

OKLAHOMA CHAPTER of the **AMERICAN FISHERIES SOCIETY**

The Lateral Line

December 2015 Volume 36(1)

OK AFS Officers:

President

Daniel Fenner

Fish and Wildlife Biologist Owasso, OK dbfenner@gmail.com

Past-President

Shannon Brewer

Oklahoma Cooperative Fish and Wildlife Research Unit 007 Ag Hall Stillwater, OK 74078 Shannon.brewer@okstate.edu

President-Elect

Clayton Porter

Fisheries Biologist Norman, OK Clayton.porter@odwc.ok.gov

Secretary-Treasurer

Kvle James

OK Dept. Wildlife Conservation Fisheries Division – SE Region Kyle.james@odwc.ok.gov

Newsletter Editors

Colt Holley

Oklahoma State University 007 Ag Hall Stillwater, OK 74078 Colt.holley@okstate.edu

Andrew Taylor

Oklahoma State University 007 Ag Hall Stillwater, OK 74078 Andrew.t.taylor@okstate.edu

COMMITTEE REPORTS

Awards and Nominations Committee:

In case you weren't at the OKAFS Spring Meeting in Tulsa, Our award winners were:

Trevor Starks - Jimmie Pigg Travel Scholarship

Bob Mollenhauer - Dr. James K. Schooley Best Student Presentation

Shannon Brewer - For her service as 2014 Oklahoma **Chapter President**

Jay Barfield - Outstanding Fisheries Worker of the Year



Above is a picture of Trevor Starks at the Missouri River Natural Resources Conference. He used his travel scholarship to attend the meeting.

Thanks! Josh Johnston

(continued...)

Volume 36(1) December 2015

OK AFS Committee Chairs:

Activities

Kevin Stubbs

US Fish and Wildlife Service 9014 East 21st St. Tulsa, OK 74129 kevin_stubbs@fws.gov

Awards and Nominations

Josh Johnston

OK Dept. Wildlife Conservation PO Box 1201 Jenks, OK 74037 (918) 299-2334 Josh.johnston@odwc.ok.gov

Continuing Education

Dan Shoup

Oklahoma State University 008 Ag Hall Stillwater, OK 74078 (405) 744-9671 Daniel.shoup@okstate.edu

Environmental Concerns

Jon West

OK Dept. Wildlife Conservation jon.west@odwc.ok.gov

Fundraising

Bill Wentroth

OK Dept. Wildlife Conversation 417 S. Silverdale Lane Ponca City, OK 74604 (580) 762-2248 bwentroth@cableone.net

Student Concerns

Bob Mollenhauer

Oklahoma State University 007 Ag Hall Stillwater, OK 74078 Mollenh@okstate.edu

JIMMIE PIGG STUDENT TRAVEL SCHOLARSHIP

STUDENTS!! STUDENTS!! STUDENTS!!

This is the final call for students who would like to go to a professional meeting on someone else's money. The Chapter will award the Jimmie Pigg Student Travel Scholarship to a student or students who are involved in fisheries research studies and who are planning to present their findings at an upcoming AFS meeting. The Chapter awards a \$1000.00 scholarship to the lucky recipient.

This prestigious award is named in honor of the well-known, well-respected late aquatic biologist and educator Mr. Jimmie Pigg, who donated the initial Chapter funding to create the award. Jimmie will always be remembered as a dedicated professional and active fisheries conservationist who loved his work and his students.

Any student who is active in fisheries or a related aquatic discipline is eligible to apply. Recipients are selected by the Chapter Nominations and Awards Committee and are presented the award at the annual Chapter business meeting. Selection is based on academic qualifications, professional service, contribution to fisheries and the applicant's demonstrated desire and need for the grant.

Awards are based on merit and are not necessarily given each year. Deadline for application submittal is December 31st, 2015. Interested students should contact the Awards Committee Chair, Josh Johnston at (918) 299-2334 or email Josh at josh.johnston@odwc.ok.gov for more information and to obtain the appropriate application forms.

--- The Lateral Line -

December 2015 Volume 36(1)

Continuing Education Committee:

Given that our chapter meeting last year was held in conjunction with the Wildlife Society, Oklahoma AFS did not develop any continuing education workshop in conjunction with the annual meeting. However, OKAFS provided support for a workshop on fish kill investigations held in conjunction with the Oklahoma Clean Lakes and Watershed Associations meeting in April. This effort was spearheaded by Kurt Kuklinski. The committee will be working with the EXCOM to assist with any workshop needs associated with the upcoming chapter meeting. As always, we would welcome input from the membership regarding topics they would find beneficial. If you have suggestions, please contact me at dshoup@okstate.edu or 405-744-9671.

Environmental Concerns Committee:

Environmental concerns may be in your area but that does not invalidate them. I implore you to send me the concerns that you think our chapter should address and if this is a topic of interest to you, please join the committee! Some topics our chapter may want to consider include: surface-groundwater contamination, proposed legislation that could affect our fisheries either directly or indirectly, prominent land-use practices, Species of Greatest Conservation Need and more! Thank you in advance for your assistance and I appreciate your dedication to the chapter. I look forward to seeing you at our next chapter meeting. - Jon West

Fund Raising Committee:

The Fundraising Committee has not met since the Annual meeting. The minutes of the OKAFS business meeting should have the results of the auction, which was a tremendous success with an all time high dollar amount going towards the Student Scholarships!

Thanks, Bill Wentroth

--- The Lateral Line -

December 2015 Volume 36(1)

OKLAHOMA CHAPTER AFS was chartered on September 8, 1968.

The mission of the chapter is:

- To promote conservation, development, and wise use of the aquatic and fishery resources of Oklahoma.
- To promote and evaluate the development and advancement of all aspects of fisheries science and management in Oklahoma.
- To gather and disseminate scientific, technical and other information about fisheries science and management to Chapter members and the general public through publications, meetings and other forms of communications.
- To encourage competent teaching of fisheries science and management in Oklahoma colleges and universities and promote the continuing education of Oklahoma fisheries workers.

NAME:			
	(Last)	(First)	
AFFILIATION:			
MAILING ADDRES			
	(Dept., Blo	dg., Office, Street, PO Box, etc.)	
	(City)	(State)	(Zip)
DAY PHONE:		E-MAIL:	
MEMBERSHIP TY	PE: 1 Year (\$5)	2 Years (\$10) 3 Years (\$15)	Life (\$50)
MEMBERSHIP ST.	ATUS: Professional	Student	
		ivities Awards Continu	

Detach, make check payable to OKAFS, and send to: **Kyle James**, OKAFS Secretary-Treasurer, ODWC SE Region, 6733 SW Hwy 1 Wilburton, OK.

Phone: 918-686-3640. Email: kyle.james@odwc.ok.gov.

Volume 36(1) December 2015

SAVE THE DATE:



Please join us at the 2016 Oklahoma Natural Resource Conference February 24-26, 2016 at the Renaissance/OKC Convention Center in Oklahoma City.

The OKNRC is hosted by the Oklahoma Chapters of The Wildlife Society, American Fisheries Society, Society for Range Management, Invasive Plant Council, Prescribed Fire Council, and the Soil and Water Conservation Society. The conference will have presentation topics on range, wildlife, fisheries, forestry and environmental sciences. One goal of this meeting is to increase awareness of what the different societies, agencies and NGOs are doing as well as foster future partnerships.



- - The Lateral Line -

Volume 36(1) December 2015



OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION

Internship Opportunity at the Paddlefish Research Center

The Oklahoma Department of Wildlife Conservation has established an Internship Program to help students that are majoring in wildlife related fields to gain work experience. The Department has a limited number of internship positions available. Positions are seasonal and vary by location and duration.

Internships are primarily in the spring and summer, with occasional fall positions. Locations are state-wide. Work schedules will be determined by the supervisor. Positions will be limited to 2 terms not to exceed 975 hours per term. (a term is a 12month period starting with the hire date). A 3rd term may be worked only if the Intern is continuing their education. Verification must be submitted, if rehired for a 3rd term. Lodging is not provided.

Intern applicants must be actively pursuing a degree, or have obtained a degree, in the following college majors:

- Wildlife Conservation Science
- Wildlife Ecology Education
- Biology Communications
- Zoology
- Other related wildlife degrees

Graduate degree candidates, seniors, juniors, and sophomores with majors in wildlife conservation and those with previous related work experience in fisheries or wildlife will receive preference.

To find the application or more information about other job requirements go to the ODWC's website at http://www.wildlifedepartment.com/careers/internships.htm. Also, the ODWC has created a promotional video about the Internship Program that can be found on their website. All applications are due by January 15, 2016.

- - The Lateral Line -

Volume 36(1) December 2015

OKAFS LISTSERVE - eMailDodo



Recall that our old listserve was lost, quite quickly too, but the Southern Division has hooked us up with an option we've been using for over a year now; eMailDodo. Here are some basics for using the list. First, you have to be a member of the group if you want to send a message. To send a message to the OKAFS membership, use the address OKAFS@emaildodo.com in your email program. The list is currently set to have all replies go to the sender so the entire membership doesn't receive all the conversations. If you want everyone to see your reply, just cc OKAFS@emaildodo.com. Many of you have probably been getting email from the list already and if this is the first you've heard of the list, it means we don't have your email address on file in our membership database. If you feel your email has been left off or has changed recently, send the editors of the list (Jim Long; longjm@okstate.edu and Kyle James; Kyle.James@odwc.ok.gov) an email and we'll update it.

Happy messaging, Jim Long

Articles for OK AFS Website

All,

We would like to start including some brief summaries of interesting research/management projects that are being completed by our membership. I will post one on our web site in the next few days as an example. Our new page looks great and it is a great way to show off projects of interest. Please send any project descriptions (<350 words) to Daniel Fenner (dbfenner@gmail.com). Pictures associated with the projects are welcome.

Thanks. Shannon Brewer

Volume 36(1) December 2015

New OKAFS Logo!

On Nov. 30th, 2014, online voting was finalized for the new OKAFS logo design. Below, please find the new logo designed by Katelynn Gifford and Andrew Taylor of the OSU Student Subunit. This design features a White Bass illustration by Joe Tomelleri (used with written permission). Please contact Colt Holley at colt.holley@okstate.edu if you need a high-resolution digital copy of the new logo.

Voting Results:

Answer Choices	∀.	Responses	,
Current Logo (No Change)		10.34%	3
New Logo Design 1		51.72%	15
New Logo Design 2		24.14%	7
New Logo Design 3		13.79%	4
otal			29



- - The Lateral Line -

December 2015 **Volume 36(1)**

Search for rainbow trout reproduction potential in lower Mountain Fork River tributaries

Contributed by Jim Long

The tailwater trout fishery in the Mountain Fork River below Broken Bow Dam is one of only two year-round trout streams in Oklahoma and the only one known to exhibit natural reproduction. In other systems, rainbow trout have been shown to spawn in very small tributaries, often thought to be too warm to allow juveniles to persist.

Last winter and this spring, personnel from OSU and ODWC surveyed several streams (Bee Branch, Beaver Creek, Carnasaw Creek, Horsepen Branch, Rough Branch, Fish Fry Creek, Unnamed Creek near Re-reg Dam, and Cooper Creek) below Broken Bow Dam to document either stocked adult-size rainbow trout migrating into these tributaries or potentially wild-spawned fish. In February, we found a stocked brown trout in Cooper Creek and a juvenile rainbow trout in Bee Branch that appeared to have been wild-spawned. In April, another juvenile rainbow trout was captured in Bee Branch and adult-sized rainbow trout were found in Horsepen Creek and Rough Branch. We plan to continue our surveys into the summer.



Kyle James with juvenile rainbow trout from Bee Branch (February 2015).



Trevor Starks with stocked rainbow trout captured in Horsepen Creek (April 2015).

December 2015 Volume 36(1)

TNC Fish Sampling in Oklahoma

Contributed by Kimberly Elkin (Continued...)

Since 2013, The Nature Conservancy (TNC) and Oklahoma Department of Wildlife Conservation (ODWC) have partnered to sample fish at the Oka'Yahnali Preserve, Pontotoc Ridge Preserve, Nickel Preserve, and Tallgrass Prairie Preserve. ODWC provided field help and identification expertise while sampling 18 different streams on four TNC preserves. TNC would like to thank all of those ODWC personnel who helped sample including: Charles Baker, Brandon Brown, Jim Burroughs, Josh Johnston, Donnie King, Matt Mauck, Jean Odonell, Buck Ray, David Rutledge (ODWC), Curtis Tackett and Darren Wythe.



Left to right: Caleb Thayer (OSU), Tony Brown (TNC), Sarah Hogden (OSU), Jean Odonell (ODWC), Curtis Tackett (ODWC), and Kimberly Elkin (TNC) sample fish at Tallgrass Prairie Preserve

December 2015 Volume 36(1)

TNC Fish Sampling in Oklahoma Contributed by Kimberly Elkin



Front: Brandon Brown (ODWC) and Josh Johnson (back) sample Tully Hollow at the Nickel Preserve



Left to right: Charles Baker (ODWC) Buck Ray (ODWC) identify fish from the Oka'Yahnali Preserve- Blue River

December 2015 Volume 36(1)

TNC Fish Sampling in Oklahoma Contributed by Kimberly Elkin



Donnie King (ODWC) holding up a bluegill from Sand Creek at Tallgrass Prairie Preserve



Left to right: Jim Burroughs (ODWC), Donnie King (ODWC) and Curtis Tackett (ODWC) identify fish from Sand Creek at Tallgrass Prairie Preserve

--- The Lateral Line ---

Volume 36(1) December 2015

TNC Fish Sampling in Oklahoma Contributed by Kimberly Elkin



Left to right: Matt Mauck (ODWC) and David Rutledge (ODWC) sample fish in Coal Cave Creek at Pontotoc Ridge Preserve



OKLAHOMA CHAPTER of the AMERICAN FISHERIES

--- The Lateral Line ---

Volume 36(1)

STUDENT SUPPLEMENT

December 2015

Officers:

President

Colt Holley

OK Student Chapter AFS 007 Ag Hall Stillwater, OK 74078 Colt.holley@okstate.edu

Vice President

Matt Pallett

OK Student Chapter AFS 007 Ag Hall Stillwater, OK 74078 Matthew.pallett@okstate.edu

Secretary-Treasurer

Chance Broderius

OK Student Chapter AFS 007 Ag Hall Stillwater, OK 74078 Chance.broderius@okstate.edu



PRESIDENT'S MESSAGE

This past year has been extremely fun and productive for the Oklahoma State University Student Subunit of the American Fisheries Society (OSU AFS). Our meetings this year have been well attended by graduate and undergraduate students that encompass a diverse background of disciplines. Our main goals for the year were to expand our education in fisheries, perform outreach activities to educate the public about fisheries and aquatic ecology, and foster camaraderie within our group.

In order to expand our education in fisheries and learn about different career paths in our field, we hosted several great guest speakers. Brandon Brown, Paddlefish Research Center Supervisor, spoke to us about the Paddlefish Research Center and the successes that they are having there. Alongside the OSU Chapter of The Wildlife Society, we hosted a team of USFWS biologists that detailed how to gain employment as a federal biologist. Last but not least, Gene Gilliland, Conservation Director for B.A.S.S., delivered a great talk on life lessons as a fisheries biologist and the unique aspects of his current position.

(continued...)

--- The Lateral Line ---

Volume 36(1)

December 2015

The subunit has greatly expanded its involvement in outreach activities over the past two years. During the summer, we helped the Sierra Club Nature Camp host kids fishing events on Lake Sanborn. Last year's Subunit Officers created an interactive display of three different aquaria and educational posters to showcase the diversity of fishes across different ecoregions of Oklahoma. We have been able to use this display to educate Oklahomans – kids and adults alike – on the wonderful diversity of fishes in their own backyards. Our members had a great time interacting with the public at events like the Oklahoma Department of Wildlife and Conservation's Wildlife Expo and the College of Agricultural Sciences and Natural Resources Ag Field Day.

Last but not least, OSU AFS also focused on giving back to the Natural Resource Ecology and Management (NREM) department, our host department, and our parent chapter, the Oklahoma Chapter of AFS (OK AFS). We represented NREM by winning first place in the annual Homecoming Window Decorating Contest held between all of the student organizations in the College of Agricultural Sciences and Natural Resources. Our recent contributions to OK AFS include an updated digital logo for the chapter and a revamped and rejuvenated *Lateral Line*, the chapter's biannual newsletter. We are also in the process of implementing a recently finalized scholarship that recognizes outstanding undergraduate students in fisheries at OSU, which should benefit students in NREM and increase participation in OK AFS meetings.

Overall, OSU AFS and its members had a great year! We hope our group has left a lasting, positive impact on our community. We look forward to seeing what next year holds for our group, and we hope that everyone has a safe and productive field season this upcoming summer.

Tight Lines and Full Nets,

2014-2015 OSU AFS Subunit Officers Colt Holley – President Matt Pallett – Vice President Chance Broderius – Secretary/Treasurer



Volume 36(1)

STUDENT SUPPLEMENT

December 2015

Student Subunit Events

This year we placed first among all other student organizations in the annual Homecoming Window Decorating Contest for the College of Agricultural Sciences and Natural Resources at OSU. Not only was this our first year to participate in this event, it was also the first time a student organization from the NREM Department had placed in this contest!







The Lateral Line STUDENT SUPPLEMENT

Volume 36(1)

December 2015

Student Subunit Events





Guest Lecturers - Left: we co-hosted (alongside OSU TWS) a team of USFWS biologists that were recruiting for several internship positions. Right: we also enjoyed a lecture of life lessons and reflections from Gene Gilliland, Conservation Director for B.A.S.S. Also, Brandon Brown, Paddlefish Research Supervisor for the ODWC, educated us on efforts at the Paddlefish Research Center in Miami, OK (not pictured).









Outreach Events - Members assisted with the collection and set-up of three interactive fish displays. At the ODWC's Wildlife Expo we displayed some of the diversity of fishes found within Oklahoma's ecoregions. We helped OSU NREM with a campus-wide undergraduate student recruiting event. We also participated in OSU CASNR's Ag Field Day, which is a family-oriented event. At both events, we educated folks of all ages on the diversity of fishes that occur in their backyards.

The Lateral Line STUDENT SUPPLEMENT

Volume 36(1)

December 2015

Student Subunit Member Activities



Anthony Civiello is investigating the influence of habitat on the condition of young-of-year sturgeon species in the lower Missouri River.



Jeff Johnson is assessing the distribution of the invasive Asian Swamp Eel within the Chattahoochee River and surrounding marshes near Roswell, Georgia.



Colt Holley is involved in several research projects, including studies on Shoal Bass age and growth, distribution of invasive Asian Swamp Eels, and an undergraduate research project on Shortnose Gar.



Andrew Taylor is investigating the influences of fragmentation on the distribution, conservation genetics, and population dynamics of fluvialspecialist black bass species.

--- The Lateral Line ---

Volume 36(1)

December 2015

Student Subunit Member Activities



Daniel Logue is using occupancy models to better understand the ecology of several Great Plains cyprinids (but not this Grass Carp).



Frances Marshall is involved in various field-based research conducted by graduate students of the OK Coop Fish & Wildlife Research Unit.



Jahna Hill has had internships with the OWDC the past two summers performing black bass population surveys by snorkeling in the NE Region.



Bob Mollenhauer is using a trait-based approach to study sampling efficiency and ecology of stream fishes in the Ozark Highlands.

--- The Lateral Line --STUDENT SUPPLEMENT

Volume 36(1)

December 2015

Student Subunit Publications

- Cartabiano, E.C., D.R. Stewart, and J.M. Long. 2014. Effect of bait and gear type on turtle bycatch and Channel Catfish population parameter Estimates in a reservoir. Journal of Freshwater Ecology.
- **Starks, T.A.,** J.M. Long, and A.R. Dzialowski. 2015. Community structure of age-0 fishes in paired mainstem and created shallow-water habitats in the Lower Missouri River. River Research and Applications. doi: 10.1002/rra.2891
- **Taylor, A.T**, and D.L. Peterson. 2015. Movement, homing, and fates of fluvial-specialist Shoal Bass following translocation into an impoundment. Southeastern Naturalist 14(3):425-437.

--- The Lateral Line --STUDENT SUPPLEMENT Dec

Volume 36(1)

December 2015

Student Subunit Presentations

- **Broderius, C.R., K.J. Stahr,** and D.E. Shoup. 2015. Increasing juvenile largemouth bass recruitment with vegetation: effects on survival and foraging return. 24th Annual Oklahoma Clean Lakes and Watersheds Association Conference, Stillwater, OK. *Oral presentation*.
- **Broderius, C.R., K.J. Stahr,** and D.E. Shoup. 2015. The effects of aquatic vegetation on survival and foraging return of juvenile largemouth bass. Oklahoma Natural Resources Conference, Tulsa, OK. *Oral presentation*.
- **Broderius, C.R., K.J. Stahr,** and D.E. Shoup. 2015. The effects of aquatic vegetation on survival and foraging return of juvenile largemouth bass. Annual Meeting of the Southern Division of the American Fisheries Society held in Savannah, GA. *Oral Presentation*.
- Civiello, A.C. and J.M. Long. 2015. The influence of habitat on young-of-year shovelnose sturgeon prey use. Using Macroinvertebrates Data to Inform Food Web Analyses, a Symposium held at the 145th National American Fisheries Society Conference, August, 2015, Portland, Oregon, USA.
- Logue, D., R. Mollenhauer, and S.K. Brewer. 2015. Competitive interactions of the invasive *Notropis bairdi*, and the federally threatened *Notropis girardi* in the Arkansas River drainage, Oklahoma. Annual Meeting of the Southern Division of the American Fisheries Society held in Savannah, GA. *Oral Presentation*.
- **Logue, D., R. Mollenhauer**, and S.K. Brewer. 2015. Investigating the effect of a non-native broadcast spawning minnow in a Great Plains stream, an occupancy approach. Oklahoma Natural Resources Conference, Tulsa, OK. *Oral presentation.*
- **Logue, D., R. Mollenhauer**, and S.K. Brewer. 2015. Occupancy of heavyweight rivers by a bantamweight broadcast spawning cyprinid. Student Water Conference, Stillwater, OK. *Oral presentation*.
- **Schwemm M.R.,** J.M. Long, A.A. Echelle, and J.D. Schooley. 2015. Fine-scale genetic structuring of American Paddlefish populations in Oklahoma. Oklahoma Natural Resources Conference, Tulsa, OK. *Oral presentation*.
- **Starks, T.A.,** M. Miller, and J.M. Long. 2015. Life history characteristics of age-0 pelagic spawning minnows in the lower Missouri River. Student Water Conference, Stillwater, OK. *Oral presentation*.

(continued...)

--- The Lateral Line --STUDENT SUPPLEMENT

Volume 36(1)

December 2015

- **Starks, T.A.,** M. Miller and J.M. Long. 2015. Early life history of three Macrhybosis species in the lower Missouri River. Oklahoma Natural Resources Conference, Tulsa, OK. *Oral presentation*.
- **Starks, T.A.** and J.M. Long. 2015. Assessing larval fish community responses to created habitats on the lower Missouri River. Annual Meeting of the Southern Division of the American Fisheries Society held in Savannah, GA. *Oral Presentation*.
- **Taylor, A.T.** and J.M. Long. 2015. Factors influencing the decline of fluvial fishes: insights from historic and current species distribution models. Annual Student Water Conference held in Stillwater, OK. *Oral Presentation*.
- **Taylor, A.T.,** M.D. Tringali, S.M. Sammons, D.L. Peterson, T. Ingram, P. O'Rouke, and J.M. Long. 2015. Genetic substructure within the native range of the Shoal Bass. Annual Meeting of the Southern Division of the American Fisheries Society held in Savannah, GA. *Oral Presentation*.

Student Subunit Completed Theses

- **Stahr, K.J.** 2014. The Suitability of Water Willow Introductions in Turbid, Southern Reservoirs: Implications for Juvenile Largemouth Bass (*Micropterus salmoides*) Recruitment. Master's Thesis, Oklahoma State University, Stillwater.
- **Starks, T.** 2015. Responses by Larval and Juvenile Fishes to created Shallow-Water Habitats in the Missouri River. Master's Thesis, Oklahoma State University, Stillwater.
- **Broderius**, C. 2015. The Effects of Vegetation on the Timing of Ontogeny to Piscivory in Juvenile Largemouth Bass (*Micropterus salmoides*). Master's Thesis, Oklahoma State University, Stillwater.

Student Subunit Awards

Anthony Civiello. 2015. Robert A. Klumb Memorial Student Travel Award Grant, Missouri River Natural Resources Committee.

Trevor Starks. 2015. Jimmie Pigg Travel Scholarship, Oklahoma Chapter of the American Fisheries Society.

Andrew Taylor. 2015. Outstanding Graduate Student in Fisheries Award, Department of Natural Resources Ecology and Management, Oklahoma State University.

--- The Lateral Line ---

Volume 36(1) December 2015



OKLAHOMA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

THE LATERAL LINE

Oklahoma Chapter, American Fisheries Society Oklahoma Student Subunit AFS, Newsletter Editor 008 Ag Hall Oklahoma State University Stillwater, OK 74078