



**UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
ENDANGERED SPECIES PROGRAM**

**TELEPHONIC INTERVIEW Time (8:18)**

**WINGED MAPLELEAF (HOST – SARAH LEON WITH PHIL DELPHEY)**

This transcript was produced from audio provided by FWS Endangered Species Program

**P R O C E E D I N G S**

(Music plays.)

MS. LEON: Hello, there. This is Sarah Leon for the U.S. Fish and Wildlife Service and I'm on the phone today with Phil Delphey, Fish and Wildlife Biologist at our Twin Cities Field Office in Minnesota. Hi, Phil, how are you today?

MR. DELPHEY: Good, how are you?

MS. LEON: Good, Phil. I was just hoping that today you could spend some time talking to us about the winged mapleleaf mussel. Does that sound all right?

MR. DELPHEY: Yeah, that sounds good.

MS. LEON: All right. And what can you tell us about this species?

MR. DELPHEY: Well, it's a federally endangered freshwater mussel. It used to occur throughout most of the Central United States, all the way from Minnesota down to Arkansas. It used to occur in about 38 different rivers. It now only occurs in five rivers that we know of.

MS. LEON: Can you tell us about some of the conservation actions that are currently under way to help protect and recover this species?

MR. DELPHEY: Yeah. Up here in Minnesota and Wisconsin on the St. Croix River, probably the most imminent threat are zebra mussels, and most people may know that zebra mussels are a species that's native to Europe. It was brought over here in ballast

water of oceangoing ships. It got into the Great Lakes and then eventually made its way down to the Mississippi River and then was probably brought upstream on river barges. And it's then transported over land when people take boats out of lakes from one lake to another on trailers.

We're finding zebra mussels in more and more lakes in the watershed upstream of where winged mapleleaf occurs in Minnesota. And once it gets into a lake, it reproduces in just huge numbers and these tiny larval zebra mussels will then exit the lake into a stream or river and they could eventually make their way into where winged mapleleaf occurs. And right now that area is one of the best existing mussel beds in the upper Midwest.

So the biggest threat right now is that possibility that zebra mussels could get in there and so we're working with the states basically to try to limit the spread of zebra mussels, and also to focus on the lakes that are in the watershed upstream of where winged mapleleaf is to try to keep zebra mussels out of those lakes. One thing about the winged mapleleaf is that it typically occurs in very high quality rivers and because high quality rivers are kind of rare these days, most rivers are degraded in one way or another.

In the Saline River in Arkansas and the Little River in Oklahoma and the St. Croix River up here in Minnesota, there's a wide variety of groups that are doing various things to protect those rivers. There's a big coalition of organizations that are working to just generally maintain it or improve the water quality. And I think that's true of the Bourbeuse River in Missouri, there are partnerships down there focused primarily on protecting fish habitat on the Bourbeuse River with private landowners, doing things like improving land management practices, grazing practices, soil conservation.

In the Saline River in Arkansas, the Nature Conservancy, for example, is very active with the state and the Fish and Wildlife Service in trying to improve the water quality, do some of the same things I just mentioned, identifying some of the more important sources of sediment erosion into the river. One issue there is illegal gravel mining. People will actually go into the river itself and mine gravel right out of the river. These organizations are working to try to keep that from happening. The Fish and Wildlife Service is never alone in our efforts to conserve endangered species.

We're doing things specifically focused on the winged mapleleaf, but because it occurs in such highly valued rivers, there are a variety of organizations and governmental agencies that are doing all kinds of things to try to protect those rivers.

Sarah Leon: Okay. And you mentioned that you are working to propagate winged mapleleaf mussels. Are you having much success with this?

Phil Delphey: It's a real challenge to propagate native mussels. Native mussels depend on a fish. During the early part of the life cycle of freshwater mussels, there's actually a parasitic phase. So when the female has larva mussels to release, she

actually releases them and they attach to either one species of fish, or in a few cases, a species of salamander. But it has to be the right fish species and they attach basically as little parasites and they hang onto that fish for maybe several weeks. In some cases, like with winged mapleleaf up here in Minnesota, it stays on channel catfish all winter long and then it drops off in the spring.

And so to duplicate that natural reproductive process, we actually go out in the fall, look for female winged mapleleaf that have larval winged mapleleaf inside of them. We take them to a fish hatchery and we mix them with live channel catfish. And the little winged mapleleaf come out and they attach to the channel catfish. They're kept in the hatchery over winter and then we put them out in these cages in the St. Croix River and allow the larval winged mapleleaf then to complete their transformation and to fall off of the fish. We let the fish go and then we go back to those cages several months later to look for the baby mussels.

For some species, that's worked really well. There's another endangered species called Higgins' eye that we've been able to produce actually probably tens of thousands of Higgins' eye for reintroduction. But with winged mapleleaf, it's been a much more difficult species to work with. We've only actually produced about 25 juvenile winged mapleleaf. They only reproduce once a year and so we learn something every year, but then we have to wait an entire year before we can kind of implement that new information that we got from the previous year.

So I think we're getting close to being able to produce winged mapleleaf successfully, but it's been kind of a difficult process. And to really effectively re-establish a population, we have to be able to produce thousands of winged mapleleaf. So we haven't reached that point, but we're learning a little bit every year, so hopefully before too long we'll be able to do that. And then we've got a couple spots where the historical habitats have recovered to the point where we can reintroduce them.

But just a couple, and that's one thing that's kind of interesting is that we looked at all the historical rivers where winged mapleleaf used to occur and the vast majority of those rivers have been degraded to the point where they're just not suitable for winged mapleleaf anymore. One of the big problems is just finding places where it used to occur where it could probably survive today.

Sarah Leon: All right. And there's always the people that think, "So what? Who cares?" But the winged mapleleaf mussel is not the only native freshwater mussel in trouble. In fact, 70 percent of our nation's freshwater mussels are considered to be either endangered, threatened or of special concern. Can you give our listeners a reason why they should care about the conservation of this species and other freshwater mussel species for that matter?

Phil Delphey: I mentioned a couple times that winged mapleleaf tends to occur in rivers that are fairly pristine, areas where the water is still fairly clear, where the bottoms are nice gravel instead of a couple feet of accumulated sediment, silt. They tend to be

really scenic areas. These are the rivers that people want to go to to canoe, to fish, to camp. If we lose winged mapleleaf, I think the really good indicators for those kind of high quality, highly valued and now fairly rare areas where we can go and enjoy what rivers are supposed to look like.

Sarah Leon: Well, thank you so much, Phil, for taking the time out of your day to tell us a little bit more about this species. It was a real pleasure having you on.

Phil Delphey: Yeah, thanks a lot.

Sarah Leon: For the U.S. Fish and Wildlife Service, this is Sarah Leon, thanks for listening.