

Nutria (*Myocaster coypus*). Not as abundant as the muskrat; found throughout the marsh. Larger than a muskrat, it is sometimes mistaken for a beaver.

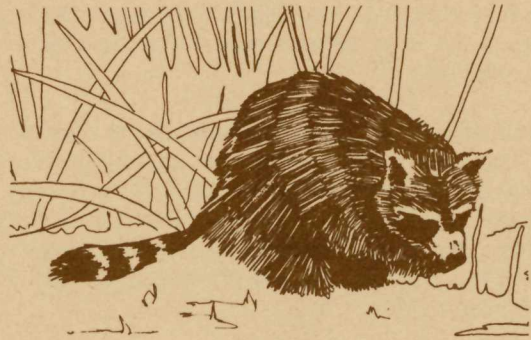
Black Rat (*Rattus rattus*). Uncommon.

Norway Rat (*Rattus norvegicus*). Common.

House Mouse (*Mus musculus*). Common around refuge buildings and in wild.

Red Fox (*Vulpes fulva*). Common, but seldom seen. Inhabits wooded and brushy areas where it feeds on rabbits, rodents and birds.

Gray Fox (*Urocyon cinereoargenteus*). Uncommon. Prefers the heavily wooded areas.



Raccoon (*Procyon lotor*). Very common in all wooded areas bordering water. Its varied diet includes fish, frogs, rodents, eggs, insects and plants.

Longtail Weasel (*Mustela frenata*). Common in brushland, fields, and marsh.

Mink (*Mustela vison*). Uncommon. May be found in all aquatic habitats.

Striped Skunk (*Mephitis mephitis*). Common in brushy areas of refuge.

River Otter (*Lutra canadensis*). Uncommon, but occasionally seen along banks of Wildlife Drive.

Sika Deer (*Cervus nippon*). Uncommon but increasing. Found in the more secluded areas of the refuge.

White-tailed Deer (*Odocoileus virginianus*). Abundant. May often be seen at dusk in tree-bordered fields.

A HYPOTHETICAL LISTING OF SPECIES BASED ON REPORTED RANGE.

Keen's Bat (*Myotis keenii*).

Silver-haired Bat (*Lasionycteris noctivagans*).

Eastern Pipistrell (*Pipistrellus subflavus*).

Big Brown Bat (*Eptesicus fuscus*).

Hoary Bat (*Lasiurus cinereus*).

Evening Bat (*Nycticeius humeralis*).

Southern Bog Lemming (*Synaptomys cooperi*).

Meadow Jumping Mouse (*Zapus hudsonius*).

NOTES

Location _____

Date _____ Total _____

Observers _____

Weather _____ Wind _____

Time _____

For further information contact:

Refuge Manager
Blackwater National Wildlife Refuge
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Cambridge, Maryland 21613
Phone: (301) 228-2677

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U. S. administration.



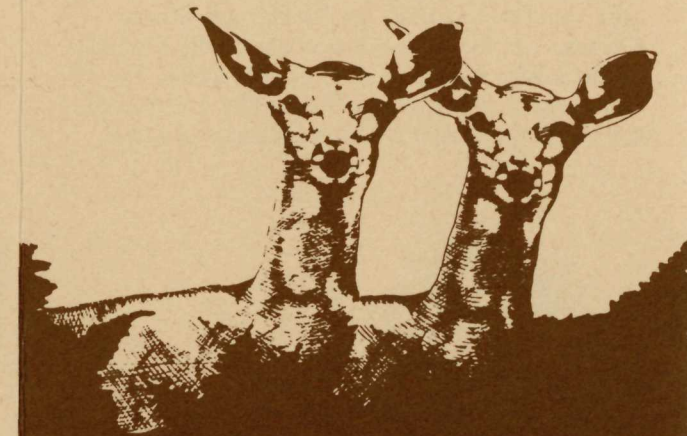
DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE



August 1979
RL 51530-3

MAMMALS of BLACKWATER

NATIONAL WILDLIFE REFUGE



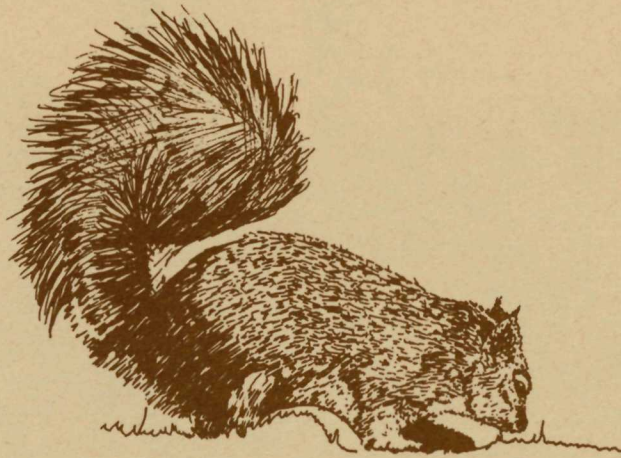
CHESAPEAKE BAY
MARYLAND

WELCOME

BLACKWATER NATIONAL WILDLIFE REFUGE is located on the Eastern Shore of Chesapeake Bay in Dorchester County, Maryland, about 12 miles south of Cambridge. Established in 1933, the refuge consists of 14,287 acres of brackish marsh, freshwater ponds, and brushy and timbered swamps. The wooded areas are predominately loblolly pine and mast producing hardwoods; three-square bulrush is the dominant vegetation in the marsh.

Although the mammals of Blackwater are often overlooked in favor of the more abundant and conspicuous bird-life, the refuge hosts a wide variety of mammalian forms ranging from the marsupial opossum to the hoofed white-tailed deer.

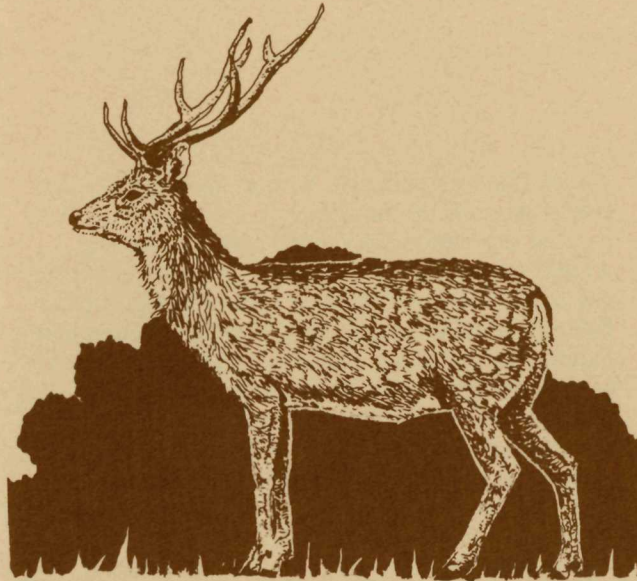
One species worthy of special note is the large, grizzled gray Delmarva fox squirrel. Currently listed as an endangered species, this squirrel is found only in a few localities on the Eastern Shore. Common on the refuge, it is occasionally observed in the woods bordering the Wildlife Drive. Forest management programs at Blackwater are oriented toward perpetuation of this handsome squirrel.



Two other rather unusual residents are the nutria and sika deer. The nutria, a large aquatic rodent introduced from South America, is present through-

out the marsh. Brought into Maryland in the 1940's for use on fur farms, the nutria eventually reached the wild where they adapted to the climate of Blackwater.

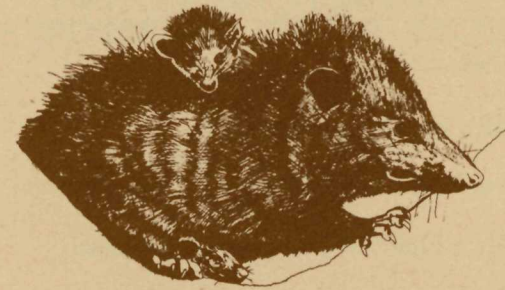
The sika deer, actually an oriental species of elk, was introduced onto James Island in Chesapeake Bay about 1916. They are now quite common in southern Dorchester County. Shorter and darker than the white-tailed deer, this animal prefers the more secluded areas of the refuge.



The following list of 30 species is based on observations by refuge personnel and a report prepared by John L. Paradiso of the U.S. Fish and Wildlife Service. Eight additional species are listed as hypothetically existing on the refuge since it is within their range. Scientific names and the order in which they appear follow Miller and Kellog, List of North American Recent Mammals (U.S. National Museum Bulletin 205), while common names were taken from Burt and Grossenheider, A Field Guide to the Mammals. More detailed information on the following species may be obtained from Paradiso, Mammals of Maryland, North American Fauna, No. 66 (U.S. Fish and Wildlife Service, April 1969).

ANNOTATED LIST OF MAMMALS OF THE BLACKWATER NATIONAL WILDLIFE REFUGE.

Opossum (*Didelphis marsupialis*). Common in wooded areas and wood margins. Occasionally seen along roadsides at night. Omnivorous - eats both plant and animal food.



Masked Shrew (*Sorex cinereus*). Uncommon.

Least Shrew (*Cryptotis parva*). Common in the marsh.

Shorttail Shrew (*Blarina brevicauda*). Common in damp woodland soil habitats.

Star-nosed Mole (*Condylura cristata*). Common in damp soil.

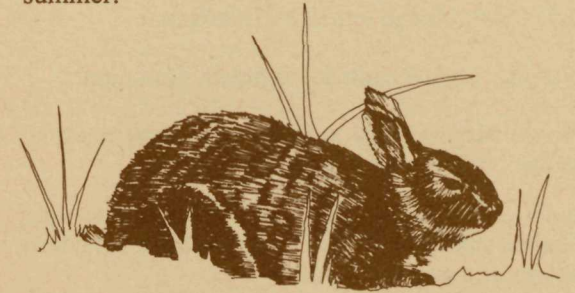
Eastern Mole (*Scalopus aquaticus*). Common in cultivated fields.

Little Brown Bat (*Myotis lucifugus*). Common. Roosts in hollow trees.



Red Bat (*Lasiurus borealis*). Common in woodlands.

Eastern Cottontail Rabbit (*Sylvilagus floridanus*). Very common in brushy thickets bordering roads and dikes. Frequently seen during spring and summer.



Gray Squirrel (*Sciurus carolinensis*). Common throughout refuge woodlands. Prefers nut-producing hardwood trees. More arboreal than the Delmarva fox squirrel.

Delmarva Fox Squirrel (*Sciurus niger cinereus*). Common in wooded areas that contain little or no underbrush. Distinguished from gray squirrel by its larger size. The coloration varies but is usually light gray. This squirrel spends more time on the ground than the gray squirrel and often feeds in corn and soybean fields.

Southern Flying Squirrel (*Glaucomys volans*). Seldom seen because of its nocturnal habits.

Rice Rat (*Oryzomys palustris*). Common throughout the brackish marshes.

White-footed Mouse (*Peromyscus leucopus*). Abundant in wooded and brushy areas.

Meadow Vole (*Microtus pennsylvanicus*). Abundant in marsh where it will build its nest in muskrat houses.

Pine Vole (*Pitymys pinetorum*). Common on all dry land habitats.

Muskrat (*Ondatra zibethicus*). One of the most abundant mammals at Blackwater. Their large dome-shaped houses may be seen throughout the marsh.