



U.S. Fish & Wildlife Service

Delmarva Peninsula Fox Squirrel

(Sciurus niger cinereus)

The Delmarva Peninsula fox squirrel is a subspecies of the Eastern fox squirrel found only on the Delmarva Peninsula; the land between the Chesapeake Bay and Atlantic Ocean that includes Delaware, eastern Maryland and eastern Virginia. This large tree squirrel inhabits the mature forests of this agricultural landscape.

By 1967, the Delmarva fox squirrel, as it is more commonly called, inhabited only 10% of the Delmarva Peninsula and was placed on the very first endangered species list. Its distribution at that time was restricted to three counties with a small historic translocated population in a fourth county.

The squirrel's decline in the mid-1900s was fueled by many factors. Forests were cleared for farms and development, and timber was harvested on short rotations to supply pulp for paper markets, which kept much of the forest in stands too young to provide habitat for this squirrel. Over-hunting of Delmarva fox squirrels may have also played a role in its decline.



Delmarva fox squirrels prefer mixed mature forest with open understory. Photo by Guy Willey

Upon listing the squirrel, recovery efforts focused on expanding the range through translocations, and today there are 11 new translocated populations that continue to thrive. In addition, new populations have been discovered that were not part of the translocations. The newly discovered populations and translocations have resulted in an expanded distribution that now covers 28% of the Delmarva Peninsula.

Description, Habitat and Life History

The Delmarva fox squirrel can grow to 30 inches (with half of that being the tail) and can weigh 1 to 3 pounds. The squirrel's coat is typically a

uniform silver-gray color but can vary to almost black. The only other tree squirrel on the Delmarva Peninsula is the common gray squirrel (*Sciurus carolinensis*). The widespread gray squirrel is smaller (16 to 20 inches), has a narrower tail, brownish gray fur and is often seen in backyard bird feeders and suburban settings. The Delmarva fox squirrel is not typically found in suburban settings and can also be identified by its wide head and short ears.

Although the Delmarva fox squirrel is a tree squirrel, it spends considerable time on the ground foraging for food in woodlots, and will take food from farm fields as well. Less agile than the gray squirrel, the Delmarva ambles along the forest floor more than leaping from branch to branch. They are also quieter than the common gray squirrel.

The Delmarva fox squirrel occurs in mature forests of mixed hardwoods and pines, with a closed canopy and open understory. The large trees provide abundant crops of acorns and seeds for food, and cavities for den sites. Like other subspecies of fox squirrels, the Delmarva eats a wide variety of food such as acorns, walnuts, maple flowers, and pine cones, as well as fungi and crops from nearby fields. The home ranges of Delmarva fox squirrels vary considerably, but average about 40



Gray squirrel (left) photo by Charisa Morris USFWS, and Delmarva fox squirrel (right) photo by Richard Webster USFWS

acres. Individuals have been known to live at least seven years in the wild. In the spring, females have litters that range from 1-6 young (average is 4) in tree cavities or sometimes in nests of leaves.

Recovery Progress

A major focus of the recovery effort has been to increase the population size and distribution of this species by re-establishing populations within the historic range. Following a study of the historic distribution, 16 reintroductions were made in Maryland, Delaware, Virginia and Pennsylvania. Eleven of these reintroductions have succeeded 15-20 years after their establishment with evidence of growth and expansion; a high success rate for an endangered species.

An expanded range has also resulted from discoveries of Delmarva fox squirrels in new areas where they were previously unknown. Thus their distribution has increased due to natural expansion and reintroductions. Currently the Delmarva fox squirrel occurs in eight counties on Maryland's Eastern Shore, Sussex County in Delaware and Accomack County in Virginia (Chincoteague National Wildlife Refuge).

Many studies of the squirrel revealed that this species has high site fidelity and persistence on the landscape. The presence of Delmarva fox squirrels in a woodlot is not erratic as they tend to be present for long periods of time. They also can tolerate small timber harvests fairly well if there is adjacent mature forest nearby and can use forests with a wide variety of tree species, as long as the forest is mature.

Monitoring changes in the population of this quiet, reclusive animal is challenging and several techniques are used. Trapping and marking live animals has been conducted for many years at several sites on National Wildlife Refuges and this provides

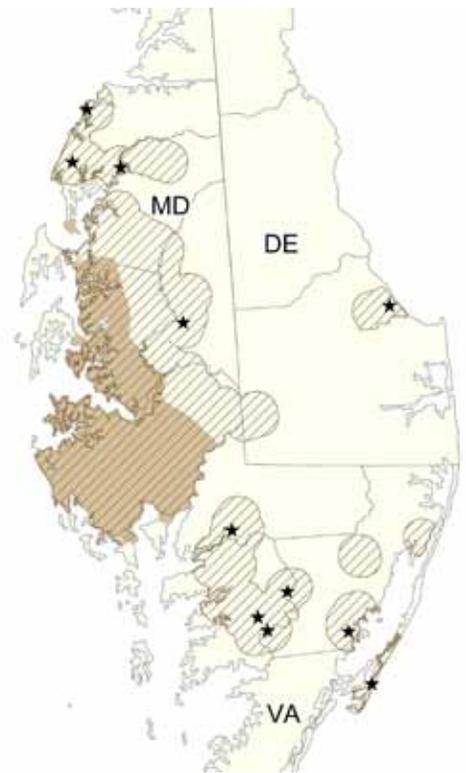
information on the population dynamics of these animals. Cameras placed in the woods detect the presence of Delmarva fox squirrels faster and easier than trapping with less stress to the animal. Thus cameras are generally used to determine presence or absence in a particular woodlot. Determining the presence or absence of Delmarva fox squirrels in woodlots over time allows an understanding of their persistence on the landscape.

Finally, the total range of this animal is understood from mapping the sightings of Delmarva fox squirrels made by many observers across the landscape. This animal is often seen by deer hunters in tree stands, farmers working their fields and other observers who live and work on the landscape. The reports of sightings, in addition to the trapping and camera data, provide the most information on where they occur on the landscape.

The Future for Delmarva Fox Squirrels

The Delmarva fox squirrel is now found in 10 counties across 28% of the Delmarva Peninsula, and the total population is estimated to be about 20,000 animals. A recent analysis of its status and potential threats found that the overall abundance and range-wide distribution of the species makes it resilient to losses that might occur from development, sea level rise or other threat. In addition, there are many existing state laws and programs that protect habitat for the squirrel. The review concludes that the squirrel is no longer at risk of extinction and recommends removing it from the list of endangered and threatened species. The U.S Fish and Wildlife Service has begun working on this proposal.

Where Might You See a Delmarva Fox Squirrel?



Delmarva fox squirrels have expanded from translocation sites (stars) and Recovery Plan Range 1993 (solid) to current distribution (striped)

To see a Delmarva fox squirrel and learn more about this unique resident of the Delmarva Peninsula, visit any of the following National Wildlife Refuges in the area: Blackwater (Dorchester County, Maryland); Chincoteague (Accomack County, Virginia); and Prime Hook (Sussex County, Delaware). Also be on the lookout in the woods and field edges throughout its range.

For more information, contact:

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