



Education Section of the American Fisheries Society

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PRESIDENT'S LINE

I am writing this President's line on January 2, 2015 so a good time to reflect on last year's activities. The Education Section has been active, primarily looking for ways to enhance student and young professional activities and AFS participation. This has always been an emphasis of the Education Section but (in my opinion) has become more pronounced in the past several years. This is in large part to a very active and engaged Student Subsection, as well as very supportive members of the Education Section. Some examples of recent activities have included the Incredible Skinner Challenge, which was initiated in 2010-2011 where the Education Section donated \$38,570 to the Skinner fund, with other AFS Units and individuals contributing an additional \$13,570 as part of that challenge. In August 2014 the Education Section membership approved the Incredible Skinner Challenge (Take 2) where the Education Section will donate \$25,000 to the Skinner Fund, and will match up to an additional \$25,000 from other Units and individuals who contribute to the Skinner Funds by the next Annual meeting in Portland. In addition to the Skinner Challenges, the Education Section has supported a new Undergraduate Travel Assistance Award (UTAA) the last three years, and will continue to support the award for another three years. The UTAA was the brainchild of the Student Subsection leadership, and current Subsection leadership is developing a plan to hopefully make this a



PRESIDENTS LINE (continued)

sustainable award in the future. The Education Section has also supported Student Subsection leadership to attend Governing Board annual and mid-year meetings. I have talked to several Governing Board members over the last year or two who were very impressed with the Student Subsection participation and ambition. We have also supported multiple student colloquia around the country the last several years, and efforts to engage Young Professionals more in our Section at AFS as a whole.

Although we are privileged that the Education Section has the ability to support all of these endeavors, they do cost money. We have been fortunate to fund several book projects over the years (our most recent being Fisheries Techniques, 3rd edition) which provides substantial revenue to the Education Section. This revenue stream will continue in the future but we do not know how long and to what extent. A challenge in the coming decade will be to find our next revenue stream. Will this be another printed book? E-book? Online tutorials? More on this in the coming months but I encourage members to keep this in the back of their minds. The good news is we have an ambitious group of active young professionals and students; some of them will likely be the future Education Section leadership that can bring new ideas that are relevant to the next generation of fisheries scientists and educators.



Young Professional Award Committee

The Education Section's Young Professionals Award Committee made several changes this year. The committee chair is now Rebecca Krogman, who co-chaired last year with Jesse Fischer. (Thank you for all of your hard work as Chair, Jesse!) Rebecca is now looking for additional dedicated committee members to help plan and manage the award each year. Contact her at rebecca.krogman@dnr.iowa.gov if you want to help.

The most exciting change is one made in partnership with the Fisheries Management Section (FMS): the definition of Young Professionals as fisheries professionals who graduated less than five years ago (instead of three). This more inclusive definition is believed to be more representative of the early part of typical fisheries careers and may improve retention by extending unique membership benefits to when young professionals are positioned to take advantage of them. The FMS discussed this change at length pertaining to its section's activities and is proposing revision of the Society's definition this year. As close-working partners with FMS, the Education Section will use the same definition of Young Professionals, thereby expanding the potential candidate pool for the Young Professional Travel Award.

Last, the scoring method for the award was converted to a formal rubric form. This change will hopefully improve consistency among judges when scoring applications. The requirements for the award have not changed. This year, the award applications are due April 1st, 2015 to Rebecca Krogman at

rebecca.krogman@dnr.iowa.gov. See the award announcement on page 36 for more details.



“To prepare and support young fisheries professionals to remain active and engaged in AFS”



2014 AFS/Sea Grant Outstanding Student Presentation Award and AFS Outstanding Student Poster Award

Co-Chairs: Matt Catalano (Auburn University), Mark Finel (South Dakota Game, Fish and Parks), and Katie Bertrand (South Dakota State University)

In March 2014, we received over 80 applications, but only about half of them were complete. Approximately 44 submissions were complete, meaning that they included standard abstracts, extended abstracts, and advisor confirmations. Is it possible that many students and advisors are still unaware of the extended abstract or advisor confirmation requirement that has been in place for over 5 years. Detailed announcements, newsletter articles, and an award webpage (<http://www.fisheriessociety.org/education/BSP.htm>) provide application instructions, so please let us know how else we can spread the word about the application process. We hate to turn away applications from the future of our Society—help us help you!

Each submission was assessed against a judging rubric by 2 judges, one being a Division Representative from the Education Section and one being a Division Representative from the Student Subsection. Twenty finalists were selected to give oral presentations during the Best Student Paper Symposium, and 6 finalists were selected to give poster presentations during the Best Student Poster Symposium. Note that this is twice as many poster finalists as in 2013, but we still strongly encourage more students to submit applications to the poster competition—the monetary award size is the same!

At the 2014 AFS Annual Meeting in Quebec City, more than 120 meeting registrants volunteered to serve as oral and poster judges—our Society is incredibly grateful for their service to arguably the most important sector of the Society: our students! We selected 4 professional judges and 1 student judge to evaluate the oral presentations and the same number to evaluate the posters. Why did we increase the number of poster judges from 3 to 5? We felt that with the large number of volunteers and the small number of posters there would be ample time

Student Poster/Paper Awards (continued)

for the judges to meet with all 6 finalists during the tradeshow poster networking event on Monday evening. We also felt that equating the number of judges between the oral and poster presentations would emphasize that excellent poster presentations are just as important as excellent oral presentations.

The Best Student Poster Symposium was held on Monday Evening during the tradeshow and poster networking event. All 6 finalists' posters were located next to one another in the exhibit hall to facilitate judging and highlight the BSP symposium. The Best Student Paper Symposium was held on Monday 1:20 – 5:00PM and Tuesday 8 – noon. New this year was an option for judges to either use electronic judging forms or the traditional hard copy judging sheets. The Judges Luncheon (free!) kicked off at 12:15PM, and for the first time, 2014 BSP Winners were announced at the 2014 AFS Business Meeting on Wednesday afternoon. Corey Eddy (University of Massachusetts Dartmouth) was the winner of the oral presentation category for his paper entitled, Capture-Related Mortality and Post-Release Survival of Pelagic Sharks Interacting with Tuna Purse Seines in the Eastern Pacific Ocean. Honorable Mention went to Elizabeth Ng (University of Idaho) for her paper entitled, Estimation of Gill-Net Selectivity for Lake Trout and Application to Demographic Parameter Estimates. Samreen Siddiqui (Valdosta State University) won the poster presentation category for her paper entitled, Copper Oxide Nanoparticles Are More Toxic Than Dissolved Copper to the Sea Anemone, *Aiptasia Pallida*. Honorable Mention went to Craig Schake (South Dakota State University) for his paper entitled, Gape : Body Size Relationship in Smallmouth Bass.

New Education Section Website

The Education Section recently migrated its website to a new server hosted by AFS. The advantage of this move is that AFS can keep the site fresh by adding general news, announcements, posts, etc. relevant to the Education Section and AFS membership as a whole. In addition, we can still post all the content we want for the Education Section. Our long-time webmaster, Steve Ranney, and Sarah Gilbert Fox from AFS were leading this effort and deserve much of the credit. We still have some changes and updates to make, but much of the migration is complete. The new webpage can be found at:

<http://education.fisheries.org/>



The Skinner award has supported student travel to the national AFS meeting for over 30 years

Incredible Skinner Challenge-Take 2

By: Dr. Craig Paukert

At the Education Section business meeting in August 2014 the membership approved a motion to create another Incredible Skinner Challenge. Therefore, the Education Section will add \$25,000 to the Skinner Memorial Fund, and will match up to an additional \$25,000 if other individuals, units or organizations contribute that amount before **September 1, 2015**. Therefore, with everyone's help we could add up to \$75,000 to the Skinner Endowment. Some of you may recall that we had the original Incredible Skinner Challenge in 2010-2011, spearheaded by then Education Section President Tom Kwak. In that challenge, the Education Section contributed \$38,570 to the Skinner Memorial Fund. In addition, 2 chapters, 9 sections, 2 divisions, 6 individuals, and 1 private organization have also contributed \$13,570 to the Skinner Funds for a total of \$52,140 donated as part of the Incredible Skinner Challenge. We hope to be more successful this year and will be in contact with other Units of AFS to contribute to the challenge. Contributing to the challenge is easy! Just follow the link below and from the menu select 'Skinner Memorial Fund'. Alternatively you can contact Denise Spencer (dspencer@fisheries.org) at the AFS office to make your contribution.

<http://fisheries.org/donate>

Education Section Bylaws Updated

The Education Section membership approved some minor bylaw changes at the annual Section business meeting in August. These changes were subsequently approved by AFS and are now on our website:

<http://education.fisheries.org/governance/>



Business Meeting Minutes

Minutes of the Annual Business Meeting—Education Section

2014 Annual Meeting of the American Fisheries Society

Quebec City; Aug 17, 5-7 pm, Convention Centre 2015

Call to Order: Craig Paukert called the meeting to order at 5:12 p.m. Paukert pointed out that a few copies of the agenda and treasurer's report were available to attendees in the back of the meeting room.

Introduction of Guests: Paukert recognized the current officers of the Education Section, which included himself as President and Secretary-Treasurer Trent Sutton; he noted that Past-President Mike Quist and President-Elect Katie Bertrand either could not make it (Quist) or were in transit (Bertrand). Paukert recognized the Division Representatives who serve on the Section's Executive Committee (ExCom) along with the officers. Division Representatives were Phaedra Budy (Western), Tracy Galarowicz (North Central), Allison Roy (Northeastern), and Brian Irwin (Southern). Only Allison Roy was in attendance. Paukert recognized the Past-Presidents of the Section in attendance: Steve Chipps, Joe Margraf, and Brian Murphy. Paukert also recognized that Joe Margraf (1st Vice President) was a current AFS officer.

Determination of Quorum: A quorum (10% of membership) was present and confirmed by Sutton (> 50 members were in attendance).

Approval of Agenda: Paukert introduced the agenda, which was approved with no changes (no motion required).

Approval of Minutes from 2013 Business Meeting: The minutes were available to the membership on the Section webpage and in the Section Newsletter. Minutes were approved with no changes (no motion required).

President's Comments: Paukert noted that AFS was very excited about the new Executive Director (Doug Austen). Paukert noted that discussions during the AFS Governing Board meeting related to the Section centered on communications and whether AFS should only be communicating with its



Education Section Business Meeting Minutes (continued)

members or also be communicating with individuals outside of its membership. Another discussion point from the AFS Governing Board meeting related to communications focused on social media. For example, should AFS maintain a blog (and should it be moderated) and should *Fisheries* be a high impact journal, a newsletter, or something else (what is the audience for *Fisheries*?)? Paukert also introduced the new Director of Student Development for AFS (Beverly Pike).

Treasurer's report: Sutton presented the Treasurer's report. Total assets of the Section as of August 12, 2014 were \$185,277.83. The balance forward from August 18, 2012 was \$141,294.60, income from the previous year was \$52,003.13, and expenses were \$10,735.72. Sutton explained most of the revenues were from book sales (\$51,525), with the majority of that income coming from the sales of *Fisheries Techniques, Third Edition* (\$44,759.50). The remainder of the book revenues came from *Inland Fisheries Management in North American, Third Edition* (\$5,827.23), *Analysis and Interpretation of Freshwater Fisheries Data* (\$707.27), and *Methods for Fish Biology* (\$230.40). Brian Murphy asked why the two CDs generated such low interest and recommended that we should consider investing the CDs differently. AFS Executive Director Doug Austen commented that the Section should consider investing their assets with the AFS portfolio that was doing very well. Paukert indicated that this would be discussed by the Section ExCom.

Comments by AFS officer: Joe Margraf (1st Vice President) filled in for Donna Parrish (President-Elect) who was not in attendance. Margraf stated that AFS was doing very well and that the AFS business meeting would be held on Wednesday afternoon. Margraf also introduced AFS Executive Director Doug Austen.

Committee Reports:

Newsletter: Hilary Meyer reported that the newsletter is published twice each year and that she is the editor for the winter newsletter. Meyer noted difficulties with the winter issue this past year because the listserv was not available for 2-3 weeks. She stated that if anyone has newsletter submissions, send them either to her for the winter newsletter or to David Schumann, who is the editor for the summer newsletter.

Web page: Steve Ranney could not attend the meeting, but Paukert reported for Ranney. Paukert reported that Ranney is happy to continue as the webpage manager but would give it up if someone else was interested. AFS will have a new webpage in a month and the Section should consider revising its format to be consistent with AFS. Sarah Gilbert Fox (AFS) will host section websites on their website and has offered assistance with our website.

Excellence in Fisheries Education Award: Paukert reminded the Section that this is a Society-level award and will be officially presented at the AFS plenary session.



Education Section Business Meeting Minutes (continued)



Paukert (reporting for chair Greg Whitledge who was not in attendance) recognized the committee and stated that six nominees were reviewed this year. He encouraged the membership to nominate new members as all nominees this year were holdovers from previous years. This year's recipient – Steve Miranda (Mississippi State Cooperative Fish and Wildlife Research Unit) – will receive a plaque at the plenary session. Paukert gave an overview of the credentials for Miranda and noted that Rebecca Krogman nominated him. Krogman posed for a photo-op with Miranda, who thanked Krogman and the membership for this award.

Skinner Committee: Dan Daugherty was unable to attend the meeting so Paukert provided the committee report. The Committee for 2014 included Daugherty (Chair), Mary Bremigan, Andrea Johnson, Scott Heppell, Peter Sakaris, Michelle Walsh, and Patrick Cooney. All committee members have agreed to continue to serve on the committee except Daugherty, who will be replaced by Julianne Harris. The committee received a total of 40 applications for this year's award. Thanks to the Society, they were able to provide 10 student applicants with Skinner Awards in support of their attendance at the meeting. The Section also provided additional support, allowing five additional student applicants to receive honorable mentions. The winners of this year's award were: Jeremiah Osborne-Gowey – M.S. student, Oregon State University; Jan-Michael Hessenauer – Ph.D. student, University of Connecticut; Kyle Wilson – Ph.D. student, University of Calgary; Augustin Engman – Ph.D. student, North Carolina State University; Noelle Yochum – Ph.D. student, Oregon State University; Karen Dunmall – Ph.D. student, University of Manitoba; Natalie Scheibel – M.S. student, South Dakota State University; Stacy Vega – M.S. student, University of Alaska – Fairbanks; Nicholas Sievert – M.S. student, University of Missouri; Laura Heironimus – M.S. student, South Dakota State University. Honorable mentions were: David Kazyak – Ph.D. student, University of Maryland – College Park; David Deslauriers – Ph.D. student, South Dakota State University; Konstantine Rountos – Ph.D. student, Stony Brook University; Kyle Bales – M.S. student, Southeast Missouri State University; Henry Flowers – Ph.D. student, North Carolina State University.

Best Student Paper-Poster 2013 Awardees: Paukert announced the awardees of the BSP Paper and Poster from the 2013 meeting which will be presented at the Business Meeting on Wednesday. Best Student Paper: Zach Penney, University of Idaho, Finding Death: The Relationship Between Energy and Iteroparity in Steelhead Trout; Best Student Paper Honorable Mention 1: Antranik Kajajian, Old Dominion University: Otolith Chemistry Distinguishes the Estuarine Nurseries of Summer Flounder; Best Student Paper Honorable Mention 2: Sara M. Turner, SUNY, ESF: Determination of River Herring Natal Origin Using Otolith Chemical Markers; Best Student Poster: Nick Sievert, University of Missouri: A Vulnerability Assessment for Missouri Stream Fish Species: Development and Evaluation. Only Penney and Sievert were in attendance.



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Best Student Paper-Poster 2014 Symposium: Matt Catalano, Mark Fincel, and Katie Bertrand are the Co-Chairs for the 2014 Annual Meeting; however, Paukert gave the report. Paukert reminded attendees that the Section administers the BSP symposium, but the award is jointly sponsored by Sea Grant and AFS. Over 80 submissions were considered, but only 44 submissions were complete. What this meant was that only 44 submissions included standard abstracts, extended abstracts, and advisor confirmations (the remaining 36 did not include at least one of these components and were disqualified). Many students/advisors are still unaware of the extended abstract or advisor confirmation requirement, so there is a need to keep spreading the word and pointing students to the Section webpage and newsletter. Each submission was assessed against a judging rubric by two judges. Twenty finalists were selected to give oral presentations during the Best Student Paper Symposium, and six finalists were selected to give poster presentations during the Best Student Poster Symposium. Note that this is twice as many finalists as in 2013, but more students need to submit applications to the poster competition (the award size is the same for each award). More than 120 meeting registrants volunteered to serve as oral and poster judges, and the committee was thankful for that. Four professional judges and one student judge were selected to evaluate the oral presentations and the posters (note that this is an increase in the number of poster judges from 3 to 5). The committee co-chairs felt that with the large number of volunteers and the small number of posters that there would be ample time for the judges to meet with all six finalists during the tradeshow poster networking event on Monday evening. The co-chairs also felt that equating the number of judges between the oral and poster presentations would emphasize that excellent poster presentations are just as important as excellent oral presentations. The committee strongly encouraged attendance at the Best Student Poster Symposium on Monday evening during the tradeshow and poster networking event. All six finalists' posters will be located next to one another in the exhibit hall to facilitate judging and highlight the BSP symposium. In addition, the committee strongly encouraged attendance of the Best Student Paper Symposium on Monday (1:20 – 5:00 p.m. in Convention Centre 2105) and Tuesday (8 a.m. – 12 p.m., same room). Judges may either use electronic judging forms (new this year) or pick up hard copy judging packets at the registration desk. The judge's luncheon will be held at 12:15 p.m. in Convention Centre 201B, and the 2014 BSP winners will be announced at the AFS Business Meeting on Wednesday afternoon.

Membership: Jesse Fischer acknowledged co-chair Rebecca Krogman. Fischer stated that the primary responsibility of the Membership Committee is to select the Young Professional Travel Award (YPTA). Fischer reminded the membership what the YPTA is for and what it provides (\$1,000 travel to the annual meeting); Fischer noted the committee membership - Michelle Walsh, Tyler Stubbs, Landon Pierce, Krogman, and himself. There were nine candidates for 2014, and the awardee was Mark Fincel (who was not in attendance due to travel delays). Fischer noted that the biosketch for Fincel will be provided in winter newsletter.

Nominating: Paukert (for Quist) reported that this was an election year and thanked the nominees, who were willing to stand as candidates for the officer positions. Two elections were held this year: representatives for the Northcentral Division (NCD) and



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the Northeastern Division (NED). There was only one nominee for each position this year, Dan Isermann for NCD and Tyler Wagner for NED. Next year's elections will be held for Southern Division representative, Western Division representative, Secretary-Treasurer, and President-Elect.

Ad Hoc Committee, Special Projects, and Student Subsection:

Student Subsection – President-Elect Andrew Carlson reported for President Landon Pierce. Carlson stated that the Subsection focuses primarily on student recruitment and retention through the Undergraduate Travel Award and uses social media (Facebook) as a way to communicate with students and student subunits. He stated that this year the student colloquium is combined with the Future of Fisheries: Perspectives for Emerging Professionals symposium and that Subsection members published two articles in *Fisheries*. Carlson reported that the Subsection annual meeting would be held on Tuesday. New business for the Subsection to be discussed includes Undergraduate Travel Award – the Subsection has given the award to 11 winners [2 in 2012, 7 in 2013, 2 in 2014]), and the two award winners in 2014 are Dalton Benage from South Dakota State University and Lucas Price from West Virginia University (neither were in attendance). Carlson reiterated Paukert's earlier comment that communication was a large discussion point at the AFS Governing Board meeting (both within and outside of AFS). He acknowledged Krogman for maintaining the website, and would like to develop several brochures on student-focused topics (e.g., about the Subsection, how to apply for grad school, how to develop a CV).

Undergraduate Travel Award – Carlson reported that the Undergraduate Travel Award (UGTA) has been very effective over the last three years, with 9 of the 11 winners contributing significantly to AFS. Overall, there has been low student recruitment, but high retention. Carlson thought it might be worth considering integrating the Skinner and Undergraduate Travel awards to give out awards annually to 5 Ph.D., 5 M.S., and 5 undergraduate students. Patrick Cooney acknowledged Carlson for his efforts in representing students at the AFS Governing Board meeting, but indicated that he would not want to see changes that could lead to competition between undergraduate and graduate students. Murphy asked how we have supported students in the past, and supported the idea of limited number of awardees (five students per category). Paukert indicated that there have been some students that have received the Skinner Award more than once. Although many are not supportive of that, there are no rules that state the Skinner Award can be received only once. Cari-Ann Hayer stated that the UGTA was developed as a recruitment tool to show students what fisheries and AFS is about (it was not intended to be merit based). Carlson stated that he would like to give a lower amount of funding to more applicants (this year, there were only two applicants; in previous years there have been 5-7 applicants). A question was asked about whether the award amount is sufficient given high travel costs (e.g., Quebec City meeting). Christine Moffitt stated that the Equal Opportunities Section (EOS) has been focusing on under-represented minorities that are undergraduates, and that the Education Section, EOS, and other AFS sections should come together in a targeted initiative to increase fund-



Education Section Business Meeting Minutes (continued)

ing and the opportunity to provide sufficient support for undergraduates to travel to the annual meeting. Murphy clarified what he meant by the term “merit based”, that the award is based on the credentials of the student. Fischer stated that perhaps we designate the award as the Dave Willis award and keep it separate from the Skinner Award. Dan Isermann stated that not all of the awards have a registration waiver and that all awards need that to stretch the funds. Carlson pointed out that in the past, two of the UGTA awardees were not able to come to the annual AFS meeting because of high meeting costs even with the award. An idea was proposed that maybe the UGTA should only have a regional focus (like ESA) so that it can bring more students to the meeting (because of lower costs). However, to do this, faculty and student subunits would need to get involved in advertising the award. A list of undergraduate fisheries programs would need to be generated and advertisements would need to be sent directly to faculty/mentors at those institutions. It was pointed out that the UGTA is relatively unknown relative to the Skinner Award. Jason Vokoun stated that he liked the idea of student subunits to be awarded a hotel room to allow multiple students to attend. One drawback of a regional focus for the UGTA was brought up - most students that apply are only doing so their junior or senior year and, as a result, some students will be left out based on the four-year cycle of meeting locations. It was decided that an ad hoc committee within the Education Section was needed to investigate all of this because it is too much work for the Nominating Committee. A motion was raised by fayer that was seconded by Zach Penney to support awarding \$2,000 per student recipient of the UGTA for 5 students per year for the next three years. The motion was struck down because the Education Section cannot entertain funding requests past the deadline [July 1]. The question was raised on whether we suspend that rule with a quorum, and the answer to that question was yes. Murphy stated that this investment (UGTA) could be as large as the Skinner Award but there is no endowment to support (the Skinner Award has a large endowment).

Funding Requests:

Undergraduate Travel Award – Carlson made a written funding request (motion: \$2,000 per year for the next three years for the UGTA). Because the request was for over \$1,000, there was a need for a full membership vote. Moffitt stated that the issue is much larger than the student subsection and Education Section, and that we need to reach out to other subsections to combine efforts. Krogman offered an amendment of \$2,000 of support for 1 year and the creation of a committee to explore how to examine the future of the UGTA. There was support for developing a committee to explore how to make this happen. The motion was seconded by Steve Lochmann. Isermann made a formal amendment to Carlson’s written request for \$2,000 for one year, which was seconded by Krogman. A request was made to also allow a committee to explore how to develop future funding needs (however, this was not part of the motion). Vokoun thought we should keep the original written motion from Carlson intact to allow three years to figure this out; this idea was supported by Murphy. A vote was called for the amended motion from Isermann which was struck down. Discussion turned back to the original Carlson motion. Clarification was requested on what the vote was for and whether the allocation for student travel could be changed in future years before the expiration of the three-year period (yes, it can if the Subsection presents another funding request in subsequent years). Paukert called for the vote, and the original



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Carlson motion to provide the Subsection with \$2,000 annually for 3 years to support undergraduate travel was supported unanimously.

Hutton Program – Paukert introduced Beverly Pike, the new AFS Director of Student Development. This position will oversee continuing education and the Hutton program, and will serve as a liaison with the Education Section. Pike thanked the Section for their significant past and current support of the Hutton program and our continued support in the future. She stated that she looks forward to future opportunities with undergraduate and graduate education and outlined her new strategic marketing campaign for Hutton which contains four target audiences (high school students with a focus on minority students – we want the best and brightest; potential mentors for students – there might be a great student in an area but no mentor; host organizations – many host organizations are not aware of the Hutton program, missed opportunity; donors to increase the amount of Hutton funding). Pike views the Hutton program as an opportunity to invest in the future because many people outside of fisheries know little about the fisheries profession. She discussed developing programs for secondary education-level students, and will be working on that initiative as well as strategic initiatives and collaborators/donors. Her written motion was for \$5,000 from the Section to be contributed to the Hutton endowment. Lochmann supported the motion, and no second was needed. A question was asked if students in the Hutton program can only be considered if they are in the U.S.; it was clarified that Hutton students can participate in the U.S., Canada, Mexico, and the U.S. territories. Paukert called for the vote, and the motion passed unanimously.

Bylaw Changes:

Paukert noted that the proposed bylaw change was submitted to the Section membership via the Listserv and provided history on the requested bylaw changes. At last year's Section Business Meeting, the membership brought a motion forward to increase the amount of funding the ExCom has the authority to approve without full membership vote from \$1,000 to \$2,500 USD. The Section did not vote on the motion last year because it required posting of the bylaw change for comment and approval of the AFS Constitutional Consultant. The Section has now made this proposed bylaw change. The Section also added as a bylaw change that the President Elect will co-chair the Best Student Paper/Poster Committee. The Section is currently doing this, but the bylaw change would formalize this additional duty. Paukert noted that these bylaw changes were already reviewed and approved by the AFS Constitutional Consultant and will be sent to Governing Board for approval now that the motion passed. Murphy supported the motion, which was seconded, and the motion passed.



Other Awards and Recognition:

Paukert informed the group that a certificate of appreciation would be sent to Galarowicz for her

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service as NCD representative during 2013-2014. Paukert provided a certificate of appreciation to Roy for her service as NED representative during 2013-2014.

Paukert announced the election results for the new Division Representatives – NED (Wagner) and NCD (Isermann).

New Business and Announcements:

Paukert noted that the Section will be looking for committee members for the New Initiatives, Excellence in Fisheries Education, and Membership committees. If anyone is interested in serving on one of these committees, contact Paukert

Murphy stated that we have too much money for a non-profit organization and made a motion to add \$25,000 to the Skinner endowment and provide a 1:1 challenge match up to \$25,000 for other AFS units. Therefore, the Education Section will immediately add \$25,000 to the Skinner Fund, and then add up to an additional \$25,000 if other individuals and AFS Units contribute that amount. The motion was seconded by Moffitt. Paukert voiced concern about the sustainability of Section revenues from book sales. Moffitt asked what kind of interest/earnings were being generated by the Skinner endowment and wondered whether we may be developing a similar but separate entity for the UGTA. Investment of Section funds needs to be discussed with AFS Executive Director Austen. Paukert clarified the Skinner Award (10 full awardees, five honorable mentions) and how that fluctuates annually based on revenues. It was stated that the AFS portfolio (which included the Skinner fund) the Skinner made 28% returns last year, because it is invested through the AFS portfolio and that we could do the same thing with the Section CDs. A vote was called on the Murphy motion which passed, but not unanimously.

Carlson will create an ad hoc committee to examine undergraduate student travel. It was stated that there was no need for a motion to create an ad hoc committee. One of the charges of the committee will be to come up with funding options for undergraduate travel.

Cooney stated that funds contributed to the Hutton Award cannot be used to advertise and that there is a need to contribute funds to advertise. Moffitt clarified that there have been past issues with the Hutton program and that moving forward there will be more emphasis on advertising, more transparent operations, etc., so we should expect better structuring in the future of the Hutton program. Pike discussed the need for better marketing of the Hutton program so that it can meet its goals and keep the program strong. A brief discussion surrounded how much funding was needed for advertising, but that the Section should wait until the Hutton Committee provides a recommendation. Moffitt stated that we need to connect the dots and provide a clear pathway for our profes-

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sion by providing peer mentoring for junior high, high school, undergraduate, and graduate students.

Bertrand updated the section on a discussion she had with Steve Chipps on a program to engage K-12 school teachers on how to deliver information/activities to students. She wants to form a committee to discuss the best way(s) on how to do this. John Jackson stated that this was discussed at the AFS Governing Board meeting as an addition to the website, and that there is a need to work with the AFS office on getting materials posted to the website. Bertrand stated that a local teacher in South Dakota indicated interest in coming to Quebec City to present what she did. Pike stated that this might be best served at local/state/divisional levels, and she would be willing to help through the Hutton program. It was stated that it would be best to handle this type of effort at the grassroots level with support from the Society.

Meyer set up a video to watch after the meeting was adjourned that was a tribute to Dave Willis. The tribute contained interviews of five Hall of Excellence representatives that discussed Willis' attributes as a person and contributions to AFS.

Adjournment

Chipps motioned to adjourn at 7:25 p.m. Dan Dauwalter seconded the motion, the motion carried, and the meeting was adjourned.



Student Subsection News

By: Andrew Carlson

President, Student Subsection of the Education Section



The Student Subsection of the Education Section (Subsection) has developed and continued a variety of initiatives during the 2014–2015 school year. The Subsection is working to enhance the student experience in fisheries in three focal areas: student education, communication, and recruitment and retention. Subsection EXCOM members developed a series of “How To ...” documents for undergraduates, graduate students, and young professionals. These documents address important steps in fisheries education and employment, including how to conduct undergraduate research, prepare for graduate school, write scholarship applications, analyze data, write and defend a thesis/dissertation, publish in graduate school, write a résumé/CV, secure employment, and become a young professional. Subsection members crafted the “How To ...” series to explain important steps in fisheries education and thereby empower students and young professionals to achieve their professional dreams.

Subsection members also created an informative brochure that introduces new and prospective members to the mission, organizational structure, and activities of the Subsection. To enhance Subsection communication, members are working to convert the Subsection website to a user-friendly WordPress format, improve the Subsection’s social media presence, and create a Student Subunit contact form. In addition, members are compiling a comprehensive list of awards available for students at AFS annual meetings as they work with the AFS 2015 Student Activities Committee to secure donations for the auction and raffle. The Subsection continues to recruit and retain fisheries students and professionals by partnering with the Education Section to administer the Undergraduate Travel Assistance Award (UTAA).

Student Subsection Business Meeting Minutes

Quebec City, Canada

August 19th, 2014

The meeting was called to order at 2:00 PM.

President-elect, Andrew Carlson introduced the guests in attendance:

Craig Paukert – USGS at University of Missouri

John Boreman – North Carolina State University

Trent Sutton – University of Alaska

Dan Dauwalter – Trout Unlimited

Quinton Phelps – Missouri Department of Conservation and Southeast Missouri State University

Ron Essig – U.S. Fish and Wildlife Service

A quorum (> 15 members) was determined to be present (n = 28).

Motion was made to approve Minutes of the 2013 Annual Subsection Business Meeting. Motion was seconded.

Canadian Division Representative Report given by Kyle Wilson

Stated communication is strong within the Ontario and BC/Washington sections but there is less communication with the Mid-Canada Chapter. Future initiatives will be to work cooperatively with the Canadian Aquatic Research Section to improve communication among students across Canada and to build a strong social media presence.

Education Section Report given by C. Paukert

Noted that the Education Section had a lively discussion of the Undergraduate Travel Award and passed funding for the award to continue for the next 3 years. Other highlights included approval for \$50,000 to be given to the Skinner Memorial Endowment and will request additional match from other sections. The Skinner Memorial Award has been primarily supported by Education Section book revenue and there is now a desire to look for other revenue streams.

President Comments/Old Business given by President-Elect A. Carlson

Mid-year Governing Board meeting

Two subsection representatives attended. Topics of discussion during the meeting included advocacy and representation.

2014 Annual Meeting Student Colloquium

This year the colloquium was wrapped into the Future of Fisheries symposium with great success.

Student Subsection Business Meeting Minutes (cont'd)

Undergraduate Travel Award Committee Report

A brief history of the award was given along with the purpose and description of the funding source by the Education Section. The section has experienced high retention of award recipients with all of the 2012 (n=7) and 2013 (n=4) going on to become members of AFS. It was discussed that there will be an Ad Hoc Committee to determine the future direction of the award.

A. Carlson dispensed this year's awards to:

Lucas Price-West Virginia University

Dalton Benage-South Dakota State University

As a new part of the award this year, Lucas Price was set up with a mentor at the meeting, Sarah Walters-Burnsed from Florida Fish and Wildlife Research Institute. Dalton Benage was set up with Melissa Trembl from Minnesota Department of Natural Resources.

Student Colloquia

The colloquia didn't occur this year but an effort will be made by the Subsection president to work with student Subunit presidents to organize a meeting for this upcoming year.

"Student Angles"

Two issues are being passed through Fisheries production staff that have been worked on by the executive committee. Topics of the article include a historical review of the "Student Angle" and the process of submitting an article.



Social Media

The Subsection has experienced increased growth of its Facebook presence. Primary credit for this is given to Jeremy Kientz and Laura Heironimus who searched all of Facebook for AFS sites and asked all sections to like the Subsection. Laura has also linked the Facebook account to Twitter so that both sites can be updated simultaneously.

Secretary/Treasurer Report given by Janice Kerns

Only one transaction was made during the 2013-2014 fiscal year. This was for the purchase of lunch during the previous subsection Business meeting.

Date	Activity	Withdrawal	Deposit	Balance
8/31/2013	End of AFS Fiscal Year 2012/13			\$2,626.34
10/04/2013	Check to L. Pierce for Subway purchase at Subsection Meeting	\$79.90		\$2,546.44
8/19/2014	End of AFS Fiscal Year 2013/14			\$2,546.44

Student Subsection Business Meeting Minutes (cont'd)

Division Representative Reports

Northeast Report given by Jan-Michael Hessenauer

Stated attempt was made to contact student Subunits but found communication with student officers to be difficult.

North Central Report given by Kyle Bales

Also stated attempt was made to contact student Subunits but found communication with student officers to be difficult. Other news included the addition of a new student Subunit at Southeast Missouri State University. Other Subunits are constantly trying to build their membership by appealing to both graduate and undergraduates students. For instance, the Kansas student Subunit helped local biologists put on a fishing clinic and volunteered at local meetings. The South Dakota State Subunit put on an ice fishing derby and job fair for undergraduates. They also volunteered at local meetings. The University of Missouri Subunit continued the ongoing independent study.

Southern Report given by Ross Andrew

Stated there was good student attendance at the Southern Division meeting held in Charleston, NC. The North Carolina State University Student Subunit won the award for AFS's best Student Subunit. This unit has been actively involved with the community with activities like kids fishing tournaments. The West Virginia Subunit has also been attempting public outreach with a research focus by conducting public flora and fauna inventories at local parks and encouraging local high school groups to come out and participate. Ross also expressed difficulty in communicating with units in the region.

Western Report submitted by Natalie Sopinka and given by A. Carlson

Stated that within the region there have been a number of outreach events but also stated some frustrations with communication and limitations of email.

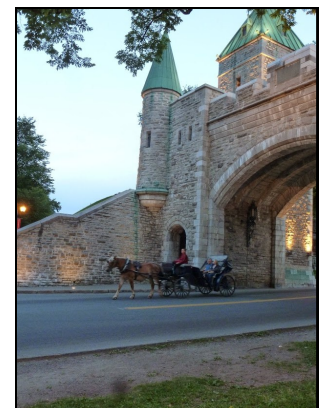
Officer Elections results were announced by Dan Dembkowski as the following:

Executive Committee

President: Andrew Carlson

President Elect: Ross Bousek

Secretary/Treasurer: Karen Dunmall



Student Subsection Business Meeting Minutes (cont'd)

Division Representatives:

North Central: Nick Cole

Western: Tracy Wendt

Southern: Clint Lloyd

Northeastern: Vivian Nguyen

Canadian: Kyle Wilson



Incoming President remarks were given by A. Carlson

He first gave thanks for all the work that had been done over the previous year and for the nomination. His stated goals for the upcoming year will be to improve communication between the divisions, units, and our members; recruit and retain new members; and enhance student education through development of a Subunit brochure, “How To ...” series, and mentorship program.

New Business and Announcements were given by A. Carlson

Undergraduate Student Travel Award

Education Section discussion meeting topics were discussed among the Subsection members including:

Scope

Multiple ideas were discussed among the members including: the idea of keeping the award separate from the Skinner Award, the idea of regional awards that could possibly be used at regional meetings to decrease cost and increase attendance, a combined regional and national/international scope, and what would a regional award budget look like? A discussion point was made that the committee should investigate what other biology, ecology (e.g., ESA), or wildlife societies (e.g., TWS) do. Some preference was also given to keep the award at Annual meeting level to increase opportunity of undergraduate students to attend a meeting at an international scale.

Amount

Discussion included the idea of finding ways to obtain registration waivers and free shared housing for recipients. Committee would need to work with meeting host to put this through.

Student Subsection Business Meeting Minutes (cont'd)

Recipients would also have to agree to share a room. It was suggested that the committee should work with the Equal Opportunity Section to coordinate rooms.

Application

It was suggested that an expected travel budget should be included in the application

Publicity

Need to increase advertisement by updating Education Section website, improve marketing through social media, and need to contact undergraduate programs directly.

Communication within the unit needs to be enhanced

The idea of having a Social Media Officer was proposed. To do this we would need to change the bylaws which C. Paukert says may be easy to do.

Another option would be to have an Ad Hoc Committee for two years whose charge it would be to increase communication.

To keep an up-to-date list of active student groups it was suggested that a standardized online submission form be posted on the Subsection website and distributed to students and faculty to allow Subunits to update their contact information.

It was also suggested that student Subunits use a generic email address (e.g., studsubunit@gmail.com) so that a continuous contact email address could be used even as officers change.

The idea of contacting new student members with a “welcome” email was also suggested. Within the email the new member could get information that maybe relevant to them and their area. R. Essig (USFWS) mentioned that AFS was making an effort to develop “welcome” emails for new members.

Finances

A brief discussion of the current financial income was given. Currently the Subsection does not collect dues and receives funding from the Education Section when requested. The idea of other funding opportunities was discussed.

Young Professionals

The idea of including the young professionals group within the Student Subsection to keep continuity between the two groups was discussed. Most were in agreement that combining groups would benefit all. The majority also suggested that a name change should take place to incorpo-

Student Subsection Business Meeting Minutes (cont'd)

rate both groups. The process for changing the name would include changing the bylaws and would need to be passed by both the Education section and Subsection.

Furthering Student education.

A brief discussion of putting together a “how to series” was discussed and Rebecca Krogman, K. Wilson, and L. Heirnominus volunteered to take the lead on this project.

Recognition was given by A. Carlson of all outgoing Officers, Division Representatives, and Social Media volunteers

Other New Business

Mentoring Program

The idea was put forth to have a mentoring program between the Young Professional and the Student Subsection.

Need to work with regional representatives and develop stated goals

Voting at Governing Board meeting

Currently the Student Subsection President sits in on the Governing Board Meeting but doesn't vote in the meeting. It was suggested by Bob Hughes that the Student Subsection President should have a vote. A short discussion was had amongst the subsection members and it was determined that we need to determine what the pros and cons would be to having a vote.

Social Media

L. Heironimus announced Shannon White a PhD student from Penn State would be taking over social media responsibilities.

The current web manager, R. Krogman, stated she is working with Sarah Fox at the central AFS office to switch our website over to WordPress to increase user friendliness of updating the website. Rebecca asked to be contacted for any suggested updates.

Undergraduate Travel Assistance Award

Explore possibility of matching funds provided by universities for Undergraduate Travel Assistance Award recipients

“How To ...” series

Include guide for Subsection President on how to fundraise, coordinate and distribute awards, implement new initiatives, etc.

Student Subsection Business Meeting Minutes (cont'd)

Student Awards

Create comprehensive list of all student awards (Society, Section, etc.) available to students at Annual Meetings

Respectfully Submitted by Janice Kerns

August 25th, 2014



AQUATIC RESOURCES EDUCATION ASSOCIATION UPDATE

Submitted by: Doug Darr

The Aquatic Resources Education Association (AREA www.AREAnet.org) held their biennial meeting in Traverse City, Michigan, last fall with an attendance of 83. The Michigan staff organized a tremendous meeting with many hands-on field experiences. Matt Dunfee spoke the first day on the Outdoor Recreation Adoption Model, and members gave presentations during two days of concurrent sessions. The conference pictures and final program can be viewed at www.michigan.gov/AREA. The next AREA conference will be held in October of 2016 at the National Conservation Training Center in West Virginia.

2014 Undergraduate Travel Award Updates



Undergraduate travel award recipients Lucas Price (Left), and Dalton Benage (Right). Center, Andrew Carlson Student sub-section president.

The Undergraduate Travel Assistance Award (UTAA) is designed to introduce undergraduate students to the American Fisheries Society (AFS) and increase participation in AFS activities by providing travel assistance to Annual Meetings. Since 2012, the UTAA has providing travel funds for 13 students, 11 of whom are still AFS members and active at the university and Society level. Funding for the UTAA recently was renewed at the 2014 AFS meeting in Quebec City, Quebec (\$2000/year from 2015–2017). However, there is some disagreement within AFS regarding the need for and utility of the UTAA. As a result, Education Section and Student Subsection members initiated an *ad-hoc* committee to review the present and future status of the award. Important discussion topics include the purpose of the UTAA, differences from the Skinner Memorial Award, support for long-term continuation, and funding sources. The committee hopes to have a recommendation by the 2015 AFS meeting in Portland, Oregon. Committee members include Julianne Harris (USFWS), Dan Daugherty (Texas Parks & Wildlife Department), Steve Lochmann (University of Arkansas at Pine Bluff), Craig Paukert (University of Missouri), Jesse Fischer (North Carolina State University), Ross Boucek (Florida International University), and Andrew Carlson (South Dakota State University).

The chair of the Excellence in Fisheries Education Award committee, Dr. Greg Whitledge, is looking for volunteers to serve as the Northeastern Division representative and the Ph.D. student representative on the committee. Committee members review and rank nominations for this award and serve 3-year terms. Interested persons can contact Dr. Whitledge (gwhit@siu.edu).

Undergraduate Travel Award Experience

Submitted by: Lucas Price

The Annual Meeting of the American Fisheries Society in Quebec, Canada was an incredible experience for me. I met an interesting array of people from different organizations, learned a lot about studies similar to mine and gained information to incorporate into my sturgeon research, and had the chance to listen to experts in a wide variety of fisheries fields. It was also interesting to explore a new city and culture I had not yet encountered.

Networking was an important part of the experience for me. I attended as many of the socials as I could, and talked to different people throughout the breaks. Since I am a senior at West Virginia University, I took the opportunity to ask professors, professionals, and graduate students about different schools to attend for a master's degree. All of the individuals I talked to were incredibly helpful and provided me with contact information for future questions.

Quebec City is an incredible place. The city's old section was unlike anything I have been to before. It had amazing old architecture, and a variety of interesting shops and restaurants. I loved to go explore it whenever I had the time. It also had incredible views of the river and street performers with varying talents.

Over the time I was in Quebec, I attended as many lectures as I could on a variety of topics. A lot of these lectures were on marine ecology, as it is a field I am interested in and have had a limited opportunity to explore. I attended a few lectures on sea turtles, of which some of my favorites discussed the use of magnetic poles for navigation. I attended lectures discussing striped bass fisheries, shark bycatch, Atlantic cod, and much more.

I also spent a good amount of time in the genetic lectures, especially the ones focusing on sturgeon. What this taught me was how little I really know in the realm of genetics. This allowed me to see that I am only scratching the surface of what is possible. One of the most useful lectures I attended was on the history of commercial and recreational fishing for lake sturgeon in the St. Lawrence River. I learned about the development of the regulations put forth, and how Canada works to make this a sustainable, successful fishery.

One of the main reasons I attended this event was to present my research on the genetic differentiation of lake sturgeon in the St. Lawrence River. This was a poster presentation, and my favorite presentation I have given. The experience was amazing, and well attended. I got to discuss my research with a variety of people from different backgrounds, and got some good feedback. Some of the people I talked to were genetics professionals, while others worked with sturgeon.

I am extremely grateful for the opportunity to attend this meeting, and the student subsection helped make that possible with the undergraduate travel grant. It was an extremely valuable educational experience for me. Through attending a number of different lectures and talking to a wide variety of professionals and students in various fisheries positions, it will help me to focus my areas of interest for graduate school. I also got to meet professionals from all over, eat amazing French food, and gain presentation experience. If given the opportunity, I would love to attend another one of these meetings in the future and I strongly encourage the student subsection to continue to support this type of experience for other undergraduate students. I plan to continue my membership with the national society and volunteer with the student section of AFS at West Virginia University. Thank you for your support.

My Attendance at the 2014 American Fisheries Society Conference

Submitted by: Dalton Benage

I was grateful when I found out I had gotten this award. I knew that this meeting would be a great experience. I was excited to present my poster and network with the many professionals and students of the fisheries world. I did encounter a hiccup on this trip though. In Sioux Falls, South Dakota our flight was delayed to the point we would miss our connection. The delays then led to multiple flight changes and eventually, the loss of my luggage.

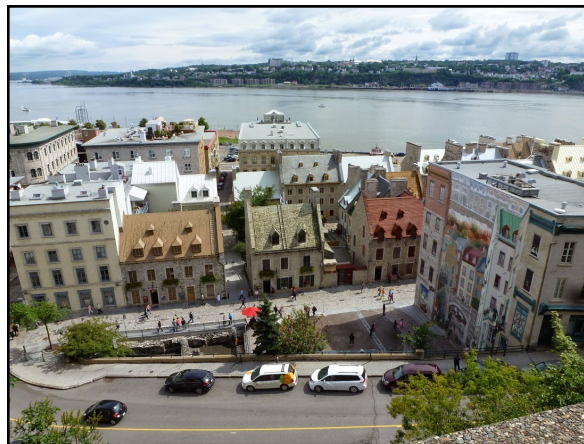
Therefore, I did not get to present my poster. I still attended the poster showing and conversed with multiple friendly faces. It was interesting to hear about the marine sciences, considering I'm a student at South Dakota State where marine life is nonexistent. Along with the poster session, I attended some social events and a speed mentoring session. The student social was a great chance to hear about the next step after undergraduate school. At the same time, talking to the volunteers that put on the speed mentoring helped me understand the multiple routes that fisheries has to offer.

I also met with Melissa Trembl who volunteered to be my mentor for the meeting. She gave me great advice about what to look for in a graduate school. She also told me more about the Minnesota Department of Natural Resources, which is my home state. One on one experiences has helped me develop as a professional in the understanding that fisheries has many different points of views on what routes are possible to get where one's goal is.

I also attended some of the presentations about what it takes to become a professional in fisheries. I found these to be helpful because I am currently looking for a graduate position. In addition to attending presentations I talked to Dr. Murphy from Virginia Tech at the grand social. He gave me a good read to help me understand even more what I need to do to get into graduate school. He was one of many influential professionals I had a chance to talk to.

Overall, I found this trip to be a successful one. I got to meet great people and make new connections. I even got a chance to experience a new culture. Also, I learned more about fisheries and what it takes to be successful. Even though I still don't have my luggage, I will always remember this trip as a great one.

Thank you all for a great experience and the opportunity to attend the meeting.



Lake and Stream Ecology and Water Quality Workshop

July 15-17th 2015 Waubay, South Dakota

Learn:

- Aquatic invertebrate identification and collecting techniques
- Basic limnology principles
- Lake and Stream ecology
- Water quality testing procedures
- How to interpret water quality data
- Environmental curriculum and classroom activities

This workshop is Free. All materials, meals and lodging are provided at no cost to participants. Teachers can earn 2 continuing Education Credit Units. Funding for this workshop is provided by an EPA 319 Clean Water Information and Education Grant from the South Dakota Dept. of Environment and Natural Resources, and by a South Dakota, Division of Resource Conservation and Forestry, Conservation Commission Grant.

For more information or to sign-up for a workshop visit:

<http://www.neglwatersheds.org/waterquality.html>

Call or E-mail:

Dennis Skadsen, Workshop Coordinator

605-345-4661 ext. 118

dennis.skadsen@sd.nacdn.net

The workshop will be held on the campus of Lutheran Outdoor's NeSoDak Bible Camp located on beautiful Enemy Swim Lake north of Waubay, SD. NeSoDak Bible Camp is known for its excellent food, facilities, and hospitality! Participants requiring overnight lodging will stay in a modern lodge complete with shower facilities, comfortable beds, and wi-fi!

Workshop attendees can participate in after hours activities including fishing, kayaking, and sight-seeing.



Ten Days In Quebec

Submitted by: Mark Fincel

Let me start by saying that the annual AFS meeting in Quebec City was a tumultuous 10 days for me. It started and ended the same; cancelled flights, nights in strange hotels in foreign cities and checked baggage being sent to wrong airports. However, the days in between were invaluable to me personally and professionally. These days also had a great impact on the future of fisheries in South Dakota and brought about a new appreciation for the strides AFS is taking to promote young professionals in the field.



I was honored when I was told I would be receiving the Young Professional Travel Award. Being on the YPTA committee years ago, I knew the caliber of submitted application packets would be high, and I was very surprised when I got the call from Jesse Fischer. Receiving this award is one of the highlights of my fisheries career to date. Being deeply honored is stating it mildly.

As odd as it may sound, I was also relieved when I got the call. The relief came from the fact that this award solidified my ability to travel to the annual AFS meeting. The months prior to the meeting were nerve-wracking as I had already submitted abstracts for presentations, yet would not know, for sure, if out-of-state travel was approved by my agency. However, receiving this award provided a much needed economic subsidy that permitted my attendance. For that, again, I am very grateful to the Education Section. Without these opportunities, travel (and subsequent participation) in AFS would be greatly limited.

I was one of only two biologists from South Dakota Game, Fish and Parks who were able to attend the AFS annual meeting (and both of us received substantial monetary assistance through various travel grants). Ironically, we are both considered Young Professionals and work in the same office. We also sit on committees together and often discuss AFS matters with similar viewpoints. Upon starting our positions, we knew that to remain involved with AFS, travel grants like the Young Professional Travel Award are paramount.

As previously mentioned, travel from Pierre, SD to Quebec City and back was rough; however, once at the meeting, there were many rewarding experiences. One of my favorites was seeing graduate students who I mentor giving talks regarding their research, fielding questions, and overall transitioning into young professionals. I think I had a smile that could not be shaken that day. In addition to presentations by my students, the overall caliber of talks by fish professionals/students was outstanding. South Dakota is currently diving into the world of otolith microchemistry, different isotope analyses and various tagging and telemetry set-ups and there was of plethora of talks covering all of these topics. Immediately upon my return to SD, I visited with my supervisor discussing many of the talks I witnessed and the ideas that were shared in light discussion after the presentations. Many of these ideas can cross state borders; needless to say, some new research projects are starting in SD because of inspiration that came from Quebec City in 2014.

Ten Days In Quebec (Continued)

In addition to sitting in the general session talks, I was co-chair for the Best Student Presentation award and was able to attend some wonderful presentations. This might be my favorite symposium at the annual meetings because it gives the audience a chance to see excellent presentations from a wide variety of backgrounds. It was also a privilege to sit with the judges after the talks and discuss each of the presentations. It was a very close race where all the applicants did exceptionally well, and it was truly the best of the best for presentations.

Another important aspect of the Quebec City meeting was the informal meeting of the Young Professional/Hall of Excellence committee. Drinks and laughs were shared and everyone had a good time. Most importantly, a framework was set to try to answer a big question that AFS is asking, "What is happening to involved students after they leave academia?" There seems to be a significant drop in membership from academia (student members) to professional. Since the meeting, many conference calls have taken place with the committee, but this informal meeting really set the stage for this group of young professionals.

So that was my experience in a few paragraphs. There were little tidbits of information gained here and there and much can be said for the late night experiences and the bonds that are made over glasses of scotch. Those interactions are just as valuable but rarely talked about in public, though they do shape relationships for years to come.

All this would not have been possible without receiving the Young Professional Travel Award. I am truly grateful for this honor and the opportunity it offered to attend the annual AFS meeting.

Mark Fincel
Senior Biologist
South Dakota Game, Fish and Parks

Ontario Student Sub-Unit Update

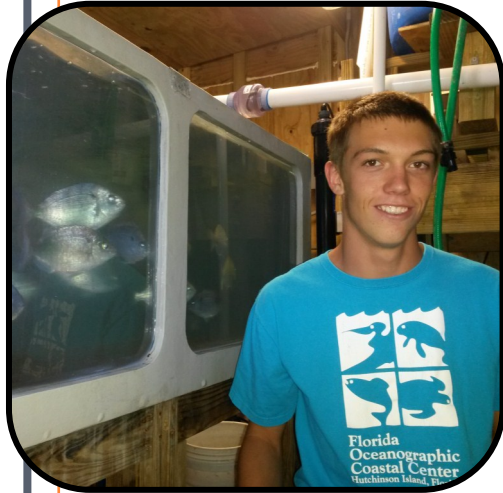
by: Jake Brownscombe

The Ontario Chapter Student Subunit has an updated web page (<http://www.afs-oc-subunit.org>) that provides information on awards and scholarships available to students, as well as news, events, links, useful documents, and highlights from member research. They are now becoming very active on Facebook and Twitter (@afs_oc_su) promoting fisheries news and information. The chapter is supporting the Clemens-Rigler travel award this year, which provides funding for students to attend the Canadian Conference for Fisheries Research (CCFFR), held in Ottawa, Ontario on Jan. 8-11th 2015. They have a relatively new travel bursary available to Ontario Chapter students to attend the AFS meetings (see our website for details). The Ontario Chapter has the AGM coming up on Feb 26-28, where the subunit will be holding a fundraising raffle. Lastly, they have started a journal club next month, where student members will meet through Google Hangouts to discuss important and broadly relevant fisheries papers.



*****Elections 2015*****

Education Section Members: 2015 is an election year for Officers and Division Representatives for the Section. As you know, the Education Section is one of the best places to get involved with AFS given 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 more involved with the Education Section and AFS. Everyone has something to contribute and we need you! For questions about any of the positions, please contact Mike Quist at mcquist@uidaho.edu.



Swimming With Rotifers

By: Ben Wisehaupt

When most people think of a fun and interesting summer, they would imagine pristine beaches, gorgeous vistas, and endless adventures. Ask a typical high school student to describe their perfect summer, and words to that effect are bound to come up. And if you would've asked me that same question less than a year ago, my answer would've included many of those social norms. Yet, I found myself spending the summer before my senior year of high school in an advanced research environment learning more than I could have ever imagined, both from the incredible people I worked with and from

the marine animals themselves. If you were to ask me that question again today, there's nowhere I'd rather be than in that same little building, engineering new and more efficient ways of managing different species.

As the rotifer researcher for Live Advantage Bait LLC (and Team OCEAN Intern with Florida Oceanographic), I was asked to first stabilize the densities, second increase the consistent density, and third automate the process. For a 17 year old with no true aquaculture experience, the task should have been quite daunting. Luckily, a combination of growing up in the water, a lifetime of tackling challenges, and an amazing mentor, provided more than enough confidence to step up to the plate. Over the course of the next several months, all of those goals were surpassed. I found a way to channel my passion for the water into a worthwhile cause, and the results spoke for themselves.

After a long series of attempts and failures, the rotifers were consistently in very high densities. Steps one and two had been successfully completed. Not unexpectedly, step three proved to be the most difficult and time consuming. For construction, I had only wood scraps, various PVC pipes, and some pool cleaning style barrels/materials. It went surprisingly well. With only a few minor hiccups, the design was up and running, and the process automated. As for the design itself, it has many convenient perks.

One definite benefit would be that the system requires very little electricity, with the air pumps being the only part needing it; the rest is run by gravity. Five barrels were placed shoulder to shoulder, all feeding into one drain, which subsequently ran into a barrel with a series of filters that first catches any waste/unwanted particles and then harvests the rotifers. The amount of water feeding into the drain for each barrel is dependent on the rate by which water is being added to each individual barrel; for this reason, rates can be monitored on a barrel by barrel basis. This allows for the growing of different types of rotifers in each bucket (or anything else that'll be harvested by the size filters installed in the harvesting bucket), so that feeds can be optimized for its individual purpose with great consistency while still being automated.

The water is added to the system by starting a siphon from the incoming water pump or reservoir to a container above each bucket (one per bucket). The water flow is regulated by plastic regulators available at most hardware stores. Each bucket has a tube running from the bottom of the bucket (make a hole in bottom of the bucket and attach the tubing there) to each barrel (make sure to run the tubing to the height of the water level wanted on the bucket first, or the bucket will simply drain out). After the OmniFeed™ is mixed, it was poured into the bucket, and the system ran on like nor-

Swimming With Rotifers (Continued)

mal, except that food was present in the water added to the bucket. This results in a relatively slow feed over time, which has proven to be better for rotifer production and to reduce the amount of waste in the barrel.

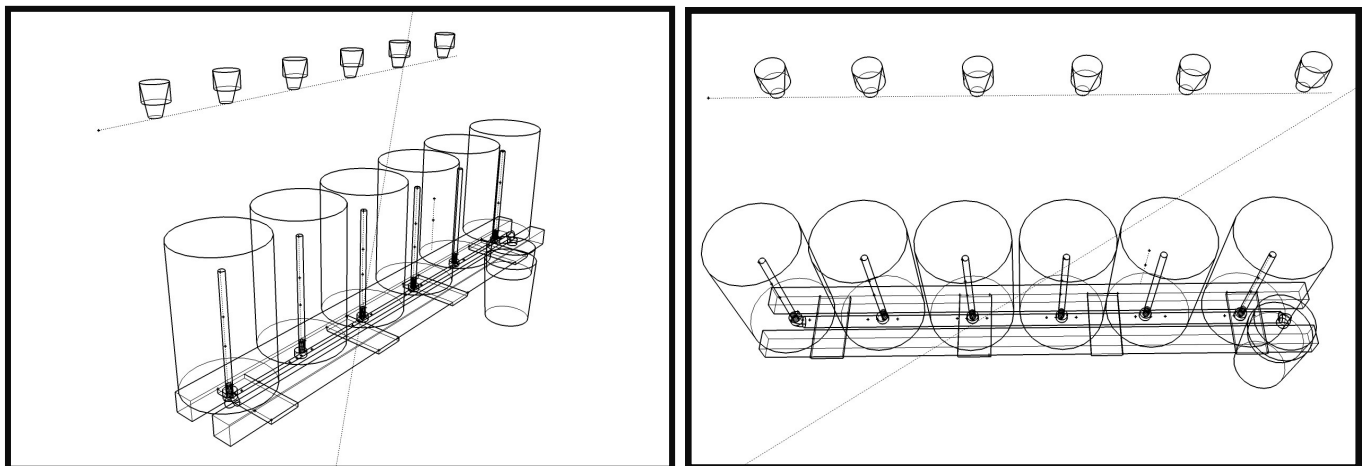
Another perk to this system is that it allows for the harvesting of rotifers from any section of the water column. Since the basic system is simply a PVC pipe running straight up the center of the barrel as an overflow pipe feeding into the drain, another PVC pipe with a cutout that matches up the desired section of water column may be placed around the overflow PVC pipe and secured to the bottom of the barrel.

Around this time last year, my summer plans included relaxing, fishing, and surfing, especially after working long hours the entire previous summer. Not in my wildest dreams did I expect to find myself as both a researcher and engineer in aquaculture or to get a chance to work in the subject area that I am so passionate about. As I begin college applications and decisions, I am now entering with a much clearer understanding of what I want to do both during and after college. It is simply amazing how heavily a simple opportunity can influence someone's perspective on what they would like to do in their lifetime.

Rotifers on a Budget

Raising rotifers, like many things in aquaculture, can be both a time consuming and costly affair. Over at Live Advantage Bait LLC, we have created a way to automate many of the more time consuming aspects and even made some interesting new twists on the possibilities for your harvested rotifers.

A little time, effort, and innovation proved to go a very long way. We are now able to sustainably grow rotifers in much higher densities. What's more, is that maintenance time is now a fraction of what it once was.



Excellence in Fisheries Education Award



The American Fisheries Society (AFS) Excellence in Fisheries Education Award was established in 1988. The award is administered by the Education Section and is presented to an individual to recognize excellence in organized teaching and advising in some aspect of fisheries education. Nominees may be involved in extension or continuing education, as well as traditional college and university instruction. Nominees must be AFS members, have been actively engaged in fisheries education within the last five years, and have had at least 10 years of professional employment experience in fisheries education. Two or more people may act as nominators, but at least one nominator must be an AFS member. The nominator(s) is responsible for compiling supporting material and submitting the application. The suggested format for applications can be found on the Education Section web site. Please include in the nomination letter, the nominee's title and full contact information (i.e. address, e-mail, phone, etc.) to complete the package. Nomination deadline is **April 1, 2015**. Contact: Greg Whitledge, Committee Chair Center for Fisheries, Aquaculture, and Aquatic Sciences Department of Zoology and Center for Ecology Southern Illinois University Carbondale, IL 62901-6511 Phone: (618) 453-6089 Email: gwhit@siu.edu.

John E. Skinner Memorial Fund 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 (up to \$800 per award) for deserving graduate students or exceptional undergraduate students to attend the AFS annual meeting. The 2015 meeting will be held in Portland, Oregon, August 15th -20th. Any student who is active in fisheries or related aquatic disciplines 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. In addition to travel assistance to attend the AFS annual meeting, award recipients will also receive a one-year paid membership to the American Fisheries Society. Applications forms for 2015 for the student and advisor (separate forms) are available at: http://fisheries.org/docs/award_skinner1.doc and: http://fisheries.org/docs/award_skinner2.doc Completed applications (for both student and advisor) must be received no later than **April 1, 2015**.

Contact: Julianne Harris, Committee Chair
Columbia River Fisheries Program Office
1211 SE Cardinal Court, Suite 100
Vancouver, WA 98683

Phone: (360) 604-2551
Fax: (360) 604-2505
Email: Julianne_Harris@fws.gov



2015 Young Professional Travel Award



The Education Section of the American Fisheries Society is currently accepting applications for the Young Professional Travel Award for the 2015 Annual Meeting of the American Fisheries Society in Portland, Oregon.

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 \$1,000 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.

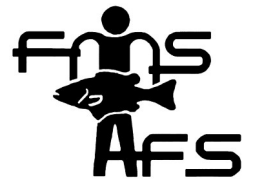
All young professional members (**within 5 years post-graduation**), including agency biologists, postdoctoral associates, and faculty are encouraged to apply. The award winner will be required to attend the Education Section business meeting to receive the award and contribute to the Section's winter 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 résumé, 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 Rebecca Krogman at rebecca.krogman@gmail.com and must be received by **April 1, 2015**. The recipient will be notified by April 15th, 2015.





Fisheries Management Section of the American Fisheries Society

2015 Young Professional Exchange Award

The Fisheries Management Section of the American Fisheries Society (FMS) is currently accepting applications for the Young Professional Exchange Award for the 2015 Annual Meeting of the Institute of Fisheries Management (IFM) in the United Kingdom. This inaugural award was established to promote the attendance of a young professional who has made substantial contributions to the field through continued education, outreach and AFS service. The award provides up to \$2,500 in travel support to attend the IFM Annual Meeting in 2015. Preference will be given to those individuals who are actively involved in AFS and fisheries management, have demonstrated expertise in new management methods or techniques, and can effectively communicate with international fisheries resource professionals. All young professional AFS members (within 5 years post-graduation) who are members of FMS are encouraged to apply. The award winner is encouraged to attend the Fisheries Management Section business meeting at the Annual AFS Meeting in Portland and to host the IFM young professional award recipient. And will be required to provide a presentation at the IFM Annual Meeting, and tell the story of their exchange experience.

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 demonstrated expertise
2. Current resume, degree(s), list of publications, honors and awards, and presentations
3. Title and abstract of contributed paper to be presented at the IFM Annual meeting

Applications should be submitted in electronic format (a single PDF preferred) to Mark Porath mark.porath@nebraska.gov and must be received by March 31st, 2015. The recipient will be notified by May 1st, 2015.

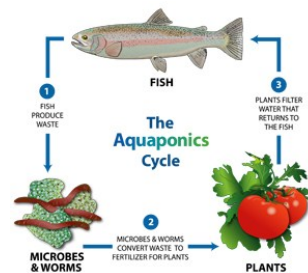
University of Wisconsin-Stevens Point Basic & Advanced courses – Spring 2015

Principles of Aquaponics - Biology 380 – 2 credits

Non-credit, reduced fee option available for those interested in the course but not needing college credit.

Online lectures (February 25 – May 4) with weekly online discussion sessions.

General principles of the integrated science of aquaponics, the combination of aquaculture (fish culture) and hydroponics (soilless plant culture). Introductory knowledge of aquaponic systems, biological functions, socio-economics & marketing.



Introduction to Aquaponics - Biology 384 – 3 credits

Hybrid course: Online lectures (February 25 – May 4) with weekly online discussion sessions; In-person lab sessions meet (May 18 – May 20) at the UWSP Aquaponics Innovation Center, Nelson & Pade, Inc. campus, Montello, WI.

Biological system designs, production techniques and methods for the integrated science of aquaponics, the combination of aquaculture (fish culture) and hydroponics (soilless plant culture). Foundational knowledge of aquaponic food production, fish culture, crop selection, good agriculture & best management practices, and economics & marketing. Includes 3-day, hands-on lab sessions in May.

If interested, registration is open at: <http://www.uwsp.edu/conted/credit/Pages/CreditCourses.aspx>

Additional registration questions, contact Shelia Bannister-Gross (sbannist@uwsp.edu), Toll free (800) 898-9472, Ext. 3913.

For general or course-related questions, contact Dr. Chris Hartleb (chartleb@uwsp.edu), (715) 3

Editors' Note

Photos of Quebec City and Annual Meeting courtesy of Rebecca Krogman.

If you have comments or suggestions, please feel free to contact us. We encourage submissions and ideas for future issues of the newsletter (June/July 2015). Contributions, comments and suggestions may be emailed to us at any time.



Hilary Meyer
South Dakota Game, Fish and Parks
20641 SD Hwy 1806
Fort Pierre, SD 57532
Hilary.Meyer@state.sd.us



David Schumann
South Dakota State University
SNP 138 Box 2140B
Brookings, SD 57007
David.Schumann@sdstate.edu

