

# ILLINOIS ENVIRONMENTAL POLICY REVIEW

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## Endangered Species and Habitat Protection

By Lawrence M. Page

The Illinois Endangered Species Protection Act (IESPA), implemented in 1973, has as its goal the protection of Illinois' rare native species. As of 1999, the Illinois Endangered Species Protection Board listed 147 animals and 331 plants as endangered or threatened in Illinois. Given the large number of listed species in Illinois and the fact that the IESPA is well established, it is important to ask what kinds of protection the IESPA provides to listed species and how effective that protection is.

The answer is complex. The IESPA provides certain types of protection to all endangered species—for example, state-funded projects must consider impacts on endangered species. However, other types of IESPA protection depend on a number of factors: the status and environmental requirements of the species, the number and intensity of threats to the species, and whether measures have been taken to protect one or more habitat areas critical to the species' survival in Illinois. This article focuses on the importance of protecting critical habitat, as illustrated by several native fishes.

The bluebreast darter, a strikingly beautiful fish, is sparsely distributed across the eastern United States. This fish requires shallow water flowing rapidly over large stones in small rivers. In Illinois the bluebreast darter is found only in Vermilion County's Vermilion River system, where such habitats are fairly common.

While early records documented the bluebreast darter in the Vermilion River's Middle and Salt Forks, changes in environmental conditions had almost eliminated the fish by the 1960s. Inadequately treated sewage from Urbana diminished the Salt Fork's water quality, and both the Salt and Middle Forks suffered from heavy sediment loads, pesticides, and fertilizer runoff from agricultural operations in their watersheds. Several native fishes, including the bigeye shiner, blacknose shiner, bigeye chub, bullhead minnow, silver chub, and mud darter, had already disappeared from these rivers, and the bluebreast darter seemed headed for the same fate.

In the 1960s a dam that would have impounded a long stretch of the Middle Fork was planned. The impounded water would have covered all of the fast-flowing rubble riffles inhabited by the bluebreast darter and would have sealed the fish's fate in Illinois. Paradoxically, plans for the dam ultimately benefited the fish. The dam drew the environmental community's attention, and environmentalists successfully opposed construction, arguing that it would cause environmental damage, would be extremely expensive, and, as time has shown, was unnecessary.

As a result of the environmentalists' efforts, much of the land along the Middle Fork slated for impoundment was instead transferred to the Illinois Department of Conservation (now

the Illinois Department of Natural Resources [IDNR]) and the Vermilion County Conservation District. This land was managed for conservation and recreational uses, and it served to buffer the river from surrounding agricultural land. Furthermore, efforts were made to restore the river to a more natural condition and to improve water quality. Support from the IDNR Natural Areas Acquisition Fund—Stewardship Fund was used to restore native prairies, savannas, and forests on 450 acres. In addition, the Vermilion County Conservation District constructed wetlands along the Middle Fork. Finally, a 17-mile stretch of the river is permanently protected as a national scenic river, and nearly 10,000 acres along the river are parkland.

The bluebreast darter has responded dramatically. It now is one of the most common fishes in the lower Middle Fork riffles. In the 1960s it was necessary to search all day to find an individual bluebreast darter, but now a single seine haul can produce several individuals. In fact, improved environmental conditions have allowed the species to spread to the lower Salt Fork and to the Vermilion River below the junction of the Middle and Salt Forks.

The bluebreast darter's recovery appears to have resulted directly from changes in land management that enhanced habitat quality. Returning the riparian zone of the Middle Fork to a more naturally vegetated state

CONTINUED ON NEXT PAGE



provided a filter that reduced the amount of sediment and pollutants reaching the river, thus improving water quality.

The example of the bluebreast darter makes clear that protecting an endangered or threatened species requires alleviating the causes for the species' decline. Two other native fishes, the weed shiner and the bigeye chub, reinforce this point. These two minnows occurred throughout large areas of Illinois in the early 20th century, but by mid-century their ranges were decimated as streams were channelized, impounded, and polluted and as exotic species were introduced into their environments. The minnows were listed as endangered in Illinois and given IESPA protection, but listing had no impact because it was not followed by actions

to improve their environments. Populations continued to disappear, and today the bigeye chub persists in Illinois in only one location, and the weed shiner in only two locations. While the bluebreast darter seems likely to survive because specific actions were taken to protect its environment, the weed shiner and the bigeye chub are likely to disappear from Illinois in the next couple of decades because habitat critical to their survival has been neither identified nor protected.

The Illinois Endangered Species Protection Act clearly has the support of Illinois citizens, and it was a reasonable starting point. But the act's impact has not matched its intent. To protect Illinois' rare native species, more must be done than putting their names on a list. They must have

suitable environments in which to live and reproduce. As currently applied, the IESPA is inconsistent and selective in protecting endangered or threatened species' critical habitat. Implementing the IESPA effectively requires identifying and protecting one or more areas of habitat critical to the survival of these species. This type of protection not only will help endangered species; it also will specify areas where conservation efforts should be concentrated, and it will benefit land developers by providing precise information about where development should not occur.

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