

Arizona Wildlife Podcast

Transcript: Episode 11 – Chiricahua Leopard Frog Status

(Please note: this podcast was recorded live from a public presentation. It was not a rehearsed speech. This transcript attempts to capture the dialogue as it was spoken. At times when the speech was difficult to hear or understand, a good effort was made. These rare cases are noted in the text.)

The content for this episode came from a public speaking engagement at the Arizona Game and Fish Headquarters in Phoenix on December 4, 2008. The topic of the talk was the Chiricahua leopard frog.

Listen as Mike Sredl, reptile and amphibian program coordinator for the Arizona Game and Fish Department, discusses the current status of these frogs in the state. Following the live recording, the audio was edited and Eric Proctor, a Department educator, interjected appropriate questions to link the content.

ERIC:

Mike, let's start pretty simple. Where are Chiricahua leopard frogs found?

MIKE:

It's found in...in the southwest, in...in, ah New Mexico, uh southeastern Arizona, central Arizona, northern Sonora and Chihuahua. It's a mid to high elevation frog found somewhere a little over 3000 feet to, uh, just under 9000 feet. It's a habitat generalist and...and it really, any place where there's permanent water, there's a potential, within the, uh, range of the frog, to have Chiricahua leopard frogs. So springs and rivers and streams and...and lakes, and even cattle tanks which you might not think of as typical frog habitat.

ERIC:

I think I have seen some leopard frogs in other parts of the state. Do we have more than one species?

MIKE:

Well, in the world there are some twenty species of frogs that are commonly called leopard frogs. In Arizona, we've...we've got five species of native leopard frog. We've got one introduced leopard frog – the Rio Grande leopard frog. So, they're actually quite a diverse group. Prior to, uh, 1960, or no...no, 1971, I think, all leopard frogs were considered the same species, and it was *Rana pipiens*. And it was thought to be one geographic variant from northeastern North America down through Central America.

PARTICIPANT:

Wow.

MIKE:

And there are some really interesting pictures in some older, historical herpetological books, where you can see, you know, you go, "Oh, that's a Chiricahua leopard frog or that's a northern leopard frog." It's very clear to see. But...but back then the current thinking was that, "Well, geographic variation was important." And...and...and, so the...the lumping everything into *Rana pipiens* made sense for the concepts and understanding of the time. But as genetic techniques came online in the '60s, you could clearly see that there was little to no gene flow in the two different frogs, species of frogs from the same pond. And, which by definition is...is a different species. So when we got new tools and...and ideas were

evolving within the scientific community and the tools and techniques were changing people really looked at them and said, “Oh no, these are...you know, these are different species.” And so that’s when the splitting of...of *Rana pipiens*, um, happened.

And the Chiricahua leopard frog was described in 1979 by Jim Platz and John Mecham. And, in fact, in 1993, there was a new species that was described, um, in Arizona which since has been sunk, uh, back to Chiricahua leopard frog. It split off from the Chiricahua leopard frog. But the most recent species was, uh, 1984, the lowland leopard frog which is, um, widely, uh, thought to be a valid species. So...so, its pretty recent, I mean, you know, that’s in my, easily within my lifetime, in my...my upper, higher education schooling, so it’s...it’s really very diverse and, um, reflects the thinking of the day and the tools.

ERIC:

As generalists, Chiricahua leopard frogs are pretty well adapted to survive in their habitats. What are some of their biggest threats?

MIKE:

The one thing that they don’t really do very well with: non-native predators. So, bullfrogs and crayfish have been widely introduced, uh, throughout many parts of Arizona and they have a pretty big impact on...on Chiricahua leopard frogs. Aside from the non-natives, habitat destruction and degradation and disease.

ERIC:

I know that we have a lot of non-native species in Arizona. How are the Chiricahua leopard frogs doing?

MIKE:

Well, it, uh, the Chiricahua leopard frog, by some estimates, is absent from nearly 75% of its historical locality. And it was proposed in 2000 to be listed under the Endangered Species Act, or the ESA, and by 2002 the final rule was written and, uh, it was listed as threatened with no critical habitat.

ERIC:

Placing an animal on the endangered species list always presents challenges. What are some unique strategies we are utilizing to overcome these challenges?

MIKE:

We knew that we were going to have some problems with, uh, cattle ranchers. So, we did a, kind of a smart thing. We wrote in what’s called a special rule, and, uh, it exempts, and it just makes it easier for cattle ranchers to clean out their cattle tanks when they need to if they happen to have frogs in there. It just gives them a little more wiggle room. And, uh, we’ve figured that there would be a little less opposition from that community.

Another thing we did was called a safe harbor agreement. It’s a way to bring in private landowners into recovery and give them assurances that if they get involved in conservation that there’s not going to this ever-changing bar of “Well, now you need to do this, now you need to do that.” It provides those landowners assurances that if they get involved that there’s a clear playing field and it really does reduce a lot of the opposition to getting people engaged in conservation and can also help support activities on adjacent public lands.

PARTICIPANT:

So how...how close would you say the activities are to removing them from the protected status?

MIKE:

Yeah, we're a ways off. You know, I probably will retire before the frog is delisted. Part of the problem is...is just getting enough money, having a big enough staff to get all the work done. And I think we've...we've proved already that, uh, recovery in local areas is an achievable thing. We just need to replicate our success and...

PARTICIPANT:

Throughout...

MIKE:

Throughout the range and kind of meet the delisting criteria. Some of the threats are going to be particularly difficult to deal with, like the non-native issue because they could constantly reinvade sites.

So, if it was supported, I think recovery could happen in about fifteen years, that's just sort of a...a rough estimate.

PARTICIPANT:

And it really didn't get underway until 2007 or so?

MIKE:

Yep, yep. So, you know, we've...we've really made a fair amount of progress in terms of the understanding the methodology and what needs to be done. Now we just need to start doing and recording what we're doing so we can build that case for delisting. You know, because if we don't build that case and...and collect all those data and...and, um, document our successes, nobody's...nobody's going to know, you know, what we've done.

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Thank you.