



FAB Mission: To provide a forum for the exchange of information and training for aquatic biologists and scientists in related disciplines

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IN THIS ISSUE

Announcements – Part 1:

2023 FAB Freshwater Workshop 2023 Marine Taxonomic Workshop 2023 FAB Annual Meeting Memorium: Dr. Richard Heard Conferences of Interest Literature Citations Announcements – Part 2: News Books Membership Renewal





ANNOUNCEMENTS – PART 1

2023 Freshwater Taxonomy Workshop, May 10-12

Taxonomy and Biology of the Water Mites of Florida Presented by Ray Fisher, PhD

The 2023 Florida Association of Aquatic Biologists Spring Taxonomic Workshop will be held May 10-12 at the University of Florida, Department of Entomology and Nematology in Gainesville. It will be led by Dr. Ray Fisher an entomologist at the Mississippi Entomological Museum, based in Fayetteville, Arkansas. As a taxonomist/systematist, Ray researches arthropod diversity, evolution, and natural history. This year's workshop will focus on the water mites of Florida and North America. Dr. Fisher will be giving an overview of the biology and taxonomy of aquatic water mites. There will be ample time for lab work to look at specimens and get verifications. At least one field trip to a local area is also planned. Be sure to make plans now to

be a part of this great workshop. Due to the size of the teaching lab, workshop attendance is limited to thirty (30) persons so be sure to register today via the website. The workshop registration is \$70.00 for FAB members, \$125.00 for nonmembers, and \$45.00 for students. Please register at the FAB website: <u>Registration & Membership Form</u>

Dates/times: The workshop will begin at 1:00 PM on Wednesday, May 10, and conclude before lunchtime on Friday, May 12, 2023.

Location: As with many of our recent freshwater workshops, this one will be held at the excellent teaching laboratory of the University of Florida Department of Entomology and Nematology (Charles Steinmetz Hall) on the UF campus in Gainesville. The address is shown above. When attending the



workshop, be sure to park to the right of the entrance drive, or behind the building. If you park to the left of the main entrance, you will be ticketed.

Workshop cost: \$70 for FAB members, \$125 for non-members, and \$45 for students

Lodging: A block of 20 rooms has been reserved at the Hampton Inn at 4225 SW 40th Blvd., Gainesville, FL 32608. SW 40th Blvd. is the first road to the right just off I-75 at Archer Road. Rooms are available with two queen beds or one king bed, all non-smoking. A full breakfast is included. The discounted price is \$159 per night. There is a 14-day cancellation policy. The block of rooms will be held until April 25, but those making reservations after that point might be able to get the discounted FAB rate, pending availability. Making reservations as soon as possible is recommended. To make your reservations, please follow this link: <u>Hampton Inn</u>



There are several other hotels near Archer Road that are more budget friendly. In the past FAB has used Comfort Inn University at 3440 SW 40th Blvd., Gainesville, FL 32608. Rooms are currently priced between \$90-100/night. To make reservations please follow this link: <u>Comfort Inn</u> <u>University</u>

Other workshop information:

- Student-quality dissecting microscopes are available at the teaching lab. Participants may bring their own scopes, if desired. Be sure to bring specimens for identification or verification.
- There will be one or more field experiences offered as a part of the workshop, so be sure to bring any needed field clothes and gear, including sunscreen and insect repellent.
- Bring any Water Mite identification and ecology books you might use during the workshop.
- Snacks will be provided during the workshop and at breaks.
- Restaurants are abundant in the vicinity of Archer Road. A social at a local venue will be organized for one night and announced at the workshop.

Workshop Contact: Scott Duncan, FAB President at president@floridaaquaticbiologists.com or sduncan@rcid.org





Marine Taxonomy Workshop

The 2023 Fall Marine Workshop will be held at the University of Tampa Marine Laboratory. Dr. José H. Leal of the Bailey-Matthews National Shell Museum will present Marine Bivalves of Florida. Dates and logistics will be posted on the FAB website when finalized.



37th FAB Annual Meeting



The 2023 Annual Meeting is currently in the planning stages. President Scott Duncan is hoping to hold it in conjunction with the 2023 Fall Marine Taxonomic Workshop in Tampa. Dates and logistics will be posted on the FAB website when finalized.



Memorium: Dr. Richard W. Heard (1939 - 2022)



Richard was a much beloved biologist, mentor, and friend to many FAB members. He passed away on Wednesday, November 2, 2022, with friends and family by his side.

Dr. Heard authored and co-authored over <u>165 publications</u> on marine invertebrates and fish, including the descriptions of a new family, new genera, and a variety of new species of stomatopods, mysids, cumaceans, tanaidaceans, isopods, amphipods and decapods. He worked with over fifty graduate students throughout his career. Richard was involved with the identification of invertebrates collected from the Gulf of Mexico and Atlantic coasts of the southeastern United States for more than 40 years. He was most known for his tenacity and drive and for the work he did at Gulf Coast Research Laboratory. He was a quintessential field biologist with a brilliant mind and an incredible memory of the various species along the coastal marshes. He had an amazing ability to identify seemingly anything that existed in the coastal waters or marshes. He was world renowned in his field and has been honored over the years by having twenty-eight species named after him. Richard dedicated his life to the fields of marine science, and he never stopped learning, writing and, of course, persevering. His final scientific article was published on August 15, 2022.

The Florida Association of Aquatic Biologists mourns the loss of this great friend and biologist.

This obituary includes a heart-warming video of Richard's family and career. <u>Dr. Richard Heard,</u> <u>III Obituary 2022 - Riemann Family Funeral Homes</u>



CONFERENCES AND MEETINGS OF INTEREST

- <u>Society for Freshwater Science (SFS)</u>. Brisbane, Australia, June 3–7, 2023
- Worldwide Dragonfly Association. Pathos, Cyprus, June 25–30, 2023
- <u>10th International Crustacean Congress</u>. National Museum of New Zealand Te Papa Tongarewa in Wellington, May 2023
- <u>North American Lake Management Society (NALMS)</u>. Virginia Beach, Virginia, April 24-28, 2023
- <u>Florida Lake Management Society (FLMS)</u>. Hawks Cay Resort, Duck Key, Florida, August 29 to September 1, 2023
- Benthic Ecology Meeting. Miami, Florida, April 26–29, 2023
- <u>Coastal & Estuarine Research Federation (CERF)</u>. Portland, Oregon, November 12–16, 2023
- <u>89th American Malacological Society</u>. Tuscaloosa, Alabama, August 1–5, 2023

LITERATURE

Hyperlinks provided for downloads of entire article (if free access) or abstract

- Alarie, Y., M., Michat, K. Watanabe, et al. 2022. <u>An outlook on larval morphology of</u> <u>Copelatinae diving beetles with phylogenetic considerations (Coleoptera: Adephaga,</u> <u>Dytiscidae)</u>. Zootaxa 5175
- Allen, D.C., B.A. Gill, A. Metcalfe, S. Bonjour, et al. 2023. <u>Taxonomic identity, biodiversity</u>, <u>and antecedent disturbances shape the dimensional stability of stream invertebrates</u>. Limnology and Oceanography Letters
- Barroso M., J. Moreira, M. Capa, A. Nygren, & J. Parapar 2022. <u>A further step towards the</u> <u>characterisation of Terebellides (Annelida, Trichobranchidae) diversity in the Northeast</u> <u>Atlantic, with the description of a new species</u>. ZooKeys 1132: 85-126
- Barrus, N.T., D. Drumheller, M.J. Cook, et al. 2023. <u>Life history responses of two co-occurring</u> <u>congeneric Apple Snails (*Pomacea maculata* and *P. paludosa*) to variation in water depth and metaphyton total phosphorus. Hydrobiologia 850: 841-860</u>
- Bespalaya, Y.V., D.M. Palatov, M.Y, Gofarov, et al. 2023. <u>Associations of mayfly larvae with</u> <u>*Corbicula* clams.</u> Biological Journal of the Linnean Society 138(2): 169-193



- Bohus, A., B. Gál, B. Barta, et al. 2023. Effects of urbanization-induced local alterations on the diversity and assemblage structure of macroinvertebrates in low-order streams. Hydrobiologia 850: 881-899
- Clinton, S.M., J. Hartman, K.H. Macneale, & A.H. Roy 2022. <u>Stream macroinvertebrate</u> <u>reintroductions: A cautionary approach for restored urban streams.</u> Freshwater Science 41(3): 507-520
- Craig, C.W. & D.L. Felder 2022. <u>Two new marine hermit crabs allied with the Paguristes</u> <u>tortugae complex (Crustacea: Decapoda: Anomura) from the western Atlantic</u>. Zootaxa 5178
- Drumm, D.T. & R.W. Heard 2022. <u>A new genus and species of Apseudidae, and a new species</u> of *Bunakenia* (Crustacea: Tanaidacea: Apseudomorpha) from the Northwest Atlantic and <u>Gulf of Mexico</u>. Zootaxa 5175
- Daniel, M., M. Mecca, M.A. Meca, G. van Moorsel, C. Romano 2022. <u>Citizen science and</u> <u>integrative taxonomy reveal a great diversity within Caribbean Chaetopteridae</u> (Annelida), with the description of one new species. Invertebrate Systematics 36: 581-607
- Felder, D.L., R. Lemaitre & F.L. Mantelatto 2023. <u>Redescription of the mole crab *Emerita portoricensis* Schmitt, 1935 (Crustacea: Decapoda: Hippidae), based on Caribbean populations from Puerto Rico, Belize, Costa Rica, and Panama. Zootaxa 5227</u>
- Foote, M., R. Iwama, D. de Carle & S. Kvist 2022. <u>An integrative taxonomic study of the genus</u> <u>*Theromyzon* (Hirudinea: Glossiphoniidae), with description of a new North American</u> <u>species.</u> Invertebrate Systematics 36: 631-646
- García-París, M., P. Jurado-Angulo, P.C. Rodríguez Flores & N. Rosas-Ramos 2023. <u>Nomenclatural changes in a taxonomically complex group (Amphipoda: Gammaridae).</u> Zootaxa 5230
- Garrison, R.W. & N. Von Ellenrieder 2022. <u>Damselflies of the genus Argia Rambur, 1842</u> (Odonata: Coenagrionidae) from Mexico, Central America and the Lesser Antilles with descriptions of five new species. Zootaxa 5201
- Gaytán-Caballero A., E. Escobar-Briones, R. Robles & E. Macpherson 2022. <u>Munidopsis geyeri</u> and <u>M. exuta (Crustacea: Munidopsidae): A study of two deep-sea, amphi-Atlantic</u> species that co-occur in the southern Gulf of Mexico. Zootaxa 5213
- Gonzalez, S.C. & H.D. Laughinghouse IV 2022. <u>Aquatic invertebrates of remnant Florida scrub</u> <u>in Martin County, southeastern Florida</u>. Southeastern Naturalist 21(1): 42-50
- Green, A.J., A. Lovas-Kiss, C. Reynolds, C. Sebastián-González, et al. 2023. <u>Dispersal of</u> <u>aquatic and terrestrial organisms by waterbirds: A review of current knowledge and</u> <u>future priorities</u>. Freshwater Biology 68: 173-190



- Hill, M.O. 1973. <u>Diversity and evenness: A unifying notation and its consequences</u>. Ecology 54: 427-432 (See Mike Heyn for pdf)
- Jost, L. 2006. Entropy and diversity. Oikos 113: 363-375 (See Mike Heyn for pdf)
- Lencioni, F.A.A. 2023. <u>Analysis of *Telebasis* Selys, 1865—Part I. (Odonata: Coenagrionidae)</u>. Zootaxa 5239
- Maciolek, N.J. & J.A. Blake 2021. New species of *Microspio* Mesnil, 1896 (Annelida: Spionidae), with additions to the description of *M. pigmentata* (Reish, 1959) and comparative notes on all members of the genus. Proceedings of the Biological Society of Washington 134(1): 265-293
- Miller, K.B. 2022. <u>Nineteen new species of Desmopachria Babington, 1841 (Coleoptera, Adephaga, Dytiscidae, Hydroporinae, Hyphydrini) with notes on the taxonomy of the genus</u>. ZooKeys 1136: 1-56 (Includes key to species groups)
- Moncada E., A. Lord, R.L. Simone Luiz, D. Adjei-Boateng, et al. 2022. <u>Marine surf to</u> <u>freshwater: a molecular phylogeny of Donacidae (Bivalvia: Heterodonta).</u> Invertebrate Systematics 36: 984-1001
- Mortimer, K., J.A. Blake & K. Harrendence 2021. <u>A review of the Magelonidae (Annelida:</u> Polychaeta) of Northeast America, including a description of a new species and re- <u>descriptions of Magelona riojai</u> and Magelona sacculata. Proceedings of the Biological Society of Washington 134(1): 209-242
- Moser W.E., D.J. Richardson, C.I. Hammond, L. Rojas, et al. 2022. <u>Resurrection and</u> <u>redescription of *Clepsine pallida* Verrill, 1872 (Hirudinida, Glossiphoniidae) with a phylogeny of the genus *Alboglossiphonia*. ZooKeys 1127: 135-154</u>
- Nelsen, J.A. & Yee, D.A. 2022. <u>Mosquito larvicides disrupt behavior and survival rates of</u> <u>aquatic insect predators.</u> Hydrobiologia 849: 4823-4835
- Okude, G., T. Fukatsu & R. Futahashi 2021. <u>Comprehensive comparative morphology and</u> <u>developmental staging of final instar larvae toward metamorphosis in the insect order</u> Odonata. Scientific Reports 11: 5164
- Ortiz, M. & I. Winfield 2022. <u>A new deep-sea species of Vemana J.L. Barnard, 1964</u> (Amphipoda, Amphilochidea, Vemanidae) from off southern Gulf of Mexico. Zootaxa 5205
- Ring, N.S. & D.A. Woolnough 2022. <u>Associations between corbiculid and unionid densities and</u> <u>distributions throughout a Laurentian Great Lakes catchment, Michigan, U.S.A.</u> Freshwater Biology 67: 1960-1970
- Rodríguez, P. & C. Lira 2022. <u>A new species of shrimp, genus *Ambidexter* Manning & Chace, 1971 (Decapoda: Processidae), from southeastern Caribbean Sea, Venezuela, with key to genus.</u> Zootaxa 5219



- Thompson, R.E. 2023. <u>Catalog of the Hydroptilidae (Insecta, Trichoptera)</u>. ZooKeys 1140: 1-499
- Turner, R.L., B.D. Graham & J.E. Miller, III 2021. <u>Mithrodia clavigera (Lamarck, 1816)</u> (Echinodermata: Asteroidea: Mithrodiidae) from the central Atlantic Ocean and Gulf of <u>Mexico.</u> Proceedings of the Biological Society of Washington 134(1): 8-26
- Vadher, A.N., S. Watson, R. Copeland-Phillips, L.J. Durrant & P.I. Wood 2022. <u>The effect of increasing fine sediment load and drying duration on the re-emergence of *Gammarus pulex* (Amphipoda: Gammaridae) from the subsurface following flow resumption. Freshwater Biology 67: 1984-1993</u>
- Vences, M., A. Miralles, S. Brouillet, et al. 2021. <u>iTaxoTools 0.1: Kickstarting a specimen-based</u> software toolkit for taxonomists. Megataxa 006(2): 077-92
- Verdes, A., P. Álvarez-Campos, A. Nygren, et al. 2022. <u>Molecular phylogeny and evolution of bioluminescence in Odontosyllis (Annelida, Syllidae)</u>. Invertebrate Systematics 36: 622-630
- Vereycken, J.E. & D.C. Aldridge 2023. <u>Bivalve molluscs as biosensors of water quality: state of</u> <u>the art and future directions.</u> Hydrobiologia 850: 231-256



<u>ANNOUNCEMENTS – PART 2</u>

NEWS: Rob Mattson Retires!



Rob Mattson, former FAB President and current FAB Treasurer, retired November 17, 2023 after a 35-year career with Water Management; 17+ years with Suwannee River and 17+ with St. Johns River. He plans to remain active with Florida water resource issues and has already been invited to serve on a couple of Boards/Committees and will be doing some volunteer work. Rob will continue to teach classes at St. Johns River State College as an Adjunct Professor after a year off, as per Florida State Pension rules.

Rob will continue to serve FAB as Treasurer for at least a couple more years.



Marine Decapod Crustacea, Gary Poore and Shane Ahyong

BOOKS:



<u>A key to Arrenurus spp. (Males) in the FDEP</u> <u>reference collection</u> Based on keys or descriptions in Rutter, 1999



Membership

FAB membership has increased to \$35, effective January, 2022. Click <u>here</u> to become a member today! Your membership is for one year (January 1 through December 31) and are due February 15th of each year. Once registered, you will receive email confirmation of your purchase. If you would like to pay your dues and register for a workshop, you may add them to your cart and they will be displayed as separate items on the receipt for easy bookkeeping. We accept major credit cards, or you may send your check, payable to FAB to:

Rob Mattson, Treasurer 121 Palm Trail East Palatka, FL 32131

REMINDER!!

IF YOU HAVEN'T PAID YOUR MEMBERSHIP DUES FOR 2023 YET, YOU CAN ALSO ADD THIS ITEM TO YOUR CART ON OUR WEBSITE TO RENEW YOUR MEMBERSHIP FOR THIS YEAR (AT \$35). IF YOU NEED TO CHECK ON YOUR MEMBERSHIP STATUS, PLEASE EMAIL ROB MATTSON: <u>yelpmark@att.net</u>





CRUSTACES



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CRUSTACÉS. -- 1. Devis celer: 5. Lethards; 2. Tapinte; 1. Dube manufo; 5. Lana; 1. Caliborte; 7. Partheese: 5. Lana; 1. Lana;