

A Vanishing Animal

" *When the last individual of a race of living things breathes no more, another heaven and another earth must pass before such a one can be again.*"

William Beebe, Scientist

DID YOU KNOW?

That **threatened** means: Any native species of plant or animal that might become endangered unless people help it survive.

That **endangered** means: Any native species of plant or animal that might become eliminated throughout all or a significant portion of its range due to human action.

That the list of threatened and endangered species is compiled by COSEWIC (Committee on the Status of Endangered Wildlife in Canada) and includes mammals, plants, reptiles, amphibians, fish and plants.

GENERAL DESCRIPTION

Few people have ever seen an American marten (locally known as the pine marten or marten cat) on the island of Newfoundland. This is because there are very few left to be seen. The species was listed as *threatened* in 1986, and *endangered* in 1996 due to declining numbers. It is estimated that about 300 remain on the Island.

About the size of a small housecat, the marten has a long, slender body, a small head with a short, pointed muzzle, large rounded ears and dark brown eyes. Dark brown fur, a paler head and yellowish-orange patch on the throat and chest distinguish the marten from others in the mink/weasel family. In summer the marten's coat becomes lighter as it sheds its winter fur. New fur growth begins in late summer and is completed by late October. Its legs are short, but the feet are large and furred, complete with sharp claws that help the marten climb trees. Males have an average length of 50 to 63 cm (20 to 25 in.) including a 17 cm (7 in.) tail. Their average weight is 1100 g. (2.4 lb.). Females average 46 to 56 cm (18 to 22 ins) including a 15 cm (6 in) tail. The average weight is 750 g (1.6 lb.).

The marten is part of the Mustelid family that includes wolverine, otter, skunk, mink and weasel. Both sexes have two types of scent glands: the anal gland, located under the tail, and the abdominal gland, found under the skin of the belly. Marten drag their bellies over logs and vegetation using the abdominal gland to mark their territories.

Native to the Island, marten have probably resided here since the last glaciations over 10,000 years ago. Our Island geography has meant that the gene pool has been isolated. This has probably resulted in a race of marten not found anywhere else in the world.

There is some debate as to whether the island population is a separate subspecies. Studies on skulls and DNA are currently underway to try to resolve this debate. As the debate continues, one thing is certain; the loss of the Newfoundland marten would represent a loss of genetic diversity, which would further reduce the biodiversity of Canadian fauna (animal life).

THE CONTINUING DECLINE

Historical references to marten were reported from most parts of the island and date back to at least 1795. In 1830 to the 1840's, hundreds of pelts were being shipped annually from the island. The major factors contributing to their early decline include habitat loss and over-trapping. Their keen sense of smell and great curiosity allowed trappers to take them regularly until declining numbers resulted in the permanent closure of the trapping season in 1934.

In an effort to help marten expand to new areas, they were introduced to Main River in 1976 and 1978, to LaPoile River Valley and Sceviour Island in 1975, and to Notre Dame Bay in 1976 and Terra Nova National Park (TNNP) in 1982, 1983, 1998 and 1999. It appears that most of these introductions were unsuccessful. The introduction to Main River and TNNP may have been the exceptions.

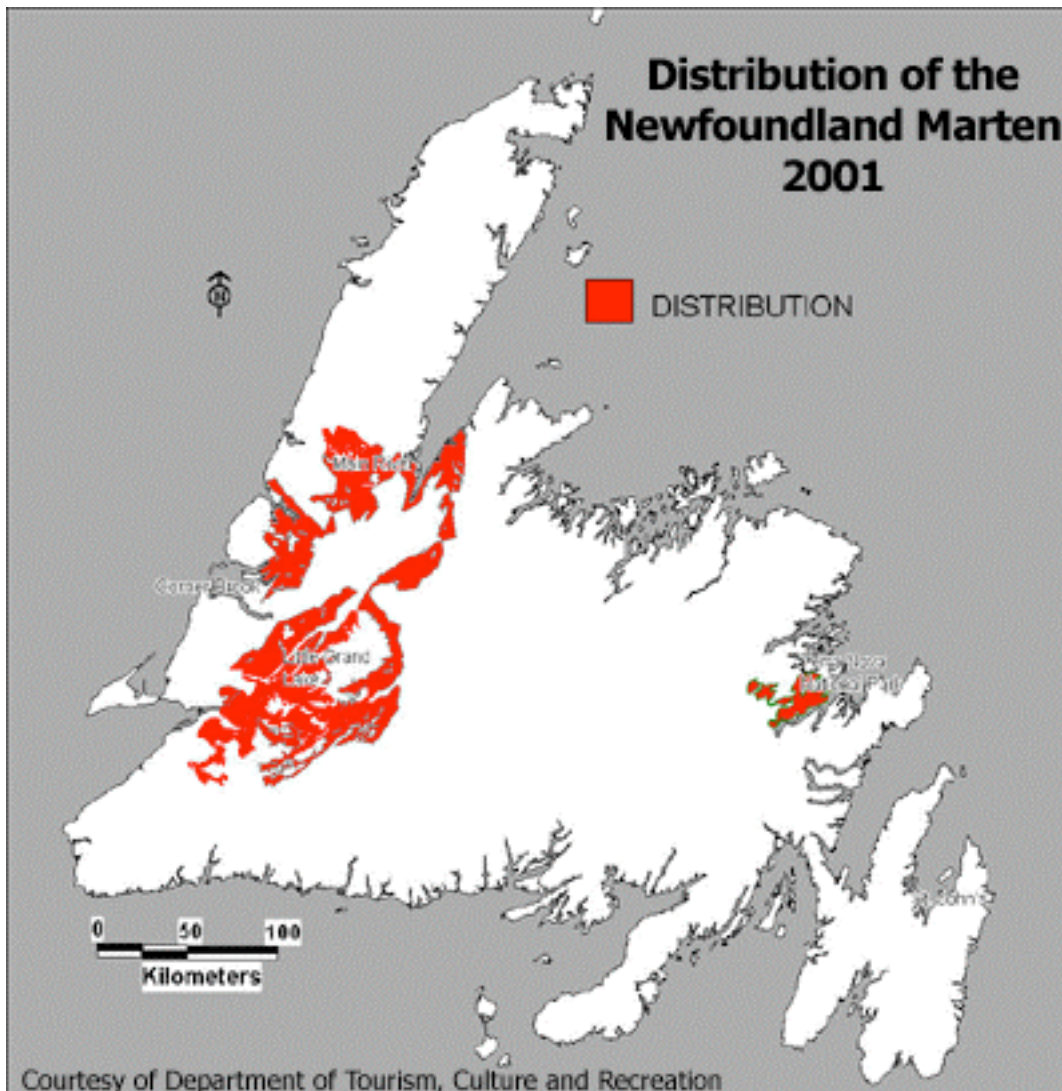
DID YOU KNOW?

- The most important prey of the Nfld. pine marten is the meadow vole, the only small rodent native to the Island. Snow insulates and protects small animals like the voles from sub-zero temperatures. A cold winter with little snow cover can kill voles resulting in a decrease in the already jeopardized marten population.
- In Newfoundland, the natural predators of marten include lynx, great horned and hawk owls and red fox.

PRESENT STATUS

In Canada, marten are no longer found on Prince Edward Island, or in the developed areas of southern Ontario and Quebec. In Nova Scotia, where numbers are low, they are completely protected. Elsewhere in Canada, there are enough marten to allow controlled trapping. In the United States, they can be found in Maine, New England States, the Great Lakes states, in some western states, and as far south as Northern New Mexico and central California. In Labrador, marten are found in most forested areas, where they are trapped for their pelt. On the island of Newfoundland, they are found in areas surrounding Little Grand Lake, Red Indian Lake and Main River on the west coast. On the east coast, there is a small population in Terra Nova National Park area.

In the early 1980s, it was estimated by the Provincial Wildlife Division that there were between 630 and 875 marten on the island. Recent data indicate that there are now about 300 marten on the Island. However, marten are still common in Labrador.



The above map shows the current distribution of Newfoundland marten. The highest concentration is in the lower portion of the shaded area near Little Grand Lake and Red Indian Lakes.

HABITAT

Marten appear to prefer habitat with a structure associated with an over-mature forest. There they find older trees with a number of dying or dead trees scattered on the forest floor, or leaning on other trees. They appear to prefer thick shady woods with a dense canopy and may avoid large openings or clearings. For denning and nesting sites, marten use hollow trees, stumps, logs and rock crevices.

In its first year, a young marten may travel long distances searching for a place to call its own. Once found, the established territory is defended against other marten of the same sex. In good habitat, when food is plentiful and easily found, a female may have a territory approximately 15 sq. kms., while a male may have an area double that of females.

DID YOU KNOW?

- Most rabbit snares are now made of stainless steel, which does not corrode. Left in the forest after the season closes, they continue to kill marten.
- The world commission on the Environment called on all nations to strive to protect at least 10% of their natural environment.

FOOD

Marten are carnivores, or meat-eaters, whose main foods are small animals such as meadow voles, shrews, snowshoe hare, red squirrel and birds. They also feed on berries, bird eggs, insects and carrion when available. Marten hunt during both at night and day, and will rest in trees or dens. They do most of their hunting on the ground, but are agile tree climbers. Marten stay active all winter. They hunt small mammals under the snow by using natural crevices around stumps or fallen trees. When the forest is clear-cut, the snow layers change, eliminating the natural avenues to their winter food source.

BREEDING BIOLOGY

Marten reach adult size at about three and one half months of age. Females are usually over two years old before they have their first litter. Generally loners, they come together only briefly during the mid-summer breeding season, often mating with several partners.

Birth occurs 220-276 days after fertilization. For most of that time, the egg is in a resting state, known as *delayed implantation*. The active pregnancy lasts only about one month.

The kits are born in March/April, weigh about one ounce and for the first two to three weeks they are blind, deaf and naked. The mother's den usually consists of an underground crevice or cavity. Sometimes, marten will take over a squirrel's nest or even use a woodpecker's nest in an old snag tree.

RESEARCH AND MANAGEMENT

The Inland Fish and Wildlife Division established a Marten Study Area in 1973 around Little Grand Lake on the western portion of the Island to protect marten from accidental snaring and trapping. In 1999 the Government of Newfoundland and Labrador announced its intention to protect the habitat in the area by establishing a system of reserves, which now includes Glover Island. All trapping (except for beaver) and snaring is prohibited in the area to protect marten from accidental capture. Within this area, studies are being conducted to learn more about the marten's food habits, reproduction, age structure, habitat choice and overall health.

Outside protected areas, marten often get caught in rabbit snares and other traps. These snares and traps often result in death for the marten. In several areas where marten are trying to recover, the use of modified rabbit snares and modified traps is mandatory. The modified rabbit snare will snare rabbits and allow marten to escape. The modified trap is also designed not to capture marten.

The Inland Fish and Wildlife Division, in cooperation with the Canadian Forestry Service, Corner Brook Pulp and Paper, Abitibi Consolidated and Western Newfoundland Model Forest is currently funding projects that will provide answers to help marten. One of these projects is a 5 year study, the largest marten project ever conducted in Newfoundland, and involves the Little Grand and Red Indian Lake populations. The results from this project will provide needed information on issues such as home range sizes, impacts of trapping and snaring, and the habitat needs of the Newfoundland marten.

Since the re-introduction of eight marten in the early 1980's, Terra Nova National Park has been involved in studying marten. Since 1996 Terra Nova National Park has been working in partnership with the World Wildlife Fund and the Inland Fish and Wildlife Division. Marten have been successfully live-trapped in the park. These marten were outfitted with radio-collars and monitored in an effort to determine the size and distribution of their home ranges and preferred forest types. Evidence of breeding success has been determined from this monitoring effort.

Despite live-trapping effort in and outside of the Park, all trapped marten were from within the national park. The home ranges of these marten fall almost entirely within the park boundaries. The fact that no marten were trapped outside the park, illustrates the

value of protection to the Newfoundland marten. In order to establish a healthy population of marten in this region of eastern Newfoundland, it may be wise to extend management of marten beyond the park.

MARTEN RECOVERY PLAN

A Newfoundland Marten Recovery Team is in place. The team's goal is to develop and monitor the implementation of a plan which will restore the marten population to a point where it is no longer considered in danger of extinction. Some of the issues dealt with include habitat requirements and protection, accidental snaring and trapping and captive breeding. In 1995, as part of the recovery plan, a Newfoundland marten breeding program began at Salmonier Nature Park. Four females and two males were taken in the vicinity of Red Indian Lake in September of that year to be used as breeding stock. In April of 1996, three litters totalling seven young were born to these wild-mated females. There were no additional litters produced in 1997 or 1998. In 1999 the first captive bred marten litter was born at Salmonier Nature Park. It is anticipated that any young born at the Park will be used to re-populate suitable unoccupied marten habitat or will be recruited to the captive breeding program. Additional animals have been added to augment the breeding program.

DID YOU KNOW?

- Worldwide loss of habitat (not poaching or hunting) is the largest contributing factor to the loss of wildlife. Other causes include: environmental pollution, disruption of migration routes and breeding behaviors, and illegal trade of protected animals and animal parts.

SOMETHING TO THINK ABOUT

Habitat loss, rabbit snares, accidental trapping, disease, and the possible scarcity of food are all thought to hinder marten recovery. Habitat which is a key component to the survival and recovery of the marten must be taken into consideration and sufficiently protected when planning and carrying out wood harvesting operations in areas frequented by marten or in areas slotted for their recovery. Suitable forested areas need to be reserved as marten refuges, and additional areas need to be managed to ensure that components of mature forest are always available at a landscape level.

The accidental capture of marten in traps and snares set for other animals may be limiting their expansion into other areas. For example, of the six wild marten captured for the breeding program at Salmonier Nature Park, two had rabbit snares embedded on their

bodies. One died as a result of the embedded snare. Of the six live trapped at Terra Nova National Park, two had snare wire marks on their abdomens. In 1998 two radio-collared marten died in Terra Nova area. One death was confirmed due to a rabbit snare; the cause has not been determined for the second case.

Newfoundlanders have a unique opportunity to manage the forest for the long term sustainability of all species, including the marten. The marten is one of only fourteen mammals that are native to Newfoundland. By comparison, Nova Scotia has forty land mammals. We must ensure that future generations have a chance to know this unique little mammal of the Newfoundland forest.

On a global scale, our challenge is to find room on our beautiful planet for all living creatures, as all creatures are needed to help keep our planet healthy.

WHAT YOU CAN DO:

- * Learn about the Newfoundland pine marten.
- * Inform others about the marten's plight.
- * If you use modified snares, check them daily, and remove them at the end of the season.
- * Save trees and marten habitat by not wasting paper and by reusing and then recycling paper.
- * Join a local wildlife, natural history or conservation group.
- * Write letters to public officials, let them know that protecting endangered species is important to you.
- * Report any accidentally trapped marten to your nearest conservation official.

Credits: Inland Fish and Wildlife Division, Government of Newfoundland and Labrador, 1999.

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