



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

TELEPHONIC INTERVIEW Time (09:26)

DESERT TORTOISE (HOST – SARAH LEON WITH ROY AVERILL-MURRAY)

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

PROCEEDINGS

(Music plays.)

MS. LEON: Hello there. This is Sarah Leon for the US Fish and Wildlife Service. I'm on the phone today with Roy Averill-Murray, the Desert Tortoise Recovery Coordinator down at our Nevada Fish and Wildlife Office. Hi, Roy. How are you today?

MR. AVERILL-MURRAY: Good.

MS. LEON: The reason I have you on the line is because I'm hoping you can tell us a little about the desert tortoise today. You are the expert, so what can you tell our listeners about this species?

MR. AVERILL-MURRAY: The desert tortoise is a relatively unique species of turtle that lives in the desert, which is unusual for a turtle. It's a relatively large turtle that gets up to 15 inches or so in length.

Like I said, it lives in the Southwestern desert. We're focused especially right now on the population in Mojave Desert, or those tortoises north and west of the Colorado River.

Some of the interesting things about a tortoise like this that lives in the desert is, clearly, they have to deal with drought and the low amounts of rainfall. Most people think of turtles as being aquatic or certainly not living in areas so hot and dry like the Mojave Desert.

Desert tortoises have developed special adaptations to deal with that. One of those is

its capacity to store water in their bladders so they can go for periods up to a year or so without getting a drink of water. Beyond that, they really start to have trouble. But they take advantage of the slightest bit of rainfall that they do get and suck up as much water as they can.

If they have pools of water, they'll obviously drink directly from those. But even just a little bit of moisture on the surface of the ground, they'll just stick their face straight into it and draw water up through their nose if they can't actually get a deep enough puddle to drink from. Then as a final last resort, they'll eat wet mud to get that moisture. So those are some of the things that they have to deal with in this kind of environment.

MS. LEON: All right, Roy. I understand there are a number of factors behind this species' decline, is that correct?

MR. AVERILL-MURRAY: Yes. The desert tortoise occurs across a fairly large range, going from southwestern Utah and northwestern Arizona through southern Nevada and southern California.

Across that area, a lot of different things have been affecting tortoise populations. Some of them are kind of obvious things that we think of a lot for endangered or sensitive species, like habitat loss and degradation. Increasing urbanization of areas like Las Vegas or even some of the smaller desert communities chips away at the habitat available for desert tortoise.

Also, increasing threats like the invasion of exotic grasses changes the availability of their forage plants that they eat, and replaces some of the native flowers and plants that they usually eat with less nutritious grasses and things that start to dominate the landscape.

Those grasses also contribute to wildfires and are starting to alter some of the fire cycles. Whereas in the past a lightning strike or fire may have been fairly isolated because of the sparse vegetation in the desert, now some of these invasive grasses are producing big monocultures. They dry up and carry fire across a larger area, and burn down the shrubs and things that the desert tortoise uses for shade and cover. So that's really altering the characteristics of their habitat.

Other things that are on the list include disease. We've been working on trying to sort out factors behind disease that are affecting tortoise populations. So there's just a diversity of different things that are affecting tortoise population.

MS. LEON: All right. Could you tell us a little about this species' role in its environment; might conserving this species actually benefit any other wildlife?

MR. AVERILL-MURRAY: Conserving this species would definitely benefit other wildlife. Since it occurs across this large area that I mentioned, conserving the desert tortoise helps, first, conserve the Mojave Desert ecosystem in general.

From a kind of big picture perspective, the desert tortoise is kind of a flagship species for the Mojave Desert in helping maintain the integrity of that ecosystem, especially through things like the invasive plants and fire cycle that I mentioned.

More specifically, since the desert tortoise lives underground it spends most of its time, perhaps up to 95 percent of its life, underground in burrows. They construct their own burrows, digging holes usually under shrubs like creosote bush.

Other wildlife species take advantage of those holes for their own shelter. So a number of other animals use desert tortoise burrows to survive the same harsh environment, like snakes and rodents. Things like burrowing owls in particular have been closely associated with desert tortoises.

So as desert tortoise populations decline and there are fewer tortoises digging burrows, those other species have a harder time finding the shelter they need to live in the desert.

MS. LEON: All right, Roy. Can you tell us some of the things that are being done now to help recover this species?

MR. AVERILL-MURRAY: Sure. There are a lot of efforts going on to help recover the desert tortoise. Livestock grazing has been removed or reduced from large areas of critical habitat or important tortoise areas to reduce the competition of livestock foraging on the same plants, as well as reducing effects of trampling and spreading those invasive plant species.

One of the other threats that has been a factor in tortoise population with increasing human population is increasing roads and highways. Tortoises aren't very quick. So when they wander out on roads they tend to get hit by cars, especially on highways where people can't see them as quickly or react to avoid them.

Some of the important actions associated with that include putting tortoise-proof fencing along highways so that tortoises don't get on the roads and run over. We've seen some very direct benefits of doing things like that.

One of the newer things that we're starting to do is active habitat restoration, and things like I mentioned as far as grazing and fencing roads. There's various other things.

We're now working very hard on developing a recovery database and decision support system to help document those things and map the actions that are being implemented on the ground, so that we can keep track of what we're doing, help prioritize the actions that we need to be doing in different areas. Especially, as I mentioned, all the threats are kind of jumbled up across the landscape and not everything applies to different areas. We want to be able to prioritize what we think will improve the situation for the tortoise.

MS. LEON: All right. I understand that this a fortunate species with a lot of people working together to help recover it. Would you mind telling us about some of the key conservation partners involved in this recovery effort?

MR. AVERILL-MURRAY: Again, given that the species occurs over a four-state range, we work closely with all four of the state wildlife agencies.

The Bureau of Land Management is a key partner in recovering the desert tortoise. They are probably the largest landholder of desert tortoise habitat, so they're a very important player.

The Department of Defense has been really important and helpful in implementing recovery actions. Obviously, they have to balance their defense mission with conservation. But they take their conservation mission seriously, as well, and are key players in helping to recover the species.

We're working with the National Park Service, obviously. They have very highly protected areas that they manage already. So they're helping in the effort.

We've even been working and coordinating with local government, and are planning to increase our collaboration with counties and other local government -- basically, at all levels from the stakeholder, recreationist, all the way up to the local, state, and federal levels of government -- to do what we can to work together and help recover the species, and give everyone an opportunity to still know that there are tortoises out there and observe them in the wild, and preserve them for the next generation of people to see.

MS. LEON: All right. Great. Thank you so much, Roy, for taking some time today to tell us more about the desert tortoise and the recovery efforts that are going on down there. Thank you, again. It was a real pleasure having you on.

MR. AVERILL-MURRAY: My pleasure.

MS. LEON: For the US Fish and Wildlife Service, this is Sarah Leon. Thanks for listening.

(Music plays, whereupon the interview was concluded.)