 50 Stone Road East,
Guelph, Ontario, Canada N1G 2W1 maude.elaine@gmail.com
- Ian Turner**, Tahoe Resource Conservation District, 2310 Mt. Olive Rd., Knoxville, TN, U.S.A.
37920 iep.turner@gmail.com

- John Van Hassel**, AEP, 1 Riverside Plaza, 22nd Floor, Columbus, OH, U.S.A. 43215
614-716-1249 jhvanhassel@aep.com
- Caryn Vaughn**, Oklahoma Biological Survey, University of Oklahoma, 111 E. Chesapeake St.,
Norman, OK, U.S.A. 73019 405-325-4034 cvaughn@ou.edu
- Barry Vessels**, U.S. Army Corps of Engineers, Louisville District, Louisville, KY, U.S.A. 40201
Barry.E.Vessels@usace.army.mil
- Rita Villella Bumgardner**, 557 Acorn Circle, Harpers Ferry, WV, U.S.A. 25425
rbumgardner17@comcast.net
- Meghann Vincie**, Virginia Tech, Blacksburg, VA, U.S.A. 24060
540-878-8483 mevincie@vt.edu
- Fritz Vorisek**, KY Dept Fish and Wildlife, 212 Ranch Drive, Frankfort, KY, U.S.A. 40601
fritz.vorisek@Ky.gov
- Gary Wagenbach**, Carleton College, 10400 Jenkins Trail, Nerstrand, MN, U.S.A. 55053
507-645-8549 gwagenba@kmwb.net
- Amy Wales**, TVA, 1034 Red Hill Valley Rd, Cleveland, TN, U.S.A. 37323
423-473-3982 akwales@tva.gov
- Craig Walker**, U.S. Dept. of Interior, Office of Surface Mining, 710 Locust St, Second Floor,
Knoxville, TN, U.S.A. 37902 865-545-4103 ext 168 craigbob1@juo.com
- David Walker**, Field Museum, 218 South Edgewood Avenue, La Grange, IL, U.S.A. 60525
708-482-7399 dhwalkerr@hotmail.com
- Jennifer Walker**, The University of Southern Mississippi, Long Beach, MS, U.S.A. 39560
228-214-3332 jennifer.walker@usm.edu
- Ning Wang**, U.S. Geological Survey, Columbia, MO, U.S.A. 65201
573-441-2946 nwang@usgs.gov
- Nicole Ward**, Minnesota Department of Natural Resources, 500 Lafayette Rd, St. Paul, MN,
U.S.A. 55155 651-503-2462 nicole.ward@state.mn.us
- Doug Warmolts**, Columbus Zoo & Aquarium, P.O. Box 400, Powell, OH, U.S.A. 43065-0400
614-724-3524 doug.warmolts@columbuszoo.org
- Mel Warren**, USDA Forest Service, Southern Research Station 1000 Front Street, Oxford, MS,
U.S.A. 38655 662-234-2744 fswarren@olemiss.edu
- Brian Watson**, VA Dept of Game & Inland Fisheries, 1143 Bell Lane, Forest, VA, U.S.A. 24551
434-525-7522 brian.watson@dgif.virginia.gov
- Charles Watson**, Dynamac, Inc., 1564 Wessels Dr. #6, Fort Wright, KY, U.S.A. 41011
859-491-6401 procladius@aol.com
- G. Thomas Watters**, Ohio State University, Museum of Biological Diversity 1315 Kinnear Rd.,
Columbus, OH, U.S.A. 43212 614-292-6170 watters.1@osu.edu
- Ted Weber**, The Conservation Fund, 410 Severn Avenue, Suite 204, Annapolis, MD, U.S.A.
21403 410-990-0175 tweber@conservationfund.org
- Gary Wege**, 8811 Hillside Trail South, Cottage Grove, MN, U.S.A. 55016
612-725-3548 garywege@comcast.net
- Nevin Welte**, Pennsylvania Fish & Boat Commission, 450 Robinson Lane, Bellefonte, PA,
U.S.A. 16823 412-586-2334 c-nwelte@state.pa.us
- Sean Werle**, New England Environmental, Inc., 4 Taylor Heights, Montague, MA, U.S.A.
01351 413-348-0032 swerle@neeinc.com
- J. Keith Whalen**, U.S. Forest Service - Ozark/St. Francis NF, Russellville, AR, U.S.A. 72801
479-964-7228 jwhalen@fs.fed.us
- Nathan Whelan**, University of Alabama, 814 11th Ave, Apt 16, Tuscaloosa, AL, U.S.A. 35401
636-236-7008 nwhelan@crimson.ua.edu
- Barry Wicklow**, Saint Anselm College Biology Dept., 100 Saint Anselm Drive, Manchester, NH,
U.S.A. 03102-1310 603-641-7160 bwicklow@anselm.edu
- Louis Wieland**, Valley City State University, 101 College St. SW, Valley City, ND, U.S.A.
58072 704-845-7575 louis.wieland@vcsu.edu
- James D. Williams**, 4820 NW 15th Place, Gainesville, FL, U.S.A. 32605
352-373-3743 fishwilliams@gmail.com
-

- Ginger Williford**, WVDOT, 1900 Kanawha Blvd, Charleston, WV, U.S.A. 25305
304-558-9676 ginger.b.williford@wv.gov
- Deborah Wills**, 304 Sobotka St., Hartselle, AL, U.S.A. 35640
256-773-7641 dwills@hiwaay.net
- Janice Wilson**, Wyandotte Nation of Oklahoma, Wyandotte, OK, U.S.A. 74370
918-678-2297 jwilson@wyandotte-nation.org
- Rebecca Winterringer**, 229 Viewpoint Lane, Lake St. Louis, MO, U.S.A. 63367
636-544-4754 beccawint@yahoo.com
- Jason Wisniewski**, Georgia DNR, 2065 Hwy 278 SE, Social Circle, GA, U.S.A. 30025
706-557-3032 jason_wisniewski@dnr.state.ga.us
- Chris Wood**, NC Wildlife Resources Commission, Fuquay Varina, NC, U.S.A. 27526
919-552-3839 chris.wood@ncwildlife.org
- Michael Wood**, The Catena Group, 410-B Millstone Drive, Hillsborough, NC, U.S.A. 27278
919-732-1300 mwood@thecatenagroup.com
- Daelyn Woolnough**, Central Michigan University, 1208 East Broadway, Mt. Pleasant, MI, U.S.A. 48858 989-317-3016 daelynw@gmail.com
- Joel Worsham**, Pennington and Associates, Inc., 570 E 10th St., Cookeville, TN, U.S.A. 38501 931-526-6038 worsham22@hotmail.com
- Jennifer Yates**, Western Kentucky University, 3490 Sunfish Road, Brownsville, KY, U.S.A. 42210 270-286-0002 jennifer.yates101@topper.wku.edu
- Paul Yokley, Jr.**, 3698 Chisholm Road, Florence, AL, U.S.A. 35630
256-764-3780 pyj@hiwaay.net
- Alan Young**, 2067 Kinoole Street, Hilo, HA, U.S.A. 96720
808-959-0009 alyguy@hotmail.com
- James Yung**, Conestoga-Rovers & Associates, Murfreesboro, TN, U.S.A. 37128
615-778-2535 jyung@craworld.com
- David Zanatta**, Central Michigan University, Biology Department, Brooks Hall 156, Mount Pleasant, MI, U.S.A. 48859 989-774-7829 zanat1d@cmich.edu
- Jaclyn Zelco**, U.S. Fish and Wildlife Service, Warm Springs, GA, U.S.A. 31830
706-655-3850 jaclyn_zelco@fws.gov
- Craig Zievis**, U.S. Fish and Wildlife Service, Ohio River Islands NWR, Williamstown, WV, U.S.A. 26187 304-830-3254 Craig.Zievis@fws.gov
- Jerry Ziewitz**, U.S. Fish and Wildlife Service, 1601 Balboa Ave., Panama City, FL, U.S.A. 32405 850-769-0552 jerry_ziewitz@fws.gov
- Steve Zigler**, U.S. Geological Survey, La Crosse, WI, U.S.A. 54603
608-781-6395 szigler@usgs.gov
- Gregory Zimmerman**, EnviroScience, Inc., 3781 Darrow Rd., Stow, OH, U.S.A. 44224
330-688-0111 gzimmerman@enviroscienceinc.com
- Lora Zimmerman**, U.S. Fish & Wildlife Service, Charleston, SC, U.S.A. 29407
843-727-4707 lora_zimmerman@fws.gov

FMCS Officers

President

Caryn Vaughn
Oklahoma Biological Survey
University of Oklahoma
111 E. Chesapeake Street
Norman, OK 73019
405-325-4034
cvaughn@ou.edu

President Elect

Patricia Morrison
U.S. Fish and Wildlife Service
Ohio River Islands NWR
3982 Waverly Road
Williamstown, WV 26187
304-375-2923 x 124
patricia_morrison@fws.gov

Secretary

Greg Zimmerman
EnviroScience, Inc.
6751 A-1 Taylor Road
Blacklick, OH 43004
615-866-8540
gzimmerman@enviroscienceinc.com

Treasurer

Heidi L. Dunn
Ecological Specialists Inc.
1417 Hoff Industrial Park
O'Fallon, Mo 63366
636-281-1982; Fax: -0973
Hdunn@ecologicalspecialists.com

Past President

W. Gregory Cope
North Carolina State University
Dept. of Environ. & Molecular Toxicology
Box 7633
Raleigh, NC 27695-7633
919-515-5296; Fax -7196
greg_cope@ncsu.edu

Ellipsaria is posted on the FMCS web site quarterly: early in March, June, September, and December. This newsletter routinely includes Society news, abstracts, job postings, meeting notices, publication announcements, informal articles about ongoing research, and comments on current issues affecting freshwater mollusks. Contributions may be submitted at any time but are due by the 15th of the month before each issue is posted. Anyone may submit material for inclusion in *Ellipsaria*; however, only current dues-paying members of FMCS can access it on-line. Information for possible inclusion in *Ellipsaria* should be submitted via e-mail to the editor, John Jenkinson, at jjjenkinson@hotmail.com.

MSWord is optimal for text documents but the editor may be able to convert other formats. Graphics should be in MSExcel, PhotoShop, TIF, GIF, BMP, or EPS format; again, the editor may be able to translate other formats. Please limit the length of informal articles to one page of text. Note that submissions are not peer reviewed but are checked for clarity and appropriateness for this newsletter. Feel free to contact the editor with any questions about possible submissions or transmission concerns.

FMCS Standing Committees & Their Chairs/Co-chairs

If you are interested in participating in committee activities, please contact one of the appropriate chairs.

Awards

W. Gregory Cope
North Carolina State University
greg_cope@ncsu.edu

Teresa Newton
Upper Midwest Environ. Science Center
tnewton@usgs.gov

Emy Monroe
University of South Dakota
emy.monroe@usd.edu

Environmental Quality & Affairs

Steve McMurray
Missouri Dept. of Conservation
stephen.mcmurray@mdc.mo.gov

Braven Beaty
The Nature Conservancy
bbeaty@tnc.org

Gastropod Status and Distribution

Jeff Garner
Al. Division of Wildlife and Fw. Fisheries
bleufer@aol.com

Jeremy Tiemann
Illinois Natural History Survey
jtiemann@illinois.edu

Genetics

David J. Berg
Miami University
bergdj@MUOhio.edu

Curt Elderkin
The College of New Jersey
elderkin@tcnj.edu

Guidelines and Techniques

Nevin Welte
Pennsylvania Fish & Boat Commission
c-nwelte@state.pa.us

Rita Vilella Bumgardner
Harpers Ferry, West Virginia
rbumgardner17@comcast.net

Information Exchange

G. Thomas Watters
OSU Museum of Biological Diversity
Watters.1@osu.edu

John Jenkinson
Clinton, Tennessee
jjjenkinson@hotmail.com

Mussel Status and Distribution

Arthur E. Bogan
N.C. State Museum of Natural Sciences
arthur.bogan@ncdenr.gov

John L. Harris
Arkansas State University
omibob1@gmail.com

Nominations

Leroy Koch
U.S. Fish and Wildlife Service
leroy_koch@fws.gov

Outreach

Andy Roberts
U.S. Fish and Wildlife Service
andy_roberts@fws.gov

Tom Jones
Marshall University
jonest@marshall.edu

Megan Bradley
Missouri State University
mebrad11@vt.edu

Propagation, Restoration, & Introduction

Rachel Mair
White Sulphur Spr. Nat. Fish Hatchery
Rachel_Mair@fws.gov

Christopher Owen
Kentucky State University
musseldoc@gmail.com

Symposium

Patricia Morrison
U.S. Fish and Wildlife Service
patricia_morrison@fws.gov

Parting Shot



Mussels in the south central United States have been hit particularly hard by this summer's drought and record high temperatures. On July 31, Oklahoma Biological Survey staff visited a mussel bed on the Kiamichi River that is a long-term monitoring site for the Ouachita Rock Pocketbook (*Arkansia wheeleri*), a federally listed endangered species. Many parts of this bed were completely dry, and in areas that still had water, the water temperature exceeded 100° F. Nineteen species of freshly dead mussels were found in the dry reach. Oklahoma currently has no in-stream flow requirements for wildlife, but the U.S. Fish and Wildlife Service was able to work with other federal and state agencies to get water released from an upstream reservoir and is now monitoring the situation. Photograph by Caryn Vaughn.

If you would like to contribute a freshwater mollusk-related photograph for use as a **Parting Shot** in *Ellipsaria*, e-mail the picture, caption, and photo credit to jjjenkinson@hotmail.com.

