Education Section of The American Fisheries

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Winter 2018 Newsletter



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Presidents Line

Mark Fincel

Greetings from South Dakota. In this issue, you will read updates from many of our committee chairs as well as information on the awards we present on an annual basis. There are also several updates from student subsections – a great read and my initial thoughts were "what an amazing impact AFS is presenting to local communities through their student subunits". Great job students! This is also a callout to the Chapters and Divisions to continue to provide support to allow these subunits to make a difference within the communities they represent. I also present some information on the formation of a new committee started just this fall following the annual meeting in Tampa, FL. If you missed the meeting, the minutes are enclosed in this issue and also will be posted on the website in the newsletter archive. Please peruse those and let us know if you spot changes that need to be addressed and we will motion to accept those minutes during the 2018 meeting in Atlantic City, NJ.

First, I want to warmly welcome the new officers to the Education Section. Trent Sutton (University of Alaska, Fairbanks) was voted in to serve as president-elect. Trent brings a wealth of knowledge from Universities throughout the Midwest and the west coast. Marty Hamel (University of Nebraska, Lincoln) was voted in to serve as secretarytreasurer. Marty was gracious enough to serve as interim secretary/ treasurer after Ty Wagner stepped down a year ago so the transition has been seamless. So far, these two have been great to work with and I look forward to many more years sitting side-by-side with them. Also new to the Education Section, Jesse Fischer (Southern Division Rep) and Alf Haukenes (Western Division Rep) – welcome!. Next Summer, we will be soliciting requests for nominees for representation from the Northeast and Northcentral divisions – be on the lookout!

There is some exciting news from the Student Subsection found within the article. One substantial change that will be voted on in





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Presidents Line

the coming weeks by the AFS management committee (or already decided depending on timeline), is the change in title from "Student Subsection" to "Student and Early Career Professional Subsection". By promoting early career professionals in the subsection, it will ease the transition of officers from students to young professionals as most officers start their term as students and end as early career professionals. This change will also facilitate dialogue between active students and newly hired professionals. We think the two groups have much to offer one another so promoting inclusion would aid in this interchange.

I also wanted to take time to visit about the new committee formed by the Education Section this fall. The experiential learning opportunities students have are particularly important to me as I bridge the gap of educator and fisheries manager. The "Experiential Learning Committee" was created in an effort to document and improve the experiences undergraduates have during the many internship opportunities they embark on during their undergraduate career. Mike Barnes (McNenny Fish Hatchery - South Dakota) and Amanda Rosenberger (USGS Coop Unit – Tennessee Tech) both agreed to be the initial co-chairs of the committee. They both offer a very unique look at internship opportunities from their vastly different backgrounds. Their charge, at least initially, is to review internships opportunities offered throughout North America. Then, set up new and exciting ways to improve these opportunities. Preliminary brainstorming has ensued and exciting opportunities are no doubt going to be rolling in through the coming years. Coming to the surface already, is the interplay between the university and the hiring agency and what both entities can do to facilitate active learning on the students behalf. Because this committee is new, they have a clean slate and can pursue any direction for said improvements. They are currently working on a breakout article that they will submit to Fisheries in the coming months. If you are interested in the committee, or wish to send the chairs questions/comments, feel free to contact them at Mike.Barnes@state.sd.us or arosenberger@tntech.edu. I hope you enjoy this Education Section newsletter and I want to thank you all for the services you contribute. As always, don't hesitate to contact me if you have any questions, concerns, or ideas. And FYI, two summers ago my son caught that respectable catfish on a 24 inch Mickey Mouse rod! That 1 experience made him an angler for the day, week, season, and foreseeable future – please take time to take a youth out to enjoy our passion.

Warm regards,

Mark Fincel

Mark.Fincel@state.sd.us







Missouri AFS Ramps Up Their Education Efforts!



The Continuing Education Committee for the Missouri Chapter of AFS (MOAFS) has been working to host the Student Job Fair at the 2018 Missouri Natural Resources Conference. This Job Fair includes a Career Workshop that will provide students information about the careers available in the natural resources field, the educational requirements of these positions, and interviewing tips. Following the Career Workshop students can attend a Speed Networking session to talk directly with professionals about their experiences and what helped them find their path to a career in natural resources. The Job Fair concludes with a Resume Review and Job Openings session to help students improve their resumes and talk to employers with current or upcoming jobs.



The MOAFS Continuing Education Committee continues to work as part of the North Central Divisions' Continuing Education Committee to host an "Introduction to Fisheries Analysis in R" workshop at the upcoming Midwest Fish and Wildlife Conference. This course is being taught by Derek Ogle and will provide students with and excellent overview of this software and its application to fisheries science. This group has also established the "Knowledge Seeker Award" which provides funds to offset the cost of educational courses for students. Funds are awarded three times each year, additional information can be found at: https://ncd.fisheries.org/continuing-education/.

Aquatic Resources Education Association Conference

The Aquatic Resources Education Association (AREA) is the professional organization of people that promote, through sound educational practices, stewardship and responsible use of aquatic resources, fisheries, and habitats to enhance the quality of life for current and future generations. AREA meets every two years. Don't miss the 2018 conference, October 22-26, 2018 at Lake Tahoe, CA, see : <u>https://areanet.org</u>.





Hutton Junior Fisheries Biologist Program-History and Update



The Hutton Junior Fisheries Biology Program was approved in 2000 by the AFS Governing Board and named after the American Fisheries Society's first executive director, the late Dr. Robert F. Hutton. The Hutton Program offers scholarships to select high school Juniors and Seniors interested in biological, environmental, and fisheries science. Students are matched and mentored by established fisheries professionals for an exciting eight-week hands-on summer experience in a marine or freshwater setting. The principal goal of the Hutton Program is to stimulate interest in careers in Fisheries science and management among groups underrepresented in the fisheries professions, including minorities and women. We aim to di-

versify the fisheries profession one generation at a time.

Our supporters are the true heroes making it possible for AFS to offer this program to students across the nation. With this support and generosity, our program has been going strong for 15-plus years, offering scholarships to over 600 students through the years. Funding comes in the form of donations from agencies like NOAA, Bureau of Land Management, and USDA Forest Service, to individual donations from our members. If you are interested in donating to the Hutton Program, please visit <u>www.fisheries.org</u>.



We are now accepting applications for students and mentors for the 2018 Hutton program, beginning in June. <u>The application deadline for both is February 28th.</u> Please visit <u>hutton.fisheries.org</u> for more information.



Annual Business Meeting Mintues August 20, 2017; Tampa, Florida (5-7 pm) Florida Salon IV, Tampa Marriott Waterside Hotel & Marina

Call to Order Mark Fincel called the meeting to order at 5:09 p.m.

- II. Introduction of Guests Fincel recognized the Past-Presidents of the Education Section in attendance.
- III. Determination of a Quorum A quorum (10% of membership) was present and confirmed by Sutton (> 50 members were in attendance).
- IV. Approval of Agenda Fincel introduced the agenda, which was approved with no changes (agenda was approved unanimously). Fincel pointed out that a few copies of the agenda and treasurer's report were available to attendees in the back of the meeting room along with a sign-up sheet.
- V. Approval of Minutes from 2016 Business Meeting The minutes were available to the membership on the Section webpage and in the Section Newsletter. Minutes were approved with no changes (minutes were approved unanimously).
- VI. President's Comments (Katie Bertrand/Mark Fincel) Fincel reported on behalf of President Katie Bertrand; in short, she basically thanked the section for the opportunity to serve over the past six years.
- VII. Treasurer's Report (Marty Hamel/Mark Fincel) Fincel reported for Interim Secretary-Treasurer Marty Hamel who could not attend the meeting. The Section had two C.D.'s that matured in May 2017. Income from the past year was \$107,000, which is misleading because part of that was due to cashing out one of the C.D.s. It was voted in the business meeting last year that \$20,000 would be taken from one of the C.D.s and transferred to the AFS investment account. Those transactions are both outlined in the financial summary report. The other C.D. was renewed and is currently held with Wells Fargo. Jason Vokoun brought up that the Excellence in Fisheries Education Award was increased from \$1,000 to \$2,000 starting in 2013; however, it looks like the recipients have only been receiving \$1,000. Fincel said that he would check into it by talking to Hamel. Hamel is also putting together a committee to examine ways to invest section funds and



IX. Committee Reports

Newsletter (Hilary Meyer, Katie Schlafke)

Meyer reported that the newsletter comes out twice a year. Will focus on different divisions/revisions of the society, would focus on where the meeting is going to be located.

Web Page (Steven Ranney)

Fincel reported for Ranney that the Education Section's webpage is chugging along. Update requests from members roll in periodically--mostly as additions or changes to the awards pages--but beyond that and the yearly officer changes, the content is pretty static.

Excellence in Fisheries Education Award (Trent Sutton)

Sutton thanked the committee members for their service, and stated that he is looking for a committee representative from the Northeastern and Southern Divisions and the Student Subsection. Sutton noted that it is not too early to be looking for potential award nominees for next year or future years. There were six nominees for the award this year, and this year's recipient was Dr. Lisa Eby from the University of Montana. Sutton noted the credentials of Dr. Eby and her accomplishments as an educator. Eby was in attendance and stated how much she enjoys teaching/ advising and how great it is to be acknowledged for this award.

Skinner Award (Julie Harris)

Harris started by acknowledging the Skinner Award Committee. For the 2017 Skinner Award, Harris reported that there were 64 applications from 44 colleges and universities. There were a lot of very qualified applicants and the judges had a hard job selecting winners. Below are the 10 award winners and 5 honorable mentions (in alphabetical order):

David Fryxell	Winner	University of California Santa Cruz
John Hargrove	Winner	University of Florida
Hae Kim	Winner	Virginia Tech
Zachary Klein	Winner	University of Idaho
Michael Moore	Winner	University of Missouri
Vaskar Nepal	Winner	Virginia Institute of Marine Science
David Schumann	Winner	South Dakota State University
Jessica Valenti	Winner	Rutgers University
Daniel Weaver	Winner	University of Maine
Douglas Zentner	Winner	University of Wisconsin - SP
Kevin Fraley	Honorable mention	University of Canterbury
Zach Morris	Honorable mention	University of Missouri



Lucas Nathan	Honorable mention University of Connecticut
Brendan Runde	Honorable mention NC State University
Charles Waters	Honorable mention University of Washington

Following their introduction, a photograph was taken of those individuals in attendance.

Best Student Paper-Poster 2016 Awardees (Dan Shoup)

Shoup announced that the BSP co-chairs this year were Mark Fincel, Amanda Rosenberger, and himself. Last-years award winners were:

- Oral presentation winner Casey Grieshaber (North Carolina State University) "Relation of intersex and fish health to contaminants in riverine fishes"
- Oral presentation honorable mention Philip Branigan (University of Idaho) "Effects of habitat rehabilitation activities on fish assemblages and populations in the Kootenai River, Idaho"
- Poster presentation winner Morgan Corey (University of Southern Mississippi) "Ovarian development and maturity of southern flounder in the North-Central Gulf of Mexico"
- Poster presentation honorable mention Julia Guyton (University of Missouri) "Don't put a fish out of water: developing sampling protocols to integrate fish into wetland management decisions"

Best Student Paper-Poster 2017 Symposia (Dan Shoup)

This year had 17 oral and 19 posters submitted. Eight judges ranked these to narrow list to 12 oral and 14 poster presenters that will compete this week. Fifteen volunteers (seven oral presenters, eight poster presenters) will conduct the judging, Shoup thanked all of the judges for their efforts.

Early Career Professional Awardees (Dan Dembkowski)

Fincel gave the report on behalf of Dembkowski who was not able to attend the meeting. The Early Career Professionals Travel Award was established to promote attendance of recently graduated professionals at the Annual Meeting who have made substantial contributions to the field through continued education, outreach, and AFS service. The Award provides up to \$1,000 in travel support to attend the Annual Meeting. The Committee solicited applications through several outlets including emails to the general membership, announcements in the Education Section newsletter, and posts on social media pages. This year, the Committee received applications from eight well-



qualified individuals. As usual, the judges faced a tough decision but three applicants stood out above the rest. Fincel recognized the following three individuals as recipients of the 2017 Early Career Professionals Travel Award:

- 1) Cari-Ann Hayer (U.S. Fish and Wildlife Service Green Bay, WI)
- 2) David Deslauriers (Department of Fisheries and Oceans Winnipeg, Manitoba, Canada)]
- 3) Rebecca Krogman (Iowa Department of Natural Resources Chariton, IA)

Following their introduction, a photograph was taken of those individuals in attendance. All three will receive \$1,000 for meeting travel expenses and will provide a writeup of their meeting-related experiences.

Membership & Early Career Professional Committee (Dan Dembkowski)

- The primary roles and responsibilities of the Membership and Early Career Professionals Committee (hereafter, Committee) during the 2016-2017 business year, as identified during the 2016 Education Section Business Meeting in Kansas City, Missouri were to:
 - 1) Solicit applications from Early Career Professionals (AFS members ≤ five years from graduation) and select recipients of the 2017 Early Career Professional Travel Award, and
 - 2) Develop a means to honor recipients of the Excellence in Fisheries Education Award.
- In regard to developing a means to honor recipients of the Excellence in Fisheries Education Award (EFEA), the Committee plans to follow the model used by the Fisheries Management Section to honor members of the Fisheries Management Section Hall of Excellence. Specifically, we will conduct and record interviews with past recipients of the Excellence in Fisheries Education Award and make them available in a virtual framework on the Education Section webpage. The Committee is currently coordinating with personnel at each EFEA recipient's institution to arrange and conduct interviews; the first round of interviews will be conducted during fall/winter, 2017-2018. In addition to the recorded interviews, the Committee is working to develop a genealogical tree for each EFEA recipient. The genealogical tree will identify EFEA recipients and accomplishments, their students and associated accomplishments, their student's students and associated accomplishments, etc. and will demonstrate the far-reaching influence that each EFEA recipient has had in educating cohorts of fisheries professionals. Once completed, the genealogical tree will be made available as an interac-



tive application on the Education Section webpage.

Nominating (Craig Paukert)

Election of new Division Representatives, Secretary-Treasurer, and President Elect: Southern Division Rep: Paukert announced the election results: Jesse Fischer (Southern Division Representative), Alf Haukenes (Western Division Representative), Marty Hamel (Secretary-Treasurer), and Trent Sutton (President-Elect). Next year will look for Northeast and Northcentral Division representatives. Always looking for nominees.

X. Ad-hoc Committees and Special Projects

Inter-section Committee on Education (Trent Sutton)

Sutton acknowledged the committee membership and discussed the proposed changes to the professional certification guidelines (these changes were highlighted in the summer issue of the newsletter). He also discussed activities regarding program accreditation, which is focusing strictly at this point on a revision to the Careers in Fisheries brochure. There was some discussion regarding the professional certification guidelines proposal (Melissa Wuellner, Jim Reynolds, Tom Kwak, Jason Vokoun, Mark Fincel), particularly toward more specializations in some areas (e.g., aquaculture).

AFS Special Committee on Research on Wild Aquatic Vertebrates (Steven Cooke) No report because Cooke was not in attendance.

Undergraduate Travel Assistance Award (Clint Lloyd)

Lloyd reported that no awards were given out. Lloyd reported the following: Undergraduate Travel Assistance Award recipients (Affiliated school; Advisor) were as follows:

- (1) Ashley Fredricks (Georgia Gwinnett College; Peter Sakaris)
- (2) Peter Jenkins (West Virginia University; Kyle Hartman)
- (3) Melinda Gosselin (University of Connecticut; Eric Schultz)
- (4) Tyler Plum (West Virginia University; Patricia Mazik).
- A photograph was taken of the recipients and each will receive \$500 for meeting travel.
- XI. Additional Reports

Student Subsection (Clint Lloyd)

Lloyd also announced a proposed amendment to the Subsection bylaws and invited members to Subsection Business Meeting (Tuesday, 8/22/17 @ 1:00 pm in Marriott Florida Room 1) to hear in detail about the activities of the Subsection during the last year.



XII. Other Awards and Recognition

Out-going Division Representatives and Officers: Paukert acknowledged outgoing President Katie Bertrand, Michael Colvin (Southern Division Representative), and Jeff Falke (Western Division Representative) for their service as Division Representatives. Colvin was in attendance and received the award, Bertrand and Falke did not attend the meeting. Paukert also acknowledged Marty Hamel for serving as Secretary-Treasurer.

- XIII. Old Business
- Rebecca Krogman noted that she would start to document certification and associates programs in Fisheries.
- Tom Kwak asked about the number of recipients to receive Skinner Awards and setting aside a certain number for master's students. No one was sure because it was not clear on how much was available from the endowment. Need to check last year's minutes.
- XVI. New Business and Announcements International Fisheries Section, FSBI Fellowship Award Partnership (Julie Claussen)
 - Claussen reported that the International Fisheries Section participates in an exchange program with the Fisheries Society of the British Isles. Each year a student or young professional member of each Society is selected as a Fellow and they are provided expenses to attend and present at the annual meetings of the FSBI and AFS. The 2017 Fellows are: Jane Sullivan from NOAA Alaska and Lauren Laing from the University of Exeter. Claussen introduced Laing, who discussed why this award is such a great opportunity from an international perspective. Tom Kwak asked how many applicants were received and thought that there generally was limited awareness of this opportunity. Claussen acknowledged that and said that there are around 5-12 applicants per year. Jason Vokoun asked about the cost; Claussen stated that the cost was \$2,500-3,500 per student which fully funds the student. Claussen looking for a donation commitment from the Education Section. Vokoun made a motion that we co-sponsor a travel award for \$1,500 to FSBI for next year; Clint Lloyd and Rebecca Krogman seconded the motion. A question was posed on criteria for "success". Claussen noted that two members from Education Section would sit on the committee. Kwak thought that we should get completely involved given that this is an established, successful program (and the section has a lot of funding). Claussen noted that if the section is a partner, then the award could branch out to other international professional societies. Brian Graeb recommended removing the funding cap and the section become a full partner. An amendment was proposed by Kwak, where the change was \$2,499; seconded by Doug Zender. The motion passed unanimously.

EOS Travel Award (Zach Penney)

Gives 4-5 travel awards for undergraduate students to attend the AFS meeting (\$500 per student). Penney announced the winners (Keilin Gamboa Salazar, Kristie Oullette, Kalya Key, Charmagne Anderson) and asked for additional



support (\$2,500). Kwak asked about the cost-share, receive funds also from EOS. Penney motioned to request \$2,500 for the travel award for next year. It was seconded by Scott Bonar, there was no discussion. The motion passed unanimously.

Fincel acknowledged AFS leadership in attendance – Joe Margraf, Steve McMullin, and Scott Bonar. Margraf provided remarks and noted that AFS has increased membership dues (modest); now all members also have access to all the AFS journals. Margraf noted that Wiley will be the new publication forum starting 01 January 2018. The publication interface (ScholarOne) will not change due to the change in the publisher to Wiley. Margraf discussed the special meeting in Reno regarding publications, and the recommendations that came out of that meeting were adopted by AFS Governing Board.

Scott Bonar noted that the Fisheries Management Section contributed \$10,000 for a second printing of the Standard Methods book; will ask the Education Section for a contribution at a later date.

Jason Vokoun put out a request regarding the AFS meeting in 2018 in Atlantic City; wants the Education Section to play a large role in that meeting and provide opportunities for enhancing the meeting from an educational perspective, particularly as it relates to students. Would like to see the section be involved in program development.

Clint Lloyd introduced the new Student Subsection President Daniel Weaver.

XVII. Adjournment Fincel motioned to adjourn at 6:29 p.m.





Excellence in Fisheries Education Award

The Excellence in Fisheries Education Award (EFEA) Committee is soliciting nominees for 2018. This award is presented to an individual in recognition of their excellence in teaching and advising/mentoring in fisheries education, extension or continuing education, traditional college and university instruction, and/or instructional curriculum development. Nominees must meet the following criteria to be eligible for this award: (1) current members of the American Fisheries Society; (2) actively engaged in fisheries education within the last five years; and (3) at least 10 years of professional employment experience in fisheries education. Two or more people may act as nominators, but at least one of these nominators must be an AFS member. The nominator(s) is responsible for compiling supporting material and submitting the application. For an example of the suggested format for applications, please see the Education Section website. In the nomination letter, please include the nominee's title and full contact information (i.e., address, e-mail, phone number, etc.). Nominations are due by 01 April 2018 and should be sent via email to EFEA chair Trent Sutton (tmsutton@alaska.edu).

John E. Skinner Memorial Award

The John E. Skinner Memorial Fund was established in memory of John Skinner, former California-Nevada Chapter and Western Division AFS President. The fund provides monetary travel awards for deserving graduate students or exceptional undergraduate students to attend the AFS annual meeting. The 2018 meeting will be held in Atlantic City, New Jersey, August 19-23.

Any student who is active in fisheries or related aquatic disciplines, and has not previously won a full Skinner award, is eligible to apply. Awardees are chosen by a committee of the AFS Education Section. Selection is based on academic qualifications, professional service, and reasons for attending the meeting. Travel support up to US\$800 will be made available to successful applicants. Award winners also receive a one-year paid membership to AFS.

This year we are initiating an online application process for the Skinner Award. As in previous years, there are two parts to the application—Part I, which should be completed by the student applicant and Part II, which should be completed by the applicant's mentor (usually the applicant's faculty advisor).

Click here for more information or to apply: https://fisheries.org/about/awardsrecognition/call-for-award-nominations-sectionawards/john-e-skinner-memorial-fund-award/

At right: 2017 Skinner Award Recipients



Early Career Professional Travel Award

The mission of the American Fisheries Society is to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic sciences and promoting the development of fisheries professionals. Central to this mission is recruitment, retention, and participation of students and early career professionals in Society activities.

Recruitment, retention, and participation of undergraduate and graduate students is often supported by a suite of chapter-, division-, section-, and society-level awards, and much of this support is provided either directly or indirectly by the Education Section. These awards were designed to recognize the accomplishments of outstanding students and to increase participation at the Society level by providing travel support to those who often would be otherwise unable to attend the Annual Meeting, and their existence has undoubtedly led to greater student involvement in Society activities. However, there was a comparable lack of support for, and involvement of, early career professionals transitioning from student to professional status.

In recognition of this lack of support and involvement, in 2010, the Membership Committee of the Education Section (then chaired by Kristal Schneider and Mark Fincel) proposed the Young Professional Travel Award. Similar to many of the student awards, the Young Professional Travel Award was designed to promote attendance of recently-graduated young professionals who have made substantial contributions to the field through continued education, outreach, and AFS service at the Annual Meeting. The proposal received widespread support among Education Section members, and the initial award announcement was made in the January 2011 issue of the Education Section newsletter. That announcement set the initial terms of the award: that the Education Section would provide one young professional member with \$1,000 in support to cover travel and other expenses related to attending the Annual Meeting.

The Young Professional Travel Award has been refined several times since its formal establishment in 2011. First, in 2012, the award announcement was modified to request that recipients submit a write-up of their experiences at the Annual Meeting for inclusion in the Education Section newsletter. Second, in 2016, the name of the award was changed from the Young Professional Travel Award to the Early Career Professional Travel Award to reflect the fact that while applicants for the award may always be young at heart, they may not always be young in age. Finally, and perhaps most significantly, during the 2016 Education Section Business Meeting in Kansas City, MO, Education Section members voted to increase the number of recipients from one to three per year.

Through the continued support of the Education Section, the Early Career Professional Travel Award has recognized the outstanding accomplishments and contributions of early career professionals including: Julianne Harris (2011), Justin VanDeHey (2012), Michelle Walsh (2013), Mark Fincel (2014), Quinton Phelps (2015), Jesse Fischer (2016), and Rebecca Krogman, Cari-Ann Hayer, and David Deslauriers (2017).

Could you be next?? Contact Dan Dembkowski, chair of the Membership and Early Career Professionals Committee (<u>dan.dembkowski@uwsp.edu</u>) or visit <u>https://education.fisheries.org/awards/young-professionals-</u><u>travel-award/</u> to learn more about the award and to find out how to apply for travel support to the 2018 Annual Meeting in Atlantic City, New Jersey!



California University of Pennsylvania Professors Mentor Students at all Levels

Submitted by: Dr. David Argent

From September through November 2017, faculty at California University of Pennsylvania (CalU; Drs. David Argent and William Kimmel) led a group of environmental studies students from Carmichaels Area High School on an exploration of the Youghiogheny River. With funding from Pennsylvania American Waters, the group evaluated the water quality, macroinvertebrate, and fish communities of the River. In September they canoed 5 miles of the River to sample a few streams. With help from the PA Fish and Boat Commission, the group electrofished reaches above and below two major Youghiogheny River tributaries, collected macroinvertebrates using kick-nets, and took water samples to evaluate such things as alkalinity and specific conductance. In October, with assistance from the PA Department of Conservation and Natural Resources, the group hit the Youghiogheny River trail and sampled a more few streams within Ohiopyle State Park. Lastly, they came to CalU for a day to learn all about biomonitoring, to identify their macroinvertebrates, and to identify collected fishes. This project was a clear demonstration of interagency cooperation in an effort to educate future scientists. Data collected will complement earlier work collected by Drs. Argent and Kimmel.



Mr. Willis (Carmichaels teacher) examining catch



Dr. Argent showing students fish catch





Dr. Argent electrofishing

Carmichaels Students

Offering college students the chance to get hands-on experience is sometimes a challenge because an instructor has 15-20 students registered for a course, yet an activity may only require 4-5 students (e.g., backpack electrofishing). Hatcheries however offer a multitude of opportunities, from collecting to sorting to spawning, so everyone can get involved. This is especially true when collecting brood fish from the wild that will later be returned to a hatchery for the spawn. During early November such a chance presented itself as the PA Fish and Boat Commission (PFBC) offered an opportunity to assist them with the collection of Steelhead Trout (see photos at bottom). In the past, the first collection event has typically yielded nearly 1,000 fish from Trout Run, a stream closed to harvest that receives Steelhead Trout from Lake Erie. However, this years first collection event was compromised by heavy rains that saturated the ground with nearly 6 inches in 24 hours. The creeks rose quickly, yet we (the California University of Pennsylvania Chapter of AFS) soldiered on and made the late morning decision with the PFBC to "give it a go". While not as successful as prior trips, we were still able to gather 400 fish while battling the wind and the waves. Thankfully the creek while moving swiftly, was not too deep and many fish had pooled below a gate that prevented their upstream movement. The lesson for the students of course is that sometimes you must work under adverse conditions to get the job done, exercising caution for safety. Situations like this can't be taught in the classroom, but must be experienced firsthand.









Interested in competing for two of the top student awards that AFS has to offer at this year's Annual Meeting in Atlantic City?

Apply to participate in the Best Student Paper/Poster Symposium! 148th Annual Meeting of the American Fisheries Society

Best Student Oral Presentation - due by Friday, March 23:

1)Self identify during the online abstract submission

2)Upload both a standard AND an extended abstract. Examples available at the Education Section website: http://education.fisheries.org/awards/best-student-presentation-and-poster/

3)Arrange for your advisor to submit an e-mail to the symposium co-chairs indicating that the study is at a stage appropriate for consideration for this award:

Only student research projects at or near completion will be considered for the Best Student Oral Presentation Award

Best Student Poster Presentation - by Friday, March 23:

1)Self identify during the online abstract submission

2)Upload only a standard abstract

3)Arrange for your advisor to submit an e-mail to the symposium co-chairs indicating that the study includes data analysis representing either ongoing or completed work

No extended abstract is required to be considered for the Best Student Poster Presentation.

The Best Student Paper Symposium will be held Monday (8/20) morning and afternoon and the Best Student Poster Symposium will be held on Monday (8/20) evening. Award recipients will be announced at the AFS Business Meeting on Wednesday (8/22). Attendance at AFS Business Meeting Required!

For more information, including abstract examples, go to the "Best Student Presentation and Poster Awards" page: http://education.fisheries.org/awards

We look forward to reviewing your applications and if you have any questions, please contact your 2018 student paper/poster symposium co-chairs:

Trent Sutton (tmsutton@alaska.edu), Amanda Rosenberger (anrosenberger@tntech.edu), Dan Shoup (dshoup@okstate.edu)



Student Sub-Section News

By: Daniel Weaver

President, Student Subsection of the Education Section

The Subsection has continued to work hard to improve communication between AFS and among the many student subunits across the U.S. and Canada. We continue to remain active with social media and we encourage folks to follow us on Twitter (@AFS_Students) and Facebook (AFS Education – Student Subsection).

We are assisting with the planning committee for the AFS Annual Meeting in Atlantic City, which has sought to increase undergraduate participation at the annual meetings. Last year, the Student Subsection, with financial assistance from the Education Section, granted four travel



awards of \$500 each to attend the Annual Meeting in Tampa. This year we will once again solicit applications; please see instructions and the application form on our website: (https://students.fisheries.org).

In January, the Student Subsection partnered with AFS Student and Professional Development to bring in a speaker as part of the student and professional development webinar series. We had almost 200 attendees! We would like to thank Lauren Maza from AFS Student and Professional Development for facilitating the webinar, and Dr. Blair Sterba-Boatwright from Texas A&M University for an interesting and engaging seminar on Bayesian statistics.

The Subsection Vice President Lisa Izzo and myself have submitted a symposium proposal for the 2018 Annual Meeting in Atlantic City entitled: "Engaging the Next Generation of Fisheries Scientists: Strategies for Student Subunits of AFS." The goal of the symposium is to welcome presenters to share and discuss strategies and successes from their subunits that help promote student and community engagement related to fish and their habitats. We are seeking speakers from all subunits! If you are interested in sharing your subunit's ideas and strategies, please email either myself (daniel.weaver@maine.edu) or Lisa (lisa.k.izzo@uvm.edu).

Again, if you have questions or concerns, please contact us. We are here to serve the all AFS students and act as a liaison between the student organizations and AFS. Please send us an email with your thoughts or questions at afsstudent@gmail.com

See you at the Annual Meeting in Atlantic City!



Dan



Minutes of the Annual Business Meeting Tuesday, August 22nd, 2017 1:00- 2:30 p.m. Tampa Marriott Waterside Hotel and Marina Florida Salon I

The meeting was called to order promptly at 1:00 p.m. by Clint Lloyd.

- I. Guests in attendance:
 - a. Steve McMullin
 - b. Craig Paukert
 - c. Lauren Maza
- II. Steve McMullin presented a few notes:

a. During the Atlantic City Annual Meeting next year, they are working to put a student event together to help facilitate interactions and mentoring among students and professionals.

b. He is hopeful the meeting will be affordable, especially for students. There will be a historic hotel with rooms available for \sim \$100.

c. Also, going to create a job fair event at the meeting to help make connections for careers.

d. Steve is also asking for individuals who want to become more involved to contact him. There are s tanding committees that are now required to have at least 1 student on each committee. Anyone inter ested in serving on a committee should contact Steve

III. A quorum (>15 members was present).

IV. Motion was made to approve minutes of 2016 annual business meeting. Motion seconded. No comments on the minutes. Motion passes with unanimous consent.

- V. Education Section Report: No report
- VI. President Comments/Old Business

a. Mid-year Governing Board meeting (Clint Lloyd):

i. Clint expressed how grateful he was in having the opportunity to attend and how much value he receive by attending.

ii. Clint reiterated that any students who want to be involved in a standing committee should contact Steve McMullin because it is a great opportunity.

iii. Resources Policy Committee- They are trying to become more engaged with students on this committee.



b. Communication

i. Division representatives have reached out to all student subunits to get updated contact lists

ii. Our social media presence has been revamped and much more active. iii. A community forum has been created by going to www.fisheries.org and selecting **Community Forums** under the **Membership tab**.



From there select the **Student Subsection Forum**. If you are a student or early career professional, it should automatically sign you up for updates.

iv. An email dodo was set up through AFS for students and early career professionals.

v. Kyle Bales has been keeping the website up to date. An update for Kyle was provided:

1. Kyle has updated the automatic newsletter on the website. If you are signed up you get updates every time that there is an update to the website including announcements. If you are not signed up I would en courage you go to the website students.fisheries.org and sign up!

2. All of the officer positions up to this year are updated and Kyle will update everything again when this voting cycle ends.

3. If anyone has any suggestions about the website please let Kyle know. His contact info is on the website.

c. Official Name Change

i. There has been a motion to change the Student Subsection to "Student/Early Career Professionals Subsection" to be more inclusive of early career professionals.

1. The motion passed, and has been sent to the EXCOM of the Education Section. If Educa tion Section approves, it will be sent to the Management Committee for final approval.

d. Undergraduate Travel Assistance Award (UTAA)

i. This award has been extended an extra year due to lack of applicants last year. This year, there were four awardees:

1. Ashley Fredricks, Georgia Gwinnett College, advisor Peter Sakaris

2. Melinda Gosling, University of Connecticut, advisor Eric Schultz

3. Peter Jenkins, West Virginia University, advisor Kyle Hartman

4. Tyler Plum, West Virginia University, advisor Patricia Mazik

ii. A proposal will be sent to the Education Section for this award to become permanent.

1. Craig Paukert suggested looking at past awardees to determine if this award actually helps maintain membership. Having data to present to the Education Section will help provide justification for this award to continue.

VII. Secretary/Treasurer Report (Ryan Hupfeld)

a. Starting Balance: \$2,736.44

b. Income:

i. Dues: \$130.00

c. Expenses:

i. Amazon Gift Card (Kansas City Scavenger Hunt Winner): \$100.00

d. Ending Balance: \$2,766.44

VIII. Division Representative Reports

a. Western Division (Kari Dammerman)

i. No report.



Undergraduate travel award winners: Peter Jenkins, Melinda Gosling and Tyler Plum..

b. North Central Division (David Bogner)

i. No report.

- c. Southern Division (Steven Gratz)
 - i. Not in attendance (see update attached to bottom of this document).
- d. Northeastern Division (Lisa Izzo):

i. Atlantic City Meeting- Jessica Valente is organizing student events

- 1. 1920 casino night student/professional event being organized
- 2. Student mentoring event is also being organized
- ii. Two additional student subunits are potentially being developed.
- e. Canadian Division (Heather Stewart)
 - i. Not in attendance (see update attached to bottom of this document).
- IX. Officer Nominations/Elections (Daniel Weaver)

a. Daniel explained that we are still in need of nominations for multiple positions and asked for nomina tions.

b. Nominations will close on 8/31/17 and election will begin on 9/1/17.

c. Kari Dammerman suggested including Young Professionals on the Subunit emails when asking for nomi nations.

- X. Incoming President Remarks (Daniel Weaver)
 - a. Daniel gave an update on what he would like to do during the following year.

i. One item that he would like to continue and expand on is what Clint has started with improving communication among everyone involved.

XI. New Business

a. Strategic Plan for the Subunit

i. This is a direction for where the subunit should go within the next 5-10 years and is needing up dated. The new officers should move forward and continue this effort.

b. Recruitment and retention

i. If anyone has any ideas to help improve recruitment or know of any success stories, please let us know so we can look into implementing new practices.

c. Students peer review opportunities

i. AFS will be moving to Wiley away from Taylor and Francis for their journals. Wiley might have opportunities to students to receive training on peer reviewing scientific manuscripts.

d. International Editorial Assistance

i. They are looking for reviewers with English as their second language to help with review ing/translating papers. If anyone is interested please contact the International Section.

e. Resource Policy Committee

i. Students may become involved with this committee in the future if interested.

f. Student Angle- Fisheries

i. There have been 3 submission for publication of a Student Angle to be published in Fisheries.



XII. Other New Business

a. International Exchange

i. How would the Subunit have a role in this group?

1. The Subunit will talk with the Education Section and International Exchange Committee to see how we can become involved in the future.

b. Rebecca Krogman encourage students to get involved with the standing committees moving forward be cause they really provide a greater learning experience and opportunity to get more involved in AFS.

XIII. Adjournment

a. Motion and second at 2:00 p.m.

** Secretary notes taken by Secretary/Treasurer Ryan Hupfeld.

Division Representative Updates:

2016-2017 AFS Southern Division Student Subunit Update

Steven Gratz, Southern Division Representative

The student subunits in the Southern Division were very active during the 2016-2017 academic year. There are currently 28 student subunits with four of those being inactive. I am currently in the process of updating all of the contact information for the incoming Southern Division Representative. It was fairly apparent though talking with student subunits and writing this report that Facebook has become a major means of sharing information and keeping people up to date. Subunits are sharing information about available employment throughout the U.S., notifying their members about upcoming events, and sharing popular "fish news." NC State was awarded the Outstanding Student Subunit award again last year for the eighth time in the last ten years. That being said and not to belittle their efforts, they are either more active than most student subunits or not many subunits apply. This may be an area to promote to all of the student subunits. Many of the student subunits have held fundraising events from a Gulf of Mexico-raised shrimp sale at Auburn to a catfish cleaning fundraiser at University of Arkansas-Pine Bluff to fish themed trivia at local venues by Florida's ARGO and a fun run organized by the University of Southern Mississippi subunit. Many fishing derbies were also organized encompassing many different species including White Bass at University of Arkansas-Pine Bluff and Carp (Mud Bass as they call them) at Virginia Tech. Some of these fishing derbies may have inspired cook-off competitions of Asian Carp at Arkansas-Pine Bluff and Mississippi State. Many subunits additionally committed their time and resources to steam and costal cleanups including those from Auburn, Central Arkansas, Florida, and Mississippi State. In addition to cleanups, many subunits also recognized the importance of promoting fisheries through outreach and education. Auburn participated in many kids fishing events as did Duke and NC State who taught kids how to dissect fish. While promoting fisheries is important, it is dually important to promote professional development within fisheries. Duke hosted a seminar on shark ecology and conservation during Shark Week, Maryland-Eastern Shore hosted a research symposium, Florida and Auburn both organized R workshops, and most student subunits held monthly meetings with





guest speakers covering a wide range of topics. Promoting camaraderie within a subunit is also important. Many within-subunit events were held including a camping trip at Clemson, a potluck at NC State, a pool party at Florida-ARGO, and football tailgates at Auburn. Throughout the 2016-2017 academic year, the Southern Division student subunits were very active organizing and partaking in a wide range of events, all of which help to improve the conservation and sustainability of fishery resources while having a fun time.

Education Section Student Subsection Canadian Division Report

Prepared by Canadian Division Representative: Heather Stewart

August 2017

Chapter: Washington-British Columbia (WA-BC)

President: Sam Wilson

Past activities: This year the BC student subunit fundraised and co-organized a silent auction with WA student subunit at the annual general meeting (AGM) for the chapter. They ended up raising \$1500 USD for the WA-BC student subunit to send students to the chapter meeting in Kelowna, BC next year. Four of the BC student subunit members attended the chapter meeting in April. The student subunit also participated in the March for Science.

Awards: At the AGM for the chapter, Naomi Plezier, the subunit communications director, won best student poster. Naomi Plezier and Will Atlas, a BC student subunit member, were both awarded the Cedarholm scholarship for students pursuing degrees in fisheries, aquatic sciences, or related fields. Sam Wilson, the subunit President, won the best student talk.

Upcoming activities: In September, once students have returned for the semester, the BC student subunit is hosting a welcome back BBQ to bring everyone together and recruit some new members.

Goals: The BC student subunit has set the goals of hosting more events and increasing University of Victoria (UVic) membership with the long term goal of creating a UVic subunit.

Chapter: Ontario

President: Vivian Nguyen

Past activities: On May 17th the Ontario student subunit participated in World Fish Migration Day 2016. The event attracted 35 local students and professionals who learned about the cultural significance of the American Eel in Ottawa from Ethan Huner before competing in some pub trivia. On May 21st the subunit collaborated with the Canadian Museum of Nature, the Canadian Wildlife Federation, Natural Sciences and Engineering Research Council of Canada (NSERC) and the Ottawa Riverkeepers to host an outreach event at the museum in Ottawa. Over 1,000 people attended this event, where they learned about barriers to fish spawning and migration, predators, and fisheries in general. The subunit also held their annual, free Student Success Workshop in Ottawa this year. There were over 50 attendees and the workshop featured an R data analysis workshop/webinar led by former Subunit President, Dr. Jake Brownscombe, a mentor mixer including CV/Interview tips, and Career Panel with panelists from Carleton University, Canadian Science Publishing, Canadian Wildlife Federation, the Ministry of Environment and Climate Change Ontario, and consulting.

Awards: The Subunit was awarded the North Central Division Most Active Subunit Award

Goals: The Ontario student subunit has set the goals of increasing attendance at the AGM in February and recruiting university representatives for better liaisons (i.e. five new student area



representatives from the five different universities in the subunit: McMaster University, Carleton University, University of Toronto, Fleming College, University of Windsor).

Overview: This year has been a great one and the student subunits have been working hard. A continual challenge has been some Canadian universities having too low membership to be their own chapter but the distance between universities is challenging to bring students from multiple universities together. Another challenge with subunits made up of multiple universities is that the majority of officers frequently end up being from the same university so it becomes less engaging for students from other schools. Our way of resolving this issue is by assigning a representative or liaison for each school.

AFS has reassigned Canadian chapters to the four divisions of Western, North Central, Northeast, and Southern. At this time it is unclear whether we as the education section student subsection will continue with our divisions or mirror the parent society. As Canadian Division Representative, I would like to see student subsections created for the MidCanada Chapter (Alberta, Saskatchewan, Manitoba, Nunavut, and the Northwest Territories), and a Canadian student subsection in the Atlantic International Chapter (Québec, New Brunswick, Nova Scotia, Newfoundland and Labrador, Prince Edward Island, Maine, New Hampshire, and Vermont). I am currently working on a Québec student subsection as we have several university in Montréal. I have been in contact with students and professors at the following universities: Concordia, Université Laval, McGill University, Université du Québec à Montréal, Cégep du Vieux Montréal. The student subsection has not yet officially been formed but is a goal for the upcoming school year. Further, I wish to increase our presence at the national meeting. This year I encouraged members of our division to apply for funding and scholarships to attend the national meeting but our numbers of members intending to attend are still exceptionally low.



International Fisheries Section Exchange program participant, Lauren Laing from the University of Exeter, addressing the Education Section members.



University of Tennessee at Knoxville Student Sub-Unit Update

Undergraduate students from the University of Tennessee at Knoxville visited beautiful Sam D. Hamilton Noxubee National Wildlife Refuge, located in Brooksville, MS as part of an annual field trip for their Wetlands Ecology and Management course. During their two-day visit, students participated in a number of workshops ranging from moist-soil management to endangered species banding for Red-cockaded Woodpeckers, and by special request, a Paddlefish sampling and acoustic telemetry workshop. During the fall 2016, a previous group of UT Knoxville students visited Noxubee NWR and happened upon on-going Paddlefish sampling and stopped by to check it out. Due to overwhelming interest, the refuge staff and researchers at Mississippi State University's Department of Wildlife, Fisheries, and Aquaculture coordinated a formal sampling workshop where this year's visiting Seniors could get involved.

Research evaluating the population dynamics and movement of a Paddlefish population at Noxubee NWR has been on-going since February 2016. Funding for this research originated from concerns by refuge managers about the influence of a man-made water control structure and its impacts on this abundant Paddlefish population which exists in a small pool below the structure's spill-way. Graduate researcher, Chelsea Gilliland, briefly introduced the students to the project and its objectives and then took to the fun stuff, catching prehistoric fish.

During the workshop, students were able to deploy and retrieve large, gill nets as part of the on-going capture-recapture study for Paddlefish. Then, the students were put to work scanning and implanting PIT and floy tags, taking fin clips for future genetic analyses, and measuring lengths and weights for morphometric data collection (Fig. 1). They were also introduced to standard equipment and methods for evaluating movement using acoustic telemetry followed by an intriguing question and answer session. Overall, the workshop was a huge success. It was refreshing to work with passionate undergraduates that are interested in getting involved with research and becoming future fisheries professionals!



Undergraduate students from the University of Tennessee at Knoxville Wetlands Ecology and Management Course measuring captured Paddlefish from Sam D. Hamilton Noxubee National Wildlife Refuge.





tified in giving boating safety courses, which several of our members took ad-

Tennessee Tech University Subunit Update

Fall Semester 2017

As a group, our sub-unit is dedicated to volunteering, the education of both our members and the public, and serving our community in any way that we can. During the fall semester of 2017, we kicked off the semester with a clean-up at Center Hill Lake and participating in our university's Student Organization Fair. We also hosted a chili cook-off with other organizations within our department including The Wildlife Society and Ducks Unlimited. Several of our undergraduate and graduate members attended the Southeastern Fishes Council meeting in November, where four of our members had either posters or oral presentations. Our Undergraduate Representative is cer-



Chil (deof) S5--- 3 the TU Student Fisheries Association

vantage of in order to get their boating safety license. In December we had the opportunity to volunteer with the Tennessee Wildlife Resources Agency (TWRA) as they sampled populations of Lake Sturgeon. We wrapped up the semester with several of our members attending a trip to the Dale Hollow National Fish Hatchery to experience first hand how the hatchery is run and operated. Since then, many members have been back to the hatchery on a voluntary basis.

Current plans for 2018

During the first half of the year, our organization holds our two most prominent events: an on-campus fish-fry fundraiser, and the Annual Kid's Fishing Derby.



Fish Fry

Over the last five years, we have hosted an annual Fish Fry on our campuses Centennial Plaza in order to promote our organization and collect funds for the Annual Kid's Fishing Derby. We break out the fryers and cook catfish (sometimes even caught by our own members) and serve it with a side of hushpuppies, coleslaw, and a drink. The success of this event grows every year, and is something that we are extremely proud of!

30th Annual Kid's Fishing Derby

For the last 30 years, our sub-unit has organized a free kid's fishing derby, held every June during Free Fishing Weekend, where those interested in recreational fishing have an open weekend where they can fish locally without a fishing license. This event has shown continuous success in involving the community, University, TWRA officers and many more. Children are able to spend a few hours fishing, followed by lunch and a raffle.





NC State University Student Sub-Unit Update

Mission Statement: To further the scientific and educational interest of fisheries conservation and management and to recognize the field of fisheries science for all school and campus activities.

Spring Semester Schedule of Activities:

February 6th – Shad in the Classroom – North Carolina Museum of Natural Sciences. Danielle Pender will discuss a unique outreach opportunity utilizing SFS members to introduce topics in fisheries to middle school classrooms around the state.

February 20-22nd – North Carolina American Fisheries Society Conference – Morganton NC. SFS members will be presenting posters and 5-minute lightning talks about their fish-





eries research.

March 13^{th} – Fish ID workshop – North Carolina Museum of Natural Sciences – SFS will draw from a diverse collection of fish samples to inform the community about native taxa.

April 14th – Service Raleigh – Service Raleigh is an annual citywide day of service started in 1998 by NC State's Student Government and Park Scholars. Each year, SFS volunteers to help with stream clean-ups around Wake County.

April 21st – Kids Fiesta Fishing Day – Jordan Lake State Recreation Area SFS members will be volunteering at different stations designed to teach children about fish identification, lake ecology, casting, knot tying, and invertebrate identification.

May 1^{st} – SFS Fish Fry – As our final spring semester meeting, students will get to unwind from finals and enjoy local seafood, snacks and beverages.





University of Arkansas at Pine Bluff Subunit Update

The University of Arkansas at Pine Bluff (UAPB) student subunit been involved with the UAPB campus and beyond this 2017-18 term. The current subunit officers include Joseph Kaiser (president), Cody Salzmann (vice-president), Jeremiah Salinger (secretary), and Douglas Zentner (treasurer). The Club held three general meetings, which occurred in September, October, and November. Annette Fields who

is an alumnus of UAPB and Jeff Buckingham of the Arkansas Game and Fish Commission (AGFC) attended our September and November sub-unit meetings to share their work and professional experiences.

On campus, the UAPB AFS student subunit has been involved with the Fall Orientation Depart-

mental/Informational Fair held at the Health, Physical Education and Recreation (HPER) Building. This event allowed the club to meet new incoming students as well as showcase the merits of the club for their professional and social benefits as students. The subunit also was involved in several catfish cleaning events in conjunction with fish sales at the UAPB Aquaculture/Fisheries Research Station. These cleaning events have allowed the sub-unit to raise money for other activities, and also benefit the station by increasing sales of catfish. Sub-unit members also assisted the station in

seining up fish from ponds for sales on multiple occasions. A tailgate social was also held on campus during homecoming. Sub-unit members got together in the boat shed area and grilled out and socialized.

The UAPB AFS student sub-unit also has volunteered at several AGFC community events and at the Mike Huckabees Delta Rivers Nature Center in Pine Bluff. The sub-unit voluntarily SCUBA and snorkel cleaned the glass of the fish tanks at the nature center. Also, The UAPB AFS student sub-unit volunteered both nights at the October attraction "Boo on the Bayou" with the nature center, which is a well-attended event the nature center hosts every year. The sub-unit assisted in a casting both, where kids learned to cast and reel in fish.

Members volunteered at the kids fishing derby held at the Joe Hogan Fish Hatchery this past summer. Sub-unit members assisted in multiple faucets of the event including bait distribution,

setting up signs for the different events, directing people where to go for events and weigh-in, and assisting in the clean-up afterwards. Also, AGFC held a community fishing event called "Get Youth Outdoors" at the MLK pond in Pine Bluff that the sub-unit volunteered at. The sub-unit ran the archery and bb-gun ranges during this event, and also assisted in setting up the poles that were used by the kids to fish the pond. The UAPB AFS student sub-unit plans to host several activities for members to

learn how to use standard fisheries techniques (i.e. Boat-mounted electrofishing, gillnets, trap nets, raising fish in ponds, etc.). Also, the sub-unit will continue several events that traditionally occur in the spring semester, such as the annual UAPB White Bass Bonanza fish tournament and the continuation of an annual UAPB Asian Carp Cook-off. The sub-unit is also planning on collaborating with other subunits within the state for fellowship activities in the next several months.

Like UAPB AFC on Facebook at: <u>https://www.facebook.com/UAPBAFC/</u> And check us out on the web at <u>http://farrisg5848.wixsite.com/uapbafc</u>











Mississippi State University Student Sub-Unit Update

The fall semester of 2017 was busy and productive. The Mississippi State University student sub-unit of the American Fisheries Society hosted multiple workshops and outreach opportunities. The sub-unit coordinated a backpack electrofishing workshop for all members, an outreach workshop to introduce pre-veterinary students to boat electrofishing, and a fish otolith removal and aging workshop for students in the Department of Wildlife, Fisheries, and Aquaculture (WFA). All three events brought in students from a wide array of backgrounds and interests, broadening the foundation on which to build their ecological knowledge.

October was a month of stream work for the AFS student sub-unit. New members and other WFA students were given an afternoon full of backpack electrofishing and tagging workshops. The workshops took place at Panther Creek, inside the Tombigbee National Forest. This workshop was used to introduce students to the important safety procedures and proper techniques for working with electricity as a sampling device in aquatic systems. Teams worked together as students took turns dipping stunned fish and working the backpack



electroshocker. After collecting fish from predetermined stream reaches, students learned to identify each species and were taught how to implant elastomer tags. These tags can be used during future sampling to determine the number of fish that had been collected on previous trips, providing information on abundances of different species.

On November 17, the AFS sub-unit hosted an "Introduction to boat electrofishing" workshop in conjunction with students from the Mississippi State University College of Veterinary Medicine. The workshop took place at Dorman Lake, near the Tombigbee National Forest. Students were introduced to the mechanisms

behind electrofishing and how this technology is used to sample fish of many species. After being provided with information on safety precautions and signaling, the students were given the chance to experience boat electrofishing firsthand. Groups of students took turns working the dip nets on the front of the electrofishing boat, collecting fish and bringing them back to shore to be identified. In addition to electrofishing, there was a short course on implanting T-bar (Floy) tags. These tags are used to mark fish that can be captured again, at a later date, to assess a wide range of individual- and population-level parameters. Students were given the chance to learn identifying characteristics of multiple species, proper measuring techniques, and Floy tag insertion. The workshop was a great success and interest has already been shown to host a similar workshop in the future.

The otolith removal and aging workshop took place on the 30th of November. Sub-unit members first

attended a presentation where various aging methods and their associated strengths and weaknesses were discussed. The presentation also highlighted the importance of age and growth data and the valuable information it provides to fisheries scientists. After the presentation the students were given a chance to get their hands dirty and extract otoliths from Largemouth Bass sacrificed during previous research at Mississippi State University. Participants with no previous otolith extraction experience were able to attempt extractions on several fish, affording them the opportunity to become comfortable with the process. Next, students were given the chance to read crappie otoliths from previous research at Mississippi State University, allowing students to compare their aging skills with previous readings. Participants



enjoyed the hands on learning opportunity and gained skills that will prove useful as they develop in to fisheries professionals.

The fall semester proved to be a productive one with members gaining a wealth of beneficial hands on experience. The Mississippi State University student sub-unit plans to continue offering members with workshop opportunities in the spring semester and the coming fall.



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The Outreach Committee has been building their K-12 fisheries curriculum to use during classroom visits and tabling events! A few of our favorite activities include:

Go Fish! - in this introduction to overfishing and sustainability, students use bowls, straws, and Goldfish[®] crackers to learn how fishing practices can lead to healthy populations or a Tragedy of the Commons.

Fish ID - photos of fishes in the Texas bays and Gulf of Mexico are paired with their common name.

Build Your Own Fishing Rod – paint stir sticks become fishing rods! After drilling a hole in the top, fishing line or string can be tied on and used to "hook" taped and decorated paper fish.

Leave No Trace: Ocean Trash Timeline – a variety of trash items frequently found during beach clean ups are placed in a sandbox. Students pick items out and place them over printed cards with the amount of time it takes for that item to decompose.

We are always looking out for new activities and are happy to share our resources!

Connect with us at:

Instagram: @afs_tamucc Twitter: @afs_tamucc Facebook: @tamuccafs





The AFS Outreach Committee visited 4th and 5th grade Girl Scouts at the Hilltop Community Center to teach them about sustainability, overfishing, and becoming the next generation of women in science!

AFS Subunit members hosted this fantastic tabling event at the Harte of the Gulf film screening on campus! Activities such as Fish IDs and Build Your Own Fishing Rod helped young visitors learn about more about our ocean resources.





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COMMUNICATING THE SCIENCE OF FISHERIES CONSERVATION TO DIVERSE AUDIENCES AUGUST 19-23, 2018



