Indiana bat
Myotis sodalis

Indiana bat, USFWS

Status: Endangered

Description: The Indiana bat is a medium-sized bat, with a forearm length of 1 3/8 – 1 5/8 inches. The head and body length ranges from 1 5/8-1 7/8 inches. The species closely resembles the little brown bat (*Myotis lucifugus*) and the northern long-eared bat (*Myotis septentrionalis*). Its hind feet tend to be small and delicate with fewer, shorter hairs than other bats of the Myotis genus. The fur lacks luster. The ears and wing membranes have a dull appearance and flat coloration that does not contrast with the fur. The fur of the chest and belly is lighter than the pinkish-brown fur on the back, but does not contrast as strongly as does that of the little brown or northern long-eared bats.

Habitat: Indiana bats winter in caves or mines with stable, but not freezing, cold temperatures. In summer they generally roost in the loose bark of trees, either dead trees with peeling bark, or live trees with shaggy bark, such as white oak and some hickories.

Range: The Indiana bat is a migratory species found throughout much of the eastern United States.

Listing: Endangered, March 11, 1967. 32 FR 4001

Critical habitat: Designated, September 24, 1976. 41 FR 41914

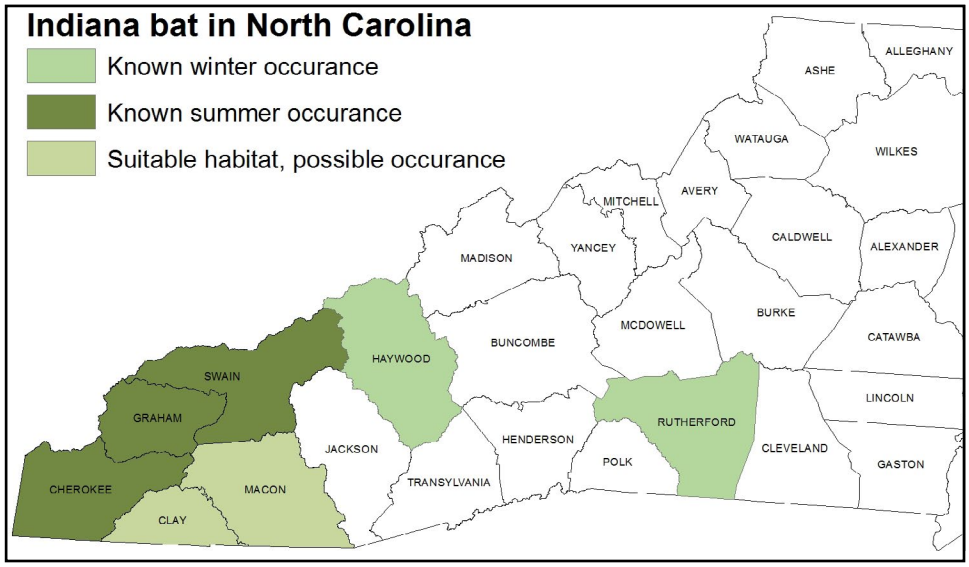
Threats: A significant reason for the species' decline is human visitation of hibernation sites, which stirs the bats, forcing them to use up valuable fat stores intended to nourish them through the winter. Other threats come from cave vandalism and improper cave gating and other structures that can change the flow of air in and out of the cave and block bat passage.

White-nose syndrome poses a growing threat to the Indiana bat. The disease, caused by the fungus *Geomyces destructans,* typically develops in hibernating bats and is often fatal in Indiana bats. The disease was first identified in New York in 2006 and has since spread in all directions, though most notably south and west.

Why should we be concerned about the loss of species? Extinction is a natural process that has been occurring since long before the appearance of humans. Normally, new species develop through a process known as speciation, at about the same rate other species become extinct. However, because of air and water pollution, forest clearing, loss of wetlands, and other man-induced environmental changes, extinctions are now occurring at a rate that far exceeds the speciation rate.

All living things are part of a complex and interconnected network. We depend on the diversity of plant and animal life for our recreation, nourishment, many of our lifesaving medicines, and the ecological functions they provide. One-quarter of all the prescriptions written in the United States today contain chemicals that were originally discovered in plants and animals. Industry and agriculture are increasingly making use of wild plants, seeking out the remaining wild strain of many common crops, such as wheat and corn, to produce new hybrids that are more resistant to disease, pests, and marginal climatic conditions. Our food crops depend on insects and other animals for pollination. Healthy forests clean the air and provide oxygen for us to breathe. Wetlands clean water and help minimize the impacts of floods. These services are the foundation of life and depend on a diversity of plants and animals working in concert. Each time a species disappears, we lose not only those benefits we know it provided but other benefits that we have yet to realize.

What you can do to help
Cave ecosystems evolved in relative isolation. They are a simple yet intricate system that involves relatively



few organisms. Food is scarce in caves and is generally limited to animals that either die in or are preyed upon in the cave, and organic nutrients that wash or filter in through cracks and crevices. The loss or decline of one organism can disrupt the interdependent relationship between species, causing other species to disappear or decline.

When entering caves, be careful not to disturb bats, other cave creatures, or their habitat. Avoid entering significant bat caves, especially during the hibernation and maternity seasons.

Build a bat house and join a bat conservation group. Educate others to the value and uniqueness of our American bat species.

Many caves have streams and pools that are inhabited by unique species. Be concerned with the quality of these and all waters. Watch for fish kills, illegal dumping of waste, unusual water color or smell, and other changes in the water's condition. Report such events to your state conservation agency.

Prepared by:
U.S. Fish and Wildlife Service
Asheville Field Office
160 Zillicoa Street
Asheville, North Carolina 28801
(828) 258 3939

December, 2011