

Officials seek safety zone for endangered dragonfly

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Hovering above the tall, swaying cattails like a helicopter surveying a traffic jam, a green-eyed dragonfly patrols its territory--a thin, shallow channel through a marsh outside Romeoville.

The endangered Hine's emerald dragonfly, of which there may remain fewer than 500 adults, is making one of its last stands here--and environmentalists say more is at stake than saving another big buzzing bug.

The species' survival is crucial, experts say, because it is a key indicator of the quality and quantity of groundwater--a precious commodity in a quickly developing part of Chicago 's outer suburbs that depend on increasingly strained aquifers.

This week, the U.S. Fish and Wildlife Service is expected to release a proposal identifying 27,689 acres of land as "critical habitat" for this finger-length dragonfly in the last four states in which it lives: Illinois, Wisconsin, Michigan and Missouri. It will include 2,995 acres in about 10 spots in Cook, DuPage and Will Counties, along the Des Plaines River Valley, its only habitat in Illinois .

Critical habitat, by definition, includes features essential to the species, such as water or food. It can include areas where the species does not live but that are needed for its recovery.

The dragonfly, named in part for its brilliant emerald green eyes, has a wingspan of a little more than 3 inches, a dark brown and metallic green body and yellow stripes on its sides. In addition to being a barometer for groundwater quality, it helps humans by eating nagging mosquitoes, biting flies and gnats.

But urban and industrial development, pollution and groundwater changes have cornered it into a few isolated pockets. In Illinois , recent counts suggest emerald dragonflies may be down to as few as about 300 adults, with the larva count at fewer than 3,000.

"It is an incredibly low number for an insect," said Daniel Soluk, a professor of aquatic ecology and conservation at the University of South Dakota .

The insect, which has been listed as federally endangered since 1995, lives in an area soon to be bisected by a \$730 million bridge--part of the southward extension of Interstate Highway 355 that is under construction.

For more than a decade, Soluk has monitored Hine's emerald dragonfly populations for the Illinois State Toll Highway Authority. Getting the federal green light depended on the tollway taking steps to mitigate the highway's impact, including building an 80-foot-high bridge to accommodate a dragonfly flyway below the rushing traffic.

The critical habitat designation for the Hine's emerald dragonfly is the result of a federal court order two years ago after conservation organizations filed a lawsuit. The designation comes as Congress is taking steps to overhaul the 1973 Endangered Species Act to make it more favorable to landowners and developers.

Last fall, the U.S. House of Representatives passed Republican-led legislation to eliminate the government's ability to designate critical habitats in which building is restricted. It also would force the federal government to compensate property owners if steps needed to protect certain species stymie development plans.

The Fish and Wildlife Service reluctantly announced the critical habitat proposal for the dragonfly, noting that it has found that such a designation provides little additional protection for most listed species and "prevents the agency from using scarce conservation resources for activities with greater conservation benefits."

But conservationists say the act has never been implemented fully. Brent Plater, attorney for the Arizona-based Center for Biological Diversity, which led the dragonfly suit, said that as of his study two years ago, the wildlife agency protected critical habitat for only four animals and no plants out of 68 endangered species in the Great Lakes Region.

"The No. 1 threat to the continued existence of our biological diversity is the destruction of their habitat," Plater said. "It doesn't make any sense that they would stop addressing the No. 1 threat facing endangered species."

The agency will hold a public hearing in Romeoville on Aug. 15 and accept public comment on the proposal until Sept. 24. The service is preparing an economic analysis of the proposed critical habitat that will be released later.

Critical habitat designations only affect developers and landowners who need approval from federal agencies to carry out their plans. For example, if a developer wanted to build a strip mall on a wetland in critical habitat that feeds into a navigable waterway managed by the U.S. Army Corps of Engineers, the Fish and Wildlife Service would be consulted to ensure the development would not damage the habitat.

The emerald dragonfly has a very specific habitat, thriving in spring-fed wetlands, marshes and sedge meadows overlying dolomite bedrock.

"Dolomite prairies are globally unique and rare, so there are not many places in the world where we have those conditions," said Kris Lah, the agency's endangered species coordinator for the Chicago Field Office.

The Des Plaines River Valley is one, with limestone just inches below the soil.

The insect's healthiest Illinois populations are in the Lockport Prairie Nature Preserve, where they congregate near two culverts funneling cool groundwater from a Des Plaines River bluff under a railroad track, feeding a channel through the cattails just a couple of feet wide and a few inches deep.

Conservationists say protecting the dragonfly's habitat will have a ripple effect that will enhance the entire ecosystem and help preserve wetlands that prevent flooding and feed groundwater supplies that suburban residents beyond the reach of Lake Michigan water rely on.

"[The dragonfly population] is an indication of how well we're managing our own resources, and not just the resources the dragonfly depends on, and they're inextricably linked," Plater said.

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