

OUR ENVIRONMENT

Illinois Mud Turtle Still off Endangered List

The Illinois mud turtle will not be listed as an endangered species at this time, the Department of the Interior's U.S. Fish and Wildlife Service has decided. The agency's decision was based on new data received from the public in response to a proposal which would have afforded the dark brown turtle areas of critical habitat in Iowa and Illinois and other protection under provisions of the Endangered Species Act.

Information compiled during the public comment period and from meetings held in the two states by the agency following publication of the proposal increased the service's knowledge of the turtle's range and population. The additional data made available to the agency indicated the turtle is more numerous than had been assumed but confirmed that its habitat has been reduced. The service will continue to study the status of the Illinois mud turtle, officials said.

The Iowa area proposed as critical habitat for the turtle and known as Big Sand Mound is owned by Monsanto and Iowa-Illinois Gas and Electric Company. Monsanto's expanding Muscatine herbicide factory is located there, and the utilities company is constructing a generating station nearby.

The two companies have fenced off a 400-acre tract of land in Big Sand Mound and proposed it be managed as an ecological preserve by an advisory group of scientists and conservationists interested in preserving the area's unique plants and animals, including the Illinois mud turtle.

Fish Employed to Monitor Water Purity

A West German city has enlisted six Nile elephant fish to check out whether it's safe to drink the water. Each *Gnathonemus* fish (actually, a two-inch, black-striped goldfish) works unstintingly around the clock, two weeks straight, to provide a continuous check on Göppingen's water purity. Its unique job qualifications: a talent for detecting small amounts of metal contaminants and the ability to emit electric impulses.

City engineers simply plop one into an aquarium rigged with electrodes connected to a monitoring panel at utility headquarters and relax until the fish sounds a pollution warning by dropping its impulses under 200 a second. (An elephant fish in unpolluted water normally gives off over 1,000 impulses.)

Endangered Eaglet Survives Storms

On the morning of July 17, biological technician George Stapleton, of the U.S. Fish and Wildlife Service, observed an immature bald eagle soaring around Little Creek Reservoir on Crab Orchard National Wildlife Refuge, Carterville, Illinois. Similar events are occurring elsewhere in the upper Midwest at this time of year, so what makes this eagle so special? The bird is special because it's the first eagle ever to be hatched and reared on the refuge; moreover, the nest is only the second successful nest in Illinois in the past 37 years.

Efforts to produce the eagle began in early 1973 when a pair of eagles selected a snag in the reservoir and constructed a nest. Work on the nest ended abruptly when the tree fell during a storm in 1974. The eagles selected another snag nearby and again began building a nest. The eagles appeared to be interested in the nest throughout the winter months but usually joined the spring flights to northern states.

However, in the spring of 1979, things were different. Seemingly, the eagles were about to carry the nesting activities to completion. From a vantage point a quarter of a mile from the nest, technician Stapleton checked the nest through his scope almost daily. He was convinced the eagles were incubating during the entire month of April. For some unexplained reason, though, the eagles abandoned the nest and left the refuge on May 2. Observers were disappointed when they failed to see any sign of an egg or eaglet remains in an aerial survey over the nest a week later.

The eagles returned to the area in November 1979, and again began defending territory around the nest. Biologists were excited by the obvious seriousness of the nesting activity when on March 8, 1980, the pair was observed mating near the nest. By late March, Stapleton thought the eagles were incubating an egg. On April 25, he noticed a change in the behavior of the eagle sitting on the nest and suggested it might be caring for a young bird. Suspicions were confirmed on May 8 when an eaglet was observed moving about on the edge of the nest. Both proud parents were in attendance.

With the parents providing an ample supply of fish, the eaglet continued to grow at a rapid rate. The young bird had feathers and was close to the flight stage. On the evening of June 28, a severe thunderstorm with 100 mile-per-hour winds passed through the area. The tree was blown down and the nest sank beneath water. The young eagle apparently survived the storm and falling trees and was spotted sitting on a log near the stump that

had once supported the nest tree.

Biologists thought the young eagle had the best chance for survival—perhaps 50-50—if left alone under the care of its parents. A check of the area on July 1 indicated the parents were still caring for the young bird and it appeared to be in good condition.

On the afternoon of July 2, another severe storm moved through the area, creating severe damage to nearby communities and hundreds of trees on the refuge. The young bird, apparently conditioned to such abrasive powers of Mother Nature by now, survived the storm without harm. Technician Stapleton and the refuge staff were elated when the eagle finally took to flight on July 17.

Several questions remain to be answered: Will the eagles return to the area again next year? Will they select another tree and continue their nesting attempts? Can they be encouraged to select a live tree on land or perhaps a man-made nesting structure over the water? The refuge staff will make the area as attractive as possible to eagles. Optimistically, eagles may adopt Crab Orchard Refuge as a permanent nesting site and produce young in southern Illinois regularly.

Illinois Air Quality: A Mixed Report for 1979

Air quality over Illinois was a mixture of good news and bad news during 1979, according to the Annual Air Quality Report recently completed by the Illinois Environmental Agency. The report was compiled by the IEPA's Division of Air Pollution Control Ambient Air Monitoring Section. It is based on data compiled from the Division's air monitoring network consisting of 316 samplers throughout the state.

On the good news side, levels of ozone (O_3) and carbon monoxide (CO) were definitely lower during the year. However, on the bad news side of the ledger, levels of sulfur dioxide (SO_2), particulates (soot, dust, etc.) and nitrogen dioxide (NO_2) were higher, the report shows.

Dave Kolaz, manager of the section, said, "Air pollution is a highly variable phenomenon relying on the interplay of a variety of conditions. Foremost among these are the weather, geography, and economics. Weather conditions involve atmospheric stability, wind speed and direction, precipitation, solar radiation, and temperature. It's important to know the geography—whether the area is urban, rural, valley or plain. Economics considers such things as the concentrations of industries, boom or recession times, and whether it's a weekday or the weekend. All of these things are contributing factors to



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