



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

TELEPHONIC INTERVIEW Time (10:33)

TENNESSEE PURPLE CONEFLOWER (HOST – ANN HAAS WITH ANDREA BISHOP, GINA HANCOCK, GEOFF CALL, AND MARY JENNINGS)

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. HAAS: Hello everyone, this is Ann Haas with the U.S. Fish and Wildlife Service. Today we'll be talking with a group of people who have played a key role in the recovery of the Tennessee purple cone flower, a plant species that is being delisted because it's no longer endangered.

With us are Andrea Bishop with the State Parks and Natural Heritage Program of the Tennessee Department of Environment and Conservation; Gina Hancock, State Director of The Nature Conservancy in Tennessee; Geoff Call, Fish and Wildlife Biologist in the Service's Crooksville, Tennessee Ecological Services Office; and Mary Jennings, Field Supervisor of the Crooksville office.

Geoff, tell us about the Tennessee purple cone flower and why it was listed as endangered.

MR. CALL: The Tennessee purple coneflower is a member of the sunflower family. Specifically, it's in the genus *Echinacea*. The genus *Echinacea* includes several coneflower species, some of which are marketed for ornamental or medicinal purposes.

The species occurs in limestone cedar habitats, only in middle Tennessee. In those habitats, its dense stands of showy, purple flowers can put on quite a show during the summer months. The Tennessee purple coneflower can be found commercially for landscaping purposes, but most of those plants that are found commercially are hybrids.

As far as medicinal uses, the Tennessee purple coneflower is not among the primary species that are used for that purpose.

The coneflower was originally listed under the Endangered Species Act because of its extremely limited range and threats from urbanization—that being associated with residential and commercial sprawl from the cities of Nashville and Murfreesboro. Also, the alteration of cedar glade habitat due to the encroachment of competing vegetation—a process that happens when cedar glade habitats are left unmanaged.

An interesting note about the species is that it was first collected in 1878, but owing to a gap in any collections that occurred between the 1930s and about 1960, it was thought to have possibly gone extinct. It was, however, rediscovered in the late 1960s by scientists at Vanderbilt University.

MS. HAAS: Very interesting. I've seen them in nurseries, and now I'm glad to know what's what. Well, what are limestone outcrops and cedar glades?

MS. BISHOP: They are flat limestone bedrock or gravel openings in cedar hardwood forests, and they are covered with herbaceous, mostly annual species on the openings. Then, in the woods, you have cedars and other hard woods, but it's dominated by cedars. The conditions are extreme—very dry and hot in the summer, and very wet in the spring. Most of them occur in Tennessee, but there are some in Alabama and Kentucky as well.

MS. HAAS: Many people aren't aware that plants are actually listed as endangered or threatened. Why should we protect plants under the Endangered Species Act?

MR. CALL: Well, plants—the main organisms on Earth that are able to harness the sun's energy and turn it into energy available for other living organisms—are certainly of primary importance in just forming the basis of food chains. They also provide habitat that's necessary for specific pollinator species. At least specific vegetation types are required for certain birds to nest. There's a whole host of reasons, and I think, actually, your question might be better phrased as “why aren't plants offered the same protections that animals are under the Endangered Species Act,” because they are not as stringently protected as animal species are under the Act.

MS. HAAS: Typically habitat loss is a prime factor in a species' endangerment. How have partners worked to conserve habitat?

MR. CALL: Most of the work that's happened in respect to protecting habitat for the Tennessee purple coneflower has come at the hand of The Nature Conservancy, and of the involvement of the Tennessee Department of Environment and Conservation and their Natural Heritage Program. So, Gina? Andrea?

MS. HANCOCK: In the 1980s, we [The Nature Conservancy of Tennessee] launched a campaign to purchase key cedar glades throughout middle Tennessee, and we were

targeting many different plant species through that process. In 1984, we really hit three key sites for the coneflower. It was Couchville Cedar Glade, Vesta Cedar Glade, and Mount View, all of which are located in Davidson and Wilson County.

Even though cedar glades have a really harsh environment—we've almost lost staff out on cedar glades who've gotten dehydrated from the heat—they are incredibly beautiful if you go out with people who have been there and who can really identify all of the different plants that are found nowhere in the world but in middle Tennessee. And so I think we really decided to take on an aggressive approach to buy what was left.

MS. BISHOP: As far as the Tennessee Environment and Conservation Department, we've all worked with The Nature Conservancy and bought lands that they hadn't bought. All of them have been designated as State Natural Areas. Some of the sites also bought with recovery land acquisition funds from U.S. Fish and Wildlife Service.

MS. HASS: Good!

MS. BISHOP: Yes. So, like Geoff said, we've all worked together to actually protect the majority of Tennessee coneflower sites.

MS. HANCOCK: I've never been lucky enough to participate in a delisting process before. To me, it may be the most gratifying moment in my professional career. When I first heard that our Tennessee office was recommending this a year/year and a half ago, the first thought I had was that this kind of story is actually the beauty of the Endangered Species Act. So often the Act has a negative connotation and everyone thinks it's all about keeping people from engaging in the natural world and what they can and can't do. This story, for the Nature Conservancy, is really about how the Act was designed to function where you bring in private conservation interests to match the goals of public partners and try to work together to achieve a really positive outcome.

MS. HAAS: What terrific thoughts! How have partners removed competing vegetation from areas in order to restore the Tennessee purple coneflower?

MS. BISHOP: We've [Tennessee Department of Environment and Conservation] done quite a bit, as so has The Nature Conservancy. We've actually fenced almost all of the protected sites using funds from the Fish and Wildlife Service, and the ideal management would be prescribed burns. Unfortunately, since all of these are mostly in urban areas, it's difficult to do. So, The Nature Conservancy helped us back in the early 90s do some burns, and it really did benefit the coneflower. After the burn, there were more numbers of coneflower plants.

MS. HAAS: One recovery tool for listed species is propagating them in captivity and reintroducing them into their historical range. Tell us about this aspect of conserving the Tennessee purple coneflower.

MR. CALL: Well, I'll say a few words about it, Ann. It's been an extremely important component of the recovery program for Tennessee purple coneflower. And a lot of this began just with the efforts of Dr. Thomas Hemerly who's now at Middle Tennessee State University. I believe he was a student at Vanderbilt at the time, doing his PhD dissertation researching the aspects of the life history and ecology of the species. Some of his efforts were simply to scatter seeds collected from known populations into areas of suitable habitat. And the species has responded well to that sort of cultivation or propagation, if you will. However, there has been involvement with some greenhouses or nurseries who have been involved in growing plants out, or reintroduction or establishing populations.

Of the 35 colonies that are recognized and discussed in the final delisting rule, 20 of those were established through introductions. And about 12 of those are considered to be self sustaining and adequately protected. At the time the species was listed, there were only five known populations, each of which had one to three colonies each.

MS. HAAS: What about other State agencies or private landowners? Have they participated in the recovery work?

MR. CALL: Tennessee's Division of Forestry, they own and manage a lot of the lands, including some of the State Natural Areas where the species is located. And they have big players in cooperating with the [Tennessee Department of Environment and Conservation] over time in how to manage those habitats. They have also helped in some of the instances where prescribed burns have taken place in cedar glades

MS. BISHOP: And there's a big racetrack that we have right near one of the Natural Areas, and there is a population there on this racetrack property, which is private property. We've entered into a conservation easement with them for that site, so that's the main private landowner I can think of that we actually have protection with.

MR. CALL: Yeah, that would be the Nashville Super Speedway

MS. BISHOP: Yeah.

MS. HAAS: You don't hear much about racetracks and plant species! This is very interesting!

MS. JENNINGS: I think it really emphasizes the fact that this really has been a cooperative effort amongst a number of partners involved in both the protection of the species through management and acquisition of lands, as well as propagation and management of the threats to the species. This is one case where there is no denying the fact that this is not something the Fish and Wildlife Service could have done on its own. It's only through these cooperative efforts that this plant has truly been recovered. This is a true cause for celebration.

MS. HAAS: The whole is greater than the sum of its parts. What is Elsie Quarterman's Cedar Glade?

MS. BISHOP: It's one of our introduced populations, and it was named after Dr. Quarterman because it was one of her study sites back in the 1940s and 50s when she did her PhD on cedar glade ecology. So it was actually one of her study sites, but it's actually owned by the Corps of Engineers.

MS. HANCOCK: I'm glad that Elsie Quarterman is still alive to witness the delisting, and her being 100 years old, I'm thrilled that she's able to be present in August. It's just a great moment for her as well.

MS. HAAS: Well congratulations to all of you and thank you so much for talking with us today. This is Ann Haas for the Fish and Wildlife Service.