

(Rob Keck) Welcome Back to Bass Pro Shop's Outdoor World, here on Rural Radio...and if you have just tuned in, we are in the second half of our show and privileged to have with us as our next guest, Jeremy Voeltz, he is a Fisheries Biologist with the U.S. Fish & Wildlife's Arizona Fish and Wildlife Conservation Office.

His shop? Well it is located near the town of Pinetop in the White Mountains of eastern Arizona. Jeremy serves as the lead Fish and Wildlife biologist, working toward the recovery of the Apache trout, a fish that is considered threatened with extinction. Jeremy works closely with the White Mountain Apache and San Carlos Apache tribes, for whom the fish is named. He supervises habitat restoration work and trout population surveys, monitoring the health of Apache trout and their mountain habitats.

Well, when he is not at work, you can find him fishing, hunting, camping, mountain biking and exploring the vast outdoors throughout Arizona. While at home you might find him at another pastime, crafting his award –winning homebrew.

Well Jeremy, welcome to Outdoor World and Happy New Year to you!

(Jeremy Voeltz) Happy New Year to you too Rob, thanks.

(Rob Keck) Man, that home brew I imagine you might be cracking the top on that for the New Year.

(Jeremy Voeltz) For sure, yeah.

(Rob Keck) Well Jeremy, I asked Nate earlier in the show if he was talking to us wearing his chest waders. I know fisheries biologist's they go to work almost every day in chest waders, I've got to ask you the same question? Are you in your chest waders and are you fishing right now?

(Jeremy Voeltz) You know I am not, but I wish I was. You know most people when they think about Arizona they think about saguaros and sand. But you know up here in the mountains where it is 7000 – 8000 ft. in elevation and we got a lot of snow on the ground right now, and temperatures are down in the single digits this morning so no fishing for me for a while.

(Rob Keck) Well, on a more serious note and the core of what we are visiting about today, is the status and the recovery efforts that is focused on the Apache trout. Why don't you share with our listeners the important information about the Apache Trout Recovery plan?

(Jeremy Voeltz) So anytime a species is listed as threatened or endangered by the Fish and Wildlife Service, we develop a recovery plan to kind of serve as the road map for how we want to conserve and restore the population for that species. The first recovery plan for this fish was completed way back in 1979. But even before that the White Mountain Apache Tribe took a very proactive conservation approach, starting in the 1940's and the early 1950's. They were really the group that got together and recognized the importance of this fish how unique it was and how its populations, even back in the 1930's and 1940's started to dwindle at that time. And so the White Mountain Apache Tribe was really the forefathers of recovery for the species. And then once the Endangered Species Act passed in 1973 that is when Fish and Wildlife Service really got involved. And as mentioned we developed the initial recovery plan

back in 1979. It has been revised a couple of times, most recently in 2009. But that document really serves as the roadmap for how we want to conserve this fish and where we want to take the conservation into the future.

(Rob Keck) Well you have got a road map, talk to us about implementing that road map to make things happen? Tell us about that.

(Jeremy Voeltz) So one of the biggest challenges we have with Apache trout is that they don't get along well with other trout species. Brown trout really eat them, compete with them for food. Rainbow trout can hybridize with them and delete their gene pool to the point that they are no longer an Apache trout anymore. So probably the biggest thing that we look at doing out here is trying to identify areas where we want to manage solely for Apache trout, and then other areas that we want to manage for some of the other trout species that anglers like to pursue also. So how we do that is we either look for natural water falls which can serve as barriers to where we can isolate the Apache trout from other trout species, or in some cases we construct artificial barriers to serve as water falls to prevent brown

trout, rainbow trout, and to a lesser extent brook trout from getting into the habitats where we want Apache trout to exist.

(Rob Keck) Well that has got to be a challenge. How do you do that? How do you keep them separated?

(Jeremy Voeltz) You know it is hard. We have been fortunate with Apache trout that we do have a lot of those water fall barriers that I mentioned so that work has been done for us already naturally. We have got a long history of trying to build effective barriers, and any time you put a structure in a stream you know water wants to find a way under or around any type of structure you put in the stream. And so it is constantly a challenge working with engineers and hydrologists and so many other scientific disciplines to help refine that technique for how we are building these barriers.

(Rob Keck) Jeremy, back in the first part of the show I talked with Nate Wiese about what the coloration was like, size, just features of the Gila trout. Why don't you share with our listeners what the Apache trout looks like?

(Jeremy Voeltz) So it is fairly unique for other trout species found in the western United States. The early settlers referred to it as the golden native because that is what it looks like. It is really golden in color, sometimes yellow, a little bit of orange. It really lacks the red or pinkish hues that are often found on rainbow trout very familiar to Rainbow trout anglers. It also doesn't have the par marks on it that a lot of other trout have, which are those splotches that can be found on the side of the trout. It has got lots and lots of little tiny black spots throughout all its body and its fins. It has got one of the largest dorsal fins, that is the fin on top of the fish, on any of the trout species in the western United States. Not as big as on an arctic grayling but still noticeable non-the-less. And then probably its most unique characteristic is that it has a black eye band that goes through its eye and almost looks like a mask, and that is pretty unique to the species. When we pull that out of the water and notice that on its eye it is guaranteed you have got an Apache trout there.

(Rob Keck) Wow, cool. How big do they get?

(Jeremy Voeltz) So a lot of their habitats are really tiny, we are talking streams you can hop across, you know three or four feet wide. Some of the bigger streams we have, you know you have to wade if you want to fish in those. So the Apache trout in those streams can get 12 – 14 inches. We have actually had some of our crews out sampling over the past couple of summers and we have been pulling some 18 -19 inch fish out of some of the streams so they can get some size on them depending on how big the creek or lake that they are living in.

(Rob Keck) Well, you work for one of 65 Fish and Wildlife Conservation Offices in the U.S. Fish & Wildlife Service located around the country. What is the general nature of those Fish and Wildlife Conservation Offices? Tell us about that.

(Jeremy Voeltz) So technical assistance is our nature, we can't do anything alone. We don't have the staff or the budget we would like to have to do all the work we need to do to restore aquatic species throughout the country. So we work extensively with our partners, other state and federal agencies, native American tribes, lots of private land owners, lots of non-governmental

organizations, such as Trout Unlimited, are huge conservation partners for us. In Arizona our three main focus areas are aquatic species conservation and restoration, working to restore aquatic habitat, and then one of the big ones is also cooperating with native American tribes, which we have a lot of in Arizona.

(Rob Keck) Well it sounds like you have a lot of partners, and you know as I talked with Nate earlier in the show to bring in all these different stakeholders certainly adds an awful lot of clout in getting the job done and I know that you have been able to do that as well.

Well look, we have to take our next break. We have got a lot more to talk about so when we return, we will continue our visit with Jeremy Voeltz, Fish Biologist with the U.S. Fish & Wildlife's Arizona Fish and Wildlife Conservation Office.

This is Rob Keck, your host right here on Bass Pro Shops Outdoor World, exclusively on Rural Radio, SiriusXM, Channel 147.

We are back, and thanks for tuning in to Bass Pro Shop's Outdoor World, here on Rural Radio, and if you just

tuned in, we are visiting with Fish Biologist with the U.S. Fish & Wildlife's Arizona Fish and Wildlife Conservation Office, Jeremy Voeltz. Boy that is a mouth full right there.

Jeremy, Apache trout, named for the Apache people of Arizona. What is the trout's natural range? You talked about keeping them segregated from all of the other trout species, but where did it naturally occur?

(Jeremy Voeltz) So the Apache trout is only found in the White Mountains of east central Arizona. It is a relatively small area when you look at some of the native ranges of some of the other trouts in the west where they have hundreds and thousands of miles of occupied stream habitat. We were lucky to just have a few hundred miles of Apache trout historically when they were found before the populations declined to the point that they were listed. So that makes it unique in that it is a fish species that is only found in Arizona.

(Rob Keck) Only in Arizona, so it is found only there on the Indian reservations of eastern Arizona, the White Mountains?

(Jeremy Voeltz) You know as 2/3 of the natural as well as the occupied range are on the Fort Apache Indian Reservation. There is also a big chunk of habitat just east of the reservation on the Apache Hickories National Forrest.

(Rob Keck) Well, the Apache trout is listed by the Federal government as a threatened species. Does that mean you cannot fish for them? Or are there some opportunities to wet a line?

(Jeremy Voeltz) You know quite contrary when I talk to a lot of folks about the opportunities that we have for recreational fishing for Apache trout they are surprised we can fish for them because they are listed as a threatened species. But that was one of the designations in the Endangered Species Act when it was enacted in 1973 that the folks that put that in really saw the opportunity to not only have protections for fish and other critters but also to allow angling, harvest, and those kind of programs for this fish. And so the states and the tribes have developed special regulations and rules that the Service has to sign off on, and we do have lots of angling opportunities for Apache trout.

(Rob Keck) Well that is great, to be put on the protected species list what actually caused them to be there? Was it because of wildfires and stream water quality being degraded with soilulation, over fishing, over harvest? What caused that decline?

(Jeremy Voeltz) It was all of those things that you mentioned. The main ones were actually logging practices was a big one and around the turn of the century clear cutting was fairly common in this mountain range in Arizona. That changed the stream habitat and it did not allow the trout to persist as well. One of the big ones was also over harvest when the settlers came in. You can read articles from the 1930's about how folks would come up to the mountains catch hundreds and thousands of these speckled golden natives salt them in barrels and take them back home to eat throughout the winter. So then after they were over harvested there was still a need for fishing in these waters for food or other purposes and so that is when folks started stocking these non-native brown trout and rainbow trout on top of the Apache trout and that lead to the declines as well.

(Rob Keck) Tell me again when did the recovery efforts really began in earnest, when things really started making a difference, how far back was that?

(Jeremy Voeltz) They began in earnest in the 1950's when the White Mountain Apache tribe closed a lot of the streams that still held Apache trout on lands. They basically formed their own wilderness area to protect the species. And then in the late 1970's is when the Fish and Wildlife Service and the Arizona Game and Fish Department got involved. Things really started cranking, and then it just kept going through the 1980's and 1990's and today. Changes in Administration, changes in agency priorities we have still been able to maintain Apache trout conservation and recovery is one of the highest priorities here in the Southwest.

(Rob Keck) Well let me ask you this on timber practices you mentioned, whole sale clear cutting sure resulted in sultation of them streams. Have regulations curtailed that or is just the logging industry in itself taken upon itself to not to log up to the edge of these streams.

(Jeremy Voeltz) You know the logging industry took a big hit in Arizona for several reasons back in the 1980's but

since then we have just gotten a lot better about forest management. So where we still do timber harvesting, it is more selective thinning rather than clear cutting and the industry itself is just kind of changed course. So really forestry management is not the threat that it once was for Apache trout.

(Rob Keck) Well that is good news. Well are we close to removing Apache trout from the status it is in right now?

(Jeremy Voeltz) We are so close. We have had this fish teetering on the edge of how we would define recovery and removal from the Endangered Species Act and endangered species list for quite a while now. It has really been a success story. It is something that we have all been working at for a lot longer than I have been alive and it is really exciting to be part of a program that's got in some cases, most cases, very little controversy . There can be negative connotation to endangered species and the Endangered Species Act, but in this case with the Apache trout it truly is a success story, and I really anticipate in the next several years we will start the process to get the species taken off the endangered species list.

(Rob Keck) Well you have got to feel good about that success and the team that, the partners you have put together. I am sure there is someone out there listening asking themselves, well how is a species determined to be listed in the first place?

(Jeremy Voeltz) So what Fish and Wildlife Service does is we look at that status of the species and we look at the threats. We have five main criteria that we look at, I won't bore the listeners into the vast beurocratic details of all that it, but it is basically a threat assessment. You want to look at has the habitat been modified to the point the species is going to have a hard time existing, is it being over harvested for either commercial, scientific, or other purposes, are there any disease issues that you need to look at. So those are the things you kind of look at. You are really looking at the threats, kind of how the range has been reduced for this species and that is kind of how the Service determines if a species should be listed. And then conversely when your looking at recovery and removal from the endangered species list it is basically looking at the same thing. Your looking again at what are the threats now versus when the species was

listed so long ago and then how does that look for looking into the future. It is not something where we want to say great we recovered this fish now we walk away from it and everything we worked for is reversed the next five to ten years and we have to list the thing again. So that is one of the biggest things we look at when recovery is happening is just what it is going to look like into the future and what management plans and other commitments are in place to maintain those populations that are at the recovered level.

(Rob Keck) Well it makes a whole lot of sense. Well look we have to take our final break, so hold that thought and when we come back, we are going to talk further about the Apache trout and all the conservation efforts that are going on with this wonderful remarkable fish with Fisheries Biologist Jeremy Voeltz.

You are listening to Bass Pro Shops Outdoor World, here on Rural Radio, SiriusXM, Channel 147. This is Rob Keck, and we will be right back.

Welcome back to our final segment of Bass Pro Shop's Outdoor World here on Rural Radio and we've been having a very educational and enlightening visit with

Jeremy Voeltz, a Fish Biologist with the U.S. Fish and Wildlife Service's Arizona Fish and Wildlife Conservation Office.

Jeremy, Forest fires have blistered the Southwest in the last few years. We talked a little bit about that in the earlier segment. The Wallow Fire was on the nightly news for days on end. Tell us have the fires affected Apache trout conservation? I know you have touched on that but let's hear that again.

(Jeremy Voeltz) So the Wallow Fire was really devastating with not only how big it was, 540,000 and some thousand acres, but how fast it moved. Interestingly enough though it didn't really affect the Apache Trout Recovery Program that much. We did lose a couple of populations as a result of the fire, but we were fortunate in our recovery approach had been to spread out the range of this species so they were in more streams. Streams that weren't right next to each other so they were spread out in streams throughout their range. So even though we had a huge fire burn through almost half of its range we only lost two populations out of the 28 or 30 we had in existence. So it really was a positive to

know that our recovery efforts were working and that if a fire of that magnitude did not drastically change the recovery approach that we had for the species.

(Rob Keck) Yeah, that is great news. Well tell us about the role, what is the role of the Alchesay-Williams Creek National Fish Hatchery in Apache trout conservation? Tell us about that.

(Jeremy Voeltz) So there is a huge need for recreational fishing opportunities in the White Mountains. We are a tourism based economy so fishing is one of the huge things on peoples list to come here. The role of Alchesay-Williams Creek are to provide more than 100,000 Apache trout that can be stocked out purely for recreational fishing. Unlike the Mora Fish Hatchery that you talked to Nate about before, and their purpose is for Gila trout, what we are doing with this hatchery is using it solely for recreational opportunities and that really allows us to focus on some of the more isolated and really remote streams that we can use for the recovery efforts of the species and then we can stock Apache trout in really high used areas and really provide that put-and-take opportunity.

(Rob Keck) Let me ask you this does Fish and Wildlife Service or the Apache tribes have special angling programs or trophy fishing available for the Apache trout?

(Jeremy Voeltz) We do in one really nice destination fishery that was developed way back in the 1960's. Christmas Tree Lake on the Fort Apache Indian Reservation, the lake was actually filled in 1965. The same year that President Lindon Johnson actually received the national Christmas tree from the Fort Apache Indian Reservation, and that is how the lake got its name. And that lake is managed as a trophy Apache trout fishery. Every May, usually the first week in May they have what is called a fish camp there, it is limited use, it includes dinner breakfast lunch, lodging and heated wall tents because even in May it is still really cold up there, and tribal members on hand to serve as guides. We stock that lake with trophy sized Apache trout, then the fish will hang on and grow there and sometimes get up to 5 almost to 6 pounds. And then outside of May after the fish camp is over that lake reverts a limited access program managed by the tribe,

and they limit use to 20 anglers per day. So it is really one of those unique opportunities where you can be guaranteed that you are going to have some solitude out there, guaranteed to have a wonderful angling experience, very high elevation in Arizona 8200 feet or so in elevation.

(Rob Keck) Cool.

(Jeremy Voeltz) You wouldn't think you were in Arizona you would think you are in Oregon or somewhere Pacific Northwest.

(Rob Keck) Well look we are out of time, thanks for being with us today, congratulations for all that you have done for the Apache trout and the quality of our nation's fisheries. I wish you and Nate just a Happy New Year and continued success.