

Section 6: Preventive Medicine for Wildlife at Risk by Gregg Elliott & Bill Reeves

The words “Endangered Species Act” elicit two completely opposite reactions from people: on the one hand, thankfulness for the noble goal of preventing species extinctions, and on the other hand, scorn and even fear about potentially burdensome restrictions to private enterprise. The reality is, the vast majority of endangered species conservation occurs somewhere in the cooperative middle, especially when it comes to states.

When Congress passed the [Endangered Species Act](#) (ESA) in 1973, they included a provision recognizing the key role of states in managing rare and declining species and their habitats, and above all, in helping to prevent species listings in the first place. That provision, known as “Section 6,” established the original granting program for nongame wildlife in the United States.

From “fish and game” to biodiversity

Until the ESA was passed, wildlife management by the states revolved largely around management of game and fish species (i.e. those that could be hunted, trapped or caught), and this fact is reflected in the names of many of the state wildlife agencies. In fact many state agencies, including the Tennessee Wildlife Resources Agency (TWRA), depend on some or all of their state funding to be generated by licenses and permits purchased by hunters, anglers, and other outdoor enthusiasts.

State and federal agencies have been amazingly effective in their stewardship of America’s treasured fish and game species, bringing back continental waterfowl populations from Dust Bowl lows, and reintroducing deer and turkey to Tennessee after overhunting had decimated the populations at the turn of the 19th century. However, by the 1970s, it was clear that this historic model focusing solely on game species was insufficient to address the myriad problems affecting the habitats of many creatures great and small throughout the country.

In the U.S., the universe of animals that can be hunted and fished is very small compared to the totality of species on the landscape. Our songbirds, our lizards and frogs, our butterflies and other pollinators, the mussels and tiny fish in our streams: none of them were managed much before the ESA. Because they are not hunted or fished, they do not have a natural funding base from which to draw for conservation work as game species do.

That is why, with a few notable exceptions, it is these nongame species that tend to end up on the federal endangered species list and that need help to recover.

An oversimplified description of what the U.S. Fish and Wildlife Service (USFWS) does in administering the federal ESA is generally to (1) identify and list those species that are declining and at risk of extinction, and (2) take actions to prevent or reverse those declines and “downlist” or “delist” the species already on the list. This second arena is where the states play a significant role.

Tennessee’s Wildlife Species Conservation Act and the state’s T&E list

The federal ESA authorizes states to help work toward delisting of federally listed species that occur within state borders, and the states have done this through passage of their own legislation, which in Tennessee is called the “Nongame and Endangered or Threatened Wildlife Species Conservation Act of 1974” (aka the Wildlife Species Conservation Act). This legislation established Tennessee’s Threatened and Endangered (T&E) species list, which includes all federally listed species found in the state. The state list also includes species additional to the federal list, and *the primary reason for this is to help avoid the addition of these species to the federal list.*

This can be explained by a critical distinction between the federal ESA and the Tennessee Wildlife Species Conservation Act. The USFWS has the obligation to work with both government and private entities if their activities will result in “take” (i.e. significant killing of individuals or damaging the species or its habitat) of the listed species. They can specify actions required to minimize take. In Tennessee, however, TWRA has no authority to restrict activities on government or private land, regardless of the impact to state-listed species. *All state conservation activities for declining species under the state law are conducted through voluntary partnerships with landowners and businesses.*

Why do people cooperate in addressing threats to state T&E species, particularly if it means they might need to invest precious resources to do so? There are many reasons. Some people believe strongly in passing on the state’s natural heritage for the next generation.

Some businesses recognize that taking action now is an investment that can pay off in the future by avoiding a federal listing of the species.

Section 6 projects: How *adding* to the state list of T&E species can help keep them *off* the federal list

A good analogy to explain the relationship of Tennessee’s Wildlife Species Conservation Act to the federal ESA is a medical one. Think of the federal list as the

“emergency room” for rare and declining species. By the time they reach the point of listing by the U.S. Fish and Wildlife Service, they are in pretty bad shape - often having lost as much as 70% or more of their entire population. We all know that while emergency rooms can be lifesavers, preventive medicine is far preferable for ensuring a long and healthy life.

Think of Tennessee’s T&E list as “preventive medicine.” Bill Reeves, chief of TWRA’s Biodiversity Division, described it this way: “When a species is listed under Tennessee’s Wildlife Conservation Act, this action says ‘here are the ones to work on. If you don’t address them, abundance will be impacted and they could end up on the federal list.’” State listing essentially acts as an early warning signal for developers, businesses, landowners and others in natural resource management that they have an opportunity - but not a requirement - to prevent something “bad” from happening, both to themselves (in the form of future actions that the USFWS might require to minimize take) and to the species in question.

State listing also qualifies the newly listed species for Section 6 federal conservation grant funds. Section 6 dollars are one of two major sources of funding available to TWRA for the benefit of nongame species conservation and their habitats. (State Wildlife Grants will be the subject of a future article).

This is why Tennessee’s T&E list tends to be longer than the federal list. *Species that are on the state list, but not yet on the federal list, are the very ones that may be kept off the federal T&E list entirely, which is far preferable to just about everyone involved.*

The Golden-winged Warbler (*Vermivora chrysoptera*) in Tennessee is a great example of how a species not included on the federal list (but petitioned for listing) has already made it onto the proposed version of Tennessee’s T&E list. This species ranges throughout eastern North America, but like many warblers, the Golden-winged is suffering a rangewide decline due in part to loss of breeding habitat. Rather than waiting until this declining species officially joins the federal T&E list, TWRA has been [working with partners in a series of voluntary projects](#) to enhance early successional habitat for Golden-winged Warblers, primarily through opening up forest canopy to allow regrowth of native shrubs and grasses.



Golden-winged Warbler by USDA via Flickr CC 2.0

Delisting species using Section 6 funding

In addition to preventing federal listings, Section 6 funding also aims to “delist” species (remove them from the federal T&E list) or “downlist” them (downgrade their listed status). It’s important to recognize that prevention of species listings and delisting/downlisting essentially mean that extinction has been averted.

“To delist species,” explains Reeves, “we generally have to change, improve, secure, or otherwise preserve a sufficient amount of species habitat. This costs a lot of money. TWRA gets roughly \$260,000 in Section 6 funds each year, which goes toward on-the-ground assessments of status and how best to remove threats and conserve habitat.” For example, some of the agency’s recent State Wildlife Grant work on [Hellbender conservation](#) became eligible for Section 6 funding once the Hellbender became an at-risk species under the federal ESA.

“We have actually prevented the potential listing of 13 species in Tennessee,” said Reeves. “By studying the status and threats to species, such as the Hatchie Burrowing Crayfish, we have been able to demonstrate that some do not merit listing.” In total, Tennessee has approximately 100 federally listed species. “So that means we have about \$2650 to spend per species,” exclaims Reeves. “That amount won’t even buy an acre of habitat.”

Conservation gets a boost?

Given the extremely small slice of funding available for conservation in Tennessee and across the country, a group of far-sighted conservationists, sportsmen, and business leaders came together in 2014 to increase the size of the pie. The [2015 recommendations](#) of the [Blue Ribbon Panel](#) on Sustaining America's Diverse Fish & Wildlife Resources would dedicate up to \$1.3 billion annually in *existing* revenue (not new taxes) from the development of energy and mineral resources on federal lands and waters to wildlife conservation. Stating that “decades of inadequate funding have prevented the states from implementing the proven, cost effective strategies needed to keep fish and wildlife healthy,” the recommendations have contributed to the introduction of a bipartisan bill, *Recovering America's Wildlife Act of 2016*, to achieve this goal.

If funded, this bill would expand current funding for nongame fish and wildlife conservation in Tennessee by a factor of 10. Now that is a healthy dose of preventive medicine.