



American Fisheries Society

EDUCATION SECTION

VOLUME 34 (1)

JANUARY 2013

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President's Line

I hope this newsletter finds you well and that you had a safe, restful, and enjoyable Christmas and New Year. If you are like me, you are using the holiday season to spend time with family and friends, catch up on "stuff" in the office, and plan for upcoming projects and activities. With that in mind, I would like to use this President's Line to tell you about some of the activities and needs of the Section in the upcoming year.

First, I would like to acknowledge our newsletter editors, Landon Pierce and Cari-Ann Hayer. They continue to work hard compiling and editing the newsletter. I also thank all of those who took time out of their busy schedules to submit something for the newsletter. I and the membership greatly appreciate your efforts.

As you all know, the Section administers a number of awards every year, including the John E. Skinner Award, Young Professional Award, and Excellence in Fisheries Education Award (EFEA). These awards are among the most prestigious awards in our profession and, perhaps most interestingly, they span the entire career of a fisheries professional—from student to young professional to seasoned fisheries professional. One could also argue that the awards transition from need-based (Skinner) to prestige-based (EFEA). Along these lines, many members of the Section have recently raised concern that undergraduate students are not provided with the means to participate in AFS meetings. This is thought to not only delay the professional development of undergraduates, but also to limit recruitment to the fisheries profession and AFS. The Section has taken a number of steps to address these concerns. For instance, the Section recently began providing funding for travel and meeting costs associated with regional student colloquia. The colloquia have proven to be an excellent venue for graduate and undergraduate students to share research findings and network with other students and fisheries professionals. The Student Subsection of the Education Section has also been active in moving things forward with regard to supporting undergraduate student travel. After a long discussion



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Visit the Education Section of the American Fisheries Society online at: www.fisheries.org/units/education/

President's Line (cont.)

at last year's business meeting in St. Paul (minutes are in this issue), the leadership of the Section and Subsection developed an ad hoc committee to discuss strategies and options for bolstering undergraduate student participation at the AFS Annual Meeting. The committee has had a very lively discussion and should have recommendations soon. As you can see, the Section has a lot going on with regard to various awards. We all have students who would be a good candidate for the Skinner Award and we all have mentors who are deserving of the EFEA. My plea is that you please nominate your students, nominate your mentors, or directly apply for an award.

Another major activity of the Section is the coordination of the Best Student Paper and Best Student Poster (BSP) symposia. Melissa Wuellner (who was a co-chair last year), Dan Magoulick, and Craig Paukert are co-chairs of this year's committee. They are currently working with the Program Committee of the 2013 AFS Annual Meeting to ensure that the symposia are included in the program and that the submission of abstracts is as painless as possible for students. Wuellner and Shannon Fisher (the other co-chair for last year) have also written an article that will be published in an upcoming issue of *Fisheries*. The purpose of the article is to highlight the BSP and the application process. The goal is to improve understanding of the process, which has evolved considerably over the last 5 years, and increase the number of applicants. Be on the lookout for more information on the symposia and please submit or encourage your students to submit an abstract for either the paper or poster symposium.

Lastly, the Section has a number of other committees and special projects. For instance, the Section has supported several book projects in recent years. We have one book project that was recently completed (*Scientific Communication for Natural Resource Professionals*—co-edited by Cecil Jennings, Tom Lauer, and Bruce Vondracek) and two projects that are very close to being completed (*Fisheries Techniques, third edition*—co-edited by Al Zale, Donna Parrish, and Trent Sutton; *Foundations of Fisheries Science*—co-edited by Mike Allen and Gregg Sass). These efforts have or promise to greatly enhance fisheries education. The Section is always looking for new ideas for books and other Section activities, so send them my way or to the New Initiatives Committee Chair, Mike Colvin (colvin.mike@gmail.com).

As you can see from this newsletter, the Education Section is an active group. If you are not already active, please consider contributing your time and expertise to the Section. I promise that you'll receive more than you give. If you have any questions, comments, or ideas, please do not hesitate to send me an email (mcquist@uidaho.edu) or give me a call (208-885-4064).



Minutes of the Annual Business Meeting—Education Section

2012 Annual Meeting of the American Fisheries Society
St. Paul, Minnesota; Aug 19, 5-7 pm, Crowne Plaza Hotel – Kellogg II/III room

Call to Order: Mike Quist called the meeting to order. Quist introduced himself and provided agendas and copies of the treasurer's report to attendees.

Introduction of Guests: Quist recognized current officers of the Education Section, including the immediate Past-President, Steve Chipps; President-Elect, Craig Paukert, and Secretary-Treasurer, Katie Bertrand. Quist recognized the Division Representatives who serve on the Section's Executive Committee (ExCom) along with the officers. Division Representatives were Jeff Jolley (Western), Steve Cooke (North Central), Lisa Kerr (Northeastern), and Julie Harris (Southern). Quist then recognized Past-Presidents of the Education Section in attendance, including Donna Parrish, Wayne Hubert, Jim Reynolds, Brian Murphy, and Tom Kwak. Quist also recognized current AFS officers Bill Fisher (President) and Donna Parrish (2nd Vice-President).

Determination of Quorum: A quorum (10% of membership) was present and confirmed by Bertrand.

Approval of Agenda: Quist introduced agenda. Mike Allen moved to approve the agenda as written; Mark Pegg seconded the motion. Motion carried.

Approval of Minutes from 2011 Business Meeting: Jeff Fore moved to approve the minutes from the 2011 Education Section as written; Dave Willis seconded the motion. Motion carried.

President's Comments: Quist emphasized the focus of AFS on education issues and expressed his thoughts regarding how Education Section is one of the best and most active sections in the AFS. He provided several examples of activities conducted by the Section, including the administration of various awards, support of student travel, and various book projects. He further noted that everyone who has served the Section has played an important role in helping us to stand out within AFS. Quist then indicated that there are many opportunities to get involved. No other section has more diverse opportunities to get involved than the Education Section. He encouraged those interested in getting involved to visit with those already active in the Section (e.g., officers, committee chairs, members). Quist concluded his comments by thanking the Executive Committee for all their help.

Treasurer's report: Bertrand presented the Treasurer's report. Total assets of the Section as of August 17, 2012 were \$202,505.72. The balance forward from September 1, 2011 was \$183,179.12, income from the previous year was \$2,600.86, and expenditures were \$19,731.13. Quist commented that most of our revenue in the past has come from book sales. However, book revenue is decreasing across AFS and we need to begin thinking about how our funding model will change into the future.

Comments by AFS officer: President Fisher began by mentioning that he is a member of the Education Section. He then discussed how one strategic goal of AFS focuses explicitly on education and continuing education. Fisher then summarized the conference in Denver last fall that included a coalition of natural resource societies. Some of the highlights included a recognition that University programs are changing, enrollment peaked in the 90s and has decreased, there are now more urban than rural students, there is more of a focus on conservation issues rather than consumptive use of resources, and students are trained differently today and that training does not match with the training required at state and federal agencies. The coalition published a summary report that poses the question of how we can better integrate education of natural resource professionals and get them ready for employment (<http://joomla.wildlife.org/documents/cnrs.report.pdf>). Fisher noted that AFS and TWS are carefully considering this issue and suggested that it's time for AFS to look at what we're doing for our students. In particular, there is a need to think about what students need to be successful in today's profession, and whether or not curricula and other training are meeting those needs. Fisher noted that Boreman has made this a focus of his work plan as President of AFS.. Fisher also highlighted the role of continuing education in AFS (i.e., Parent, division, chapter,

Business Meeting Minutes continued

section subsection offer opportunities for continuing education) and suggested that we continue to explore virtual delivery of workshops, webinars, results, or archives. Fisher concluded his comments by indicating that the fastest growing sector of AFS is students and that we need to determine how we are going to get students to be and feel relevant to the society and keep the society relevant to students. Fisher also questioned whether there are new or better ways to get our members involved in leadership.

Quist thanked Fisher for his comments and added that Boreman's plan of work includes a number of items that would benefit from the Section's involvement. Some of the items include updating the list of colleges and universities that have fisheries programs, investigating the possibility of accrediting programs, and determining the relevance and benefits of professional certification.

Committee Reports:

Newsletter: Cari-Ann Hayer informed the group that the newsletter is published twice per year. They have had numerous submissions. The winter newsletter is thinner than summer and thus needs more submissions. Coverage from student subunits in the newsletter has been good. The Editors developed a new column focused on reviewing science education literature; however, they have not received feedback. The editors will continue to produce the column until they hear otherwise. Hayer also indicated that pictures are particularly welcome and should be included with newsletter submissions.

Web page: Steven Ranney could not attend the meeting, but he is working hard to make sure website is up to date. Website contains information on officers, current events, and is updated every 48-72 hours.

Excellence in Fisheries Education Award: Jason Vokoun reminded the group that this is a society level award, officially awarded at the AFS business meeting. Vokoun thanked this year's committee members, including Steve Coughlin, Dan Shoup, Greg Whitley, Amanda Rosenberger, Tim Copeland, and Patrick Cooney. The Committee will need a new Western Division representative and a student representative for the upcoming year. Vokoun also emphasized that they would appreciate receiving more nominees. Vokoun announced that the recipient of the award this year was Dr. Trent Sutton from the University of Alaska—Fairbanks. Vokoun summarized Dr. Sutton's accomplishments and provided Sutton with an opportunity to say a few words. Sutton expressed his feelings about the award and thanked everyone for the award.

Skinner Committee: Dan Daugherty was unable to attend the meeting so Bertrand provided the committee report. The Committee for 2012 included Dan Daugherty (Chair), Bertrand, Mary Bremigan, Andrea Johnson, Scott Heppell, Jeff Jolley, and Amy Spencer. Jeff Jolley will be leaving the committee and Pete Sakaris will be replacing Jeff on the committee in 2013. The committee received a total of 37 applications for this year's award. Thanks to the Parent Society, we were able to provide ten student applicants with Skinner Awards in support of their attendance at the meeting. The Education Section also provided additional support, allowing us to acknowledge the efforts of five additional student applicants as honorable mentions. The winners of this year's award were: Mark Kaemingk – PhD student, South Dakota State University; Shannon White – MS student, Virginia Polytechnic and State University; Michael Lowe – PhD student, University of Southern Mississippi; Landon Pierce – PhD student, University of Missouri; Matthew Altenritter – PhD student, The University of Maine; Jacob Krause – MS student, South Dakota State University; Jason Doll – PhD student, Ball State University; Stephen Klobucar – MS student, Utah State University; Clifford Hutt – PhD student, Mississippi State University; and Chelsey Campbell – MS student, University of Florida. Honorable mentions were: Eric Merriam – PhD student, West Virginia University; Brandon Peoples – PhD student, Virginia Polytechnic and State University; Kristopher Stahr – BS student, South Dakota State University; Jessica Reilly – MS student, University of Alberta; and Courtney Janiak – MS student, Delaware State University.

Best Student Paper-Poster Award 2011: Tracy Galarowicz and Jill Leonard were the Co-Chairs for the 2011 Annual Meeting; however, Quist announced the award winners. One best student paper (Mike Lowe) and two honorable mentions (Jonathan



Carey and Tony Sindt) were awarded at the 2011 business meeting. One best student poster (Gerard Carmona-Catot) and two honorable mentions (Hilary Meyer and Joshua Morse) were also awarded. Award winners and honorable mentions were provided with a plaque and award winners received \$450. After announcing the winners, Quist mentioned that the ExCom was considering adding an officer of the Section (i.e., President-Elect) as a committee chair to improve continuity.

Best Student Paper-Poster Award 2012: Melissa Wuellner and Shannon Fisher are serving as Co-Chairs of the committee for the 2012 Annual Meeting. Wuellner presented committee report. Building on the great work of Jill and Tracy in 2011, Wuellner and Fisher made some changes in 2012, including the addition of a webpage on the Education Section website outlining the application process and developing a rubric for judges. The page was built by Steve Ranney, and he will accept comments, feedback, and suggestions for improvement. Wuellner identified a number of things that are in need improvement in the coming year: (1) it has been 5-6 years of having a dedicated Best Student Paper-Poster symposium, but there is still not enough knowledge about the process; and (2) many students begin to apply, but do not complete the extended abstract. To help improve understanding about the award, Wuellner proposed publishing an explanation and update in *Fisheries* prior to the abstract deadline next year. Wuellner then thanked members of the committee who evaluated abstract submissions: Sam Wilson, Greg DeCelles, Eduardo Martins, Julie Harris, Lauren Jescovitch, and Fiona Hogan. There were 22 finalists for the Best Student Paper (3 dropped out) and 6 finalists for the Best Student Poster Symposium (2 dropped out). There were 22 finalists for BSP (Brey, North Carolina State University; Spurgeon, University of Missouri; Stasko, LU; Challice, Trent University; Briggs, Central Michigan University Susko, Virginia Tech University; Killhoury, State University of New York; Hillis, Southern Illinois University; Crane, State University of New York; Brandt, University of Wisconsin-Stevens Point; Dembkowski, South Dakota State University; Pandolfo, North Carolina State University; Archambault, North Carolina State University; Malison, University of Montana; Smith, North Carolina State University; Walsh, University of new Hampshire; Merriam, West Virginia University; Huntsman, West Virginia University; Neuswanger, University of Alaska-Fairbanks), and 6 finalists for BS Poster (Kaemingk, South Dakota State University; Smith, University of Idaho; Smith, University of Florida; Walleser, University of Wisconsin-LaCrosse). Paper presentation judges for 2012 include: Andrew Carlson, Jeff Falke, John Brunner, Josh Lallaman, and Quinton Phelps. Poster presentation judges for 2012 include: Carol Stepien, Mary Moser, and Matt Troia. Wuellner provided the time and location of symposia, and indicated that the winners would be announced at the business meeting.

Membership: Jesse Fischer and Krystal Schneider served as Co-Chairs of the committee in 2012. Fisher provided an overview of the committee and discussed the Young Professional Travel Award (administered by the Membership Committee). Fischer announced that the winner of the award for 2012 was Justin VanDeHey. Justin was provided with a plaque and \$1,000 to support his travel to the Annual Meeting.

Nominating: Chipps noted that the Section voted for the North Central Division (NCD) and Northeastern Division (NED) representatives. Tracy Galarowicz was elected the NCD representative and Allison Roy was elected the NED representative.

Ad hoc committee & Special projects:

Fisheries Techniques (3rd edition): Sutton provided an update of the book project. He indicated that galley proofs were received last week and that they would be submitted to AFS the following week. The book should be available in October, 2012, and the cost should be around \$70 for members and \$100+ for non-members. Quist reminded the membership that the Section is covering all of the production costs for the book and that it will be a significant upcoming cost to the Section.

Scientific Communication for Natural Resource Professionals: Bruce Vondracek provided an update of the book project. Vondracek indicated that the book is completed and should be available on the AFS book counter tomorrow or Tuesday.

Foundations of Fisheries Science: Mike Allen provided an update of the project. The book is patterned after *Fundamentals of Ecology*, a collection of reprinted classic papers. The editors (Allen and Greg Sass) conducted a survey to select paper. The survey was helpful for the top 3-5 papers (good consensus), but relied on section editors to help with the other 5-8 papers in each section. They are in the process of getting copyright permissions. Paukert asked what percentage of the papers were from AFS journals. Allen indicated that about 30% of the final papers were published in AFS journals.

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Standardized Sampling Database: Scott Bonar provided a brief overview of recent efforts to establish a database that houses data collected using standard sampling techniques based on the recent book he co-edited with Wayne Hubert and David Willis. Bonar and his colleagues have developed a website to leave comments to aid in development of the second edition. Bonar provided information on calibration and validation work (Alaska, Georgia, and Virginia involved in calibration). Bonar indicated that the lead programmer is head programmer at University of Arizona's College of Agriculture and Biological Sciences. Lastly, Bonar noted that the database is on display at the meeting and encouraged everyone to stop by, try it out, and provide feedback.

New initiatives: Mike Colvin provided an update of the committee's activities over the last year. The purpose of the committee is to identify new projects that advance the mission of the Section. Some recent ideas proposed by the committee include developing scholarships to promote undergrad attendance at the Annual Meeting, virtual Continuing Education courses, using social media to promote information transfer (e.g., vignettes on YouTube), and supporting agency biologists to provide instruction in the classroom (i.e., K-12). The committee will work to get ideas crystallized and sent to the membership for feedback.

Additional Reports:

Student Subsection: Jeff Fore provided an overview of Student Subsection activities. Fore highlighted a change in membership practices where all students are now Student Subsection members. This change, which is only a year, has greatly enhanced communication among students in AFS. Fore reported that the Subsection has compiled a list of awards available to students (listed on the Subsection website). The Subsection also secured money from the Section to provide funding for undergraduate travel. This year is a trial run. They received 14 applications and made 7 awards to support undergraduate travel to the annual meeting. Fore also indicated that the Subsection is in charge of the student-mentor colloquium. This year, the colloquium will feature a panel format regarding student marketability for jobs. Following the panel, there will be a student-mentor social mixer. Participants must attend the colloquium to attend social. Anyone can attend.

Awards and Recognition:

Quist provided a certificate of appreciation to Cooke for his service as NCD representative during 2010-2012. Quist noted that a similar certificate would be sent to Kerr for her service as NED representative during 2010-2012.

Old business:

Cooke noted that this was the first year that symposia were pre-advertised before the abstract submission deadline. This allowed participants, particularly students, to submit their work to relevant symposia. Allowing students to submit their abstracts to symposia chairs helps with interaction between students and leaders in the field. Cooke noted that there were some growing pains with the new system and that the option might go away next year if the program committee does not hear positive feedback. Pat Mazik further emphasized the need to provide feedback to current program chairs and next year's chairs in Little Rock. Quist indicated that he will write a letter on behalf of the Section to support the new format for abstract submission.

New Business and Announcements:

Item 1:

Hayer and Fore began discussion focused on developing a new undergraduate travel award. Fore and Hayer indicated that the impetus for this award comes from the fact that undergraduates are not typically working on grants and, therefore, do not have support to attend the Annual Meeting. The Subsection wants to develop an award to target increasing undergraduate student involvement in the Society, with the intent of identifying students who will continue to serve the society into the future. Fore indicated that he will make a motion to secure \$2,000 per year for 2 years from the Education Section. This will allow for approximately 6 awards that can be used to help cover registration, per diem, and AFS membership. The Subsection will help undergraduates find housing



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at the meeting by sharing rooms with grant-supported students.

Quist reminded the membership that funding requests less than or equal to \$1,000 can be approved by the ExCom. An original request was discussed by the ExCom, and a number of concerns were expressed. In particular, the original request did not include a sunset clause. The Subsection came back with a revised request which was approved by the ExCom as something to be brought before the membership at the annual meeting for discussion.

Fore motioned that the Education Section provide \$2,000 per year for two years to the Student Subsection for administering an undergraduate travel award. Wuellner seconded the motion

Discussion regarding the motion ensued. Cooke questioned how to discriminate between relative levels of need without looking at merit. Fore indicated that they would assume everyone has need and that criteria would be based on service, professional goals, recommendation by mentor(s), and future vision of participating in AFS. Cooke questioned how the award would differ from the Skinner award, whether we should think about changing the Skinner to allow undergraduates to be more competitive, and generally, whether the Skinner is a better route since it is endowed and sustainable. Fore indicated that not many undergraduates are applying for the Skinner and those that do are not competitive. Hayer reiterated that the award is focused on increasing undergraduate recruitment to the Society. Shoup suggested that we might want to increase the amount of the award and(or) make less awards because many undergraduates may not apply for the award because they cannot come up with the balance of funds needed to attend the meeting. Fore argued that it would be better to require students to incur some cost to have a more vested interest in being active at the meeting. Bonar questioned whether it was designed to get students involved in the profession. Fore responded that the goal was to get them involved in AFS. Bonar suggested that we increase the amount of the award, but have a way to judge academic performance and involvement in biology. Bonar further indicated that he would hate to see small colleges left out. Fischer indicated that this is just a trial and that we could track which where students that receive the award are coming from. Vokoun indicated that he was inclined to support the motion, but was worried the model and process is not matched to the goal. Rather, a flexible "head-hunting" approach or a strategy that provides blocks of rooms or travel (e.g., vans) might be a better approach, particularly if the search is geographically-based (e.g., within the region of the Annual Meeting) to maximize attendance by undergraduates. Allen supported the idea of focusing the award on students within the region of the Annual Meeting and that it might provide an avenue for students to attend who might not otherwise be exposed to an Annual Meeting of AFS. Tom Kwak added that if the Section supports the motion that we require students to provide a brief write up about the meeting and how the award benefitted them. Cooke voiced his support of the motion as a pilot effort, but stressed the need to think more about mentoring links and the need to form a steering committee to vet ideas associated with the award.

The membership voted and the motion carried.

Item 2:

Vokoun suggested that we increase the monetary award associated with the Excellence in Fisheries Education Award. The award is currently at \$500 and given the prestige of the award, it should be increased to reflect the magnitude of the award.

Vokoun motioned that award for the Excellence in Fisheries Education Award be increased from \$500 to \$1,000.

Mike Allen seconded the motion.

Chipps noted that the award amount has been the same for at least 10 years. Hubert suggested that the increase is long overdue.

The membership voted and the motion carried.

Adjournment

Pegg made a motion to adjourn; seconded by Parrish. Motion carried at 6:45 pm.

Education Section Committee Reports

Nominating Committee

Steve Chipps, Nominating Chair

****Elections 2013****

Dear Education Section Members: 2013 is an election year for Officers and Division Representatives for the Section. As you know, the Education Section is a great place to get involved with AFS because of the talent and experience that our members bring to the Society. The Nominating Committee is accepting nominations for President-elect, Secretary-Treasurer, Western Division Representative, and Southern Division Representative. Please consider running for a position and getting involved with the Education Section. Everyone has something to contribute, and you always get back more than you put in! For questions about Officer or Division Representative positions, please contact the Nominating Committee Chair - Steve Chipps at steven.chipps@sdstate.edu.

Foundations of Fisheries Science Book Update

Mike Allen and Greg Sass, editors

This AFS book will compile seminal papers in fisheries science and reprint them in a textbook, with summaries and commentary from two editors and five section editors. We have completed a survey of most influential papers in the fields of managing 1) fish stocks, 2) people, 3) habitat and ecosystems, 4) fish communities, and 5) fisheries enhancements. The survey had 120+ responses, and using those and the input of our editors and section editors, we have made the final paper selections for the book. AFS has been obtaining copyright permissions for the papers over the past six months, and that process is nearly complete. We will have the commentary pieces by each section editor done by spring 2013, and hope to have the book compiled and printed by fall the same year. We thank the Education Section for their support!



Chapter News

Arkansas Chapter

By: Bill Shinn. Chairman of the Education Section Liaison Committee

For many years our chapter members have judged at six regional fairs and the state science fairs for the junior high and high school division. Last year's winner at the Arkansas State Science Fair was Sarthak Gary from Little Rock Central . His project title was "Effect of Malathion on Brine Shrimp" here is his abstract : Malathion is the most widely used organophosphorus insecticide in the United States. Once introduced into the ecosystem by the farmer, it travels up the food chain, affecting humans. Artemia salina is a commonly used bio indicator. Due to its wide use, A. salina were used in this study to evaluate the effects of malathion on morphology and proteins of brine shrimp. The shrimp were exposed to 140 pm of malathion for 2, 4, 6, 8 and 24 hours showing a time dependent decrease in proteins. The total body protein levels decreased from 1287.9ug/ml in control, to 815.0ug/ml in 24th. The proteins had decreased by 36.7%. The proteins were separated by SDS-PAGE. In control, proteins between 49 and 64Da were highly expressed. Proteins from 115 to 82 kDa were more prominent in 2h, 4h, and 6h treated groups. SEM studies showed that malathion deformed A. salina. Some shrimp had ruptures in their skin while others had deformed secondary antennae. Malathion is made of mainly phosphorous and oxygen. In elemental analyses, there was a constant time dependent increase of these 2 elements suggesting that malathion was accumulating in the shrimp. A significant decrease was noted in the total protein levels of brine shrimp exposed at 25ppm after 3 days of exposure compared to control. Day 3 controls had an average protein of 70.69ug/ml in the 3 day treated group. If the bottom of the food chain is taken out, then humans will be wiped out. We must watch how much pesticide we use.

Our Chapter presented him with a plaque and a check for \$100.00 and we also gave his teacher Melissa Donham a certificate. We will have our 2013 Annual Arkansas AFS Chapter Meeting on January 23-25 in Conway, Arkansas. The chapter has invited he and his teacher to come to our Annual Meeting so he can talk about his project.

Student Subsection: Year 2012 Wrap-Up

Submitted by: Jeff Fore, Past-President, Student Subsection of the Education Section

As Past-President of the Student Subsection of the Education Section I would like to thank everyone for their participation and efforts over the past year. Our work could not have been accomplished without the various student members who volunteered their time - many thanks to you all! During my tenure as President I worked closely with our division representatives, the Subsection Executive Committee, and the Education Section Executive Committee to accomplish four major objectives.

The Student Subsection compiled a database of contact information for all Student Subunits so that we can communicate with students at all Society levels. Though the Student Subsection now represents all student Parent Society members (thanks to the work of our predecessors Jesse Fischer and Mike Colvin), we did not have the means to engage and communicate with the larger student membership. Our division representatives were charged with obtaining the contact information for all Subunit faculty advisors and presidents.

The Subsection also compiled a list of all Society awards that students are eligible to receive. Our division representatives compiled this information at the national, divisional, and state chapter levels. Students can now go to our website - www.fisheriessociety.org/edustu/awards/index.php - and browse all the awards they are interested in applying for. Many thanks to our webmaster, Rebecca Krogman, for making the website an easy to use feature.

Recognizing a need to increase undergraduate participation at Parent Society functions (primarily the Annual Meeting), the Subsection Executive Committee and the Executive Committee of the Education Section worked together to create and fund an undergraduate travel award. In its inaugural year, we provided registration costs, Parent Society membership, and per diem to five undergraduate students. The Education Section agreed to provide an additional two years of funding for this award and a committee was formed to address the administration of future awards.

Lastly, the Student Subsection hosted a successful student colloquium at the Annual Meeting. The colloquium consisted of a panel presentation that outlined how students can increase their marketability and potential to acquire jobs in various sectors of fisheries. Our panel members were Dr. Bill Taylor (Professor, Michigan State University), Dr. Rob Klumb (Research Fisheries Biologist, US Fish & Wildlife Service), Dr. Dan Dauwalter (Fisheries Research Specialist, Trout Unlimited), and John Lott (Chief of Fisheries, South Dakota Game and Fish). They each gave an informative perspective on the skills needed to obtain a job and succeed in each of their respective sectors (academia, federal agency, non-governmental organization, and state agency). Thank you to all the students and mentors who attended the colloquium and social.



Student Subsection Business Meeting Minutes

The meeting was called to order at 5:35 PM.

J. Fore introduced the guests in attendance:

Mike Quist

Craig Paukert

A quorum (> 15 members) was determined to be present (n = 23).

Excom Reports

D. Dembkowski commented on the governing board meeting. There will be opportunities for students to serve on committees to review the professional certification process and the future direction of AFS.

J. Fore discussed the 2012 student colloquium, indicating that it was a success.

J. Fore indicated that the Education Section will provide financial support (up to \$500) to host student colloquia. The Education Section requires a newsletter article discussing the colloquium in order to receive funding. Two colloquia were funded this year (Midwest Student Fisheries Colloquium and the Pacific Ecology and Evolution Conference). Students should contact the Subsection or Education Section for more details.

J. Fore gave an update of recent Students' Angles articles in Fisheries magazine. There is one Students' Angle in the process of being published. There were no articles submitted this year. J. Fischer described the Students' Angle as an opportunity to discuss subunit activities or individual experiences, etc. There are very loose guidelines on what may be submitted for Students' Angle. J. Fore discussed the need for a guide to authors for Students' Angles. M. Quist indicated that Division Representatives had recruited Students' Angles in the past. J. Fischer indicated that in the past these articles were primarily Subunit news, and they are now more individual views. A page of instructions and contact information would be beneficial. M. Quist indicated that we should coordinate with Sarah Fox (Managing Editor, *Fisheries*).

C. Hayer discussed the activities of the Division Representatives. Division representatives compiled lists of the student awards and scholarships available in their division, and this information is now hosted on the Subsection website. They also compiled contact information for the Student Subunits within their divisions.

J. Fore thanked the Division Representatives for compiling lists of awards and Subunit contact information. He also thanked R. Krogmann for posting this information on our website.

L. Pierce provided the treasurer report. Our current balance is \$2626.34. J. Fischer indicated that our current balance is primarily from previous years' dues. The Subsection will no longer receive dues as a condition of all student members of the Parent Society automatically becoming members of the Subsection. The Subsection received \$1,000 from the Education Section for an undergraduate travel award to the 2012 Annual Meeting. We received 13 applications, and 5 applicants were presented the award at the Subsection meeting. The Education Section also approved a proposal from the Subsection to continue funding the award for

Student Subsection Minutes (cont.)

Date	Description	Debit	Credit	Balance
11/15/2011	Account activation		2999.20	2999.20
11/15/2011	Student Subunit checks	5.00		2994.20
12/15/2011	Seattle AFS reimbursement (T. Pool)	252.41		2741.79
2/20/2012	Mid-year governing board (J. Fore)	525.45		2216.34
6/19/2012	Dues refund		410.00	2626.34
8/17/2012	Current Balance			2626.34

\$2,000 per year for two additional years. The Education Section voiced concerns about the award not being endowed (e.g., Skinner), and that this award was another budget line. Members questioned if this would be the best approach for improving undergraduate involvement. M. Quist indicated that the Education Section will form a committee to discuss the future direction of the award but that the Education Section needs to determine how to structure the committee. C. Hayer, P. Cooney, L. Gonsalves, R. Lehman, K. Stahr, and J. Spurgeon expressed interest in serving on committee for the Subsection.

J. Fischer commented on the Subsection election. The election will be online Friday, August 24, 2012, and open for two weeks.

Nominees:

President-Elect: L. Pierce

Secretary/Treasurer: A. Carlson

Southern Division: P. Cooney and K. Stahr

North-Central Division: M. Belnap

Western Division: S. Whitlock

Canadian: S. Wilson

Northeastern: S. Turner

Decisions Made

2011 Subsection Meeting Minutes approved (Motion: K. Stahr; motion passed).

The EXCOM will pursue updating the Procedural Manual, particularly the role of Division Representatives within the Subsection

2012 Subsection meeting adjourned (Motion: D. Dembkowski; motion passed).

Future Business Items

Annual updates to the Awards Page of website

Development of Undergraduate Travel Award Committee in conjunction with Education Section

Development of Students' Angle Guide to Authors



Student Activities

New Undergraduate Student Travel Award Sponsored by the Education Section and the Student Subsection a Success for Students!

By Cari-Ann Hayer, Undergraduate Award Committee Chair

The Student Subsection of the Education Section sponsored an Undergraduate Student Travel Award to the Annual Meeting in Minneapolis, MN last August 2012 with support from the Education Section of AFS. We had 14 applicants even though the award was announced late and was only open for three weeks. Applicants were well represented across the country (e.g., Nebraska, Missouri, Indiana, Wisconsin, Maine, Massachusetts, Alabama, Virginia, Alaska, Iowa, and Michigan). We were able to award seven awards in the amount of \$140.00 to cover registration and membership to the meeting. Two recipients had to decline because despite the monetary help, the meeting was still too expensive.

The AFS annual meeting experience "provided valuable insight and resources to fulfill my potential as a leader in my chapter"

Applicants were extremely involved in their local AFS chapters and other organizations within their Universities indicating a want to be involved in AFS and all applicants expressed that they wanted to continue their education in graduate school indicating continued AFS involvement. For most recipients, the meeting in Minneapolis was their first opportunity to attend an AFS meeting at the parent society level.

The applicants expressed many reasons for wanting to attend the meeting (e.g., networking with professionals and peers, attending symposia, meet with potential graduate advisors). This award promoted recruitment of new members and involvement in AFS as many wrote about giving back to AFS in the future, especially so "other undergraduates would be allowed the opportunity to attend the meeting like they did". They also spoke of bringing back what they experienced at the meeting to their local Subunits. Many commented that this meeting could help "jump start" their involvement and lead to more involvement

in AFS in the future as the experience would "provide valuable insight and resources to fulfill their potential as a leader in their chapters."



The winners were: Michael Sundberg (Iowa State University), Morgan Brizindine (Virginia Tech), Kasey Yallalay (Southeast Missouri State University), Thomas Goszewski (University of Missouri), and Kevin Grand (Northland College, Wisconsin).

Student Activities (cont.)

Tennessee Tech SFA

By Justin Spaulding

Since the last newsletter, Tennessee Tech SFA sent four undergraduates and three graduate students to the Student Colloquium in Charleston, West Virginia. Additionally, our sub unit sent two undergraduates and several graduate students to the Tennessee State Chapter meeting in mid-March.

This summer we continued a tradition and hosted the 24th annual Kid's Fishing Derby at Cane Creek Park in Cookeville, Tennessee. We gave away thousands of dollars in donated prizes and equipment to the 129 children in attendance at the post-derby cookout and raffle. Members presented sampling techniques to local students at the Army Corps of Engineers' Cordell Hull Education Days. We assisted the local chapter of National Wild Turkey Federation with their annual youth outreach Jake's Day event. Our association filled trash bags at the Army Corps' Center Hill Lakeshore cleanup. Members taught local kids how to fish with the Great Outdoors University and the Boy Scouts of America.

We have several social outings lined up including: cookouts, night fishing, and a cabin trip. Our subunit has seen an increase in undergraduate interest this year as many of our committee chairs and officer positions are held by undergraduates. This spring the SFA will begin a community pond management service in cooperation with the Tennessee Wildlife Resource Agency. We look forward to the Nashville SDAFS meeting in February where members will present their research and sell merchandise.

In the past year members of our sub unit have accepted full time fisheries positions: Aaron Cole, Fisheries Biologist, Wisconsin DNR; Chase Ehlo, Fisheries/Aquatic Biologist, Marsh & Associates Native Fish Lab; Tomas Ivasauaskas, PhD Graduate Assistant, North Carolina State University; Matthew Mork, Fisheries Biologist, Minnesota DNR; Matthew Peterson, Fisheries Biologist, Indiana DNR.

Student Activities (cont.)

University of Georgia Fisheries Society 2012

The University of Georgia (UGA) Fisheries Society had a great year in 2012! The sub-unit focused on recruiting undergraduates. Four individuals (Carl Della Torre, Seth Sullivan, Daniel Thomas, and Andrew Marbury) received the first annual Undergraduate Awards for their avid participation. Many of the undergraduate members are planning to attend and volunteer at the Georgia AFS conference scheduled for January 22-24, 2013 on Jekyll Island, Georgia.

The UGA Fisheries Society also hosted numerous events and speakers in 2012. We held our annual catfish fry in October, which raised approximately \$2,000, a fishing tournament on the Broad River, and a fall Welcome Back Social, which close to 60 students attended. Our speakers this year included Noreen Clough, B.A.S.S. Conservation Director, Robert Bringolf, UGA Assistant Professor in Fish Biology and Ecotoxicology, and Mike Byrne, UGA Post-doctoral Associate. Clough mentored our students on the future for fisheries professionals and offered valuable words of advice; Dr. Bringolf spoke about his work on intersex in black bass in Georgia; Byrne gave sub-unit members an update on his work with shark telemetry.

We ended the year with 2013 officer elections, and we are proud to announce that Marvin Griffin will be the UGA Fisheries Society President. Seth Sullivan will serve as Vice President, Kathy Riordan as Treasurer, and Cassie Jansch as Secretary



Student Activities (cont.)

Ball State University Student Chapter of AFS Pond Survey

By: Krista Sprague

The Ball State University student chapter conducted a pond survey located about 30 minutes outside of Muncie on October 13, 2012. Using a boat electrofishing unit, students found gizzard shad, white crappie, largemouth bass, and common carp. Some fish were then preserved for the Ball State University teaching collection and showed up on a recent lab practical! We determined the best way to correct the fishery was to do a complete kill using rotenone and start the fishery over. On Friday, October 26, Dr. Lauer's Ichthyology class returned to the pond to assist Jason Doll with the project and to see the effects of the rotenone on fish. Several fish were netted from the pond (including a few monster largemouth bass) and students were shown characteristics used to identify each species.



The crew shows off a few of the carp found in the pond.



Yes, we did find a small bluegill and a big largemouth bass.

Student Activities (cont.)

News from South Dakota's Prairie Pothole

By David Deslauriers, SDSU Student Subunit President

The main goals of the Subunit are to promote the conservation, development, and wise use of fisheries while encouraging the continuing education of its members. In addition, the Subunit is determined to disseminate information in various forms (publications, meetings, workshops, job fair) to members, fisheries students and the general public. With that in mind, specific examples have allowed the Subunit to reach its goals this past year. First off, the officer composition has been primarily made up of undergraduate students, with only the president being a graduate student. This is the first year where a clear and keen interest has been displayed by so many undergraduates to get involved at the primary level

(officers) or secondary level (member). This year might act as a turning point in the direction the Subunit wants to take, where graduate student membership has historically been in majority. The involvement of undergraduate students facilitates integration, direct contact with graduate student researchers and the access to important, educational and engaging experiences. For example, the Subunit organized 2 raffles in the past year, with proceeds going towards financing scholarships and travel awards. As a result, 5 undergraduate students were given



Chili-feed fundraiser

the chance to attend and present their work at the annual Dakota Chapter meeting. Four more students were given the chance to attend the annual American Fisheries Society meeting free of charge. The gains these students get while attending a professional meeting are invaluable and often help in shaping their career path. The Subunit makes it a priority year after year in that context.

Similar to the education of young and upcoming fisheries scientists is the need and desire to disseminate knowledge to the surrounding community. This past year, the Subunit has

Student Activities (cont.)

organized two similar events that were destined to involve, educate and entertain cub scouts from the area, along with their parents. These events (fisheries fun day and fishing derby) allowed members of the Subunit to display and explain common fish sampling techniques (electro-fishing, trap nets, seine), help in identifying fish species, describe the differences between desired and unwanted fish habitat, teach the main requirements for proper boat use and demonstrate how to adequately angle and manipulate a fish out of water. New to this year's event was the introduction of fish tagging (Floy tags) in a local urban pond. Three main outcomes were generated through this activity. First, each kid was put in charge of taking all the biological measurements of one fish and was assigned the fish's tag number. The kid also got to release the fish in hopes of getting contacted by the Subunit in the future with information about the fate of the fish (i.e., growth, kept or released). Secondly, parents were as enthusiastic, sometimes even more than their kids, about the whole process of fish capture and tagging. This was the opportunity for them to understand what might be a vague concept otherwise. Thirdly, by tagging fish, the Subunit began what is hoped to become a long-term dataset that can be managed by its members in collaboration with South Dakota Game Fish and Parks. This opportunity will offer hands on experience and application of important fisheries concepts for students that might otherwise not have the chance to do so.



Annual Job Fair

Student Activities (cont.)

The Montana State University AFS Subunit

By Ben Galloway, MSUAFS Outreach Committee Chairperson

The Montana State University Student Subunit of the American Fisheries Society (MSUAFS) continues to devote time to public outreach, educating members of the local community about the importance of fisheries conservation and responsible resource use. Partnering with Montana Fish, Wildlife & Parks and the Children's Museum of Bozeman, MSUAFS conducted its second annual Family Fishing Fun event in June, where children and adults from the local community learned about the importance of fisheries conservation and many were introduced to fishing for the first time. The event was a great success, and sixteen children ages 5-12 and their parents spent three weeks learning about fisheries and honing their newly acquired fishing skills on local ponds.

Participants took part in classroom activities that provided a firsthand look at fish ecology, life history, and conservation. The first week consisted of a hands-on encounter with macroinvertebrates collected from local streams and ponds. Children were encouraged to handle a myriad of aquatic invertebrates, including large salmonfly and dragonfly larvae, mayfly larvae, leeches, and



One of the curious participants investigates a fish she caught during the event



One of the children investigating a stonefly nymph during the stream invertebrate lesson

Student Activities (cont.)

snails. Children were taught the importance of these invertebrates as food sources for fish and other organisms, but also as a key piece of a healthy ecosystem. The second week, children learned about general fish biology and the advantages of different body forms in lentic and lotic environments. The final week, children participated in fish dissections and were thrilled with the chance to investigate the internal anatomy of a trout. Each week, children were also provided equipment and instruction (including a safety talk) on how to fish, and given the opportunity to catch fish at a local pond. Many of the children experienced fishing for the first time, and many even caught their first fish! By providing the community with opportunities like these, MSUAFS continues to help educate and inform the public about fish ecology and conservation, while fostering the desire to protect the fisheries resource in children and adults alike.



First fish! Participants used worms and bobbers to catch a variety of fish species, including suckers, rainbow trout, bluegill, and small and large-mouth bass.



Children and parents checking out the aquatic invertebrates display. MSUAFS member Nick Larson (right) helps identify a boy's catch.

Student Activities (cont.)

Students assist Museum to preserve northern Tasmanian marine plants

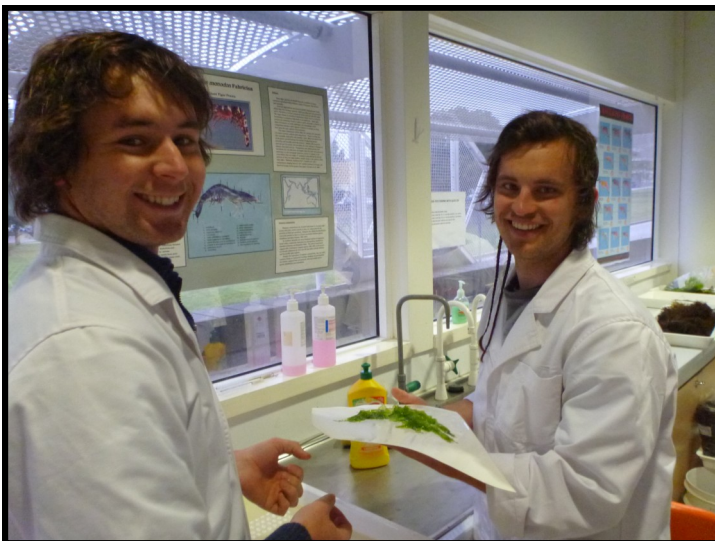
First year students at the National Centre for Marine Conservation and Resource Sustainability (NCMCRS) at the University of Tasmania, Australia are helping preserve local biodiversity through the creation of a marine algae herbarium collection at the Launceston campus of the Queen Victoria Museum and Art Gallery (QVMAG).

The waters off Tasmania contain three times more species of seaweed than tropical Queensland. Herbariums can help provide a comprehensive record of the diversity and distribution of the plants life found in our state. This information can then be accessible to scientists, environmentalists, teachers, students, landowners, the business community, and the general public to help preserve our unique environment.

"Our course goes beyond merely telling students the importance of marine biodiversity. Students are able to help preserve this biodiversity for our local community."

"Our course goes beyond merely telling students the importance of marine biodiversity," says

lecturer Dr. Nicole Kirchhoff. "Students are able to help preserve this biodiversity for our local community."



Seaweed specimens were collected from two locations in the north of the state. Specimens will then be dehydrated, pressed, and archived by students at the NCMCRS. Future classes at NCMCRS will help expand this collection, preserving a record of the biodiversity on Tasmania's coasts.

The collection will be housed at the QVMAG, and maintained by science curator, Mr. David Maynard. David Maynard said "The QVMAG has a strong regional focus, particularly in describing the biodiversity of northern Tasmania. These marine algae specimens fill an important gap in our botanical collection. By collecting, preserving and registering these plants more is known about our marine environment now and can provide an

Student Activities (cont.)

important reference in the future. We are happy to collaborate with the Australian Maritime College on student based research like this. It provides us access to an important scientific resource and it provides the students with an important learning opportunity."

These specimens will also be recorded on the Australian National Herbarium database, contributing to the national archives.



Young Professional Travel Award

Apply Soon!

The Education Section of the American Fisheries Society is currently accepting applications for the Young Professional Travel Award for the 2013 Annual Meeting of the American Fisheries Society in Little Rock, Arkansas. The Young Professional Travel Award was established to promote attendance of young 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 \$1000 in travel support. Preference will be given to individuals presenting at the meeting, those involved in continuing education or outreach, and those in need of financial assistance for travel. All young professional members (within 3 years of graduation), including agency biologists, postdoctoral associates, and faculty are encouraged to apply. The award winner will be required to attend the Education Section business meeting (late afternoon; Sunday, September 8th) to receive the award and contribute to the Section's winter 2013 newsletter.

The application should consist of the following:

1. Letter of interest
 - a. Statement of service to the Society, Sections, Divisions, or Chapters and why you want to attend the meeting
 - b. Statement of continued education effort and outreach
 - c. Statement of financial need
 - d. Statement of career goals
2. Current resume, degree/s, list of publications, honors and awards, and presentations
3. Title and abstract of the contributed paper(s) or poster(s) being presented at the annual meeting

Applications should be submitted in electronic format (PDF or Word) to Jesse Fischer fischerjr@missouri.edu and must be received by **March 31st, 2013**. The recipient will be notified by April 15th, 2013.



2012 Winner Justin VanDeHey



Are you interested in becoming more involved with the Student Subsection?

The Student Subsection of the Education Section is seeking outstanding individuals that are interested in becoming leaders in the American Fisheries Society. Candidates needed for the Student Subsection include **president-elect** (2-year term; one as president-elect followed by one as president), **secretary/treasurer**, and **division representatives** (i.e., North-Central, Northeastern, Southern, Western, and Canadian). Duties and responsibilities for each of the officers and division representatives can be found in the Procedural Manual of the Student Subsection on the Student Subsection's website (<http://www.fisheriessociety.org/edustu/>).

If you are interested in becoming more involved or have any questions regarding the Student Subsection, please contact Dan Dembkowski (daniel.dembkowski@sdstate.edu).

The Fisheries Blog

Why are fish listed as an ingredient in my peanut butter?

How old is the oldest fishing hook?

What are the five most common mistakes when electrofishing?

For answers to these fish questions and more, check out *The Fisheries Blog* (www.TheFisheriesBlog.blogspot.com) every Monday morning. For more than a year, three fisheries professionals, along with a wide variety of guests, have written short weekly posts about pertinent and forward thinking fisheries science topics. Similar to the Education Section, *The Fisheries Blog* promotes communication and discussion amongst fisheries professionals as well as with non-fisheries individuals across the globe. *The Fisheries Blog* can also be found on Facebook and Twitter (@FisheriesBlog).



143 Annual Meeting of The American Fisheries Society Sept 8-12, 2013 Little Rock, AR

The Arkansas Chapter of the American Fisheries Society and 2013 AFS President John Boreman cordially invite you to attend next year's Annual Meeting in the Natural State. The meeting theme is *Mentoring, Training, and Education: Preparing to Meet the Challenges That Lie Ahead*.

Little Rock, nestled in the heart of the Natural State, offers down-home hospitality with big city flare. The AFS Technical Program and other meeting events will be held in downtown Little Rock at the Little Rock Convention Center. Within walking distance of the Convention Center is Little Rock's River Market district, which hosts abundant cultural, entertainment and dining options. Little Rock also offers excellent trolley service for nearby attractions. For those interested in an extended visit, the Natural State offers world-class fishing, hiking, whitewater, and cultural experiences. Arkansas also offers excellent state and national parks ranging from the Crater of Diamonds State Park, the world's only public diamond mine, to the Buffalo River National Park, America's first national river.

The 2013 AFS Annual Meeting will bring professionals together to network and share knowledge in fisheries science and management. Speakers will present a broad range of Fisheries topics at the plenary session, technical symposia, and poster session as well as continuing education courses. The Little Rock meeting will feature a broad range of topics including: ecological networks and trophic food webs, social networks detailing human-fisheries interactions, and professional networks that support and enhance interactions among fisheries scientists. Regional topics will reflect the faunal richness of Arkansas and the southeast United States both in terms of the variety of its fisheries, its unique location at the intersection of the Interior Highlands and Mississippi Alluvial Valley, and its wide range of resource professionals.

We hope you will plan on coming to Little Rock to partake in hospitality, friendship, networking and education. You won't be disappointed. Your attendance at the 143rd Annual Meeting will help continue our tradition of mentoring, training, and education, and preparing for the challenges ahead.



EDITORS' NOTE

Newsletter Submissions!!!

We encourage submissions and ideas for the next issue of the newsletter (August 2013). Submissions can include updates from chapters, student subunits, and committees, meeting, workshop, and award announcements, and any information that may be of interest to the readers of the Education Section. **Pictures** are gladly appreciated. We also are requesting any pertinent **education literature** (see summer newsletter 2012) that you may come across in your educational endeavors. Contributions, comments and suggestions may be emailed to either of us at any time.

Sincerely,

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little rock

