

30 YEARS OF THE ENDANGERED SPECIES ACT

GRAY BAT

Historically, 2.25 million gray bats lived in limestone caves throughout the southern and Midwestern United States. Aware that gray bats were imperiled by habitat disturbance and faced with extinction, the U.S. Fish and Wildlife Service (FWS) used Endangered Species Act protections to arrest the bat's decline.



Private Forest Management Team

HISTORY OF ENDANGERMENT

Gray bats are meticulous in selecting maternity and hibernation caves. Even with thousands of potential caves, the bats raise their young in only five percent of them. Gray bats find ideal maternity and roosting sites only where streams run through large, dome-shaped caves that collect heat at the ceiling. The bat is equally particular about hibernation sites, requiring deep, vertical caves that trap cold air.

Human activity in or near the caves can cause the bats to vacate caves entirely or drop their offspring to the cave floor during the breeding season. Such disturbance to a single cave could annihilate an enormous percentage of the species. Thus, the gray bat is endangered throughout its range.

Bats also suffer from pesticide use on agricultural land. Chemical pesticides flow into the water bodies where bats forage, poisoning aquatic insects, which the bats eat.

By 1976, the year the species was listed as endangered, habitat disturbance and

other threats had reduced the gray bat population to just 128,000.

ROAD TO RECOVERY

The FWS has started to reverse the bat's decline by purchasing and protecting some of its most valuable habitat. In particular, the FWS now owns the Blowing Wind and Sauta Caves in Alabama, two of the species' most important summer roosting sites. The FWS also acquired Fern Cave, the site of the greatest population of hibernating bats. The entrances to these and many other caves are gated to keep curious visitors from agitating roosting and hibernating bats.

The gates have proven successful; the total gray bat population is estimated to be 1,500,000 individuals. More than 250,000 bats live in Sauta Cave alone, almost double the number left in the country at the time of the bat's endangered listing.

CONSERVATION TODAY

Many protected caves and surrounding lands have been designated as National Wildlife Refuges. Management within these refuges exemplifies the FWS's ecosystem approach to conservation. With this model, bats are not viewed in isolation; proper management of all living organisms near the cave including plants, animals, and human settlements, are considered in conjunction with environmental factors such as water and air quality in and around the cave.

ECOLOGICAL & ECONOMIC VALUE

Gray bats play a vital role in keeping ecosystems in balance. A single bat can catch hundreds of insects during its nightly forage, and bat colonies are known to eat tons of insects each night. Some of the prey insects are beetles and moths that can destroy crops, costing farmers hundreds of thousands of dollars.

OUTLOOK FOR THE FUTURE

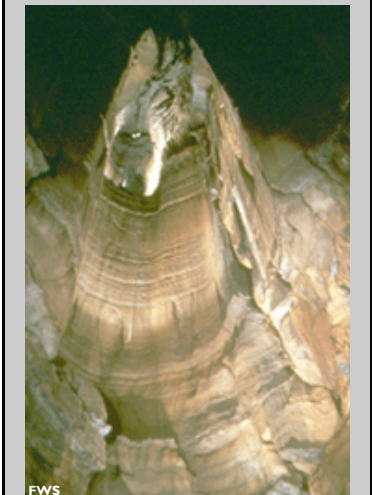
Gray bat populations are on the path to recovery. However, several management activities must continue to ensure that entire bat colonies, some of which constitute large segments of the remaining population, are not wiped out.

Given the very few caves used by the gray bat, gating of roosting and hibernating habitat must continue. Where entrance into caves is permitted, visitors and spelunkers must be educated about the vulnerability of bats and how to avoid disturbing them.

Pesticide contamination remains a problem for bats. Efforts to rid bat habitat of the poison and control its future spread will pay ecosystem-wide dividends.



Kentucky Bat Working Group



FWS