BAT

NORTH CAROLINA WILDLIFE RESOURCES COMMISSION *fact sheet, 2005*

Bats make up almost one-fifth of all mammal species worldwide. Like us, they give birth to live young. Bats are relatively long-lived mammals and can survive 20 to 30 years in the wild. Of the 17 bat species that occur in North Carolina, seven species are listed as either endangered, threatened or of special concern.

Bats are primarily nocturnal, though they also forage in the early evening and early morning hours. Although most bats have relatively good eyesight, they prefer to use "echolocation" to navigate and locate prey. Their maneuverability is phenomenal—bats can avoid objects as small as a string in total darkness.

Many bats will mate in either the spring or fall and usually produce one pup per year. Many species of bats will form maternity colonies in the summer to raise their young while others prefer to roost solitarily.

Some bat species migrate south for the winter and others find local hibernation areas, called "hibernacula," for the winter. Caves or mines are preferred hibernacula, though they have also been found in buildings and under bridges and will usually return to the same sites every year.

THE BENEFITS OF BATS

Bats are integral to ecosystems worldwide. Tropical bats disperse large amounts of seed and pollen, which aids in plant reproduction and forest regrowth. Northern bat species can have a major impact on controlling insect populations. A nursing female bat may consume almost her entire body weight in insects in one night. Just imagine how many insects an entire colony of bats would consume. Other countries collect bat guano for fertilizer and harvest bats for food and medical purposes.

Despite misconceptions, rabies is not very common in bats. In 2004, the N. C. Department of Health and Human Services documented a total of 581 positive cases of rabies in North Carolina. Of those 581 animals, 338 were raccoons, 113 were skunks, 66 were foxes, 28 were bats, 22 were cats, 7 were dogs, 4 were cows, 1 was a coyote, 1 was a bobcat, and 1 was equine. Therefore, you are far more likely to encounter a rabid raccoon, skunk, or fox in North Carolina than a rabid bat. It is, however, important to remember that bats can become infected and to use caution when you encounter one.

Bats use their tiny claws to cling to vertical surfaces and even hang upside down.

MONITORING BAT POPULATIONS

Some bat populations have been declining all over the United States. Pesticides, persecution and human disturbance of hibernacula and maternity colonies may have contributed to the decline of bat populations. To determine bat distribution and hibernation sites in North Carolina, the N. C. Wildlife Resources Commission conducts monitoring studies in various areas across the state. Through a variety of methods—such as mist netting, trapping, banding and radio telemetry—Commission biologists, in cooperation with the U. S. Forest Service, have surveyed and banded hundreds

ECHOLOCATION

Bats make sounds through their mouth and nose. When the sound hits an object an echo comes back. The bat can identify an object by the sound of the echo. They can even tell the size, shape and texture of a tiny insect from its echo.

of bats in North Carolina. By collecting age, weight and gender information for each bat, Commission biologists can track species distribution and locate hibernation areas to aid in developing effective management plans.

PROTECTING BAT HABITAT

In 2002 the Commission purchased the mineral rights to and acquired a donated conservation easement at Cranberry Iron Mine in Avery County to protect the hibernating population of Virginia big-eared bats, eastern pipistrelle bats, little brown bats, big brown bats and northern long-eared bats. If disturbed during hibernation, bats can expend enough stored energy to prevent them from surviving until spring, which may cause them to die of starvation. The Commission and U.S. Forest Service constructed steel gates at the mine entrances, which prevent people from entering the mine and disturbing the bats, but still allow for free bat movement. To further protect bat habitat the Commission has also been working along side The Nature Conservancy in efforts to acquire land with critical habitats.

EDUCATING THE PUBLIC

Education is another bat conservation tool in North Carolina. Introducing people to bats and their benefits is one way to sustain the bat populations in our state. Publications detailing how North Carolina citizens can help increase the bat populations, such as installing bat boxes or avoiding hibernation colonies, are available to the public. By educating the public, monitoring populations and protecting hibernaculums and maternity colonies, we can provide appropriate management to sustain bat populations in North Carolina.

A Wildlife Commission biologist examines a bat hibernating in the Cranberry Iron Mine. Special gates block human access to the cave system.

HOW YOU CAN HELP

1. Install bat boxes around your home.
2. Plant native plants that attract helpful insects to provide food for bats.
3. Limit the use of insecticides and herbicides whenever possible.
4. Avoid hibernation areas and maternity colonies.
5. Join a conservation organization to remain updated on bat conservation efforts.
6. Educate yourself and others regarding the importance of bats and why they are beneficial.
7. Donate to the N.C. Nongame and Endangered Wildlife Fund.

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