



**37th Annual Meeting of
The Florida Association of Aquatic Biologists
November 6-7, 2023
St. Petersburg, Florida**

**Weedon Island Preserve Cultural and Natural History Center
1800 Weedon Dr NE, St. Petersburg, FL 33702**

Agenda

FAB Executive Committee Meeting

Weedon Island Preserve Cultural and Natural History Center

Monday, November 6, 2023

2:00-3:45

Monday, November 6, 2023

- 8:30-8:45 Welcome, opening statements, and Announcements-Scott Duncan
- 8:50-9:20 Chironomus Found in Florida Birdbaths: Is this the Same Taxon as Chironomus Species "Florida" Epler?, Doug Strom
- 9:20-9:50 Tampa Bay Benthic Infauna and Water Quality – The Importance of Long-Term Monitoring Programs in Evaluating the Environmental Health of Tampa Bay, David Karlen
- 9:50-10:00 Break
- 10:00-10:30 Florida Springs Plant and Algal Survey: Pilot Study, Jessica Patronis
- 10:30-11:00 Weedon Island Preserve Employee presentation
- 11:00-11:30 Occurrence of a Subterranean Mysidacean, *Spelaeomysis cardisomae* Bowman, 1973 (Stygiomysida, Lepidomysidae) in Florida, Wayne Price
- 11:30-1:00 Lunch
- 1:00-1:30 The Solar-Powered Sea Slug *Elysia crispata* has a Broader Diet than Previously Understood, Michael Middlebrooks
- 1:30-2:00 Comparison of Artificial Substrate to Sweep Net Sampling, Craig Duxbury
- 2:15-3:45 FAB Executive Committee Meeting
- 5:00 Social** Duke's Retired Surfer's Island Bar



Tuesday, November 7, 2023

- 08:30-9:30 Welcome, Announcements, Taxonomy fair
- 9:30-10:00 Biomass of native and exotic fish equivalent in a Florida spring, Kirsten Work
- 10:00-10:30 Stomach Content Analysis of the Non-Native Mayan Cichlid (*Mayaheros urophthalmus*) in Wolf Branch Creek Nature Preserve, Adam Cieslik (Student)
- 10:30- 11:00 Prescribed fire effects on aquatic invertebrate emergence and terrestrial invertebrate movement, Coleson Wrege (Student)
- 11:00- 11:15 Break
- 11:15-11:45 Poster Session
- Seasonal Abundance of the Aeolid Nudibranch *Dondice jupiteriensis* in Tampa Bay, Samantha A. Schlegel (Student)
- The Stomach Contents of Invasive Jack Dempsey Cichlids (*Rocio octofasciata*) in Tampa, Florida, Ethan Burka (Student)
- 11:45-1:15 Lunch
- 1:15-1:35 Student and FAB Awards
- 1:35-1:45 Break
- 1:45-2:30 Business Meeting
- 2:30-2:40 Closing Statements and Adjourn

*Presenting Author



Program Session

ABSTRACTS:

Chironomus Found in Florida Birdbaths: Is this the Same Taxon as Chironomus Species “Florida” Epler? Doug Strom

Chironomus Meigen 1803 is a large genus of non-biting midges with about 650 described species; it is the type genus of the family Chironomidae (Diptera). Members of this genus are ecologically diverse with some species being very tolerant of nutrient pollution while other species are found in cleaner waters. *Chironomus* larvae can be numerically dominant in some environments, and thus they can be an important part of the food web. Their ecological diversity makes this genus useful for bioassessment.

Although some species of *Chironomus* are morphologically distinct and relatively easy to determine in all life stages, there are many cryptic species that can only be determined using genetic or karyological methods. Larvae can often only be morphologically determined as species groups or to provisional species names. John Epler uses this strategy in his 2001 opus “Identification Manual for the Larval Chironomidae (Diptera) of North and South Carolina.” Among the provisional species is an unusual larval form he calls *Chironomus* species “Florida,” that is characterized by a modified mentum and by possessing premandibles with 5 teeth (versus the typical 2 premandible teeth characteristic of most *Chironomus* species).

For the last two years I have been documenting chironomid larvae that have been living in my backyard birdbath. I have examined the larvae and I have reared all life stages. These larvae share the characteristic of having more than 2 premandible teeth with Epler’s *Chironomus* species “Florida.” However, there are some key differences between these taxa. The intent of this presentation is to discuss those differences and to argue that these are two distinct *Chironomus* species. Evidence will be provided in this presentation to support this contention.

Tampa Bay Benthic Infauna and Water Quality – The Importance of Long-Term Monitoring Programs in Evaluating the Environmental Health of Tampa Bay.

David J. Karlen*, Thomas L. Dix, Barbara K. Goetting, Anthony Chacour, Sara E. Markham, Kevin W. Campbell, Julie Christian, Joette M. Jernigan, Kirsti Martinez
Environmental Protection Commission of Hillsborough County
3629 Queen Palm Drive, Tampa, FL 33619
karlen@epchc.org

The Environmental Protection Commission of Hillsborough County (EPCHC) has been monitoring the surface water quality in Tampa Bay since 1972. Water samples and hydrographic profiles are collected monthly at fixed station locations throughout Tampa Bay. In 1993, the EPCHC initiated the Bay-wide

*Presenting Author



Benthic Monitoring Program in partnership with the Tampa Bay Estuary Program (TBEP) and Manatee and Pinellas Counties. Benthic sediment samples are collected annually during a late-summer index period (August -September) using a stratified-random sampling design. Samples are analyzed for benthic macroinfauna as well as sediment contaminants and silt/clay composition. Data from both monitoring programs have been used extensively by the TBEP and other agencies for developing management plans for Tampa Bay and evaluating historical trends in the bay's environmental health. This presentation will evaluate long-term monitoring results from both EPCHC programs. Despite different monitoring designs and sampling frequencies, the water quality data and benthic infauna community metrics tend to track each other over time and reflect changing environmental conditions in Tampa Bay.

Florida Springs Plant and Algal Survey: Pilot Study

Jessica Patronis

Florida Department of Environmental Protection

The Florida Department of Environmental Protection is conducting a pilot study comparing bioassessment tools used by FDEP and the St. Johns River Water Management District. Both tools are currently being used to measure plant and algal coverages in aquatic systems. The purpose of the study is to determine the effectiveness of these floral methods in measuring biological response in springs to tract both impairment and improvement of spring systems.

Occurrence of a Subterranean Mysidacean, *Spelaeomysis cardisomae* Bowman, 1973 (Stygiomysida, Lepidomysidae) in Florida

Wayne Price*¹ and Richard Heard²

¹Department of Biology, University of Tampa, Tampa, Florida 33606

²Division of Coastal Sciences, Gulf Coast Research Laboratory Campus, The University of Southern Mississippi, 39564 Ocean Springs, Mississippi 39564 (deceased)

Leptomysidae, a small family of subterranean mysidaceans, contains one genus, *Spelaeomysis*, and 9 species which mostly occur in coastal fresh to brackish groundwater environments. The distribution of these species in the tropics and subtropics from the Indo-West Pacific westward to the Eastern Pacific suggests a Tethyan origin for this group. *Spelaeomysis cardisomae*, a stygophile, was described from pools of sea water (31.6 psu) in burrows of land crabs (*Cardisoma crassum*) in Peru and reported from burrows (*C. guanhum*) and caves in the western Caribbean in 1973. Since 1986 25 specimens have been collected with benthic grabs or plankton nets from coastal rivers and estuaries (<1.0-33 psu) along the west and east coasts of Florida. The sources of these specimens may have been flowing wells and springs adjacent to the rivers and estuaries. No *S. cardisomae* have been recovered from crab burrows in Florida although few burrows have been sampled. Despite the widespread distribution of this species, no distinct morphological differences between the Pacific and Atlantic populations have been found. To date no specimens have undergone molecular analysis. The ecology and distribution of *S. cardisomae* raises some puzzling questions. Are individuals flushed from free-flowing wells and springs into surface waterways? How do specimens gain entry into and survive in crab burrows? If the Pacific and Atlantic groundwater populations represent the same species, how is this widespread distribution explained?

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Hypotheses that attempt to answer these questions will be discussed, but additional research is needed to further reveal the biology of this enigmatic species.

The Solar-Powered Sea Slug *Elysia crispata* has a Broader Diet than Previously Understood

Michael Middlebrooks^{1*}, Nicholas Curtis², Sarah Wilson¹, Kourtney Barber³

1. The University of Tampa
2. Ave Maria University
3. University of South Florida

The Sacoglossan sea slug *Elysia crispata* inhabits a variety of coastal shallow habitats in the Caribbean and Florida Keys. This slug is capable of gaining most of its nutrition via photosynthesis by utilizing chloroplasts stolen from its algae food, a process known as kleptoplasty. Depending on the algae source, *E. crispata*, can maintain photosynthesis for 3-4 months after feeding. Unlike many slugs capable of long-term kleptoplasty, which are oligophagous feeding on one or a few closely related species of algae, *E. crispata* has a much wider range of potential algae food sources. Previous studies have determined their diet using field surveys, laboratory experiments, and Sanger sequencing for DNA barcoding. Here we combine traditional field surveys with high throughput genomic sequencing to estimate population size and determine the diet of slugs on a shallow coral reef in the Florida Keys. We found that this reef supported a large year-round population of the slugs, but macroalgae abundance at a site and Sanger sequencing both underestimate the breadth of diet of *Elysia crispata*. In this study most slugs were primarily feeding on filamentous algae which is easily overlooked in surveys and difficult to identify in the field. Furthermore, genomic sequencing identified algal species that were missed using traditional Sanger sequencing methods. This study highlights the value of combining high throughput genomic sequencing with traditional surveys to yield new insights into sacoglossan ecology.

Keywords: Symbiosis, Kleptoplasty, Herbivory, Plant-Animal Interactions, Gastropod

Title: Comparison of Artificial Substrate to Sweep Net Sampling

Craig Duxbury

WSP

Biomonitoring is used to assess the health of ecosystems. Assessing water quality using macroinvertebrates is well standardized and is robust. Two general methods are typically used for freshwater monitoring: one is to use artificial substrates, and the other is based on sampling a wide range of range of habitats using sweep netting. For long-term monitoring programs, it is important to sample using consistent methods. However, sampling methods change over time due to changes in resources, or goals of the program, or improvements in methods. To assess long-term changes, it is important to understand results between methods. In this presentation, I will compare the results of simultaneous sampling using artificial substrates and sweep nets. These data are from the FLDEP 5th year wastewater assessment. In these programs, Hester-Dendy (HD) artificial substrates and sweep net sampling is conducted upstream (or from a reference site) and downstream of wastewater inputs. In addition, water quality and habitat measurements are measured.

*Presenting Author



These results showed that N and P concentrations and specific conductance were higher in the downstream sites but habitat scores were similar. A total of 533,842 organisms were identified, representing 377 taxa, collapsed upward to 212 taxa. Chironominae were the most abundant organism, representing half of the total abundance. Oligochaeta accounted for another 19%. Differences in macroinvertebrate metrics between the HD and the sweep net sampling were greater at the reference sites. For the major macroinvertebrate orders, results were similar between HD and sweep net sampling methods between upstream and downstream sites. The HD sampling resulted in greater abundances of Diptera, Ephemeroptera, and Trichoptera. Dipnet sampling resulted in greater taxa richness of the major Orders. Differences in the assemblages were driven by these differences. These results provide information on results using two different sampling methods for macroinvertebrates in streams of Florida.

Biomass of native and exotic fish equivalent in a Florida spring

Emily Thompson and Kirsten Work*, Stetson University, DeLand, FL 32724

Florida springs face a triumvirate of threats, as do many freshwater systems: declining water supply, worsening water quality, and invasions of nonnative species. Nonnative species can change native species abundances through predation, competition, hybridization, ecosystem engineering, and more pernicious effects on ecosystem processes. In this study, we evaluated the biomasses of native and exotic fish in Volusia Blue Spring, a first magnitude spring in east-central Florida famous for its role as a refuge for manatees in the winter. The spring hosts five regular exotic fish species, blue tilapia, sailfin suckermouth catfish, grass carp, pirapitinga, and chanchita, many of which move into and out of the spring run, perhaps daily. The larger fish are primarily restricted to the lower portion of the run, so we measured fish biomasses at two sites: one relatively close to the headspring and one down closer to the river into which the spring flows. The fish varied greatly in size and catchability, so we used two methods of evaluating their number and size. At each site, we first snorkeled the entire area and counted all fish that we knew that we would be unable to catch (large sunfish, bass, bowfin, etc.). For the smaller fish (poeciliids, fundulids, shiners), we collected fish with a 3 x 2 m seine at four stations within each site. We identified and measured each fish with a small ruler. For the larger fish, we collected video of the fish with a GoPro camera mounted to a board with two laser pointers attached in parallel at 7 cm apart. At each site, we swam the entire area and pointed the lasers at each large fish while filming with the GoPro. Back in the laboratory, we measured all fish that were perpendicular to the screen with two visible laser points and the distance between these laser points. We adjusted the fish measurements with the ratio of the real distance of 7 cm and the distance between the points on the screen. We calculated fish abundances at each site, entered the fish lengths into length-weight regressions, and calculated the biomasses by multiplying the abundances by the average weight of each species. We took these measurements over the course of 6 weeks in summer 2023, but we combined these data with data collected in fall 2020, fall 2022, and spring 2023. For all taxa in aggregate, fish were more abundant upstream and native fish were much more abundant than exotic fish, particularly upstream. The patterns in biomass were somewhat reversed. Fish biomass was lower upstream than downstream, but the biomasses of native and exotic fish were not significantly different. Therefore, fish

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counts undoubtedly underestimate the problem that exotic fish pose in Volusia Blue Spring. Because resource use and waste production are likely to be correlated with body size, biomass may be a better predictor of the effect of exotic species than counts alone.

Stomach Content Analysis of the Non-Native Mayan Cichlid (*Mayaheros urophthalmus*) in Wolf Branch Creek Nature Preserve

Adam Cieslik*, Dr. Mark McRae
The University of Tampa

The Mayan Cichlid (*Mayaheros urophthalmus*) is a tropical fish native to Central America and southern Mexico. This aggressive cichlid, first recorded in 1983 in the Everglades, also has established and expanding populations in the Tampa Bay watershed. To better understand this fish's potential impact on native flora and fauna, a stomach content analysis was conducted. As in their native and introduced ranges, Mayan Cichlids in Wolf Branch Creek Nature Preserve near Tampa Bay were documented to be generalist omnivores – dipterans (adults, larvae, and pupae), gastropods, micro and macro crustaceans, actinopterygians, fish scales, macroalgae, and cyanobacteria were found in varying number, mass, and occurrence in 72 individuals. Due to the variety of prey types consumed, Mayan Cichlids may be competing with native fishes, especially considering their populations are expanding. Indeed, their omnivorous trophic ecology is likely facilitating their expansion in Tampa's freshwater and estuarine habitats. Additionally, some previous studies documented an increased presence of fishes in the stomachs of larger Mayan Cichlids both in their native and introduced ranges. In Wolf Branch, however, no such relationship was observed. There was no correlation between fish length and the proportion of vertebrate prey (e.g., fish) to invertebrate prey (e.g., insects) found in the stomachs of Mayan Cichlids collected at this site. The abundance of invertebrates in the stomachs of juvenile and adult Mayan Cichlids suggests potential competitive impacts on native species that also prey on invertebrate food sources. Future work, therefore, will explore possible dietary overlap between Mayan Cichlids and native Centrarchids in habitats where their populations coincide.



Prescribed fire effects on aquatic invertebrate emergence and terrestrial invertebrate movement

Coleson F. Wrege*¹, Raelene M. Crandall², Alexander J. Reisinger³, Shirley M. Baker¹, and Lindsey S. Reisinger¹

¹ Fisheries and Aquatic Sciences, School of Forest, Fisheries, and Geomatic Sciences, University of Florida, Gainesville, FL.

² Forest Resources and Conservation, School of Forest, Fisheries, and Geomatic Sciences, University of Florida, Gainesville, FL.

³ Soil and Water Sciences Department, University of Florida, Gainesville, FL.

Prescribed fire is widely used for the restoration and maintenance of terrestrial ecosystems in the southeastern USA. Fire can alter freshwater ecosystem nutrient dynamics and resources at the base of the food web, which can then influence insect emergence and the resources available to riparian consumers. Most of the knowledge of the impacts of fire comes from studies in the western USA. However, results from western fires are not analogous to southeastern prescribed fires due to differences in fire intensity, seasonal precipitation, timing of vegetation recovery, and impacts to soil. Thus, more research on the effects of prescribed fire on freshwater macroinvertebrate communities, adult insect emergence, and movement of riparian insects is needed to further understand the ecological effects of this management tool in southeastern pine savannas. This study examined prescribed fire effects on wetland macroinvertebrates in the southeastern pine savannas of Florida through (1) field observations of adult invertebrate movement in response to fire and (2) a laboratory experiment investigating how burned material impacts larval insect survival, emergence, and biomass. We hypothesized (1) that adult invertebrate movement would decrease following prescribed fires as vegetation was reduced, then would increase as vegetation recovered. We hypothesized (2) that burned litter in microcosms would lead to quicker emergence, survival, and biomass in the light treatment, but would lead to delayed emergence and decreased survival and biomass in the dark treatment. We also hypothesized (2) that burned litter additions would have the strongest impact, followed by mixed litter additions, then unburned litter additions. We measured the movement of adult invertebrates at six paired wetlands (half burned and half not burned) in Austin Cary Forest with pan traps and sticky traps placed along two transects perpendicular to wetlands. We measured vegetation (fuel loading) directly in front of each trap. Traps were placed for three days at a time two weeks before burning then two weeks, one month, and two months after burning. Preliminary analyses suggest that invertebrate abundance varied through time and patterns were distinct in burned and unburned locations. The laboratory microcosm experiment measured the effects of different litter additions (burned, mixed, and unburned) by light treatment (dark vs light) on chironomid survival, emergence, and biomass. Larval chironomids (*Chironomus* sp.) were collected from a wetland and placed in microcosms (150mL) with conditioned sediments. A few days later, litter was added to each treatment (dark or light x burned, mixed or unburned) and the experiment was left to run for 2 months. Microcosms were checked daily, and the size, sex, and length of emerged adults were recorded. Preliminary data suggest that midges emerged earlier in the light treatment but that there was a delay in midge emergence in the dark treatment. These data indicate that prescribed fire impacts invertebrates in the riparian zone and that fire-mediated terrestrial-aquatic linkages are context-dependent.



The Stomach Contents of Invasive Jack Dempsey Cichlids (*Rocio octofasciata*) in Tampa, Florida

*Ethan Burka, Dr. Mark McRae
The University of Tampa

Jack Dempsey cichlids (*Rocio octofasciata*) are a freshwater fish native to Southern Mexico through Honduras. This species has been reported in Florida since 1976, but has not maintained established populations for long periods of time. Recently found in the Tampa Bay area, their potential impact is unknown due to their ill-understood invasion ecology. Given the general ecological similarities between invasive cichlids and native Centrarchids, Jack Dempsey's should be considered a species of concern when it comes to competing with native fishes. In order to help determine the impact that these invasive cichlids may have on their novel environments, we analyzed the stomach contents of 53 Jack Dempseys that were captured in a nature preserve 20 miles from downtown Tampa, within the Alafia River watershed. The fish were found to be eating an omnivorous diet primarily comprised of arthropod prey items. These preliminary results indicate a degree of potential overlap with invertebrate-eating native species.

Seasonal Abundance of the Aeolid Nudibranch *Dondice jupiteriensis* in Tampa Bay

Samantha A. Schlegel*, Erika N. Molina, Julia R. Piper, Louis J. Ambrosio, Daniella Gutierrez-Andrade, and Michael L. Middlebrooks
Department of Biology, The University of Tampa, 401 W Kennedy Blvd Tampa, Florida 33606.

For many marine invertebrates basic life history information such as seasonality and abundance is unknown. Aeolid nudibranchs are a group of carnivorous sea slugs which ingest and sequester nematocysts from their cnidarian food sources. The recently described aeolid nudibranch *Dondice jupiteriensis* is native to Florida and feeds on several species of hydroids. The aim of this study is to observe the seasonal abundance of *D. jupiteriensis* in Tampa Bay where it lives and feeds on the hydroid *Eudendrium carneum*. Four colonies of *E. carneum* were collected each month from the Skyway Bridge in St. Petersburg, FL. The hydroid colonies were closely analyzed for the presence of *D. jupiteriensis* and any other heterobranch sea slugs under a dissecting microscope. Each sea slug discovered was photographed and its length measured. The summer had the highest density of *D. jupiteriensis* with the smallest mean body length. Late winter had the opposite trend in density and length. Additionally, a total of 14 different species of sea slugs were identified on *E. carneum* during this study. This study represents a valuable addition to understanding the life history, seasonal abundance, and diversity of understudied organisms living on these hydroid communities in Tampa Bay.



Contributions to Florida Aquatic Biology Award

Russel Frydenborg

Born in Miami, and graduating from FSU, Russ served the public at the Florida Dept. of Environmental Regulation (later named Environmental Protection) for 35 years. During that period, he had several job titles, ranging from Engineering Technician in the Biology Laboratory to statewide Program Administrator of the Water Quality Standards Program. Upon retirement from FDEP, he created an environmental consulting business, where he has worked the past 10 years.

During his career, he contributed to:

- Revisions to Water Quality Standards Rule (Chapter 62-302, F.A.C.), including Numeric Nutrient Criteria (NNC), Dissolved Oxygen (DO) criteria, biological health criteria, and human health-based criteria. Served as expert witness.
- Impaired Waters Rule (IWR) (Chapter 62-303, F.A.C.) development and expert witness, and Total Maximum Daily Load (TMDL) environmental studies.
- Biological Criteria development, including the Stream Condition Index (SCI), Lake Vegetation Index (LVI), Rapid Periphyton Survey (RPS), Linear Vegetation Survey (LVS), and Wetlands Condition Index (WCI). Served as principle author of SCI Primer Document. Conducted comprehensive re-evaluation of Lake Vegetation Index, including revised lake classification system, new stressor identification procedure, revised human disturbance gradient, and creation of eleven new LVIs.
- Coordination of the Marine Numeric Nutrient Criteria Technical Advisory Committee and authored "Approaches to Numeric Nutrient Criteria Development in Florida's Marine Waters" and "NNC Report to the Governor and Legislature".
- Everglades TP criterion development, served as an expert witness. Co-authored/edited SFER chapter on mercury and sulfur. Authored Everglades biological assessment/TP criteria case study for USEPA Bioassessment in Wetlands Workgroup.
- Creation of FDEP sampling plans for FDEP contributions to Deepwater Horizon NRDA assessments.
- Design of south Florida canals study, conducting pilot water quality and biological sampling, and training FDEP staff in canal sampling methods.

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- Evaluation of Everglades Agricultural Area Best Management Practices for TN reduction.
- Quality Assurance Rule (62-160) development, including adoption of comprehensive Statewide Standard Operating Procedures (DEP SOPs).
- Governor Bush's Springs Initiative by serving on the committee and conducting springs biological and water quality monitoring in numerous Florida springs.
- Chairing the Deadhead Logging Technical Advisory Committee, conducting Forestry Best Management Practices (BMP) Effectiveness Study.
- Creation of the FDEP Fifth Year Bioassessment Program for National Pollutant Discharge Elimination System (NPDES) permitting, and was involved in major permitting decisions.

Russ always believes that scientists should support one another by sharing knowledge, expertise, and the expectation that we allow science, not politics, to govern our evidence-based decisions. FAB has always been a good vehicle to support this philosophy.



*Presenting Author



CONTRIBUTIONS TO FAAB AWARD



Mark J. Wetzel

The 2023 Contributions to FAAB Award is presented to Mark Wetzel.

Mark's primary goals and reasons for joining and maintaining membership in FAB have been:

- to promote taxonomy and systematics of aquatic macroinvertebrates, especially oligochaetes and leeches, and
- serve as a liaison between the North American Benthological Society/Society for Freshwater Science, and FAAB, including the sharing of bibliographic compilations he contributed to the annual NABS/SFS Bibliography as a member of the society's Literature Review Committee (1978–2016);
- serve as a liaison between the International Symposium on Aquatic Oligochaete Biology group and FAAB; Mark has participated in all 15 triennial meetings of this group (1979–2022), and served as General Secretary of the group from 2007–2022;
- and being the unofficial/occasional paparazzi for FAAB, taking pics of the meetings, workshops, field trips, and gatherings – although Dana Denson and many others have also taken and shared meeting pics.

Mark was employed by the Illinois Natural History Survey (now a sister agency in the Prairie Research Institute at the University of Illinois Urbana-Champaign) from February 1972 until retirement from full time employment in June 2014; he continues part-time employment there through the present – editing biological surveys and assessment reports, serving as the curator of the INHS Annelida Collection, and working on unfinished manuscripts.

Mark became a member of FAB in early 1988. Mark thinks the connection to FAB began as such: Mike Milligan and Mark had been classmates in two undergrad biology classes at the

*Presenting Author



Univ. Illinois in 1971, but lost track of each other after graduation until meeting up again at the 3rd International Symposium on Aquatic Oligochaete Biology in Hamburg, Germany in 1985, [surprising each other with our similar foci on aquatic annelids]. Soon after, Mike shared the upcoming birth of FAB with Mark, encouraging him to join. During 1987, Mike and Mark, already planning to participate in the upcoming, 4th International Symposium on Aquatic Oligochaete Biology (that would convene at Louisiana State University in Baton Rouge in the spring of 1988) thought it would be a great idea to encourage some of the members of the international symposium group to collaborate in presenting an introductory course on freshwater and marine oligochaetes at the upcoming FAB meeting at Mote Marine Lab....convening the week after the international meeting in Louisiana. We were fortunate that several of our international oligochaete colleagues were interested/excited to continue their stay in the U.S., and to present what would be the 4th North American Aquatic Oligochaete workshop.



Participants at the 4th North American Symposium on Aquatic Oligochaete Biology – Mote Marine Laboratory, Sarasota, Florida, USA, March 1988. Host: Michael R. Milligan

Personal statement from Mark to participants in this Nov 2023 annual FAAB meeting:

To my esteemed perennial friends and colleagues here today – those I have had the distinct pleasure of knowing through FAAB since I became a member, those with whom I have collected over the years, and to those whom I have not yet met:



I am humbled and most appreciative of this recognition, thankful to have been a long-time member of this great group, and for being invited to participate and to present during meetings and workshops. As one who has loved being outdoors, especially to escape the fast pace of daily activities whenever the opportunity for field work, travel, camping and collecting – FAAB and its members have elevated the enjoyment and positive memories of each of my visits to Florida. It is truly amazing how well members have worked diligently over the years to organize and present excellent meetings and workshops. My request and challenge to all younger members of FAAB here today, and for you to share with those who could not be present, is to become more involved in all aspects of this association. The viable future and success of FAAB is dependent upon each of you – to collaborate with current members to promote the scope and missions of FAAB, and to actively recruit biologists with whom you interact to consider sustained membership.

I thank you for this recognition, and again humbled to follow many others who were most deserving of this recognition in past years. My warm regards are extended to Jen Bernatis, Broughton Caldwell, Jenn Davenport, Dana Denson, Gloria Eby, Linda and John Epler, Dave Evans, Mike Heyn, Dave Karlen, Palmer Kinser, Joolz Knight-Gray, Laura Line, Rob Mattson, Ford Walton, Russ Frydenborg, Shannon McMorrow, Marc Minno, Peggy Morgan, Marianne and Eric Pluchino, Wayne Price, Andy Rasmussen, Bob Rutter, Mary Szafraniek, Doug Strom, Gary Warren, and so many others whose names escape at the moment [apologies....]. Again, Thanks very much!

Mark



*Presenting Author