



PENNSYLVANIA CHAPTER AMERICAN FISHERIES SOCIETY

Fall 2013 Newsletter

PENNSYLVANIA
CHAPTER

An evening with the **Brook Trout**

Fall Technical Meeting Friday, October 25

Please join your friends and colleagues of the American Fisheries Society Pennsylvania Chapter for our Fall Technical Meeting on Friday, October 25, 2013 from 5:30 to 8:30 p.m. at the H. R. Stackhouse School on 1150 Spring Creek Road in Bellefonte ([Click Here For Directions](#)).

This year's meeting will focus on the Brook Trout – its habitat, distribution, movement, and threats. Our Chapter is grateful to have an intriguing and engaging set of speakers and talks. Of course, we will enjoy a few pizzas and drinks too, provided by the Chapter!

Please see the agenda on Page 2 for more details.



You should probably
attend the meeting
to learn more
about me.

2013-2014 Chapter Officers:

President

Steve Means
Department of Environmental Protection
Williamsport

President-Elect

Aaron McNevin, Ph.D.
Mansfield University

Past President

Fred Brenner, Ph.D.
Grove City College

Secretary-Treasurer

Rebecca Dunlap
Clinton County Conservation District
Mill Hall

ExCom 1

Brian Ensign
Fish and Boat Commission
Tionesta

ExCom 2

Jordan Allison
Fish and Boat Commission
Pleasant Gap

Student Representative

Chad Lauer
Mansfield University

Newsletter Editor

Bob Ventorini
Fish and Boat Commission
Three Rivers

Did you know our Chapter
has a Facebook page?

[Click Here](#) to check it out!



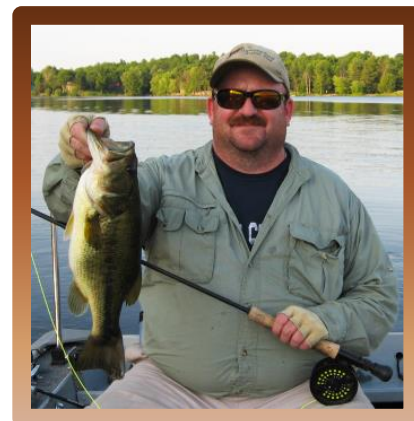
Fall Technical Meeting Agenda

4:30 – 5:30 p.m. Executive Committee meeting

5:30 – 6:45 p.m. Social – pizza and drinks provided

6:45 – 7:00 p.m. Chapter meeting

7:00 – 7:20 p.m. Robert Weber, Pennsylvania Fish and Boat Commission
Unassessed Waters Update



Bob Weber
(Hey.....that's not a trout!)

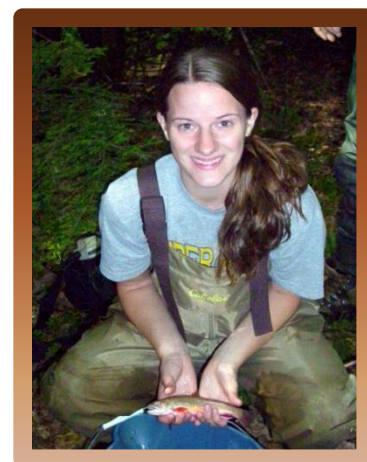
7:20 – 7:40 p.m. Jefferson Tyrell Deweber, Pennsylvania Cooperative Fish and Wildlife Research Unit
Climate and land use change implications for native Brook Trout management

7:40 – 7:50 Break

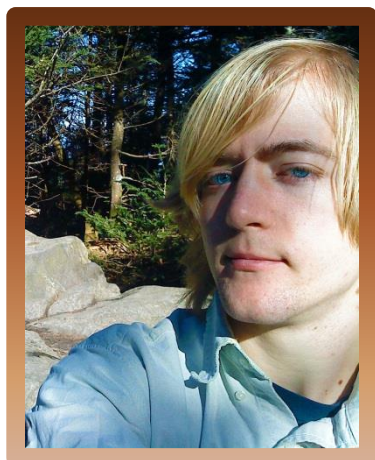
7:50 – 8:10 p.m. Tyler Wagner, Ph.D., U.S. Geological Survey/Pennsylvania State University
Spatial and temporal dynamics in Brook Trout density: Implications for population monitoring

8:10 – 8:30 p.m. Lori Smith, Pennsylvania State University
*Seasonal movement patterns and habitat use of the Eastern Brook Trout (*Salvelinus fontinalis*) and Brown Trout (*Salmo trutta*) in Northcentral Pennsylvania*

8:30 Adjourn



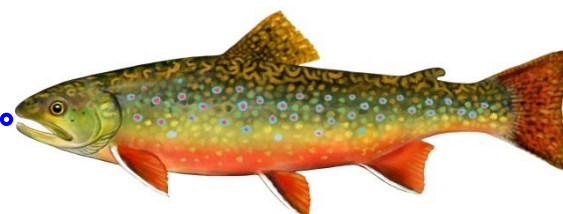
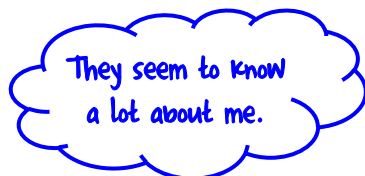
Lori Smith



Tyrell Deweber



Ty Wagner



Fall Technical Meeting Submitted Abstracts

Climate and land use change implications for native Brook Trout management

Jefferson Tyrell Deweber* and Tyler Wagner

* jtdeweber@gmail.com

Throughout its native range in Pennsylvania and much of the Eastern U.S., the Brook Trout *Salvelinus fontinalis* is a culturally, economically, and ecologically important species that is sensitive to warming stream temperatures and habitat degradation. In this assessment, we investigate how projected climate and land use changes may alter stream temperature and how these thermal changes might affect the suitability of stream habitat for supporting self-sustaining Brook Trout populations throughout the Eastern U.S. We describe: (1) a water temperature model that predict thermal characteristics of all stream reaches of the NHDplus dataset from spring through early winter; and (2) a simple model that links Brook Trout occurrence with predicted water temperatures to determine thermally suitable habitat. Finally, we use these models to identify stream habitat suitability changes projections of climate and land use changes, focusing on Pennsylvania. Results suggest that warmer air temperatures and increases in human land use are likely to increase summer water temperatures, and these increases may result in significant reductions in thermally suitable habitat for Brook Trout. Riparian forests may be able to mitigate air temperature increases in some cases, but other management strategies will be needed to address potential losses. We end by discussing the implications of our results for management strategies and the protection of Brook Trout waters in Pennsylvania.

Seasonal movement patterns and habitat use of the Eastern Brook Trout (*Salvelinus fontinalis*) and Brown Trout (*Salmo trutta*) in Northcentral Pennsylvania

Lori Smith* and Tyler Wagner

* las583@psu.edu

The Eastern Brook Trout *Salvelinus fontinalis* faces a variety of threats largely due to anthropogenic alterations to the landscape and climate change. However, one threat that has implications for Brook Trout population management is the introduction of non-native Brown Trout *Salmo trutta*, as potential negative impacts of Brown Trout on Brook Trout populations have been documented. For resource management agencies, understanding the temporal and spatial movement patterns and habitat requirements of any species is essential for conserving existing populations and restoring habitats that once supported self-sustaining populations. To quantify movement and habitat use of the Eastern Brook Trout and Brown Trout, we radio-tracked 100 trout: 55 Brook Trout and 45 Brown Trout, from late-summer 2012 through winter 2013. Trout were tracked among five interconnected streams in Northcentral Pennsylvania. Thalweg profiles of the streams were also surveyed to quantify available residual pool habitat. Average total movement was greater for Brown Trout ($2,924 \pm 4,187$ m) than for Brook Trout ($1,769 \pm 2,194$ m). Preliminary results indicate a large amount of among-fish variability in movement of both species with the majority of movement coinciding with the on-set of the spawning season and increases in stream flow. There was an overall preference for pool versus non-pool habitats; however, habitat use of pools was non-linear over time. Brook Trout displayed a greater preference for deep (0.35-1.4 m deep) pool habitats over shallow (0.1-0.35 m deep) pool and non-pool habitats. Conversely, Brown Trout selected for all habitat categories similarly. Variations in movement patterns and habitat use highlight the importance for management agencies to consider diverse in-stream habitat features and stream connectivity when restoring and protecting habitats and populations of the Eastern Brook Trout and Brown Trout.

Spatial and temporal dynamics in Brook Trout density: Implications for population monitoring

Tyler Wagner*, Tyrell Deweber, Jason Detar, Dave Kristine, and John Sweka

* txw19@psu.edu

Many potential stressors to aquatic environments operate over large spatial scales, prompting the need to assess and monitor both site-specific and regional dynamics of fish populations. This study used hierarchical Bayesian models to evaluate the spatial and temporal variability of age-1 and older Brook Trout *Salvelinus fontinalis* density and probability of capture for three-pass removal data collected from 291 sites over a 37-year time period (1975-2011) in Pennsylvania streams. There was high between-year variability in density, with annual posterior means ranging from 2.1-10.2 fish/100 m²; however, there was no significant long-term linear trend. Brook Trout density was positively correlated with elevation and negatively correlated with percentage developed land use in the network catchment. Probability of capture did not vary substantially across sites or years (posterior mean = 0.72, 95% credible interval = 0.71, 0.74), but was negatively correlated with mean stream width. Because of the low spatiotemporal variation in probability of capture and the correlation between first pass catch per effort (catch/min) and three-pass removal density estimates ($r^2=0.80$), using an index of abundance based on first pass catch per effort could represent a cost-effective alternative to conducting multiple-pass removal sampling for some Brook Trout monitoring and assessment objectives. Single pass indices may be particularly relevant for monitoring objectives that do not require precise site-specific estimates, such as regional monitoring programs designed to detect long-term linear trends in density.

Spring Technical Meeting Proves to be Very Informative

This past April 26, our Chapter held the Spring Technical Meeting and Executive Committee Meeting at the Tom Ridge Environmental Center at Presque Isle. The meeting theme was Aquatic Invasive Species. Approximately 40 people attended and were entertained by the following presentations:

- Jeanette Schnars, Ph.D., Regional Science Consortium
Role of the Regional Science Consortium at the Tom Ridge Center
- Jim Grazio, Pennsylvania Department of Environmental Protection
*Asian Carp, a Biological Vacuum Cleaner
Coming to a Lake near You*
- Tim King, Ph.D., USGS Leetown Science Center
*Invasive and Rare Species Detection by Next Generation
Sequencing of eDNA*
- Gregory Andraso, Ph.D., Gannon University
Ecology and Behavior of the Round Goby and Zebra Mussels
- Caleb Abramson, Penn State University
*Rapid Detection of Round Gobies in eDNA
Sampled from Lake Erie and its Tributaries*
- Sara Grisè, Pennsylvania Sea Grant
Role of Pennsylvania Sea Grant in Invasive Species Management in the Great Lakes
- Rick Spear, Pennsylvania Department of Environmental Protection
Spread of Didymo and Other Invasive Algae in Pennsylvania Waterways
- Casey Weathers, Penn State University
*A Punctuated and Genetically Differentiated Distribution:
Pennsylvania Brook Trout Present a Management Conundrum*
- Ken Anderson, Pennsylvania Fish and Boat Commission
Fish Passage Structures Designed to Exclude the Sea Lamprey in Lake Erie Tributaries

Our meeting also featured these workshops:

- Eric Obert and Sara Grisè, Pennsylvania Sea Grant
Best Management Practices for Preventing the Spread of Aquatic Invasive Species
- Kierstin Carlson and Mary Walsh, Pennsylvania Natural Heritage Program
Tracking Invasive Species with iMap Invasives

The Executive Committee Meeting was also held, and presented below are the meeting minutes and final resolutions made:

Old Business

- **Budget/Finances:** Becky Dunlap presented the 2012-2013 Ledger for approval. Our Chapter account balance was \$12,468.14 on 4/26/2013. The Chapter incurred \$874.13 in payments/withdrawals since October 2012. These expenditures were associated with the Summer 2012 and Spring 2013 meetings. The Chapter had \$165.00 in deposits, primarily membership reimbursements, during the same time period. Fred Brenner acknowledged the transactions and signed the ledger.
- **Chapter Website:** Discussion regarding our Chapter's website ensued. Executive Committee members reported that Bob Ventorini and Brian Ensign had drafted changes and were working with the website manager Cara Campbell for implementation. The Executive Committee agreed to begin investigating costs associated with hiring a website manager to implement the changes and keep our website up to date.
- **Chapter Facebook Page:** Considering that our website is not current, the Executive Committee discussed continuing to post updates to our Facebook page.

New Business

- **Speaker Travel Fees:** Our Chapter paid \$238.80 in non-refundable travel fees for a Spring Technical Meeting keynote speaker who later had to cancel his attendance due to the Federal Government Sequester. The Executive Committee agreed that for all future meetings, the Chapter would not pay for travel fees up-front for invited speakers. Instead, invited speakers will be asked to seek reimbursement for travel fees.
- **2012 Membership Fees:** Fred Brenner discussed that, based on conversations at the AFS Northeastern Division (NED) Meeting, membership records at the national level seem to be unorganized. Becky Dunlap reported that our Chapter still had not been reimbursed for its 2012 national dues.
- **NED Meeting:** Fred Brenner reported that attendance at the NED Meeting was very low and that there was discussion of moving the regional meeting around to various chapters to bolster attendance.
- **Record Detainment:** Becky Dunlap reported that she was storing several boxes of Chapter historical material. The Executive Committee agreed to find out how long records must be kept so as to purge the files.
- **Summer Social:** Steve Means proposed a centrally located Summer Social such as the Sieg Conference Center, Bald Eagle State Park, or Kremser's Landing on the banks of the West Branch Susquehanna River near Montoursville. Discussion ensued that attendance to an abandoned mine drainage tour as discussed at the previous Executive Committee Meeting may not be well attended. The Executive Committee agreed to pursue the Summer Social at Kremser's Landing.
- **2013-2014 Officers:** The following election results were presented by Mary Walsh: Student Representative – Chad Lauer; Executive Committee Member – Jordan Allison; Secretary-Treasurer – Rebecca Dunlap, President Elect – Aaron McNevin. New officers will be inducted at the Summer Social.



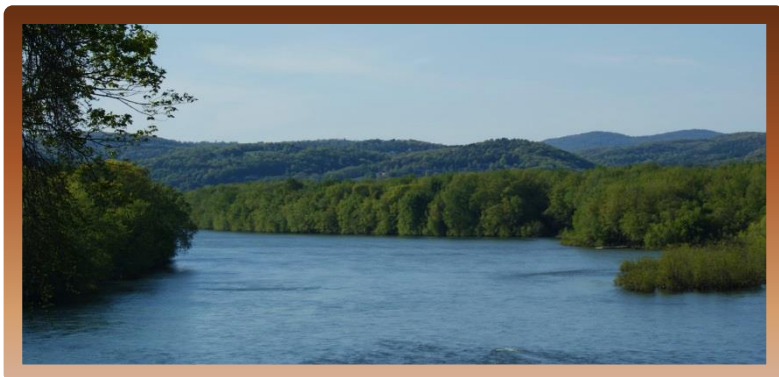
Chapter President Steve Means greeting attendees.



Tom Ridge Center.

Fantastic Weather Sets Tone for the Summer Social

This past July 13, our Chapter held the Summer Social at Kremser's Landing on the banks of the West Branch Susquehanna River near Montoursville. Chapter members picnicked, fished, and really enjoyed the solitude and aquatic resources offered by the West Branch. Outgoing Executive Committee officers were presented official AFS *Certificates of Appreciation*. A great time was had by all!



West Branch.



Kremser's Landing on the West Branch.



Our Chapter appreciates the services of past President Fred Brenner and past Secretary/Treasurer Ashley Lenig.



Just chillin' at the Social.



President's hook

Time for a "Gut Check"

Chapter President Steve Means

I recently fished in the *Chautauqua County Conservation Club Walleye Tournament* on the New York waters of Lake Erie. This small tournament with limited entry of three-man teams and 100 boats has made many memories for me and my family over the past nine years. Like many things in life, this tournament has had its ups and downs over the years. Five years ago my dad finished in second place with the heaviest fish. Shortly thereafter, however, he was diagnosed with pancreatic cancer and passed away four months later. Dad didn't know at the time, but that tournament was his last trip out on his beloved Lake Erie. He never gave up the fight to get back out fishing.

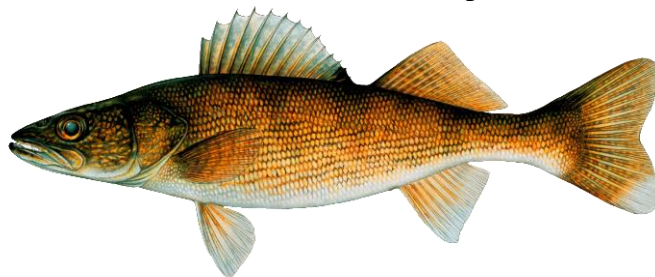
Two years after Dad's departure, we managed to get back into the money with a third-place finish on one of the tournament days. The persistence to continue when you could easily give up sometimes seemed easier than going on without the captain. We persevered though, and it finally paid off with another trip to the winners' circle. This year brought another blow to our team when my mom had to undergo open heart surgery in June and she could not fish in the tournament.

So what did the team do this year? Well, what fishermen do.....we fished with a new crew! Unfortunately, mechanical problems with the boat on Day One put us back in the harbor before we wet a line. Day Two was more promising with a fixed boat, but the four-foot waves and cross chop resulted in a sick crew and only two fish in the cooler before we headed to shore. Day Three – well, let's just say the weather turned stupid.

Like the tournament, our AFS Chapter has another new crew with new Executive Committee members, a President-Elect, and a Student Representative. As a Chapter, will we encounter rough water? Will we have mechanical problems that will require repair? Or.....will we persevere and be rewarded for our hard efforts? The answer to these questions are yet to be determined, but let's never assume that someone else is going to step in to do what needs to be accomplished to assure that our traditions and organization continue. There are often crossroads in our lives as well as in organizations like the Pennsylvania Chapter of AFS. It is during these trying times when we need a "gut check" to figure out if we are willing to step in to make sure that the traditions that came before us will endure.

I am grateful for this opportunity to serve as your President, and it is my goal to make this a better organization by improving our knowledge and skills as students and professionals, while continuing the traditions of this Chapter. It is usually the case that in a non-profit group, there are always just a handful of people that keep the organization running. However, you should never assume or expect that someone else is going to be there to pick up the slack. We are all professionals and one should never assume that if you work in a fisheries-related field, you have done your part just by paying your dues.

I would encourage each of you as members of AFS to get involved with our Chapter by participating in meetings, serving as an officer, chairing a subcommittee, and encouraging your friends and co-workers to become active members of the American Fisheries Society and the Pennsylvania Chapter. Why? Because it's not about the fisheries or the jobs that we do, but rather the people in this organization that can make a difference in the protection of our fisheries resources for future generations.



Migratory Fish Fun.....

“Swim Like an Eel”

In the style of “Ride Like the Wind” by Christopher Cross.
([Click Here To Sing Along](#)).



I'm in this stream, my body's weak.
I'm catadromous.....no time for sleep.
I've got to swim, swim like an eel.
To the sea again.

And I've got such a long way to go.
(Such a long way to go.)*
To make it to the seaweed of Sargasso.
So I'll swim, like an eel.
Swim like an eel.

I was born the son, of a silver eel.
I always rode way down.
As a glass eel with ebb tides.
An elver eel strives, a yellow eel dives.
Gonna' swim like an eel.

And I've got such a long way to go.
(Such a long way to go.)*
To make it to the seaweed of Sargasso.
So I'll swim, like an eel. Swim like an eel.
Gonna' swim like an eel!
(Da-da-da-da. Da. Da. Da. Da.)

It's innate, I must swim downstream.
I was nowhere in sight.
When the river stage rose.
Never was the kind, to migrate when told.
Gonna' swim like an eel, before I get old.

I'm in this stream, my body's weak.
I'm catadromous.....no time for sleep.
I've got to swim, swim like an eel.
To the sea again.

And I've got such a long way to go.
(Such a long way to go.)*
To make it to the seaweed of Sargasso.
So I'll swim, like an eel.
Swim like an eel.

And I've got.....a long way to go.
(Such a long way to go.)*
To make it to the seaweed of Sargasso.
So I'll swim, like an eel. Swim like an eel.
Gonna' swim like an eel!
(Da-da-da-da. Da. Da. Da. Da.)

Swim like an eel.

Swimmmmm.....

*In the soulful, baritone, and
muttering style of Michael McDonald.

Blast from the Past.....

The New York Times

June 25, 1906

BOY SEIZED BY GIANT FISH

Six-Foot Sturgeon Held on to Victim Until Killed

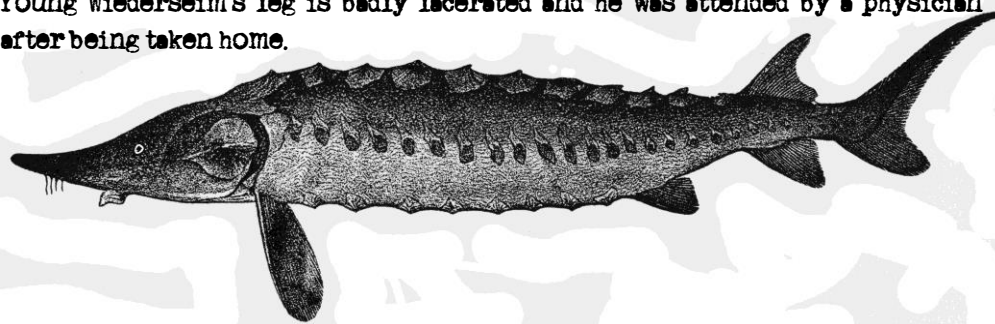
Special to The New York Times.

PITTSBURG, Penn., June 24.—A gigantic sturgeon, said to be the largest fish ever seen in local waters, attacked a party of boys this afternoon while they were swimming off Peterson's coal fleet in the Allegheny River, at the Pittsburg end of the Sixth Street Bridge.

A dozen boys were in the water when the fish attacked them. They tried to get out of the way, but it showed fight, swimming after them and snapping at their legs.

The fish finally grabbed William Wiederseim, a ten-year-old Allegheny boy, by the right leg, and was dragging him down. Jacob Miller, the watchman of the coal fleet, ran to the assistance of the boy and finally dragged him out, the fish refusing to let go his hold.

Miller secured a baseball bat and killed the fish with several blows over the head. It measured about six feet in length and weighed eighty-nine pounds. Young Wiederseim's leg is badly lacerated and he was attended by a physician after being taken home.





“In The Spotlight”.....where we typically focus on our hard-working Chapter members from four different arenas: *Agency, Academia, Industry, and Student.*

For this issue of “In The Spotlight”, we highlight our Chapter’s new officers serving on the Executive Committee.

Steve Means, *President*

INTEL: Steve has over 20 years’ experience working as an aquatic biologist with the Pennsylvania Department of Environmental Protection’s Northcentral Regional Office in Williamsport. Steve’s previous experience includes positions with the Virginia Marine Resources Commission, Alaska Department of Fish and Game, and the Pennsylvania Fish and Boat Commission. Steve has served as an officer with the Chapter’s Executive Committee in the past. Steve holds a B.S. degree in Fisheries from Mansfield University and a M.S. degree in Wildlife and Fisheries Science from Penn State University. Steve is a *Certified Fisheries Professional* with AFS. Although Steve enjoys coaching soccer, his favorite activity by far is catching Bluegill with his daughter Hannah. Steve is looking forward to hunting with his new bird dog puppy Bella. Steve’s favorite Pennsylvania native fish species is the Walleye *Sander vitreus*.

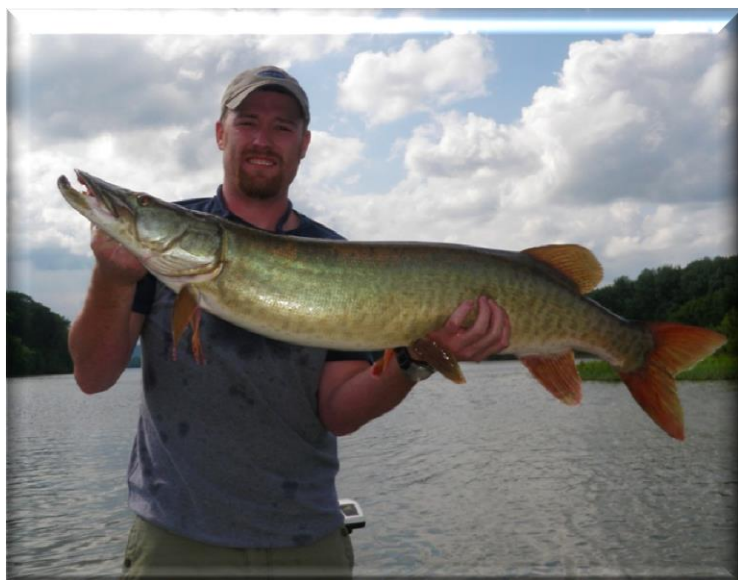


Aaron McNevin, *Ph.D., President-Elect*

INTEL: Dr. McNevin is an Assistant Professor of Fisheries at Mansfield University. He has been at Mansfield for two years where he teaches courses ranging from fish husbandry to fisheries management. Prior to Mansfield, he was a Senior Program Officer at the World Wildlife Fund, U.S. for seven years conducting ocean conservation related projects in coastal zone management, water pollution, aquaculture, fisheries, and sustainable livelihoods generations and coastal disaster risk reduction. At WWF, Dr. McNevin led the completion of the first, credible, multi-stakeholder standards development process to construct the International Standards for Responsible Aquaculture, which are now being used to audit commercial farms for Aquaculture Stewardship Council certification. From 2005 to 2009, he had been assisting humanitarian organizations generate viable and sustainable livelihoods following the 2004 Indian Ocean tsunami in Aceh Province, Indonesia. Dr. McNevin is an avid fishermen and life-long lover of water and all it has to offer. He is untiring in his effort to not only promote environmental conservation, but also to have others become advocates and teachers of this ethic. Dr. McNevin holds a B.S. degree in Fisheries Science from Mansfield University and M.S. and Ph.D. degrees in Water and Aquatic Soil Chemistry from Auburn University. Dr. McNevin’s favorite Pennsylvania native fish species is the Smallmouth Bass *Micropterus dolomieu*.

Rebecca Dunlap, *Secretary-Treasurer*

INTEL: Becky currently serves as the Resource Conservationist for the Clinton County Conservation District in Mill Hall. Prior to her position with Clinton County, Becky served as Manager for Trout Unlimited's Eastern Abandoned Mine Program. During her tenure with this organization, much of Becky's work occurred within the West Branch Susquehanna River watershed and focused on the recovery of the more than 36,000 acres of abandoned mine lands and more than 1,100 miles of mine drainage-impaired streams. Becky was elected to our Chapter's Secretary-Treasurer position in 2012. Prior to this election, she chaired the raffle/silent auction committee for the national American Fishery Society Annual Meeting held in 2010 in Pittsburgh, which ultimately raised almost \$8,000 for student travel awarded *via* the Skinner Memorial Award and the Cooper Award. Becky holds a B.S. degree in Biology from Mansfield University and a M.S. degree in Biology from the University of North Texas. Becky also serves as adjunct faculty for an online university teaching both Earth Science and Biology. Outside of work, Becky spends time coaching her son's soccer team, volunteering for her daughter's Girl Scout troop or softball team, and can be found many summer weekends camping with her family. Becky's favorite Pennsylvania native fish species is the Brook Trout *Salvelinus fontinalis*.



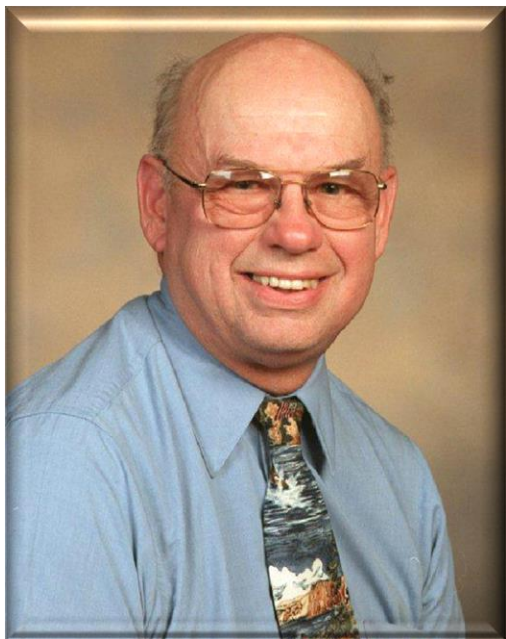
Jordan Allison, *ExCom Member*

INTEL: Jordan was hired by the Pennsylvania Fish and Boat Commission as a Threatened and Endangered Species Review Biologist with their Division of Environmental Services at Pleasant Gap. Jordan began his career in Northcentral Pennsylvania where he earned a B.S. degree in Fisheries Biology at Mansfield University. During his time at Mansfield, Jordan had the opportunity to work for a variety of federal and state agencies including the National Park Service in Yellowstone National Park and Oregon State University. Wanting to continue his education, he moved to Michigan in 2009 where he pursued a M.S. degree at Grand Valley State University. In Michigan, Jordan assessed the reproductive success of an adfluvial Walleye population which spawns in the Muskegon River, a tributary to Lake Michigan. When Jordan is not out looking for rare fish, Unionids, or juggling stacks of paper, he enjoys fishing for Smallmouth Bass on the West Branch Susquehanna River and duck hunting with his Yellow Lab Addy. Jordan's favorite Pennsylvania native fish species is the Muskellunge *Esox masquinongy*.



Chad Lauer, *Student Representative*

INTEL: Chad has chosen to pursue a B.S. degree in Fisheries Biology at Mansfield University, where he is currently in his junior year. Thus far in his early career, Chad has worked with the Pennsylvania Fish and Boat Commission as a Fisheries Biologist Aide and also assisted with their Unassessed Waters Program surveying previously unassessed streams. Chad's favorite Pennsylvania native fish species is the Brook Trout *Salvelinus fontinalis*.

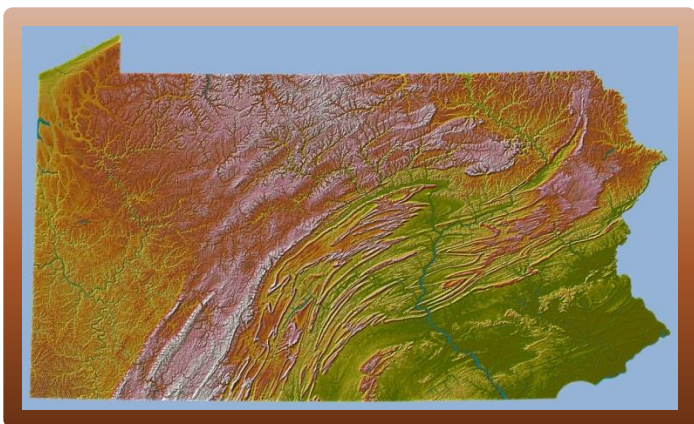


Fred Brenner, Ph.D., Past President

INTEL: Since 1969, Dr. Brenner has served as Assistant, Associate, and Professor of Biology, as well as the Department Chair at Grove City College. Dr. Brenner holds a B.S. degree in Biology from Thiel College, and M.S. and Ph.D. degrees in Zoology from Penn State University. Dr. Brenner is a *Certified Senior Ecologist* with the Ecological Society of America and a *Certified Wildlife Biologist* with The Wildlife Society. He is also a member of 52 professional societies. Dr. Brenner has authored over 200 scientific journal articles, and has served as Editor for 14 technical books dealing with biodiversity, endangered species, wetlands, wildlife, forest ecology, and environmental contaminants, including impacts on ecosystems, human health, and energy production. Dr. Brenner's favorite Pennsylvania native fish species is the Brook Trout *Salvelinus fontinalis*.

Brian Ensign, ExCom Member

INTEL: Brian began his career in the Pacific Northwest where he received an A.S. degree in Fisheries Technology from Mount Hood Community College. During his time in Oregon and Washington, Brian had the opportunity to work for several state and federal agencies that included the U.S. Fish and Wildlife Service, U.S. Forest Service, Oregon Department of Fish and Wildlife, and Washington Department of Fisheries. Wanting to continue his education, in 1999 he and his family moved to Pennsylvania, where Brian attended Mansfield University and earned a B.S. degree in Fisheries Science. During his time at Mansfield, Brian worked as a Fisheries Biologist Aid for the Pennsylvania Fish and Boat Commission at their Lake Erie Research Unit located in Fairview. In 2005, Brian was hired fulltime with the Commission at their Union City State Fish Hatchery where he spent five years as a Fish Culturist. Brian's passion was to be Fisheries Biologist, and his opportunity became available in 2010 when he was hired for the Commission's Fisheries Management Division Area 2 Office in Tionesta. Away from the office, Brian enjoys fishing, hunting, and coaching his son's hockey team. Brian maintains an interesting dichotomy of being both a devoted Cleveland Browns supporter and an avid Pittsburgh Penguins fan. The same dichotomy holds true for Brian's favorite Pennsylvania native fish species, where he can't decide between the Walleye *Sander vitreus* or the Muskellunge *Esox masquinongy*.



Pennsylvania maintains a diverse ichthyofauna (somewhere in the neighborhood of 160+ species), comprised mostly of native freshwater species that inhabit drainage courses of the Ohio River Basin (Allegheny, Monongahela, and Ohio rivers and their tributaries), the Great Lakes Basin (Lake Erie and the Genesee River and their tributaries), and streams of the Atlantic Slope (Susquehanna, Delaware, and Potomac rivers and their tributaries). The Pennsylvania State Fish is the eastern brook trout (*Salvelinus fontinalis*). [Map from U.S. Geological Survey, Compiler, 1999, Digital Shaded-Relief Map of Pennsylvania: Pennsylvania Geological Survey, Fourth Series, Map 65, Scale 1:500,000, Web Release].

2014 Cooper Award

The Pennsylvania Chapter is soliciting applications for the 2014 Cooper Award. This award was created to honor the memory of the late Penn State Professor Emeritus of Zoology, and famed author of *Fishes of Pennsylvania and the Northeastern United States*, Edwin Lavern Cooper, Ph.D.

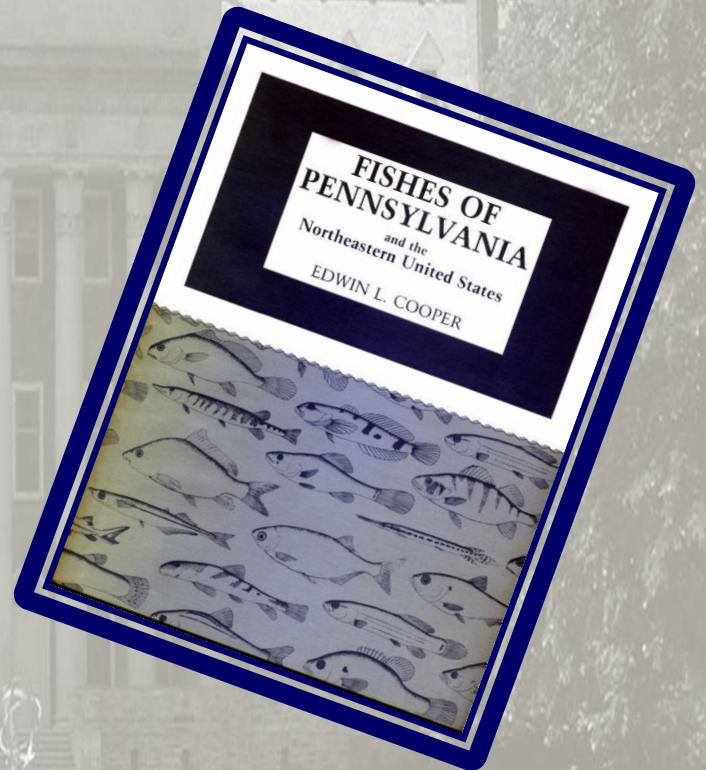
Under this award program, the Pennsylvania Chapter will provide a travel award to two deserving graduate and/or undergraduate students to attend the 2014 AFS annual meeting. Next year, the 2014 meeting will be held August 17-21 in Québec City.

Like one of the Parent Society's student awards, the Cooper Award recipients will be determined from a writing contest to recognize students who are able to effectively communicate the value of fisheries research to the general public. Student applicants are asked to submit a 500- to 700-word article explaining their own research, or a research project in their laboratory or college/university. The article must be written in a style (*i.e.*, journalistic) understandable to the general public. Students may write about research that has been completed, is in progress, or is in the planning stages.

A committee selected by our Chapter's Executive Committee will judge all entries received by the deadline. The two winning articles will be published in our next Chapter Newsletter. Articles are to be submitted electronically to Rebecca Dunlap at rebecca.dunlap01@gmail.com by March 1, 2014.



Edwin Lavern Cooper, Ph.D.
1919 – 2009



Don't Forget Who We Are.....

Welcome to the Homepage of the Pennsylvania Chapter of the American Fisheries Society!

Chartered in 1969, our Chapter serves as a scientific and professional organization maintained by people interested in the conservation and enhancement of fishery resources of the Commonwealth of Pennsylvania.

The mission of our Chapter is to:

- Advance the conservation, development, and wise use of fishery resources for optimum use and enjoyment by all mankind;
- Provide a forum for formal and informal dissemination of scientific knowledge, research, and training in fisheries science, management, and production;
- Promote and evaluate the educational, scientific, and technical aspects of the fisheries profession; and
- Recognize outstanding contributions to the understanding, conservation, and/or wise use of Pennsylvania's fishery resources.

In the conduct of our mission, we will strive to maintain an organizational structure that represents all members, provides opportunities for active participation and effective leadership, and generates the resources necessary to implement or continue Chapter activities and programs.



FISHES OF PENNSYLVANIA-BEAN 1892.

PLATE 7.

Figure 7.

THE BROOK TROUT.

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In the *Winter 2013-2014* Newsletter Issue.....

- Rundown of the Fall Technical Meeting.
- Info on our upcoming Spring Technical Meeting.
- “In the Spotlight” featuring biologists working within the Delaware River basin.
- “Blast from the Past” (this time, no fish attacks).

If any Chapter member would like to submit an article, please submit electronically to Bob Ventorini: rventorini@pa.gov.

Upcoming Events.....



*American Society
of
Ichthyologists and Herpetologists*

Chattanooga, Tennessee
30 July - 3 August, 2014



DE LA RECHERCHE À LA GESTION DES PÊCHES:
PENSER ET AGIR LOCALEMENT ET GLOBALEMENT

FROM FISHERIES RESEARCH TO MANAGEMENT:
THINK AND ACT LOCALLY AND GLOBALLY

QUÉBEC
2014

144^e RÉUNION ANNUELLE, 17 au 21 AOÛT 2014
ANNUAL MEETING, AUGUST 17-21

AMERICAN FISHERIES SOCIETY



5th International Otolith Symposium

20-24 October 2014,
Mallorca, Balearic Islands,
Spain

AirEuropa