



FISH SOUP

AZ-NM CHAPTER AMERICAN FISHERIES SOCIETY

Established 1967, Volume 49

Winter 2016

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President's Message:

Greetings Everyone! I hope everyone is enjoying the wonderful winter weather. I am very excited to be working as our Chapter President this year. I would like to thank our Chapter members and ExCom for being so supportive and welcoming, I am truly surrounded by a group of talented and dedicated folks! Our JAM 2016 was held in beautiful Flagstaff, AZ; and what a fun and successful meeting! There were a total of 409 Wildlife Society and American Fisheries Society members in attendance. Our chapter provided three well received continuing education opportunities; piscicide treatment training, student resume and interview, and aquatic macroinvertebrate identification workshops. Our annual business meeting was well attended; with 63 folks; thank you to all who made time to participate. During this meeting we also recognized individuals and groups for their contribution to fisheries conservation and management for the past year, awards were given for the following; Fish Head Award – Chuck Benidict, Professional of the Year – Bryan Bakevich, three Conservationist of the year awards – Araviapa and Cherry Creek legal and scientific teams (40 people team) and Southwest Tribal Fisheries Commission (over 20 participating entities), Miles McGinnis Scholarships- Adam Baca and Meredith Campbell, and the new Stinky Boot Award – Jill Wick. Congratulations to each of you for your accomplishments! I would like to give a special thank you to our Past-President, James Dominguez, who has guided our Chapter over last year. Under his watch we have grown as a chapter, with a focus on continuing education and meeting the needs of our members at every turn. James continues to guide our Chapter, and I am grateful for the support he has shown me as he helps guide me through my time as President. Thank you James!

Please help me welcome our new ExCom members! To encourage participation this year, we decided to split our Secretary/Treasurer position into two positions. Sharon Lashway was reelected to our Treasurer position. Sharon has worked tirelessly for the past 4 years as our Secretary/Treasurer, and we are so lucky to retain her as treasurer. She has been instrumental in keeping our Chapter going and on track. Winning the election for Secretary is Jane Trujillo. Jane is currently working for New Mexico Department of Game and Fish and been a great addition to our team. She has approached her new duties as Secretary with great enthusiasm and dependability. Finally, I would like to welcome Bryan Bakevich, our new President-Elect. In his first 6 months, Bryan has really hit the ground running. He has already made his mark on our Chapter and I know he will continue to shape and steer our Chapter in the best direction possible. Thank you ExCom for all of your hard work!

Our Chapter is turning 50 years old and it's time to celebrate! JAM 2017 marks the 50th Anniversary of both the creation of our Chapter and our beloved Joint Annual Meetings. We value our continued partnerships with the Arizona and New Mexico Chapters of The Wildlife Society, making possible a unique annual meeting that meets the needs of all our Members, in our growing interdisciplinary field of fisheries and wildlife management and conservation. The American Fisheries Society has been a guiding force of our Fisheries Profession since it was first organized in 1870 and our AZ/NM Mexico Chapter has been a part of this since it was chartered March 14, 1967. Our profession has developed during a time of ever increasing complexity and challenges in a theoretically, politically, technologically and ecologically changing and developing landscape. Our Chapter and its dedicated members have risen to meet these challenges. During the upcoming 2017 JAM we plan to celebrate and reflect on our past 50 years of accomplishments. Our plenary symposium will offer a retrospective on how far we have all come together, and focus on how we will shape our world and profession over the next 50 years.

Please join us in February in Farmington, New Mexico, to help us celebrate this wonderful accomplishment that has been made possible by each and every one of you!

Proudly looking forward to our next 50 years as the AZ/NM Chapter of the American Fisheries Society!

Jessica Gwinn; 2016-2017 AZ/NM AFS President

OFFICERS

President:

Jess Gwinn

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President Elect:

Bryan Bakevich

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Past President:

James Dominguez

NM Dept. Game & Fish
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Secretary:

Jane Trujillo

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Treasurer:

Sharon Lashway

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CHAPTER NEWS



2016 JAM in Flagstaff, AZ

The 2016 JAM started out with a new free, continuing education opportunity, an aquatic macroinvertebrate course taught by Colorado State University professor Dr. Boris Kondratieff. The course was on the Wednesday before JAM, and was well worth it. Dr. Kondratieff gave us an overview of macroinvertebrate entomology classification followed by a lab portion where he helped us identify 'bugs'. The course was geared towards western and southwestern stream entomology and was very helpful and informative!

The piscicide continuing education meeting was also a success. We learned some new regulations and learned lessons from other treatments including the Virgin River and Rio Costilla Reservoir.



Congratulations to our 2016 Arizona-New Mexico AFS Award Winners!

Conservationists of the Year – The legal teams protecting streamflow in Aravaipa Canyon and Cherry Creek, Arizona



Bryan Bakevich, Professional of the Year



Chuck Benedict, Fish Head Award



Jill Wick, Stinky Boot Award



Adam Baca and Meredith Campbell, Miles McInnis scholarship



The best student presentation went to Guillermo Alvarez "CFT Legumine (5% rotenone) Effects on Tadpole Survival and Metamorphosis of Chiricahua Leopard Frog (*Lithobates chiricahuensis*), Northern Leopard Frog (*L. pipiens*), and American Bullfrog (*L. catesbeianus*).

Business Meeting Notes
4:30-6:00 PM February 4, 2016
Little America Hotel Flagstaff, AZ

1. Welcome/Call to Order
2. Determination of Quorum
 - a. 33 current good standing members, 63 total attendees
3. Introduction
4. Approval of Agenda
 - a. Agenda approved
5. Approval of 2015 Minutes
 - a. Agenda approved
6. President's Address
7. Remembering Kelly Meyer
8. Secretary/Treasurer Report
1. Western Division AFS Address Jim Bowker, President WD
 - a. Thanks to AZ/NM EXCOMM and Dave Weedman for environmental issues (i.e. Alaska dam topics)
 - i. Last letters of support were generated from WD to support Alaska
 - ii. WD has the ability to support the chapters in environmental issues
 - b. Thanks ExCom for funding WD through sponsorship
 - c. Potential for WD to put funding back into the Chapter
 - d. Membership issues
 - i. More affiliate members (Chapter) then society
 - ii. What's the benefit for being a society member
 1. Support with environmental issues at a local level
 2. Travel Scholarship
 - a. \$4,000 each for students, young professionals, international, and professional
 - i. This year 17, 6, 1, 5 applicants for this year's 2016 Reno meeting
 3. Best Chapter and Best student subunit
 - a. What percent increase in membership do you see in a year?
 - b. Best chapter winners automatically get thrown into national best chapter
 - c. Idaho plays cornhole to generate revenue
 - d. Cal/Neva has a minnow run 5k to generate revenue
 4. Scholarships at the chapter level may have the ability to have WD match
5. WD is wanting to develop a 10 year rotation for Chapters to host
6. What can society do for a chapter?
 - a. Society has a meeting planning group called Helmsbriscoe
 - i. They can look at the venue contracts and negotiate for the best price
 - ii. Shawn Johnson looks at all AFS contracts and negotiates for amenities, perks, etc. at each venue in question
 1. Strong supported for the divisions and units
7. Conference calling
 - a. Funding for larger conference calls if the chapters need
8. Emerging Leader Mentorship Program
 - a. \$500 to attend governing board meeting at the WD conference
 - i. Attend early to learn about the process prior to the meeting
 - b. Goal is to get one person from every division
9. Bylaw Changes are facilitated if needed
10. Meeting Metrics have been pulled together for each state
 - a. How many presentations/posters/CE classes
 - b. This is a way to promote the benefits of being society members
11. Networking
 - a. Such an important tool to become a better professional/student
9. Student Chapter Updates
 - e. New Mexico State University- Will Lubenau-meeting 2x a month
 - i. Sarah Gruevel- Secretary
 - ii. Quinten Dean-Treasurer
 - iii. Domonique-
 - iv. 25 paid members, expecting 30 by the end of the semester
 - v. Fly Tying/casting clinics with the fly fishing group in Las Cruces
 1. They bring fly tying material and provide rods/reels and teaching how to cast

2. Students are put into a situation to communicate and network
 3. Stream improvement projects
 4. Special education fishing clinics through the public school system
 5. Elementary school fishing clinics
 6. Bass habitat implementation at Elephant Butte through NMDGF
 7. Building TU chapter relationships
 8. NMDGF Rio Grande Cutthroat trout stocking opportunity this year
 9. Contact NMSU to come present at their Chapter Meetings
- f. Arizona State University- Jessica Latzko-meeting once a month
- i. Student Chapter for TWS/AFS/rangeland management
 - ii. New relationships
 1. Phoenix Herp society and possible internships
 2. Trying to network with all 5 ASU campuses and their wildlife/fisheries/natural resource clubs
 3. Salt river clean up with the Sierra Club
 4. Grand Canyon field trip
 5. Helped AGFD gill net
 6. Wildlife techniques work shop
 - a. NMDGF looking to put together an electrofishing workshop through NCTC
 7. Calendar photo contest to raise revenue
 8. Resume and mock interview workshop
 9. Fish habitat construction
 10. Horseshoe Ranch Pond fence work
 - iii. James Ecton- VP
 - iv. Promote an additional hatchery tour
 - v. Student Chapter would like help in setting up a fishing clinic
- g. University or Arizona- Kaycie Waters-meeting 2x a month
- i. 48 paid member
 - ii. 2015 was highest increase in new members recruitment in club history
 - iii. 4 members went to AFS national meeting this past summer
 - iv. Habitat construction in Sahuarita Lake
 1. Wood pallets and cinderblock habitat
 - v. Public fishing clinic
2. Parent Society Election-Scott Bonar
- a. Scott is running for President of AFS
 - i. Scott has been an active members in AFS and a state biologist throughout the west
 - ii. Currently fisheries professor at UofA
 - iii. Vision for society is communication
 1. Environmental communication needs to increase on the local level
 2. Meeting attendance is getting increasingly difficult through agency limitations
 3. Continue standard data collection and comparisons
3. Committee Reports
- a. Welcoming/Recruitment Committee- Amberle Jones
 - i. We want to continue to build on the charter to increase recruitment
 - ii. Anyone interested in helping should contact Amberle
 - iii. Need to get out members more involved outside of the JAM
 - b. Continuing Education Committee- James Dominguez
 - i. Piscicide
 - ii. Resume
 - iii. Macroinvert course
 - c. Environmental Affairs Committee-Dave Weedman
 - i. Dave wasn't present but is active in WD
 - d. Small Grants- Scott Rogers
 - i. \$2,000
 - ii. RMPs are being developed
 - e. Hutton Program- Chuck Benedict
 - i. Deadline to apply is the end Feb
 - f. Newsletter- Sally Petre
 - i. Please send pictures of you work with a brief description
 - ii. Winter and summer newsletters
 - iii. Any help in developing the newsletter
 - g. Student Affairs- Amberle Jones
 - i. Volunteer database through our website
 1. Professionals can use this database to get volunteers for any work
 - ii. Amberle is stepping down and needs one person from NM and AZ
 1. AZ- Kent Mosher and Kris Starr
 2. NM- Colleen Caldwell
 - h. Social Media/Website- Lisa Winters/Kent
 - i. About a third of our "friends" are active on the page
4. Old Business
- a. Retreat
 - i. We are going to have a spring retreat with the new EXCOM members and to include students
 - ii. Planning for the future year
 - b. Funds for Continuing Ed/Small Grants

- i. Macroinvert course (27) was made possible with excess revenue generated from the 2014 JAM
 - 1. BORIS
 - c. Small grants is in the works
 - d. Funds for Student Chapters
 - i. Students expressed difficulty in attending meetings/volunteer opportunities/
 - ii. Student Colloquium
 - e. Recognition of Past President
 - i. Bill Stewart has brought a lot of energy to the chapter
- 5. New Business
 - a. Installation of New Officers
 - i. Jessica Gwinn installed as the 2016-2017 Chapter President
 - b. Old awards are going to be produced
 - c. Looking at bring back old officers for 50th Anniversary
 - d. Voting for new Officers
 - i. President-Elect
 - ii. Secretary
 - iii. Treasurer
 - e. 50th Year Celebration
 - i. We will be looking for volunteers in planning
 - ii. Looking back on the past 50 years in fisheries management and conservation
 - f. Call for Committee Chairs/Participation Discussion
 - i. Continuing Education
 - 1. Tiffany Love Chezem
 - ii. Student Affairs
 - 1. Kent Mosher
 - 2. Kris Starr
 - 3. Colleen Caldwell
 - iii. Newsletter
 - 1. Lisa Winters has offered to assist
 - g. Memorializing members
 - i. We want to create an award or a way to memorialize Kelly Meyers
 - 1. Sportfish Symposia
 - a. Kelly worked really hard to bring sportfish back into the chapter
 - 2. Social Hour
 - 3. Renaming Miles McInnis
 - 4. New Sport Fish Management Award
- ii. Miles McInnis was a fisheries manager for NMGFD who passed away from cancer right before he retired. Scholarship was originally set up through a NM consulting firm.
 - 1. Originally split funded between AFS and Consulting
 - 2. Shaula Hedwall would like to see scholarships separate
- iii. Research and sportfish scholarship
 - 1. Jim Reynolds reminds us that this honor is to be in perpetuity
 - 2. Award and scholarship has a longer lasting effect
- iv. Symposia could lose meaning outside of our chapter
- v. Social hour idea came to light because of Kelly's personality and the social hour was a way that Kelly used to network with the chapter members.
- vi. White Mountain Lakes Foundation would like to do something to memorize Kelly and their founder would like to find a way to fund a student to work in the white mountains for the summer
- vii. This will warrant further discussion
- viii. Jim Reynolds makes a motion to vote on ballot and the EXCOMM will tally the ballots
 - 1. Jim makes an amendment to take the top two from EXCOMM after the vote back to the chapter
 - 2. Motion was seconded
 - 3. This motion has been passed
- ix. Second motion to partner with white mountains group and discussion for voting and adding to the ballot
- x. This motion was seconded
- xi. This motion has been passed
- h. New officers
 - i. Bryan Bakevich- President Elect
 - ii. Jane Trujillo- Secretary

2015-2016 AZ/NM Chapter Annual Budget		Reporting begins 1/1/15- 12/31/15
Category and Description	Proposed Budget	Actual Income & Expenses as of 12/31/2015
INCOME		
2015 JAMeeting (includes all dues)	\$0.00	
Piscicide Course Dues	\$900.00	\$1,200.00
Dues Collected (AFS)	\$400.00	\$375.00
		\$120.00
Raffle	\$1,000.00	\$0.00
Logo Merchandise Income	\$300.00	\$660.00
Dues from Parent (2013)	\$500.00	\$840.00
Chapter Rebate (2013)	\$100.00	\$160.00
Dues from Parent (2014)	\$500.00	\$1,070.00
Chapter Rebate (2014)	\$100.00	\$151.20
WD Meeting Parent Support	\$500.00	\$500.00
TOTAL INCOME	\$4,300.00	\$5,076.20
EXPENSES		
2015 JAM Las Cruces, New Mexico		
Meeting Room Reservation	\$200.00	\$0.00
Best Student Poster	\$50.00	\$50.00
Best Student Paper	\$50.00	\$50.00
Plaque for Conservationist of the Year	\$25.00	\$25.00
Plaque for Professional of the Year	\$25.00	\$25.00
Plaque for Fishhead Award	\$25.00	\$0.00
Past President Award	\$50.00	\$50.00
Past President Plaque	\$25.00	\$25.00
Past Secretary Plaque	\$25.00	
Past Secretary Award	\$50.00	
Conservationist of the Year	\$0.00	\$538.05
Travel/Registration		
Student Workers	\$700.00	\$0.00
Photo Contest	\$200.00	\$0.00
Plenary Travel Expenses	\$600.00	\$0.00
Raffle Prize Purchase	\$200.00	\$0.00
Piscicide Speaker Reimbursement	\$300.00	\$587.20
		\$318.94
Membership Travel Fund	\$0.00	\$175.00
		\$75.00
Quiz Bowl Prizes	\$25.00	\$70.00
AV Costs	\$0.00	\$75.00
Keg Costs	\$300.00	\$393.25
Conference Fees to Resort	\$27,000.00	\$0.00
AZ TWS Dues Refund	\$200.00	\$0.00
NM TWS Dues Refund	\$150.00	\$0.00
SW TWS Dues Refund	\$100.00	\$0.00
TWS CONTINUEING ED	\$2,000.00	\$0.00
Refunds & Reimbursements	\$0.00	\$63.38
Total 2015 JAM expenses	\$32,300.00	\$2,520.82



ARIZONA / NEW MEXICO CHAPTER

of the American Fisheries Society

presents

The 50th Annual Meeting of the Arizona-New Mexico Chapters of the American Fisheries Society and The Wildlife Society

February 9-11, 2017

MARRIOTT Courtyard, FARMINGTON, NM

Conference Plenary:

*Celebrating 50 Years of Fish and Wildlife Management
in Arizona and New Mexico*

Workshops (Thursday, February 9):

**Piscicide 9AM-4PM | Interview and Resume building 8AM-4PM | Mobile
Application 8AM-4PM | State Grant Proposal Noon-2PM | Permit Proposal
Development 2PM-4PM |**

Conference registration at

<https://www.regonline.com/builder/site/?eventid=1899517>

For hotel reservations:

Please make your hotel reservations for the Courtyard Marriott separately at the government rate of \$89 per night, using the group name "AZ NM American Fishery". Reservations can be made at 1-800-627-7468 or by contacting the facility directly at 505-325-5111.

Spawning Run: 5k
February 11, 2017 7-9AM
Cost: \$20

The Arizona/New Mexico Chapter of the American Fisheries Society has six awards for recognizing aquatic professionals. The Awards Committee needs your help in submitting qualified candidates to receive awards at the 2017 Annual Meeting. This is your opportunity to become involved and see that your professional peers receive the deserved recognition from the Arizona/New Mexico American Fisheries Society.

Conservationist of the Year Award: This award recognizes an individual or group not employed in the fisheries or aquatic resources profession for significant involvement and contributions towards the conservation of fisheries or aquatic resources

Miles McInnis Memorial Student Awards: In memory of Mr. Miles McInnis (NMDGF), one undergraduate \$1,000 scholarship and one graduate \$1,000 scholarship is awarded to students interested in pursuing a fisheries science undergraduate and graduate education.

Conservation Professional of the Year Award: This award recognizes an individual employed in a capacity related to fisheries and/or aquatic resources conservation that makes significant impacts on the resource. Nominees can come from Administration, Culture, Education, Management, Research or Technical Support.

NEW! Kelly Meyer Sportfish Professional of the Year Award: In memory of Mr. Kelly Meyer (AZGFD), this award recognizes an individual employed in a capacity related to sportfish management of fisheries and/or aquatic resources that makes a significant impact on the resource. Nominees can come from Administration, Culture, Education, Management, Research or Technical Support.

Fish Head of the Year Award: This award recognizes an individual for his/her dedication to the aquatic resources and their career achievements.

“Stinky Boot Award”: Recognizes the most outrageous behavior of any fisheries student or professional in the year prior to the Chapter’s Annual Meeting.

Additional information can be found on the Arizona/New Mexico AFS website:

<http://arizona-newmexico.fisheries.org/>

To obtain more information or to apply for Miles McInnis Memorial student awards, please contact:

Julie Carter jcarter@azgfd.gov

For more information regarding the other awards please contact:

James Dominguez james.dominguez@state.nm.us

ELECTIONS:

We are seeking nominations for **President-elect, Secretary, Treasurer, and Newsletter Editor**. If you are interested or know of someone who is interested please submit their names to **James Dominguez** James.Dominguez@sate.nm.us. Since our current President-elect is from New Mexico, we would prefer someone from Arizona, but certainly are open to motivated applicants from New Mexico as well. If you want to know more about what it’s like serving as an officer feel free to contact **James** any time.



In Memoriam Jack Ruggirello

January 29, 1987 – September 28, 2016



It is with great sadness that I report the recent passing of Mr. Jack Ruggirello. Jack was a Fisheries Biologist with the U.S. Forest Service at the Tongass National Forest in Hoonah, Alaska, where he lived with his wife, Kaitlyn. Both he and his wife were recent graduates of the University of Arizona's Wildlife and Fisheries Program.

Jack was an outstanding student, friend, biologist and person. He was an avid hunter, angler, rock climber and naturalist. Jack was originally from Walden, New York. He graduated with the Valley Central High School class of 2005, and was a member Valley Central Hall of Fame Wrestling Team. He then went to the State University of New York at Courtland where he graduated with honors. While there, he was awarded the "Biology Major with the Highest GPA Award" two years in a row, and received the Aldo Leopold Award at the University, which was awarded for scientific competence coupled with a strong commitment to the preservation of natural ecosystems.

Jack also worked as a fisheries temp with the U.S. Geological Survey and the U.S. Fish and Wildlife Service in New England, and the U.S. Forest Service in northern Nevada. While in New England, he coauthored two scientific papers involving aquatics research.

Jack joined the University of Arizona's School of Natural Resources and the Environment in 2011, and was a part of the USGS Arizona Cooperative Fish and Wildlife Research Unit. I was his major professor, and had the opportunity to work with him closely. I thoroughly enjoyed working with Jack, who I found to be extremely talented, smart, ambitious, thoughtful, kind and fun. Jack, another biologist, and I were conducting a fish survey on Cherry Creek, Arizona, at the base of the Sierra Ancha Wilderness when a flash flood came roaring through. We were trapped on a bench above the flood waters for two days. Jack's good humor, field savvy, and unflappable persona served him well. Many people wouldn't have done such a good job under such trying circumstances.

Jack's Masters project was to study and captively breed, for the first time, the highly endangered Moapa Dace, a rare fish that lives in isolated streams in southern Nevada. This species had declined to approximately 400 individuals on earth. Jack worked with project staff to install underwater cameras to document their spawning behavior for the very first time. He then used this information to design a series of captive breeding experiments, and after 14 tries, he was the first ever to spawn Moapa Dace in captivity. Jack simply never quit until he was successful, and he graduated from the University of Arizona with a Master's Degree in December 2014. His methods and equipment were adopted by the Nevada Division of Wildlife to double the number of Moapa Dace in existence. Few people can claim they helped bring back a species from the brink of extinction, and even fewer can make the important contributions that Jack did in such a short time.

Jack enjoyed AFS and was an active member of the Parent Society, the Arizona/New Mexico Chapter, and the University of Arizona student subunit. He presented at several conferences and was a coauthor on a poster that won the Best Student Poster award at the 2014 Arizona/New Mexico AFS Annual Meeting. Jack was also awarded the Arizona/New Mexico Miles McInnis Student Scholarship Grant to attend the Western Division AFS Meeting in Mazatlán, Mexico in 2014.

Following graduation, Jack accepted a position as fish biologist at Tongass National Forest in the isolated settlement of Hoonah, Alaska. Both he and Kaitlyn shared tales of their many adventures such as monitoring salmon populations, and fishing the productive waters off of Chichagof Island. He also built strong ties with the local community.

Jack's passing was a devastating loss to his family, all of us, and the profession. A promising scientist and manager was taken from us way too early, but he made a large difference in his short life. Jack's accomplishments were numerous, his demeanor was exceptional and he also left us with an important lesson. The sheer number of people who contacted us and his family and expressed their support and condolences after the tragedy serves as a reminder that a huge, often untapped, concerned group of friends – including AFS'ers - exists for all of us that will lend us willing support no matter what safety, career, or health challenges we might face.



Continuing the Tradition

Eric Mammoser

Warm Water Fisheries Biologist; New Mexico Department of Game and Fish

Every spring for the last 2 weeks of March and first week of April New Mexico Department of Game and Fish employees can be found at Conchas Lake spawning walleye. The dedicated staff is out on the water every morning picking through the gill nets in heavy wind and high waves or sunny skies and calm waters. With little to no natural reproduction of walleye in most of New Mexico's waters, this yearly activity is critical to the popular fishery.



Our wild spawn is conducted lakeside. Net pens are suspended from a boat slip in the marina. Males are collected and held in the pens until they are stripped. Ripe females are brought back to be spawned while green females are returned to the lake immediately. Some females believed to be almost ready to spawn

are held in a pen for one night, if they are not successfully stripped the next morning they are returned to the lake. All water used in the spawning process is put through a 25µm filter to prevent the spread of aquatic invasive species. One or two females are stripped into a dry pan and two males are used for each female. Water is then added to activate fertilization, stirring with a turkey or crane feather. Approximately 30 seconds later a bentonite solution is added to prevent clumping and stirring continues for 10 minutes. After rinsing, fertilized eggs are transported in egg shipping bags placed in a cooler to the warm water section at Rock Lake Hatchery.

With little to no reproduction of walleye...this yearly activity is critical to the popular fishery

In recent years compounding factors such as low water levels and stocking experiments have caused many of the state's walleye populations to decrease. Conchas Lake, the primary brood lake, was hit especially hard making it difficult for NMDGF to collect enough eggs to support our walleye stocking. The shortage of eggs created a catch-22 scenario where stocking goals were not





being met leading to generally weak year classes and thus a poor spawn further perpetuating an egg shortage. NMDGF has been receiving walleye eggs from Genoa National Fish Hatchery to supplement the wild spawn but those eggs were not enough to make up the deficit.

This springs spawn marked a year of success. A large cohort of walleye that has been watched at Conchas Lake for several years came to sexual maturity. This cohort led to one of the highest egg

collections in almost a decade. Along with eggs received from Genoa National Fish Hatchery, the Iowa Department of Natural Resources and eggs/fry received from Colorado Parks and Wildlife allowed stocking recommendations at all lakes to be met. Meeting the recommendations for the first time in over a decade would not have been possible without those cooperating agencies. The hope is that this year is the beginning of a new trend eventually leading NMDGF to spawn enough walleye to fully support its stocking program again and possibly even return the favor of sending surplus eggs to other agencies.

Meeting the recommendations for the first time in over a decade would not have been possible without cooperating agencies.

On the Lighter Side

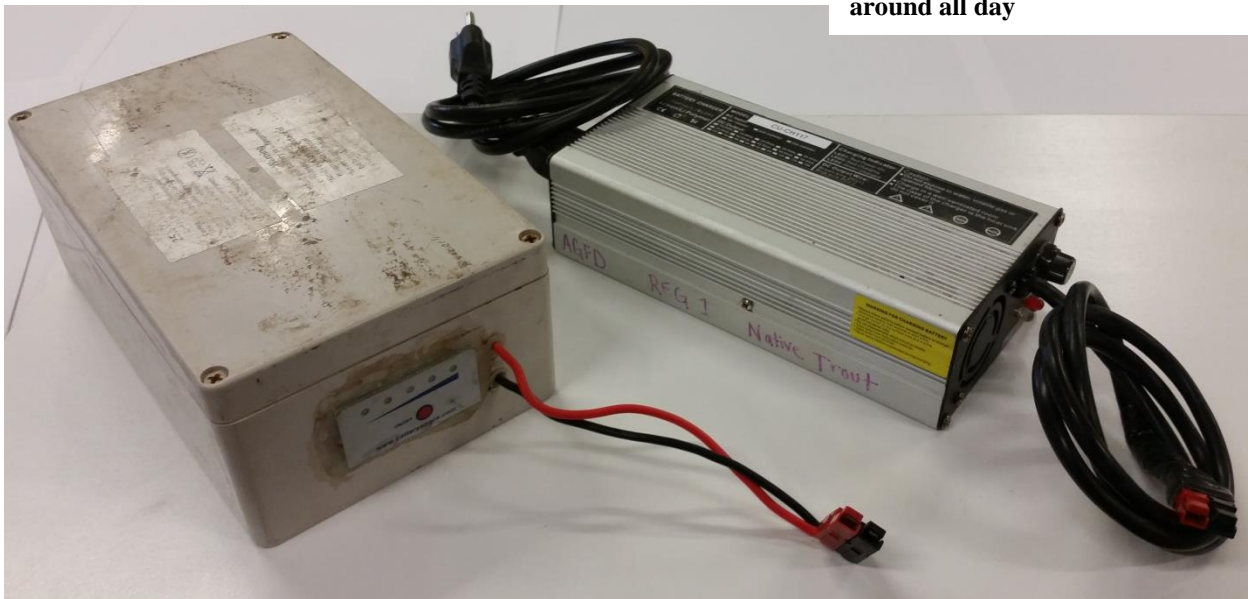
Antonio Lopez

Former Streams Biologist Region 1, Arizona Game and Fish Department

Lugging heavy electrofisher batteries through the wilds of Arizona has always been a personal favorite of mine. A typical field day sampling a stream with backpack units would see us take three of the 12 amp-hour batteries with us for a day's work, meaning we had 44 ¼ pounds of lead and acid with us. Other common limitations of these low tech batteries was their limited lifespan (two to three years of field use), need for maintenance charging cycles, and the inability to quickly determine the charge status of a spare battery. Electrofisher manufacturers have certainly responded to these complaints by offering new lithium-ion battery technology, but at approximately three times the cost and only 80% of the battery capacity of our beloved lead-acids.



Intern after lugging heavy batteries around all day



Battery on left and charger on right.

Since the field season of 2013, the Arizona Game and Fish Department's Region One Fisheries Program has been testing a new battery option in our backpack electrofishing units with excellent results. Our efforts began by reviewing a management brief published in the North American Journal of Fisheries Management (Hockersmith et al. 2013). The authors built lithium-ion battery to test its use with a Smith-Root Model 12 backpack electrofishing unit. A quick call to the same battery manufacturer had them agree to build a model with the correct connector (Anderson connector) to mate to our backpack units (although it took a little convincing that we had a legitimate application for their batteries; they were highly concerned that I wanted to discharge current into a body of water that I would be standing in). The net result of our three years of field testing is a battery that is only 32% the weight of the old lead-

acid batteries (4lbs 11oz), capacity equal to or greater than lead-acid (12 amp-hours), about the same price as a new lead-acid battery while only 38% the price of a leading competitor's lithium-ion with lower capacity, and with a battery "fuel gauge" that tells you the charge status by pressing a button on the battery.

In addition, maintenance on these batteries is easy since lithium-ion chemistry batteries typically have a low self-discharge rate and no special desulfation charging cycles are necessary. Battery chargers are available from the same company for less than \$100 that will charge a fully discharged battery in under two hours. We have a pair of batteries and charger that are on their fourth field season of regular use with no indication that their capacity has decreased, although we only expected three to four years of life.



"Fuel gauge" that tells you the charge status by pressing red circular button.

However, there are two trade-offs with these new batteries that we've experienced through field use. The first is that use of the battery charges requires a little more attention and discipline than lead acid chargers in that they are not simply "plug-in and forget". The chargers need to be disconnected from both the batteries and power source shortly after charging is complete to avoid depleting the battery charge. The second trade-off is in the connectors as we receive them from the company. They are not as robust as other batteries in the market, so we add some electrical tape insulation and heat shrink tubing to make the connectors mechanically sound to withstand field use. If you are interested in saving your back during the next stream electrofishing season, take a look at the products at the following links:

<http://www.batteryspace.com/custom-polymer-li-ion-battery-25-9v-12-6ah-326-wh-18a-rate-w-anderson-connector---un38-3-passed-dgr.aspx>

<http://www.batteryspace.com/Customize-Smart-Charger-6.0A-for-25.9V-Li-ion/Polymer.aspx>

Eric E. Hockersmith, Gabriel Brook, Nathan D. Dumdei & Stephen Achord (2013): A Lightweight Battery for Backpack Electrofishing, North American Journal of Fisheries Management, 33:2, 265-268.

Tiger Trout New to Arizona

Sally Petre

Reservoir Biologist, Region I Arizona Game and Fish Department



Tiger trout. Notice the very distinct pattern.

female brown trout and are sterile. Primarily, tiger trout are made in hatcheries, but can be present in any system that has both brook and brown trout, it is just very rare. Rumor is, tiger trout should grow fast and be aggressive, at least more so than the typical rainbow trout that gets stocked into 80% of the area waters.

As with anything new, raising and stocking these trout came with its challenges. Tiger trout are relatively new compared to the rainbow trout as far as culture of, or rearing, these fish. Our hatchery staff learned this the hard way. Apparently, tiger trout are rather particular with their food compared to rainbow trout. When hatchery staff feeds fish, it's usually a food frenzy as soon as the pellets hit the raceway. This is not so with tiger trout, as most of them didn't take the pellets. Interestingly, when our hatcheries switched to a higher grade of food, the tiger trout refused to eat it!



Varying sizes of tiger trout in the hatchery

The summer of 2015, a new fish was trucked into Arizona's Tonto Creek Hatchery outside of Payson. Eighteen thousand tiger trout fingerlings were brought from Utah Division of Wildlife Resources to be raised and stocked into some of the high country lakes in Arizona. The idea was to give anglers a new species to fish for!

These fish are a result of hybridization between male brook and

With this difficulty of feeding these tiger trout came extremely varying sizes of these trout. By May, when we planned to stock tiger trout into our lakes, we weighed and measured the fish and found them to be anywhere from 3 to 13 inches. Varying sizes is to be expected within lots, or raceways, but usually not by that much. So then came the question of what to stock in our lakes. We had originally planned to

stock tiger trout into four lakes, two of which are highly

productive, quality fisheries with special regulations (lakes that grow fish well; Becker Lake and Carnero Lake), and the other two lakes that aren't very productive with put and take fisheries (Woods Canyon Lake and Willow Springs Lake). With the latter two lakes (the put and take fisheries) we decided to grade the tiger trout and only stock fish 8.5 inches or larger. The idea being the tiger trout will either be caught out right away, or if not, it will be large enough to forage on other small baitfish and may grow larger. The more productive lakes, we stocked in the fish in without grading them. This allows the fish caught to be a variety of sizes, which provides a bit of diversity when fishing anyway!

Arizona Game and Fish Department used various forms of media to promote tiger trout fishing including local news, newspapers, press releases, posts on Department Facebook pages, signs at the lakes, and talking with the public and angling groups. Even with our media, some anglers still didn't know that there was a new trout at the water they were fishing! Many anglers were rather satisfied with the addition of Tiger Trout to the water they were fishing and had suggestions on where else to stock these fish!



Crowd of people at first stocking of tiger trout into Willow Springs Lake!



Happy angler with a tiger trout at Woods Canyon Lake.

On the management end of things, a few different surveys have been conducted to assess angler satisfaction, condition, survival/persistence, and catch rates. Intensive creel surveys at these lakes were conducted this past summer. Preliminary data shows higher catch rates in the fall versus the summer and more tiger trout being caught on lures/flyes versus bait. Many anglers found tiger trout more challenging but more fun to catch, as they said they are more aggressive than rainbow trout. Many anglers can't wait for next year, when the tiger trout are larger!

From some of our surveys, we found the condition of tiger trout in our lakes in the fall is not different than the condition of the tiger trout in the hatchery, suggesting the tiger trout are doing just fine foraging on their own. Tiger trout seem to utilize rockier substrate compared to rainbow trout. They also can be found schooled up or solitarily running baitfish up into the back of coves or rocky shorelines to feed.

I would say our tiger trout are a success thus far; however, an appropriate stocking regime should be developed among other things. Anglers seem very satisfied and are looking forward to larger tiger trout and the diversity we are providing. We as managers will continue to assess our stocking of tiger trout or improve angler catch and satisfaction. We may look into stocking different sizes at different times or adding more waters that we stock tiger trout into. This is an exciting time in sportfish management in Arizona!

WESTERN DIVISION NEWS



Change and Continuity: Celebrating 50 years of Fisheries in the West



Eugene Maughan Graduate Student Scholarship

Deadline: April 1, 2017

This scholarship program provides up to \$5,000 annually in scholarships to masters or doctoral students in the general area of fisheries science with one to three awards to individual students. Beginning in 2002, the Sustainable Fisheries Foundation established the William Trachtenberg Memorial Scholarship Fund, which augments the Western Division scholarship program. This fund provides up to \$600 annually to a graduate-level student conducting studies on fisheries sustainability. Applications for the Western Division scholarship program will automatically be considered for the Sustainable Fisheries Foundation scholarship program as well. An award committee of five fisheries scientists from the Western Division will make the decision regarding the award of scholarships from both programs. Selection criteria include demonstration of:

1. Excellent scholarship as evidenced by grades in rigorous course work during the last 60 hours as an undergraduate and during graduate studies.
2. Potential for future contributions to the fisheries profession through management, research, or teaching.
3. Significant progress toward attaining a graduate degree in fisheries science with a defined thesis or dissertation project.

See Western Division AFS website and click the Student's tab for more information and the application.

PARENT SOCIETY NEWS



Greetings from Tampa, Florida! The American Fisheries Society and the Florida Chapter are excited to host the 147th AFS Annual Meeting at the Tampa Convention Center from August 20–24, 2017. Tampa will be an attractive venue to unveil this year's conference theme, "Fisheries Ecosystems: Uplands to Oceans." We foresee a wide range of sessions that span interdisciplinary research and management approaches to improve aquatic resources. We will also solicit a diverse set of symposia topics, contributed papers, and posters that will benefit broad audiences with the aim of advancing the science of fisheries ecology, conservation, and management.

SYMPOSIA

- Proposals for Symposia must be submitted by January 20, 2017.
- Accepted Symposia proposals will be posted on the conference website on February 15, 2017.
- If accepted, organizers must submit a complete list of confirmed presentations and titles by March 10, 2017.
- Abstracts for Symposium oral presentations must be submitted by March 17, 2017.

CONTRIBUTED PAPERS AND POSTERS

- Those who wish to present in Contributed Papers or Poster sessions at the 2017 AFS meeting are required to submit abstracts by March 17, 2017. This includes Student Presentations.
- Confirmation of acceptance or refusal of abstracts will be communicated by April 18, 2017. (Student presentations will be considered for a "best presentation" award if the student fills out additional application paperwork available at www.fisheriessociety.org/education/BSP.htm).

FOR MORE INFORMATION: VISIT FISHERIES.ORG >ANNOUNCEMENTS

AFS does not waive registration fees for presenters at symposia or contributed papers sessions or workshops. Registration forms will be available on the AFS website (fisheries.org/meetings) by May 2017; register early for cost savings.

Student Updates

UNIVERSITY OF ARIZONA; SUBMITTED BY KAYCIE WATERS

The Student Chapter of the American Fisheries Society at the University of Arizona has been busy this past year! Our chapter has continued to clean and maintain the wash we adopted over two years ago, and public outreach events have continued to expand. This past year, we worked with Camp Wildcat to help educate Tucson's youth on the different species that are key to Arizona ecosystem functioning, and volunteered to do philanthropy work with the Tucson Audubon Society. Our membership has continued to grow, and we look forward to continuing that growth next semester!

Our chapter held officer elections at our chapter meeting this past month, and we are happy to announce our new leaders! Our president is Betsy Grube, our Vice President is Brandon Mayer, our Treasurer is Dustin Curley, our Secretary is Sierra Frydenlund, and our Historian is Andres Piedra. Our new officer team is enthusiastic and has great plans for the upcoming year.

All of our members are looking forward to the annual JAM in Farmington, NM this February. Some events of particular interest are the Student/Mentor lunch and the Quiz Bowl. As of now we have many members that are interested in attending, and our club is working hard to make sure we can send everyone to this wonderful event. The University of Arizona Chapter continues to expand, and our members look forward to furthering their knowledge at the Joint Annual Meeting.

NEW MEXICO STATE UNIVERSITY; SUBMITTED BY WILLIAM LUBENAU

**Officers: President- William Lubenau, Vice President- Quintin Dean
Treasurer- Amy Buser, Secretary- Aliah Guererro**



It has been an eventful year at NMSU, and the winter break is something that is definitely needed. A large majority of the volunteer opportunities we have participated in this year have been focused on outreach. This includes a career fair at a local middle school, in which we gave a general idea of what a career in fish and wildlife entails. We have also assisted with four kids fishing clinics on the NMSU campus. Three of these clinics were in coordination with the Las Cruces Public Schools



Vice President Quintin Dean teaching a participant of a fishing clinic about the anatomy of a rainbow trout

Special Education Department. The participating classes took field trips to specifically learn some basics of fishing and encourage students to participate in outdoor recreational activities. At larger fishing clinics our chapter runs a table that discusses aquatic invertebrates and their role in the basic food chain along with a dissection of a rainbow trout. All kids fishing clinics that we participate in are in close conjunction with a local fly fishing organization called Mesilla Valley Flyfishers.



Members that assisted with stocking the Rio Penasco.

We have also participated in NMSU street fairs that are great opportunities to promote our student chapter of AFS. In addition to outreach, we have had an electrofishing clinic that was taught by the student chapter president where the basics of using a backpack electrofishing unit were specified. Mesilla Valley Flyfishers invites us every year to help stock a section of the Rio Penasco that they have

leased. Stocking day this year ended

up being a beautiful day and students thoroughly enjoyed having a day in the field. Events for the spring have not been fully developed but there is some things that are repeated every year. Stocking Rio Grande Cutthroat Trout in the Rio Grande Gorge will hopefully happen along with a fishing trip to the Rio Penasco and group fly tying. These events are always enjoyed by participants and provides some much needed time away from school. Our members are looking forward to many aspects of the joint annual meeting including networking and socializing with professionals and other students. Another big event for our organization is Quizbowl, which is always very entertaining and fun. Thank you to everyone that helps our chapter be successful and we look forward to seeing you in Farmington.

Information and Opportunities

AFS Now Accepting Applications for 2017 Class

Planning and Executing Successful Rotenone and Antimycin Projects

The 2017 AFS continuing education class *Planning and Executing Successful Rotenone and Antimycin Projects* is now accepting applications for enrollment. The 4 ½ day course is recommended training by EPA for those using rotenone and antimycin and has been accredited for continuing education hours in state Qualified Applicator License/Certificate programs. The course will be held at Utah State University, Logan from May 22-26, 2017, and interested applicants can apply by contacting Jessica Mosley at (301) 897-8616 ext. 204 or jmosley@fisheries.org or by registering on line at <http://fisheries.org>. For more information contact Brian Finlayson (briankarefinlayson@att.net) or Don Skaar at (dskaar@mt.gov).

Calendar

January

5-8	Canadian Conference For Fisheries Research	Montreal, Canada	http://www1.uwindsor.ca/glier/ccffr/virginia.seamster@state.nm.us
6	Wildlife student Oral Presentation Competition deadline JAM		
19	Last date for JAM regular registration		http://arizona-newmexico.fisheries.org/
20	Symposia Proposals Due for AFS Parent Society Meeting		http://afsannualmeeting.fisheries.org/
20	2nd call for papers due for AZ/NM TWS/AFS JAM		http://arizona-newmexico.fisheries.org/

February

9-11	50th JAM AZ/NM Chapters of TWS and AZ/NM Chapter of AFS	Farmington, NM	http://arizona-newmexico.fisheries.org/
17	Last date to apply for AZGFD Summer Internships (Opens 1/11/17)		https://www.azgfd.com/agency/internships
26-(mar)3	Association for Sciences of Limnology and Oceanography 2017 Aquatic Sciences	Honolulu, HI	http://sgmeet.com/aslo/honolulu2017/

March

17	Symposia & paper/poster abstracts due		http://afsannualmeeting.fisheries.org/
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April

1	Eugene Maughn Grad Student Scholarship Due (Western Division)		wdafs.org
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May

21-26	42nd Annual Meeting of Western Division--University of Montana	Missoula, MT	http://wdmtg.fisheries.org/
22-26	Planning & Executing successful Rotenone & Antimycin Projects (AFS class)	Logan, UT	fisheries.org

June

19-21	International Conference on Engineering and Ecohydraulics for Fish Passage	Corvallis, OR	https://fishpassage.umass.edu
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July

11-14	ICAST 2017 Sportfishing Trade Show	Orlando, FL	http://www.icastfishing.org/
25-28	Walleye and Centrarchid & Esocid Technical Committee and Upper Col. Riv. Recovery Program	Gretna, NE	http://wdafs.org/

August

20-24	AFS Annual Parent Society Meeting	Tampa, FL	http://afsannualmeeting.fisheries.org/
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Notes from the Editor...

Thank you to those who contributed to this newsletter. I strongly encourage every member to contribute to the newsletter. I appreciate all articles, photos and input! This is a great opportunity to let the rest of the chapter know about the work that you are doing.

I would love to see any **photos** of fish, or of you working! Also, this is a great place to post opportunities and other **announcements**.

If you have any suggestions/comments, please let me know!

Your editor,
Sally Petre
AFS AZ/NM Chapter
SPetre@azgfd.gov



Webpage

If you have any comments about the webpage or have items you would like to see on the webpage, please contact Kent Mosher at: KMosher@azgfd.gov

New webpage!

<http://arizona-newmexico.fisheries.org/>

Facebook

We're on Facebook!

<https://www.facebook.com/groups/ArizonaNewMexicoChapterAFS/>

AFS Arizona-New Mexico Chapter Officers

President	Jessica Gwinn USFWS AZ ES Office Phoenix, AZ 602-242-0210 ex.249 Jeg1@email.arizona.edu
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Environmental Affairs	Dave Weedman
Continuing Education	Tiffany Love-Chezem
Student Affairs	Kent Mosher
Nominations/Awards	James Dominguez
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