



Southwest Tribal Fisheries Commission

Spring 2019 Newsletter

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Pueblo of Isleta
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Taos Pueblo
Nambé Pueblo

San Ildefonso Pueblo
Pyramid Lake Paiute Tribe

Spring 2019 – Interim Executive Director – Adam Ringia

Happy Spring Everyone! This year we have been blessed with more spring rain than the region has seen in years! This is certainly good news for the fish, plants and wildlife, even if it may cause field staff a few headaches. From the Commission’s perspective, we also have many good things moving forward. We have a new Vice-Chair taking over the position that I held for many years (introduction on page 2); The Mescalero Tribal Fish Hatchery is certified disease free and is busy delivering fish to the member tribes and has a brief update for us on their operations (page 2); Our Summer Aquatic Invasive Species Workshop is coming together nicely (page 3); We have two tribal youth internship programs going with the US Forest Service (page 3); We are mapping out our path forward with a variety of surveys and member questionnaires (results on page 5); We are close to releasing our new website (page 3); and lastly, we also have a new Instagram account, so please follow us, and share your pictures and stories (@swtribalfisheriescommission)!



Let’s not let invasive Mussels take over our waters!



Letter from the Chairman—Jacob Mazzone



Going from one of the driest years on record to one of the wettest has been an emotional roller coaster of sorts. If these two years are any indication of things to come, I’m unsure of how best to proceed. To go from deep despair to an almost unfair bounty over such a short period of time could leave a fisheries biologist blushing. Weather woes and wins aside a new spring season is my favorite time of the year. It means *meeting season* is over and field activities can begin in earnest.

The Commission continues to fire on all cylinders, with this newsletter serving as our seasonal rallying call for the membership to participate and engage in another action-packed year. This year with the Commission and its many State and Federal partners we will be holding an Aquatic Invasive Species (AIS) Workshop (page 3). The workshop is meant to address ever growing international concerns over AIS and the damages they can inflict on aquatic and general fisheries resources. The detrimental changes can be of great concern to small tribal fisheries which generate not only recreational benefits, but in many cases significant economic benefits to their constituencies. Tribal fisheries programs often lack the funding, or manpower to initiate the same level of response as our State or Federal counterparts; therefore, this free workshop is meant to get regional tribal departments up to speed on AIS and their identification, implications, and proactive prevention techniques.

Of course, one would be remiss to not occasionally visit or reflect on our short comings. This, of course, is not to bog ourselves down in regret or doubt, but rather to learn and grow from all the opportunities given to us. The good and the bad. This year my goal is to ride the wave of previous successes as far as they will carry us, and when that is no longer providing enough forward progress, generate a new wave. I would like to invite you all the come along for the journey, traveling alone is no good at all. After all the Commission was formed so tribal fisheries programs, together, could expand, learn, and prosper. Not only for our individual memberships, but as a whole southwestern fisheries *ecosystem*.

I hope to see many of you throughout this year at a SWTFC workshop, meeting, or even better in the field conducting fish work! Enjoy our Spring Newsletter!

Introduction from the Vice-Chair – Glenn Selby

As the newly elected Vice-Chairman of the Commission, I would like to take a few minutes to introduce myself and give some information on my background. I have been the Fish Biologist for the Navajo Nation Department of Fish and Wildlife since September of 2012. My duties include overseeing operations of the tribal fish hatchery, managing lakes for sportfishing, monitoring native fish species on the Navajo Nation, as well as outreach and education through our Native Fish in the Classroom program, and annual fishing events. I also participate in our Department's Hunter Education program as a certified instructor. I am also currently serving on the Arizona Hunter Education Advisory Committee. As someone who grew up hunting and fishing, I feel that passing down that heritage to others is the responsibility of all hunters and anglers. Prior to coming to the Navajo Nation I worked for various agencies including the Alabama Department of Conservation and Natural Resources, Nebraska Game and Parks Commission, and the Illinois Natural History Survey. I also spent a short amount of time managing private lakes and ponds in Texas. Overall, I have 15 years of experience working in the field of fisheries. The majority of that experience has been working with sportfish populations; however, since coming to the Navajo Nation I have had the opportunity to work with native fish populations as well. I consider myself fortunate to have had the opportunity to work in multiple regions of the country as well as a multitude of water bodies ranging from Lake Michigan to small farm ponds, to small creeks, and just about everything in between. If you have any ideas or thoughts on the direction of the Commission or any general fisheries questions, feel free to reach out to me and I will do my best to help in whatever way I may be able to assist. I look forward to representing the Commission and its member tribes as we move forward.



Mescalero Tribal Fish Hatchery News

It has been nearly a year since we opened our metal Quonset hut at the Hatchery. It houses two full length raceways. We opened up these raceways because the metal structure provide protection for the fish, and allowing the fish to thrive. Currently, we have about 2,000 lbs. of fish in one raceway and about 1700 lbs. in the other. The average length for these fish is about 9.0”.



MTFH has been trying to move away from wooden splash-boards for our raceways. Wooden splash-boards wear, weather and warp, resulting in water loss due to seepage. We recently purchased recycled plastic lumber to address those problems. You can see the difference this makes.



Old splash boards



New splash boards

Just recently, the SWTFC purchased 3 new meters for the fish hatchery. The first is a pH meter which will eliminate the need to mix a water sample solution to obtain a pH level. The second is a dissolved oxygen meter which is light weight, portable and can be used off station. The third is a dissolved oxygen meter similar to what is currently used, only this one has a heavy-duty probe and cable. It will be used for the outside raceways only.



From May 13 through May 23, Assistant Hatchery Manager, Tori Marden, attended and completed the Cold Water Fish Culture Course held in Albuquerque. This course was offered by the USFWS – National Conservation Training Center. She learned a lot and obtained a fresh outlook on fish culture.





US Forest Service Funding Overview

With the assistance of former Executive Director Stuart Leon, the SWTFC has been working to distribute funds from the US Forest Service to tribal youth in the southwest who are interested in learning about fisheries, forestry, and natural resources issues while doing good work for both the tribe and local National Forest. This year we only had two tribes apply for funding, so both received the full amount requested.

We will have some funds left over for 2020, so if

you are interested, please start working with your local USFS representative to make sure all of their requirements are met.

Mescalero Project Summary

Over a period of eight weeks, three tribal youth will work with Smokey Bear Ranger District staff (Lincoln National Forest) to reintroduce Native Rio Grande Cutthroat and learn how to conduct chipmunk telemetry studies, as well as other wildlife and botany surveys. For the second half of the experience, the youths will work with Mescalero Tribal Fish Hatchery staff to learn how to maintain and operate a fish hatchery and stock fish in local tribal waters.



Hopi Project Summary

Four Hopi youth interns will split ten weeks of their time working with Hopi staff to revisit and survey previously installed continuous forest inventory plots, learning how to monitor for changes in forest structure, species composition and forest health. The interns will collect data using the Bureau of Indian Affairs procedures and protocols, as well as the codes for entering collected information into the Hopi Tribe's database.



For the second part of their time, they will work with the U.S. Forest Service's Coconino and Kaibab National Forest Service, the interns will spend their time doing stream sampling and fisheries habitat monitoring, capture and monitor fish with Arizona Game and Fish Staff, survey for owls and goshawks, and assist with ongoing spring restoration projects.



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AIS Workshop Announcement

The Aquatic Invasive Species (AIS) workshop is coming together! Scheduled for a day and a half at the very end of July, in Albuquerque, we are bringing together representatives from the tribes, states, and federal government to talk about these threats. Concerns with the control of AIS have been present for a long time and various initiatives exist at the state and federal levels. To date however, there has been little success involving the southwestern tribes in these efforts. Understanding this, we are working to bring these issues to the southwestern tribes.

Despite the many challenges working among various levels of government, aquatic invasive species are an outside threat that has a negative impact on all of us and offers an opportunity for positive collaboration. It also offers another opportunity for the appropriate levels of technical staff to meet each other to exchange information, without the constraints of formal consultation.

This short workshop does not claim to be providing a high level of training, but rather to introduce the opportunities and threats of AIS to tribal employees, as well as the partners that they have in this particular struggle, and the resources that may be available if additional training is necessary.

I hope that you all find this workshop to be informative, useful, and above all, a good opportunity to develop the collaborations that make all of our jobs easier.



Website Update –

Since I became the Vice-Chairman of the Commission, years ago, I have often thought that the SWTFC website needed updating. Now that I am acting as the Executive Director, we are doing something about it. We will be bringing our information on member tribes up to date, adding links and images, and eventually a calendar and other updates. I hope to make the site useful, so that there is a reason to visit it more than once. To do this, however, there needs to be content.



I know you all do good work, take pictures in the field, talk to youth about natural resources and environmental issues, read articles, have events, and similar things. Any of those are worth sharing with our members and partners. Please share them with me, so that I can post them on the website, or, in the case of pictures, on our new Instagram account. If you do send pictures, please tell me what you would like me to say about them, so that I

don't get the information, location, or species wrong, and please follow us @swtribalfisheriescommission.

Survey Results

Role of the SWTFC

As most of you are probably aware, the SWTFC was formed way back in 2002 with three core purposes:

A. *To enhance tribal self-determination and economic development by restoring and expanding tribal sport fishery resources and, thereby, providing enhanced fishing opportunities for anglers on Indian lands in the southwestern United States through tribally controlled coordination of the rearing, distribution, and stocking of fish in tribal waters;*

B. *To provide management and conservation support for native fish found in tribal waters; and*

C. *To advocate for the fulfillment of the United States Government's trust responsibility owed to the Indian tribes in accordance with the Federal policies of Tribal Self-Determination and Self-Sufficiency.*

In 2017 when we updated our strategic plan, our goals, still in line with the above core purposes were:

1. *Maintain support for the Mescalero Tribal Fish Hatchery;*
2. *Promote inter-tribal and non-governmental partnerships;*
3. *Support Recreational and Native Fisheries Management on Tribal Lands;*
4. *Engage Native youth in Natural Resources Conservation and Education;*
5. *Sponsor Workshops and Advanced Tribal Trainings; and*
6. *Provide of the Commission's Sound Administration and Conduct of Business.*

In early 2019 we sent out a survey to determine how closely these goals aligned with the desires of our members and partners, and to help me (as Interim Executive Director) decide how and where to focus my efforts. The response to the survey was not overwhelming – we sent it to over 100 people, and received 18 responses, with less than a quorum of member tribes responding as well, this certainly did not demonstrate an overwhelming mandate. Even with that caveat, the results of the survey were very interesting.

The top 5 responses were:

1. Coordination between tribes and state and federal officials
2. Funding for Fisheries/Recreation work on Tribal Lands
3. Provide management and conservation support for native fish found in tribal waters
4. Coordinating with other national F&W groups; and
5. Lobbying/advocacy of state and federal officials on tribal fisheries topics

Economic development through sport fish wasn't even in the top ten; Tribal youth came in at 7; and advocacy for trust responsibilities at 13. Again, as we didn't have a huge number of responses, the responses are just guidance, but we will try to use that guidance to move in a positive direction with all our partners.

Please look over the initial intent of the Commission, our updated Strategic goals, and then the survey results and share your thoughts with the rest of the group. The future is an opportunity, and we are here to serve the membership as best as we can.



Survey Results – Future Workshops

The same 18 people responded to the Future workshops question, but the results were a little more varied. There were three-way ties for the 2nd and 4th ranked topics! The top few topics were:

- Fisheries Management Plans;
- Aquatic Invasive Species;
- Fisheries Education and Outreach (how to work with schools and youth on fisheries topics)
- Fish Sampling in streams; and
- Stream Assessments

As you are aware, and the article on page 5 shows, we are working to take care of the Aquatic Invasive Species topic next month at the end of July; and we have started some initial planning with the USFWS for a "How to" class on writing and developing Fisheries Management Plans, possibly as early as the end of the year this year.

We are trying, and learning every day. Next time, I think I will try a google poll so that you don't have to do any extra scanning, or printing...

Thank you all for the input!



Science-

This article is a few years old, but is particularly relevant to both the climate change discussions that are ongoing and the Aquatic Invasive Species Workshop coming up.

Assessing the Effects of Climate Change on Aquatic Invasive Species

FRANK J. RAHEL and JULIAN D. OLDEN

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Abstract: Different components of global environmental change are typically studied and managed independently, although there is a growing recognition that multiple drivers often interact in complex and nonadditive ways. We present a conceptual framework and empirical review of the interactive effects of climate change and invasive species in freshwater ecosystems. Climate change is expected to result in warmer water temperatures, shorter duration of ice cover, altered streamflow patterns, increased salinization, and increased demand for water storage and conveyance structures. These changes will alter the pathways by which non-native species enter aquatic systems by expanding fish-culture facilities and water gardens to new areas and by facilitating the spread of species during floods. Climate change will influence the likelihood of new species becoming established by eliminating cold temperatures or winter hypoxia that currently prevent survival and by increasing the construction of reservoirs that serve as hotspots for invasive species. Climate change will modify the ecological impacts of invasive species by enhancing their competitive and predatory effects on native species and by increasing the virulence of some diseases. As a result of climate change, new prevention and control strategies such as barrier construction or removal efforts may be needed to control invasive species that currently have only moderate effects or that are limited by seasonally unfavorable conditions. Although most researchers focus on how climate change will increase the number and severity of invasions, some invasive coldwater species may be unable to persist under the new climate conditions. Our findings highlight the complex interactions between climate change and invasive species that will influence how aquatic ecosystems and their biota will respond to novel environmental conditions.

The full article is available at: www.uwyo.edu/frahel/pdfs/rahel-2008-1.pdf

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