

Carolina northern flying squirrel

Glaucomys sabrinus



Carolina northern flying squirrel,
Chris McGrath, NCWRC

Status: Endangered

Description: There are two species of flying squirrels in the Southern Appalachians – the northern (*Glaucomys sabrinus*) and southern (*Glaucomys volans*). Northern flying squirrels are about one-third larger than the very common southern species. Also, northern flying squirrels are brown on their backs, and their fur fades to a buff white on the belly. Southern flying squirrels are grayer on their backs with bright white bellies, and a clearly defined (usually black) line separates the fur colors. The endangered Carolina northern flying squirrel is a subspecies of the northern flying squirrel.

Flying squirrels are nocturnal and have large eyes to help them see at night. They cannot actually fly, but glide by extending a fold of skin that stretches from their wrists to their ankles. The flattened tail acts as a rudder. Carolina

northern flying squirrels are relicts of the last ice age. As the glaciers retreated northward and temperatures rose, remnant populations remained in the suitable habitat left behind on the high mountain tops along the ridges of the Southern Appalachian Mountains.

Northern flying squirrels principally feed on certain fungi and lichens, though they do occasionally eat some fruits and nuts. They're active year-round, but more so in the warmer summer months. They nest in tree cavities in nests made almost exclusively of yellow birch bark, where two to six young are born in early spring. Groups of squirrels often occupy the same tree cavity, particularly in the colder winter months.

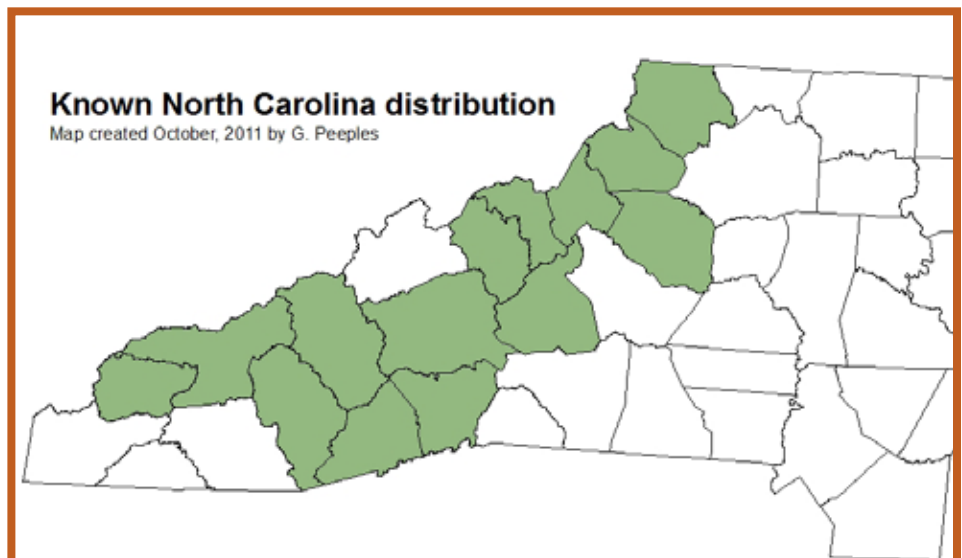
Habitat: Northern flying squirrels are typically found in areas where northern hardwoods, such as yellow birch, are adjacent to the higher-elevation red spruce-Fraser fir forest. These habitats are often moist and cool. Southern flying squirrels are most often found in the warmer and drier mixed oak-pine forests of lower elevations.

Range: Carolina northern flying squirrels are found on high mountain peaks in southwest Virginia, western North Carolina, and eastern Tennessee.
Listing: Endangered, July 1, 1985. 50 FR 26999 27002

Critical habitat: None designated

Threats: The limited and discontinuous range of this sub-species in the Southern Appalachians makes it vulnerable to a number of natural and human-related impacts. Human impacts far outweigh natural threats and include habitat destruction and fragmentation or other alterations associated with the clearing of forests, introduced exotic pests, recreational and residential development, and pollution (heavy metals and acid rain).

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,



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loss of wetlands, and other human-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, and 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:

Tread lightly and stay on designated trails. Vegetation on popular high mountains has virtually been destroyed by human trampling.

Visit arboretums, botanical gardens, and parks and learn all you can about endangered species and the causes of their declines.

Participate in the protection of our remaining wild lands and the restoration of damaged ecosystems.

Be careful with the use and disposal of pesticides and other chemicals, especially near sensitive habitats.

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