

NORTHERN FLYING SQUIRREL

NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

fact sheet, 2005

The Carolina northern flying squirrel is a relatively small rodent, though it is usually twice the size of the more common southern flying squirrel. Adults are about 12 inches long and weigh less than a pound. Flying squirrels do not truly fly; they glide by outstretching large folds of skin attached to their sides between their front and hind feet. The northern flying squirrel feeds primarily on fungi and lichens but may occasionally forage for insects, seeds and other vegetation.

In the winter, Carolina northern flying squirrels usually nest or den in tree cavities of northern hardwood trees like yellow birch. In the summer, they will occasionally build leaf nests in the foliage of conifers like red spruce, fraser fir, or hemlock.

Female squirrels will usually produce one or two litters a year with an average of four young per litter. They begin nesting in April and bear their young in mid summer. They are active year-round; during especially cold or snowy winters, however, they will “den up” and wait until conditions improve for them to get out and forage.

HABITAT REQUIREMENTS

In the southeastern United States, the Carolina northern flying squirrel can be found only in the Southern Appalachian Mountains in western North Carolina, eastern Tennessee and southwestern Virginia. They live near the boundary of high elevation conifer and northern hardwood forests so they can use both habitats for foraging and nesting areas throughout the year. Unlike its more common cousin the southern flying squirrel, which is common throughout the state, the Carolina northern flying squirrel is only known from nine high elevation areas (in excess of 4,500 feet). It is restricted to relatively small areas of these high elevation sites.



Wildlife biologists examine northern flying squirrels during annual surveys.

STATUS

The fir forests of the high elevation areas where Carolina northern flying squirrels live have been heavily impacted by the balsam wooly adelgid, an exotic insect that kills adult fir trees. For this reason, the U.S. Fish & Wildlife Service listed the Carolina northern flying squirrel on the federal Endangered Species List in 1985 to help protect the small pockets of habitat that remain suitable for nesting and foraging.

MONITORING AND SURVEYS

The N. C. Wildlife Resources Commission began a survey and monitoring program in 1995 to determine the exact range of this species in our state. Since the initiation of this project, the Commission has installed more than 1,000 nest boxes in western North Carolina to sample northern flying squirrels. Nest boxes are placed in areas currently occupied by flying squirrels and in areas that have a potential to harbor a population. These safe nesting sites facilitate capture and data collection and may also aid in population growth and help sustain the viability of flying squirrels in North Carolina.

During annual surveys, Commission biologists capture Carolina northern flying squirrels in the Appalachian Mountains study area. They tag, weigh and determine the sex of each squirrel captured. These surveys allow biologists to monitor known populations and document their distribution and relative abundance. These surveys also provide biologists an opportunity to locate new populations and record their preferred habitat types. These data provide important information for developing habitat prediction models and identifying habitats in need of conservation and management.



This high-elevation mammal does not mind cold and snow. They use shredded bark and other natural materials to keep warm, sometimes in boxes conveniently provided by the Wildlife Commission.

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HOW YOU CAN HELP

1. Do not disturb flying squirrel nests or nest boxes.
2. Contact a licensed professional if you encounter a flying squirrel in your residence.
3. Join a conservation organization to remain updated on current population distributions and conservation efforts.
4. Educate yourself and others regarding flying squirrel biology, distribution and conservation.
5. Donate to the N. C. Nongame and Endangered Wildlife Fund.