Serve or Be Served: Leadership Roles in the Education Section

It’s that time of year for the Education Section — elections! This year, Past-President Donna Parrish and the nominating committee put together a slate of excellent candidates that are willing and more-than-able to serve in officer positions in the Section... but it wasn’t an easy task. Of course, we want our most qualified members to serve in officer roles — those with experience, a broad view, creativity, and energy and enthusiasm for our mission. And we have plenty of talented individuals in the Section that could be outstanding officers, but identifying them simply from the membership list is a challenge. Another consideration in identifying candidates is diversity — in demographics, geography, discipline, employment affiliation, and anything else that may bring new ideas to our Section leadership. Then once a potential candidate is identified, they’re contacted by the Nominating Committee Chair (the Past-President), and they usually take time to consider if this is the right role and time for them if elected. It’s all an involved, but important, process that would be more efficient and perhaps successful if potential officer candidates identified themselves.

Thus, I’m asking you to please consider if and when you might be willing to run for an officer position in our Section. This is a generous commitment of your time, and it can be demanding, but is certainly rewarding. So please consider the goals of the Section, which you presumably support as a member and the different leadership roles that you might fill.

The goals of the Section are to (1) improve the quality of higher education for fisheries scientists; (2) promote exchange of post-secondary education information, techniques, and materials among educators and institutions; and (3) foster improved communication and information exchange among fishery educators, employers, specialists, students, and the public.

(Continued on Page 2)
President’s Line (continued)

The President serves as Chair of the Executive Committee, presides at Section business meetings, appoints all committees and a webmaster and serves as an Ex Officio member of each, and represents the Section and performs other duties to keep the Section active and relevant.

The President-Elect performs presidential duties in the absence of the President, appoints newsletter editors, serve as Program Committee Chair, and learns all they can about being President before they advance to that office.

The Secretary-Treasurer maintains the membership list, receives all funds, pays bills, itemizes all receipts and disbursements, presents a semi-annual report to the membership, and submits reports to the parent society leadership annually and as requested.

Division Representatives serve on the Executive Committee and are usually asked to chair a committee or lead an initiative. Then there are a number of important Committee Chairs, including Membership (vacant), Nominating, Program, Skinner Award, Excellence in Fisheries Education Award, Best Student Paper/Poster Symposia and Awards, Web Site, and multiple ad-hoc committees. Please see the Section Bylaws and Procedural Manual for a description of these responsibilities at:

http://www.fisheries.org/units/education/AFS_education_governance_info.htm

Then please contact me (tkwak@ncsu.edu) with your choice, and if there isn’t an appropriate vacancy, I’ll put you on a list of interested members for the future. If you’re in the AFS and fisheries field long enough, it make sense to give a little back, so as Bob Dylan suggested, You’re gonna have to serve somebody, it may be the devil or it may be the Lord... or maybe even your colleagues in the Education Section!

Free Raffle for Great Prizes!

Participating in the elections of the Education Section officers and division representatives is an important undertaking for all Education Section members. However, because all of us need a little incentive to participate from time to time, we will be having a raffle for a Nashville 2009 AFS Annual Meeting T-Shirt during the Education Section Business meeting in Nashville for all members that vote in the upcoming election (winner need not be present to win). Please read through the bios for each of the candidates and, for each position, select the candidate that you think is most qualified for the position. We have included a sample ballot in this newsletter; an official ballot and voting instructions will be sent out to all members in the near future.

Contest Results in New Education Section Logo

Congratulations to Jesse Fischer, PhD student at Iowa State University and Newsletter Co-Editor, for the winning entry in the Education Section Logo Contest. Jesse’s entry was among 14 submitted by student members around the country, and he received up to $200 in AFS books as his reward. The great new logo is displayed throughout the newsletter (on the bottom right of most pages). We hope that you’ll display the logo proudly and that we’ll be seeing more of it in the future!
Upcoming Elections: Candidate Bios

President - Elect

Paola Ferreri

Paola Ferreri is an Associate Professor of Fisheries Management at Penn State University. She received her B.A. and M.S. in Biology at Case Western Reserve University in Cleveland, Ohio, and her Ph.D. in Fisheries and Wildlife at Michigan State University. Paola teaches undergraduate courses in Fisheries Science, Fisheries Management, and Ecology of Fishes. At the graduate level, she has offered courses in river ecology and management, dam removal, and water management and ecology. In addition to formal teaching responsibilities, Paola is actively involved in mentoring graduate and undergraduate students. Paola and her students are involved in research projects focusing on the relationship between habitat and fish population dynamics.

Paola has been a member of the AFS since 1990 and has been actively involved at different levels within the Society. She has served as President of the Northeastern Division (2005), Program Chair for the 1998 Annual Meeting in Connecticut, Associate Editor for TAFS, and chaired the Excellence in Fisheries Education Award Committee for the Education Section in 2002.

Michael Quist

Mike Quist is an Assistant Professor at Iowa State University. He received his B.S. from the University of Idaho and his M.S. and Ph.D. from Kansas State University. His research focuses on the management of fishes in lentic and lotic systems. He currently teaches undergraduate courses in fish biology, fisheries techniques, and natural history of Iowa fishes, and graduate courses in fisheries techniques and applied fish ecology. Mike is active in curriculum development and other efforts focused on teaching and learning.

Mike has been an AFS member since 1994 and has been extremely active in leadership and membership roles (too many to list) with three student subunits, four state chapters, and two divisions. At the parent society level, he is an active member of the Fisheries Management Section, an Associate Editor for NAUFM, and has been a member and Sub-Chair of the Publication Awards Committee. Although Mike has been extremely active at all levels of AFS, he has been most active in the Education Section. He has served as the North Central Division-representative and as President of the Student Subsection of the Education Section. He has served on various committees (e.g., Skinner Award, Best Student Presentation) and is co-editing the third edition of Inland Fisheries Management in North America (sponsored by the Section). He has been the Chair of the Excellence in Fisheries Education Award Committee since 2005 and current serves as the Secretary-Treasurer for the Education Section. Mike considers the Education Section to be the most active, exciting, and important Section in AFS—as evidenced by his high level of activity. He looks forward to continuing his service to the Section long into the future.
D. Derek Aday

I have been an active member of AFS since 1993, and have participated at state, regional, and national levels as both a student and a professional. I served as President of the University of Illinois Student Subunit during my time as a PhD student, and have since been a member of three state chapters, two regional chapters, and am currently active in the North Carolina Chapter and the Southern Division. My AFS involvement has included service on a number of committees, including J. Frances Allen, Best Paper in TAFS (chair), Nominating Committee (chair; NC Chapter), and I currently serve as the Southern Division Representative to the Education Section. I am in my fourth year of serving as an Associate Editor for Transactions of the American Fisheries Society, and will serve as the Program Chair for the 2010 Southern Division Meeting.

After completing my PhD at the University of Illinois in 2002, I worked in the Evolution, Ecology, and Organismal Biology Department at Ohio State for three years before taking my current position in the Department of Biology at NC State, where I’ve been since 2005. Currently, I am heavily involved in teaching and advising undergraduate and graduate students and consider it the most important and enjoyable part of my career. I have been involved with the Education Section for many years and, if elected, would be pleased to serve as Secretary/Treasurer.

Craig Paukert

Craig Paukert is the Acting Leader of the Kansas Cooperative Fish and Wildlife Research Unit and Associate Professor at Kansas State University. He received his B.S. from the University of Minnesota (1993), M.S. from Oklahoma State (1998), and a Ph.D. from South Dakota State University (2001). Craig and his students have worked on a diversity of research projects related to conservation and management of river fishes (particularly in the Great Plains and Southwest), harvest regulations, and impacts of invasive species. He has also taught courses in fisheries management, quantitative fisheries science, and food webs.

Craig has been a member of AFS since 1993 and is a Certified Fisheries Professional. Craig is currently a member of the Education, Fish Management, and Equal Opportunities sections, and the Kansas and Arizona-New Mexico chapters. He is also a member of the Science Committee for the National Fish Habitat Initiative, Associate Editor for North American Journal of Fisheries Management, President of the Kansas Chapter, member of the Education Subcommittee of the AFS Board of Professional Certification, and Advisor for the Kansas State University AFS Student Sub-Unit. Craig has been previously been President of the Student Subsection of the Education Section and Oklahoma Student Subunit, Chair or co-Chair of the Education Section and Membership Committees, member of the Excellence in Fisheries Education Award Committee, and Farm Bill Advisory Committee. However, his most rewarding service position has been Chair of the Skinner Memorial Award for the Education Section for four years.
Richard Fulford

Richard Fulford is an assistant professor at the University of Southern Mississippi (USM). He holds a B.S. degree in Zoology from the University of Oklahoma, an M.S. degree in Fisheries and Wildlife from Louisiana State University, and a Ph.D. in Zoology from North Carolina State University. Prior to joining the faculty at USM, Richard served as a post doctoral fellow at the Smithsonian Environmental Research Center in Edgewater, MD. His interests and expertise are in ecology and population dynamics of exploited fishes with an emphasis on food web interactions and quantitative modeling. He currently mentors three full time and two part time graduate students and teaches graduate courses in Biometry and Quantitative Fisheries Management.

He’s been an AFS member since 1995 and has been active in the Southern Division and the parent society by serving as a member of the national and division membership committees, as well as the Executive committee of the North Carolina Chapter. Richard also served as the President of the North Carolina Student subunit. Richard is currently a member of the Mississippi State Chapter, as well as the Education section, Marine fisheries section, and the Early-life history section. Richard is current serving as the chair of the Best Student Poster committee for the 2009 meeting in Nashville. He has been an active member of the Education section for several years and regards this section as one of the most important within the Parent society.

Jim Peterson

Jim Peterson is the Assistant Unit Leader and Adjunct Associate Professor at the Georgia Cooperative Fish and Wildlife Research Unit, University of Georgia, where he has worked for 10 years. He received a BS in Ecology, Ethology, and Evolution (‘86) and a MS in Biology (‘89) from the University of Illinois, and a Ph.D. in Fisheries (‘96) from the University of Missouri. Jim has been a member of AFS since 1991, twice chaired the AFS Best Student Paper Awards Committee, and chaired the AFS Publications Awards Committee. Since his arrival at the GA Coop. Unit, Jim has served as major advisor to more than 15 graduate students and was the faculty advisor to the UGA AFS student subunit. He also has taught more than 20 continuing education workshops to Fisheries and Wildlife professionals in topics ranging from hierarchical modeling to adaptive resource management. Jim believes that future of the AFS and of fisheries management depends on the education of future and current fisheries professionals. He believes that AFS should investigate alternative educational delivery systems, such as on-line courses, to facilitate greater learning opportunities in the age of shrinking budgets and downsized fish and wildlife programs.
Western Division Representative

Daniel Dauwalter

Dan has been an AFS member since 2000. He received a B.S. in Biology and Environmental Studies from Gustavus Adolphus College in 1999, an M.S. in Aquaculture/Fisheries from the University of Arkansas at Pine Bluff in 2002, and a Ph.D. in Wildlife and Fisheries Ecology from Oklahoma State University in 2006. Dan completed his post-doctoral training at the University of Wyoming from 2006 to 2008 and is currently a Fisheries Research Specialist with Trout Unlimited's Science Team. His research interests center on the ecology and management of stream fishes and stream habitats, he has taught courses such as Ichthyology and Applications of GIS in Natural Resources, and he has mentored undergraduate students on research projects.

Dan has served AFS in many capacities. He was president of the Oklahoma State University Student Chapter, newsletter editor for the Oklahoma Chapter, newsletter editor for the Education Section, and he has served on multiple committees ranging from the Publication Awards Committee to the John E. Skinner Award Memorial Fund Committee. Dan is currently chair of the Continuing Education Committee, Associate Editor for Transactions of the American Fisheries Society, and is currently the Western Division Representative to the Education Section. Dan believes the Education Section plays a vital role in directing the education of future fisheries professionals, and he would be pleased to serve again as the Western Division Representative to the Section.

A similar ballot will be emailed to all Education Section members in the near future. In the mean time, read the bios of each candidate and decide which of the candidates you think is most qualified for the position. All Education Section members are encouraged to vote and remember that voting automatically enters you into a raffle for free prizes!
The 2009 Annual meeting in Nashville is shaping up to be an exciting opportunity for students and educators alike. The Steering committee and Tennessee Chapter have done an excellent job organizing student activities, symposia and special events. On Thursday, September 3, a full-day symposium sponsored by the Education Section, titled “Fisheries Education in the 21st Century: Accommodating Change”, will cover a variety of topics ranging from State/Federal employment needs to effective teaching strategies. The focus of the symposium is to highlight educational approaches that facilitate learning with respect to fisheries education in today’s society. The symposium will wrap up with a panel discussion that highlights expectations of academic programs and the education desired by natural resource employers. The symposium organizers (Michael Brown, Steve Chipps, Brian Graeb, Tom Lauer and Steve McMullin) have lined up a distinguished group of fisheries professionals and educators that are sure to ‘enlighten and challenge’ – so you don’t want to miss this.

On other fronts, don’t forget about the Student-Mentor lunch scheduled for Tuesday, September 1 from 12-1:20. This activity, first initiated at the Lake Placid meeting by Tom Kwak, has been a great success. If you haven’t participated in this event, please consider doing so, you may sign up when you register.

The Education Section will be working with meeting organizers to provide written feedback on talks and posters for students not competing in the Best Student Paper/Poster competitions. Cari-Ann Hayer and Student subsection members will be distributing/collection feedback materials. Details on this process will be provided in the Program, and we ask that Education Section members help out with this important activity. We look forward to seeing everyone in Nashville – until then, have an enjoyable summer.

- Steve Chipps, Program Committee Chair
Fisheries Education in the 21st Century: Accommodating Change (Continued)

Additionally, recent advances in educational theory have improved our understanding of how to meet student learning needs in today’s environment. Specifically, this includes how to improve critical and creative thinking, communication skills, and facilitate retention of science-based information. In addition, the concept of strategically linking curricula objectives with employer needs requires movement away from traditional teaching methods and toward more novel approaches. Lastly, when considering the student-teacher interaction, we must consider the diversity and evolution of students as well as generational inequities between faculty and students entering fisheries programs.

Thus, the focus of this forum is to highlight relevant educational techniques and approaches that will facilitate learning with respect to fisheries education in today’s society. These ideas will be discussed in light of the expectations of academic programs and the education desired by natural resource employers. Presentations will be followed by a structured panel discussion facilitated by Mike Van Den Avyle.

- Steve Chipps and Mike Brown

Mentoring Experience Educational for All

Have you ever considered being a mentor? This past spring an email arrived in my inbox requesting mentors to work with students in an advanced science class at a local high school. I jumped at the opportunity, which was my first experience as mentor. The program objective was to expose students to the process of carrying out a research project, to associate with professional scientists and to perk their interest in considering a profession in science. The students were initially required to prepare a research proposal with a focus on their hypothesis statement. A fellow mentor and I worked with four students on a stream habitat inventory project (picture to left). The student’s research compared salmonid habitat conditions between a burned and unburned reach of a local creek within five miles of the school. With input from my co-mentor and myself the students were required to define the research hypothesis, define the field research methodology, collect the field data, analyze the data, prepare a written report following the scientific method, and orally present their research before their peers, teacher and mentors.

I would encourage fellow natural resource professionals to consider getting involved with their local high school natural science programs, and usually a teacher is grateful for the offer. This was a great learning experience for both the students and me. As a mentor I was once again exposed to the enthusiasm and desire to learn by young people when provided with a positive learning environment, while the students had the opportunity work with two seasoned biologists and learn the complexities of conducting a field research project.

- Joel Hubble
### Fisheries Education in the 21st Century: Accommodating Change

**Symposium Schedule**

<table>
<thead>
<tr>
<th>Lead author</th>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session I: Curricula and the Job Market -- Will We Meet the Demand?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K. Millenbah</td>
<td>8:00 AM</td>
<td>Evolution of a Curriculum: Preparing Fisheries Professionals to Thrive in a Changing Environment</td>
</tr>
<tr>
<td>D. Gabelhouse</td>
<td>8:40 AM</td>
<td>Needs and Proficiencies of Fisheries Hires by State Agencies</td>
</tr>
<tr>
<td>J. Berkson</td>
<td>9:00 AM</td>
<td>Federal Marine Personnel Needs and Perception of Competency in Management and Research Hires</td>
</tr>
<tr>
<td>S. McMullin</td>
<td>9:40 AM</td>
<td>Are current curricula on target?</td>
</tr>
<tr>
<td><strong>Break</strong></td>
<td>10:00 AM</td>
<td>(Reconvene at 10:20)</td>
</tr>
<tr>
<td><strong>Session II: Understanding Students -- Facilitating the Learning Process</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Murphy</td>
<td>10:20 AM</td>
<td>A 'C' Change for Fisheries Education: From Course Content and Coverage to Curiosity, Cognition, and Constructivism</td>
</tr>
<tr>
<td>C. Moffitt</td>
<td>11:00 AM</td>
<td>Globalization and Fisheries Management: what does it mean for educators?</td>
</tr>
<tr>
<td>K. Hunt</td>
<td>11:20 AM</td>
<td>Considering Changes in Demographics and Diversity</td>
</tr>
<tr>
<td>B. Graeb</td>
<td>11:40 AM</td>
<td>Understanding Student Motivations to Improve Learning: Bridging Generational Chasms</td>
</tr>
<tr>
<td><strong>Lunch break</strong></td>
<td>12:00 PM</td>
<td>(Reconvene at 1:40)</td>
</tr>
<tr>
<td><strong>Session III: Teaching Strategies -- Aligning Content Needs with Delivery Solutions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Orth</td>
<td>1:40 PM</td>
<td>Managing Course Content: What is Important?</td>
</tr>
<tr>
<td>M. Hansen</td>
<td>2:00 PM</td>
<td>A Model for Teaching Scientific Writing in an Undergraduate Curriculum</td>
</tr>
<tr>
<td>T. Sutton</td>
<td>2:20 PM</td>
<td>Distance Learning in Today's Classroom: The Good, The Bad, and The Ugly</td>
</tr>
<tr>
<td>G. Habron</td>
<td>2:40 PM</td>
<td>Fishing for Cases: Learner and Instructor Approaches</td>
</tr>
<tr>
<td><strong>Break</strong></td>
<td>3:00 PM</td>
<td>(Reconvene at 3:20)</td>
</tr>
<tr>
<td>B. Knuth</td>
<td>3:20 PM</td>
<td>Experiential-based Learning: Student Immersion in Policy-making Processes for Fisheries Resources</td>
</tr>
<tr>
<td>A. Danylychuk</td>
<td>3:40 PM</td>
<td>Immersion and Place-based Learning</td>
</tr>
<tr>
<td>T. Lauer</td>
<td>4:00 PM</td>
<td>Student assessments: are we doing it the right way?</td>
</tr>
<tr>
<td><strong>Panel</strong></td>
<td>4:20 PM</td>
<td>Facilitated discussion: Strengthening University and Agency Relations in Fisheries Education</td>
</tr>
<tr>
<td><strong>5:20 PM</strong></td>
<td></td>
<td>Wrap up and concluding remarks</td>
</tr>
</tbody>
</table>
Skinner Memorial Award

The 2009 Skinner Memorial Award Committee reviewed 43 applicants and awarded 10 Skinner Awards and 5 Honorable Mentions. Each Award winner will be reimbursed up to US $800.00 for travel to the 2009 American Fisheries Society Annual Meeting, August 30 - September 3, 2009 in Nashville. Honorable Mentions receive reimbursement for their registration at the Annual Meeting. All winners (including honorable mentions) receive a one-year student membership to the AFS. The Award winners and Honorable Mentions will be expected to come to the Education Section and Society business meetings as well as the AFS awards luncheon. Please congratulate these students if you see them at the meeting. The Skinner Award is really one of the highest honors our Society can give to students.

The Committee again encouraged electronic submission of applications. The process generally went smoothly except that some encountered difficulties with the file format (Adobe Acrobat). The Committee plans to examine different software options for next year’s application.

Skinner Memorial Award Committee: Joe Hightower (Chair), Patrick Braaten, Dan J. Daugherty, Scott Heppell, Robin DeBruyne, Jason Vokoun

2009 Skinner Memorial Award

Winners
Marybeth Brey
Joe Gerken
Marie-Ange Gravel
Andrew Hafs
Caleb Hasler
Tarah Johnson
Cecilia Krahforst
Karen Murchie
Lora Tennant
Justin VanDeHey

Honorable Mentions:
Alison Colotelo
Daniel Farrae
Connie O’Connor
James Thorson
Daniel Weaver

Skinner Memorial Award Challenge

During the Education Section’s business meeting at the 2007 Annual Meeting in San Francisco, the membership voted to provide funds for the Skinner Memorial Award with the hopes that additional funds would increase the number of awards each year. The membership agreed on two mechanisms for increasing the Skinner fund. First, the Section immediately transferred $25,000 from its account to the Skinner fund. Second, the Section challenged the various units and membership of AFS to contribute to the Skinner fund with the benefit that all donations would be matched by the Section (not to exceed $25,000 total). To date, nine Sections, two Divisions, two Chapters, one private company, and five individuals have contributed funds totaling $13,020.

(Continued on Page 9)
Skinner Memorial Award Challenge (Continued)

The Section matched these funds resulting in a total contribution of $51,040 ($25,000 + $13,020 + $13,020) to the Skinner fund. We thank all of the units and individuals who contributed to this important effort; however, we still have $11,980 of funds available for match. Please consider making a donation today!

Status of *Inland Fisheries Management in North America, 3rd edition*

*Inland Fisheries Management in North America* is one of the most important and most popular textbooks in our profession. Although the text remains a staple for fisheries management courses across North America, the book is due for a revision. The second edition was published in 1999. In September 2006, Wayne Hubert and Michael Quist were approved by the Education and Fish Management sections to serve as co-editors of the third edition of the book. Since that time, substantial progress has been made.

An online survey of AFS members was conducted during January-May 2007 to provide guidance on the content and structure of the third edition. Respondents were asked to provide responses to questions regarding the structure and quality of the second edition and what they hoped to see in the third edition. Over 200 members of the society responded to the survey. In addition to the survey, a steering committee was established that has equal representation from the Fisheries Management and Education sections. The committee assisted the co-editors in determining the structure of the third edition and the identifying lead authors for individual chapters. The steering committee and co-editors utilized the results of the survey and their own experiences to develop a general outline for the third edition. The result is a book with 21 chapters that differs substantially from the first two editions. Following the development of a general outline, the co-editors contacted potential lead authors soliciting their participation in the book project and a cadre of lead authors was identified. Lead authors were charged with the responsibility of identifying collaborating authors that would bring additional expertise and diversity to the effort.

The first draft of chapters was due on January 1, 2008. To date, the editors have not yet received first drafts of three chapters. First drafts have been received for three chapters and the authors are now preparing second drafts for peer review. A second draft has been completed for two chapters that are currently undergoing peer review. Peer reviews have been obtained for three chapters and the authors are working on the final draft. Ten chapters are ready for copy editing. We anticipate having the chapters reviewed and assimilated into a complete manuscript of the book by the end of the 2009.

- Michael Quist and Wayne Hubert
Committee Discusses New Initiatives

Members of the New Initiatives Ad-Hoc Committee (D. Derek Aday (chair), Dan Dauwalter, Randy Jackson, and Mark Pegg) have been discussing potential new initiatives for the Education Section to pursue. We considered suggestions from members of the Education Section and AFS, including production of books on tape, producing Spanish translations of certain fisheries publications, developing canned fisheries lectures, and working on distance education courses. After some internal discussions, we decided that one particularly important direction would be for the Education Section to play a stronger role in the development and evaluation of Continuing Education Courses offered by AFS. We are currently in discussion with members of the Continuing Education Committee to determine how we can best assist with their efforts to offer members new and valuable educational experiences.

D. Derek Aday
NC State University
Southern Division Representative

Case Study Websites Available for Use in the Classroom

The National Marine Fisheries Service (NMFS) RTR Unit at Virginia Tech has developed a number of case studies for use in college and university classrooms. The case studies are appropriate for undergraduate or graduate courses in a wide range of subjects, including but not limited to the following: Fisheries Management, Conservation Biology, Environmental Science, Natural Resource Management, Natural Resource Policy, and Human Dimensions of Natural Resources.

Although the development and utilization of case studies in university classrooms is not new, the case studies developed by the RTR Unit have the following unique features:

1. NMFS RTR Unit undergraduate students are responsible for all aspects of the case study development. Your students will learn from the experiences and perceptions of students their own age, selected from a large pool of the best students in the nation.

2. The case studies include first-hand, on location information from the key scientists, managers, policymakers, and stakeholders involved, directly from the universities, marine institutes, and agencies at each case study’s center.

3. The case studies are presented in multimedia websites, taking advantage of web-based graphics, captioned videos, and links, not available in any other format.

Each case study provides a teacher’s guide with suggestions for how to use the case study in the classroom along with a long list of pertinent questions for classroom discussion.

To date, four case studies are available, including case studies focusing on black sea bass management in the southeastern U.S., loggerhead sea turtle management, investigating the effectiveness of marine protected areas, and fisheries management in Puerto Rico. This summer RTR students will be creating a case study website investigating the meaning and implementation of ecosystem approaches to fisheries. The resulting website should be available for classroom use in the spring of 2010.

The websites are accessible at www.nmfs.vt.edu/casestudy.htm. If you have any questions about their content or use, please contact me at Jim.Berkson@NOAA.gov. If you plan to use one of these websites in your classroom, please send feedback and suggestions to me, as well.

Jim Berkson is Associate Professor and the Unit Leader of the North American Marine Fisheries Service RTR at Virginia Tech. He can be reached at Jim.Berkson@NOAA.gov.
R is a statistical programming language that has gained favor with many statisticians in a variety of fields. It is free to use and the software is continually being extended, with add-on packages developed by users from around the world (there are currently ~1800 packages in the official R repository with another unknown amount at other “forge” sites).

R is increasingly being used by students and professionals who study fish and fish communities. An unscientific survey found 27, 46, and 55 fisheries-related publications in each of the last three years, with an additional 44 publications that have cited program R already in 2009. In addition, R is increasingly being taught in the fisheries curricula of colleges and universities, an R short course was taught at last year’s national AFS meeting, and another short course will be taught at this year’s meeting in Nashville. We should take note of these trends and fisheries educators should more fully incorporate R into their curricula and students should take advantage of all opportunities to gain experience with R.

Schnute et al. (ICES Journal of Marine Science 64 (2007): 1077 – 1084) said “(t)his remarkable open source project includes a large number of useful algorithms for statistical analysis and modelling, and the high level R language makes coding relatively easy.” While “coding” is not “easy” for all of us, it is generally easier when there are relevant examples to follow.

Thus, I am developing the fishR website where resources related to using R for fisheries analyses will be maintained. A functioning prototype of fishR, available at www.ncfaculty.net/fishR/, currently consists of four main sections: General Examples: several vignettes that describe various traditional fisheries science analyses; Book Examples: examples that re-create analyses from fisheries texts. For example, this section currently contains ten R re-creations of analyses in the “boxed examples” of the Analysis and Interpretation of Freshwater Fisheries Data book published by AFS; Journal Examples: a list of all known fisheries related publications that have cited R including archived data sets and R scripts that allow users to reproduce the analyses of published journal articles; Packages: a list of all R packages that perform fisheries-related analyses.

It is my intent that fishR will be a resource that contains contributions from a variety of people – students, educators, professional researchers, and professional managers. You can participate in this community in the following ways: Comment about areas on the website or identify examples that are unclear, incorrect, or need more explanation; Suggest topics where you would like to see example analyses developed or additions to the website that would make it more useful to you; Contribute Links to fisheries related packages or citations for fisheries-related journal articles that are not listed; Contribute examples of R scripts that contain worked examples of general fisheries topics or examples from books; Contribute Reproducible Analysis Materials by submitting data and R scripts that would allow a user to reproduce the analyses used in a journal article.

If you are interested in using R for fisheries analyses then please visit the fishR website and use the resources provided there or become involved in its development.
Highlighting Student Subunits

East Carolina University

ECU-AFS has continued to carry on the tradition of service and outreach this semester as we celebrated our 10th Anniversary. For our 10th annual banquet, Dr. Steven Cooke, professor of Environmental Science at Carleton University, spoke about “The Science of Recreational Fishing.” We had great attendance (about 70 people) from a variety of agencies, returning alumni, and current student and faculty members. Please visit our website for further details, photos and to subscribe to our Listserv http://www.ecu.edu/org/afs.

This spring, we continued our participation with the Grifton Shad Festival providing “fishing” in our kiddie fishing pool and answering questions about fisheries science. We also participated in “Barefoot on the Mall,” a campus-wide student organization fair. This also provided us with an opportunity to fundraise. This year we raised over $200.00 for ECU-AFS through “Pie a Professor.” We had seven professors graciously volunteer to have pies thrown at them. Our top three fundraisers were Drs. Joseph Luczkovich, Reide Corbett, and Mary Farrell. We would like to take this opportunity to thank all of the willing professors!

As usual, ECU-AFS continues to fund student members’ travel to scientific meetings. We were able to fund ten students attendance at the AFS Southern Division meeting in New Orleans, LA. Our students participated in oral and poster presentations, workshops and the executive committee meetings. ECU-AFS also funded five student members to attend the AFS Tidewater Chapter meeting in Wilmington, NC. Here, they participated both in oral presentations and the executive committee meetings.

To wrap up another successful academic year, ECU-AFS held a shrimp boil to thank everyone for their help this year, with a special thanks to our graduating members: John Mohan, Jillian Osborne and Ryan Spidel!

- Katie Kleber & Cecilia Krahforst

Kansas State University

The spring semester was full of activities for members of the Kansas State University Student Subunit. To start out the semester students from the subunit attended the Kansas Natural Resources Conference (KNRC) in Wichita Kansas. KNRC is a meeting of six statewide conservation groups (including the Kansas Chapter of AFS) and was a great opportunity for students to interact with fisheries professionals and students from state organizations and other Kansas Universities. In early May members of the subunit conducted the semi-annual fish community sampling at the Riverpond of Tuttle Creek Reservoir. Students gained hands-on experience in setting hoop nets, gill nets, and electrofishing while sampling the fish community within the pond. To round out the year we had our annual fishing tournament at Milford Reservoir. Luckily, the fishing was good and we had a tasty meal of the day’s catch following the fun on the water.

The Student Subunit is also busy at work preparing for the 3rd Annual Midwest Student Fisheries Colloquium. The first two colloquiums, held at the University of Nebraska and Iowa State University, were both successful and we are working hard to continue the trend. The colloquium is a 1.5 day event held at the beginning of the Spring semester and is designed to give undergraduate and graduate students from throughout the Midwest an opportunity to present their research in front of their peers while networking and meeting students from nearby universities. The details are still coming together but check into the next issue of the newsletter for more information, or contact Joe Gerken at gerkenje@ksu.edu.

- Katie Kleber & Cecilia Krahforst
2008 Business Meeting Minutes

Minutes of the Annual Business Meeting — Education Section
2008 Annual Meeting of the American Fisheries Society
Ottawa, Ontario
August 17, 2008

Call to Order—Meeting was called to order by President Tom Kwak.

Introduction of Guests—Kwak recognized Past Presidents Al Zale, Joe Margraf, Chris Kohler, Brian Murphy, and Donna Parrish, AFS President Mary Fabrizio, AFS Second Vice-President Wayne Hubert, and the AFS Constitutional Consultant, Gwen White. He also recognized current officers of the Education Section including the President-elect, Steve Chipps, and the Secretary-Treasurer, Mike Quist.

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

Approval of Agenda—Kwak introduced agenda. Margraf moved to approve the agenda as written; Craig Paukert seconded the motion. Motion carried.

Approval of Minutes from 2007 Business Meeting—Bruce Vondracek moved to approve the minutes from the 2007 Education Section meeting as written; Fabrizio seconded the motion. Motion carried.

President's Comments—Kwak thanked Section members for their work this past year and acknowledged the efforts of the EXCOM. Kwak noted that the past year was very busy for the Section. The Subsection was given praise for their leadership and level of activity. Kwak suggested that the Section is the best Section in AFS, but that we are not using our talent to the fullest extent. To further increase the visibility and activity of the Section and to capitalize on the talents of Education Section members, Kwak requested that members contact him with new initiatives for the Section.

Treasurer's report—Quist presented the Treasurer's report. Total assets of the Section as of August 17, 2008 were $156,693.47. Income from the previous year was $5,725.73, and expenditures were $39,877.70.

Report by AFS officer—President Fabrizio thanked members for remaining active in the Section and AFS. Fabrizio reported that the Governing Board has been busy with old and new business and specifically thanked T. Kwak for his contributions to the Governing Board. Several activities of the Governing Board were highlighted, including efforts to draft a policy statement on the use of lead by the fishing tackle industry, a change in how proceeds from the AFS annual meeting are allocated to local chapters (20% of proceeds versus the historical level of 10%), and efforts to revise the AFS strategic plan which will include the use of focus groups to provide feedback on how AFS is meeting the needs of members. Fabrizio also noted that membership of young professionals continues to be an issue for attention and that AFS will be working with the Education Section and the Student Subsection to help address issues of recruitment and retention. In the future, all members will have the ability to vote on important issues associated with AFS (e.g., resolutions, policy statements) through an electronic voting system; whereas in the past, only members present at the business meeting were able to cast a vote. Lastly, Fabrizio discussed a new initiatives procedure that would allow for the allocation of extra funds at the end of the year. These funds will be used to improve services of AFS to the membership. Two categories of funds will be available. The first category of funds is for unit services where chapters, divisions, etc. can apply for seed money to support activities and initiatives. Funds allocated to unit services must be repaid to the parent society. The other category focuses on member services. Funds can be requested by anyone, but the activity should service the AFS membership.

Committee Reports

Newsletter: Newsletter editors, Dan Dauwalter and Rebecca Zeiber were not present to give their report. Kwak thanked the editors for their excellence and long service (4 years). Kwak noted that both editors are stepping down from the committee and that Jesse Fischer at Iowa State University has agreed to serve as editor. Kwak asked the membership to forward names of possible co-editors (i.e., to serve with Fischer) to one of the Section officers.

Web page: The webmaster, Mike Meeuwig was not present to provide a report. Kwak thanked Meeuwig for his hard-work on the website.

Excellence in Fisheries Education: Quist described the award and nomination procedure, and thanked committee members for their service. He noted that committee members serve a three year term and that a student and representatives from the NE Division and S. Division are needed to complete the committee. Mike noted that there were three, well-deserving nominations for the 2008 Excellence in Fisheries Education award. Mike asked Jesse Trushenski to summarize the nomination for Chris Kohler, this year’s award winner. Trushenski highlighted Chris’ many accomplishments as an educator and his strong commitment to undergraduate and graduate education. C. Kohler thanked the committee for selecting him for the award and noted that this award was the most meaningful award that he has received.
2008 Business Meeting Minutes (continued)

**Skinner Committee:** Craig Paukert thanked those who served on the 2008 John E. Skinner Memorial Award Committee. The Committee received 45 applications for the Skinner Memorial Award and was able to provide 10 Skinner Awards and five Honorable Mentions.

The 2007 Award winners were: Cindy Chu (Trent University), Robin DeBruyne (Cornell University), Troy Farmer (Auburn University), Scott Favrot (North Carolina State University), Ben Neeley (University of Nebraska), John Niles (West Virginia University), Steven Ranney (South Dakota State University), Jamie Roberts (Virginia Polytechnic), Joshua Schloesser (Kansas State University), and Ryan Woodland (University of Maryland–College Park). Honorable mentions were: Wes Bouska (Kansas State University), David Caroffino (University of Alaska—Fairbanks), Stephen Midway (North Carolina State University), Travis Neebling (Iowa State University), and Ryan Utz (University of Maryland Appalachian Lab).

**Student posters/papers:** Trent Sutton summarized the process and results from last year’s student judging efforts. One best student paper (Kiza Gates) and two honorable mentions (Carrie Holt and M. Meeuwig) were awarded at the 2007 meeting. One best student poster (Melissa Wuellner) was awarded. At this year’s meeting, 16 student papers and 3 student posters were selected for judging, based on submitted extended abstracts. Students competing for best paper will present their work during a symposium where all talks are judged by the same panel of five judges. The committee will meet after the symposium to select winners of the best student paper and poster entries and winners will be announced at the AFS business meeting. Sutton noted that Cari-An Hayer and Chipps worked on an evaluation that will be used to provide feedback to students not competing for awards at the meeting. Evaluation forms were available in the trade show and poster area. Completed evaluations were to be left in marked envelopes. Evaluations will be compiled and distributed to student presenters after the meeting. Sutton indicated that he will be stepping down as committee chair next year and is looking for a replacement. Parrish encouraged members to participate and noted that an asterisk on the program indicates that the presenter is a student who would like feedback on their presentation.

**Program committee:** Chipps noted that Education Section activities were well represented at the meeting. Chipps noted that the committee largely focused on the student presentation evaluation form for presentations not being judged for best paper/poster. Chipps also highlighted the student colloquium that will be held during the course of the annual meeting.

**Nominating committee:** Parrish stated that no elections were held. Two of the division representatives were due for replacement; however, both the North Central Division (Mark Pegg) and Northeastern Division (Randy Jackson) agreed to continue their service. Elections for officers and two division representatives will occur next year. Parrish thanked all of the representatives for their service and requested that anyone who wants to get involved in the leadership of the section (officer or division rep) to contact her by early 2009 to be considered for nomination.

**Ad hoc committee & Special projects**

**Fisheries Techniques (3rd edition).** Zale told the membership that the book is making progress. Three of the chapters have not been submitted. Of the chapters that have been submitted, 10 chapters are in their first revision, 3 chapters are in their second revision, and 1 chapter is going through final edits. Zale noted that everything seems to be going smoothly and that all the editors (Zale, Parrish, Sutton) hope to have the book completed by next year’s annual meeting.

**Analysis and Interpretation of Freshwater Fisheries Data.** Neither editor (Chris Guy, Mike Brown) was present to provide a report. However, Kwak read a portion of the report submitted by Guy. Thus far, over 1,000 copies of the book have been sold. Two book reviews have been conducted, the results of which were published in *Freshwater Biology* and *Quarterly Review of Biology*. Both reviews were very positive. Kwak thanked Guy and Brown for their efforts and noted that the authors are maintaining a website to compile errors and additional software that will be used for future revision.

**Inland Fisheries Management in North America (3rd edition).** Quist and Wayne Hubert (not present) are serving as editors for the third edition. Quist reviewed the process of structuring the book and selecting authors. The book will contain 21 chapters and will be quite different from previous versions of the book. An ambitious time-line was established: January 1, 2008. To date, 14 of the chapters have been submitted for review and the remainder of the chapters should be very close to submission. Quist reported that all of the chapters received have been well-written, well-organized, and should be of high interest to fisheries students and professionals. Their goal is to have all of the chapters submitted, reviewed, and revised by early next spring.

“Writing” book. Cecil Jennings thanked the Education Section for its support and reminded the membership that he, Vondracek, and Tom Lauer, have volunteered to serve as editors to update the 1990 publication, *Writing for Fishery Journals*. The 1990 publication is woefully out of date. They want to make the book broader than just fisheries journals. The editors originally identified 19 chapters, but have truncated the book to 14 chapters based on recommendations of the AFS Publications Oversight Committee. Jennings noted that the editors had some delays in establishing author “teams”, but everything seems to be progressing smoothly. Several of the chapters have been submitted and several are in review.
2008 Business Meeting Minutes (continued)

Standardized sampling book: Scott Bonar thanked Section members for contributions to the book. Dave Willis and Hubert are serving as co-editors with Bonar on this new book. The book includes 15 chapters covering standardized sampling techniques for lakes, ponds, and rivers. Ten partners have contributed funding to support the book and include State and Federal resource agencies. Forty-seven authors from the U.S., Canada, and Mexico are contributing to the book. Forty-eight professionals from 33 agencies provided initial reviews of book chapters, followed by an additional 30 second reviews. Bonar also noted that the editors have received comments from seven European agencies. Bonar said that the book is essentially in press and that the hope is to update in the future. Also, Bonar noted that they will provide updated information (e.g., regional averages of population metrics) on the internet.

Additional Reports

Student Subsection: President M. Wuellner reported that Subsection membership had increased from 50 members in 2007 to 68 members in 2008. Although the increase is good for the Subsection, the Subsection needs to increase its visibility and further increase its membership. One of the goals for the Subsection has been to better integrate their activities with the parent society. Along these lines, the Subsection has facilitated the publication of seven student angles in *Fisheries* in 2008. Wuellner noted that the Subsection undertook an effort, lead by Jeff Jolley, to develop and maintain a database of students interested in providing peer-reviews for AFS journals. Quist noted that the list had not been provided to Associate Editors (AE). Several members serving as AEs (e.g., Quist, Paukert) noted that they would make the database a point of discussion during their AFS editors meeting later in the week. Wuellner informed the membership of “student day” at the meeting, including the student colloquium, student-mentor lunch, and student social. The membership was encouraged to participate in all of these events. Lastly, Wuellner told the membership about the activities on the AFS Membership Committee. The Subsection conducted a survey to help AFS with the on-going problem of recruitment and retention of young professionals. The next step is to discuss results of the survey with the Governing Board and the Education Section, and then identify actions to remedy membership problems.

Evolution resolution: Kwak discussed the Evolution Resolution and reminded the membership that it was published in the March issue of *Fisheries*. Kwak thanked Jackson for all of his hard work on the resolution and encouraged members to read the article published in *Fisheries* and the background information that Jackson put together (can be accessed from the Education Section website).

Skinner challenge: Quist gave a summary of the challenge. At last year’s meeting, the membership voted to deposit $25,000 in the Skinner fund. In addition, the membership voted for the Section to issue a challenge that the Section would match donations to the Skinner fund up to a total of $25,000. As of the meeting, Quist had received $5,100 from the following contributors: Fish Culture Section, Computer Users Section, Introduced Fishes Section, Bioengineering Section, Marine Fishes Section, Fish Health Section, Northeast Division, Dakota Chapter, Electric Power Research Institute, Mary Fabrizio and Bill Franzin. In addition, Quist noted that he would be receiving donations from the Fisheries Management Section, Fisheries Administrators Section, Southern Division, Scott LaPatra, and Christine Moffitt.

Hutton program update and request: Katherine Winkler discussed the summer mentoring program for high-school students and thanked the Education Section for its past support of the program. Winkler highlighted the success of the program and noted that two-thirds of the participants this year were minority students and one quarter of the scholars were female minorities. Two of the Hutton scholars are being mentored by former scholars. Since the beginning of the program, 95% of the scholars have gone on for higher education and 71% are currently studying or working in the fishery resource field. Kwak discussed some of the issues associated with funding and noted that support by the Education Section is important for the success of the program. Kwak informed the membership that the program requested $5,000 from the Section and that the EXCOM presents the request as a motion (no second needed). The motion was then discussed at great length. Steve Cooke raised the issue that there are other ways to support minorities (e.g., bringing students into the lab or field) besides the Hutton Program and that 35 students a year is a small proportion of the students that could be reached with alternative methods that require less financial support. He indicated that an additional concern with the request is that the funds partially support an AFS staff member and are, thus, not fully allocated to students. A proposed use of the $5,000 would be additional funds for the Skinner Award. Kwak clarified the issue of overhead in that 80% of the funds ($4,000) go to the student and 20% ($1,000) are used to support AFS staff charged with administering the program. Jason Vokoun asked Winkler whether the number of scholars has increased or decreased through time. Winkler responded by saying that the number of scholars has decreased and that the program needs sustainable funding. She also stated that an endowment was suggested to the Governing Board, but that the idea was rejected due to the large amount of funding that would be needed to support the program. Kwak argued that the Section has plenty of funds and should support this effort due to the importance of diversity in our profession. Regardless of the outcome of the vote, Kohler argued that the issue should be taken to the Governing Board. Parrish stated that she agreed with Kohler in principle, but that the membership does not hear about the long-term plans for sustaining the Hutton Program. Margraf also expressed concern of having 20% of the funds going towards overhead for a parent society activity. He argued that if AFS is really trying to improve member services, providing support staff for the Hutton Program should be one of those services rather than requiring units to pay for staff. Steve Lochmann, who chairs the Hutton Oversight Committee, noted that administrating the program requires a full-time staff member. If the 20% is not taken from contributions, the program would not exist.
Lochmann told the membership that an account does exist for the Hutton Program and is a repository for donations from any unit or individual. Several members indicated that they will support the motion this year, but that they will not support the same request next year if AFS does not begin developing a plan for sustainable funding that removes charging overhead to AFS units for program administration. Motion carried.

Catfish 2010 symposium and request: Tom Lang told the membership of the plan to have an ictalurid symposium in St. Louis, Missouri, in 2010. The plan is to have about 80 presentations, including 3-5 plenary speakers. The symposium and published proceedings will serve as an update of Catfish 2000 (AFS Symposium 24). Lang requested $5,000 from the Section to support the symposium and publish the proceedings, and noted that if the Section supports the effort, they will be acknowledged as a supporter of the meeting and will receive two complimentary copies of the proceedings. A motion was made by Vondracek to provide $5,000 to the organizers of the symposium; seconded by Tim Strakash. Vokoun asked Lang what the Section would receive for $2,500. Lang responded that the Section would be recognized as contributing, but at a lower funding level. Chipps asked about student participation. Lang responded by saying that students would be able to participate in the symposium. Kwak noted that he was involved in the effort and that it should be well attended by fisheries professionals. Motion carried.

Other Awards and Recognition of Outgoing Officers

Kwak noted that the awards presented at the meeting are not a matter of tradition in that service on a committee does not necessary warrant a certificate of appreciation. Rather, this year’s awardees went beyond the “call of duty” in the service to the Section and their respective committees. Dauwalter and Zeiber were not present at the meeting, but both were recognized by Chipps. Chipps read the certificates of appreciation that will be sent to Dauwalter and Zeiber for going beyond expectations associated with the Section’s newsletter. Chipps also read a certificate of appreciation for Jackson (not present) for his efforts on the Evolution Resolution. Craig Paukert was present with a certificate of appreciation for going beyond expectations as Chair of the Skinner Memorial Award Committee.

Old business

None.

New Business and Announcements

Kwak informed the membership that the Education Section lacks an adequate logo. As such, he has challenged the Student Subsection to administer a logo contest aimed at providing the Section with a logo. Submissions will be due by December 31, 2008 and the Education Section EXCOM will decide on the winner, who will receive an AFS book of their choice.

Kwak also informed the membership that the EXCOM provided $1,000 to the Equal Opportunity Section for their travel award (no motion needed if ≤ $1,000; just a vote of the EXCOM). White thanked the Section for their continued support of the award.

Joel Carlin from Gustavus Adolphus College made a request to the membership for advice and help with AFS electronic services.

Kwak reiterated his request for new Section initiatives and ideas.

Adjournment

Paukert made a motion to adjourn the meeting; seconded by Parrish. Motion carried.

Respectfully submitted by Michael C. Quist, Secretary-Treasurer.
Editor's Note

This is our second attempt at the Education Section Newsletter, so while we have some previous experience we are still learning and trying new things. Please feel free to contact us with suggestions, comments, or ideas you may have to improve future editions of the newsletter. Thank you to everyone that submitted an article for this issue. We encourage all members to start thinking of article ideas for the next issue (NOVEMBER 2009). Articles, comments, and suggestions can be emailed to either of us at any time.

Jesse Fischer
Dept of Natural Resource Ecology and Management
Iowa State University
Ames, Iowa 50011
fischer@iastate.edu

and

Joe Gerken
Kansas Coop Fish and Wildlife Research Unit
Kansas State University
Manhattan, Kansas 66502
gerkenje@ksu.edu