How do threatened and endangered species get legal status as Illinois rarities?

Making the List

Story By Joe McFarland

Gray wolf (*Canis lupus*)

(Photo courtesy David Olson.)

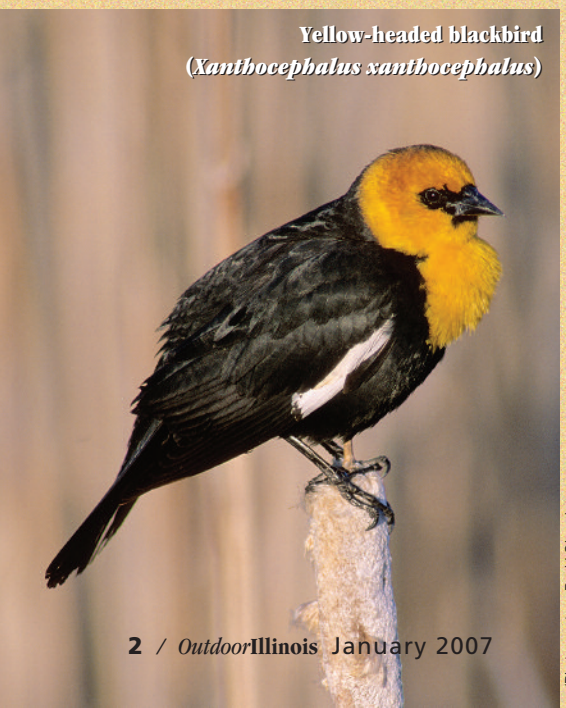
Ever walk into a forest and been stumped by an unusual plant, or maybe a snake or bird you can't identify? Don't be embarrassed. Nobody—not even the best biologists—can instantly recognize every species of floral and faunal life known to exist in Illinois. Sometimes, even the pros scratch their head when encountering an obscure species beyond their field of study.

While everybody encounters plants or wildlife they don't recognize, deciding what's truly a rare species—therefore worthy of special, legal protection—or what's merely unfamiliar is a decision-making process requiring the collective input of many experts.

Let's start with the big picture: Most of us are at least vaguely familiar with the federal Endangered Species Act of 1973, and how it affords nationwide protection to native species which are critically endangered, therefore at risk of becoming totally extinct or extirpated from the United States. (Extinct means the species no longer exists anywhere on Earth; extirpated means that species no longer exists in a certain region: black bears, for example, have been extirpated from Illinois since the 1800s, but still thrive elsewhere.) When a species is "threatened," the population of that species isn't exactly endangered, but might be in serious decline, or chronically low in numbers and at risk of soon qualifying for the "Endangered" list.

The Illinois Endangered Species Protection Board, a nine-member group of scientists (including botanists, zoologists, ecologists and one citizen advocate) meets four times annually to review the status of Illinois threatened and endangered species. Automatically, any species already listed as a federally threatened or endangered species is granted the same legal protection in Illinois. But some species, while not critically rare nationwide, might be very rare in Illinois, and therefore require protection not offered at the federal level. The review and changes to the Illinois list occurs every five years.

The greater prairie-chicken (*Tympanuchus cupido*), for example, remains common enough to be a game species in certain Great Plains states. But Illinois' population is severely limited by chronic habitat loss. The eastern wood rat (*Neotoma floridana*) is a common

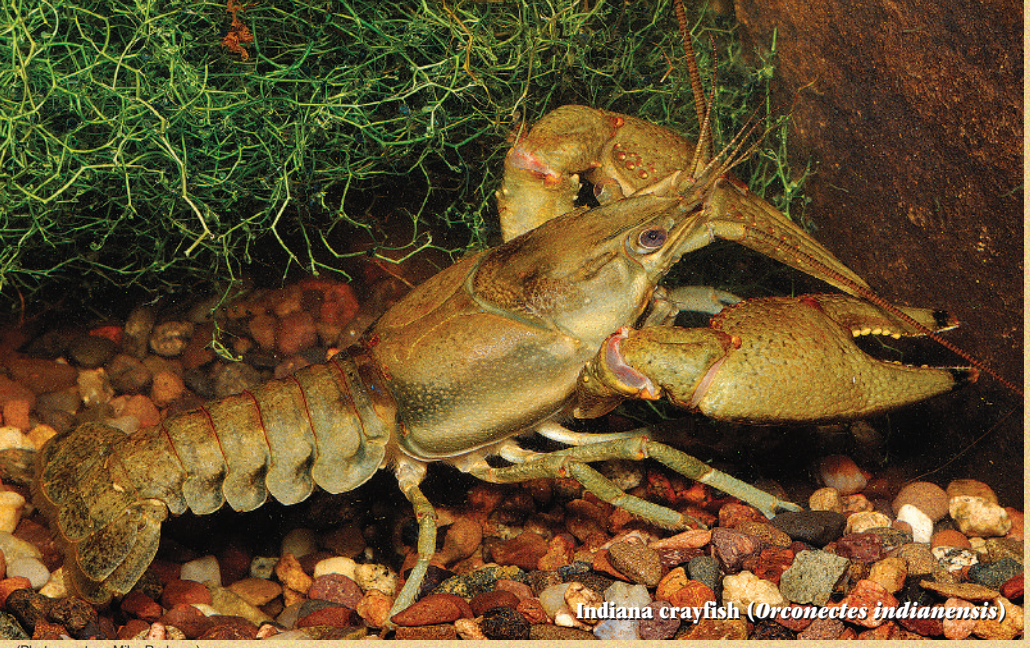


Yellow-headed blackbird (*Xanthocephalus xanthocephalus*)

(Photo courtesy David Olson.)

(Photo courtesy Mike Redmer.)

River cooter (*Pseudemys concinna*)



Indiana crayfish (*Orconectes indianensis*)

(Photo courtesy Mike Redmer.)

Least bittern (*Ixobrychus exilis*)

(Photo courtesy Michael Jeffords.)

resident from southern states to Nebraska, but is listed as endangered in Illinois.

A natural question: Why bother protecting relatively tiny populations of a species when they're merely a fragment of a larger population living at the edge of its range? Scientists realize healthy populations of any species are adapted to live among slight to moderate shifts in habitat and environment. Individual populations living on the edge of their overall range are better adapted to survive those slight differences. Evolutionary changes often occur at these margins. Illinois is located at the continental cross-roads where many species are on the edge of their range.

If one mission of natural resource management is to ensure genetic diversity among populations, protecting those "marginal" populations becomes critically important.

With legal habitat and harvest protection, and sometimes through reintroduction efforts, some species recover sufficiently to be "de-listed," or removed from what's commonly known as the "T and E" list. The recovery of the bald eagle—once a federally endangered species—is a national example of what can happen when rare species receive special protections. Once a rare sight in Illinois, bald eagles now nest in dozens of Illinois counties and even have been spotted soaring over Chicago.

According to law, the decision to add or remove a species from the state or federal list doesn't rest with one individual. Scientists must go afield to examine known habitats to document the presence or absence of the species. They review historical records of the species in Illinois, organizing research and monitoring efforts. There is a lengthy checklist of verifications which demand the documentation of recorded sightings or even a physical specimen of the species being considered.

Since the Endangered Species Protection Board is composed of scientists, all working to establish proven facts about the status of threatened or endangered species, the whims of subjective opinion do not influence the final recommendations of the board. Cute or ugly, all species of flora or fauna in Illinois receive equal consideration under the law.

Yellow-lipped ladies' tresses (*Spiranthes lucida*)

(Photo courtesy Carol Freeman.)

(Photo courtesy David Olson.)

Western hognose snake (*Heterodon nasicus*)