

MARTEN NEST BOXES

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The best way to harvest marten is to set in an area where the population is high. That's right, marten are not hard to catch but when there are none around, even the best technique is ineffective and useless.

In the region of Lanaudière, Quebec, some trappers used to harvest over two marten per square kilometre during the 1980's. Today, this is not the case. Rare are trappers that capture more than 10 marten per year. One of the reasons is the traplines are smaller, between 10 to 60 square kilometres, and are subject to intensive logging. Therefore, the forests are young and marten populations are low.

We know that marten need food and shelter to live. Food source for marten is plentiful in young forests (mice, hare, birds, berries) but shelters for breeding females to raise their young ones are rare or non-existent. Usually, breeding females will use a cavity in a tree, for example, the hole made by a woodpecker. The hole must be big enough to live in but small enough so the predators (fishers, owls) will not be able to get to them.

Since 1990, with a couple friends, I have been experimenting the use of artificial nest boxes. We built several models. By trial and error, we kept the one model that works best. We installed 15 during the winter of 1994. To our great surprise, almost half were used in the following months.

There have been two exceptional years. In 1996, none were used. We believe that the breeding females didn't reproduce that year because the harvest was very low during the 1996-97 season. We know that there is a high-low cycle of 9 to 10 years in marten's prey (mice, hare). That cycle seriously affects marten reproduction rates. It is very likely that 1996 was a year of low cycle. The same happened in 2004, barely 20% of the nest boxes were used and harvest was low in the fall of 2004 in the region of Lanaudière. All nest boxes were used during all other years.

Description of the Artificial Nest Box

The model we chose resembles a marten box used with a 120 Conibear. The only difference is we added a board instead of the mesh screen and another board instead of the opening for the trap. Therefore, we have a rectangular box, closed on the six sides.

What is important is the position of the entrance hole, either at the end of the horizontal box or at the top of a vertical one. It is very important to make the hole of proper dimension. For the areas south of the 48th parallel, the hole must have a diameter of 2 inches (5 cm). To the north, it's best to make it a little bigger, 2.5 inches (6 to 7 cm) considering that northern



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We haven't noticed any difference in the use of the nest boxes set horizontally or vertically.

marten are bigger. The hole must not be too big. This is to prevent the males and predators entering the box.

The dimensions of the box are 6 x 6 inches, 14 to 16 inches long or high. If the box is too small, the marten will not be able to set up inside. If it's too big, the breeding female will not be able to keep her little ones warm during the cold nights in April. Make sure all the joints are watertight to prevent rain or light from getting into the box. The wood must be clean (no glue, paint, fiberglass, cement, etc) and of grayish colour (old wood left in the sun).

Where to install the nest boxes?

Answer: in the forest. The most efficient way to look for and find the best places for the nest boxes is to use an aerial photo or a recent forestry map. By forest, I mean: you must have a one-part surface area greater than 0.7 square kilometres. Trees along water edges or patches left by loggers do not count.

The forest must also present a surface greater than 16 square metres per hectare and trees must have a height greater than 9 m (30 ft). With a surface greater than 16 square metres per hectare, we have the impression of walking in the forest. Under 16 square metres per hectare, it feels like you're walking through a piece of industrial land or urban park. Visibility is greater than 200 metres.

Ideally, the nest boxes should be installed at approximately 100 metres from a creek with a good alder edge. Marten look for alder in the spring.

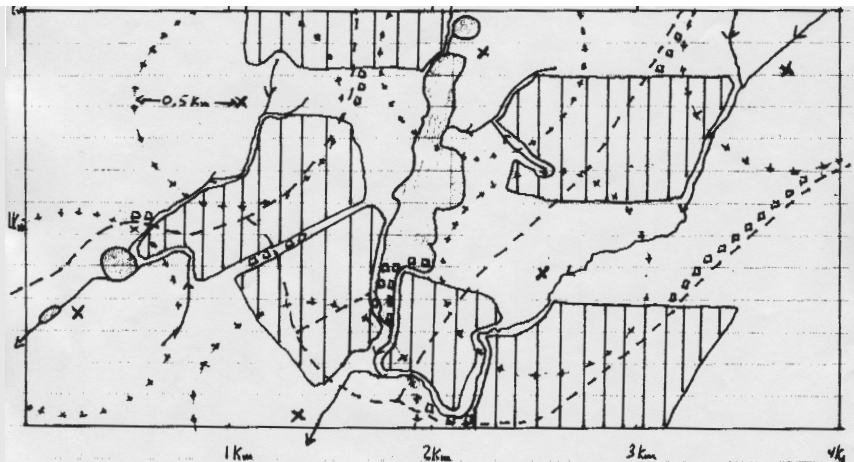
Nest boxes must always be installed in deciduous trees. Avoid coniferous because they produce resin that damages the marten's fur. My preferred choices are yellow birch and white birch and it's best if you can set up the box on the south side of the tree. The sun will help keep the tenants warm.

They must be installed at a height greater than 3 metres, measured from the top of the snow. If there's one metre of snow on the ground, the box will be set at 4 metres. The horizontal boxes are easy to install in the fork of a tree and it's easy to install the vertical ones directly to the trunk of a tree.

Finally, it's important to leave one kilometre between the nest boxes. It reduces the competition between the females.

Trapping

The principle is for the trapper to harvest the young born in the nest boxes and avoid the females. For that reason, it is very important not to set any traps within a radius of 0.5 km from the nest boxes. That is the breeding female's territory. As they are territorial and have a life expectancy of more than 15 years, we are expecting that the production of each nest box will be



***This is an example of a forestry map. Scale 1:20,000
Location of 6 marten nest boxes***

- X: Nest boxes
- ++++: Breeding female territory (do not set traps)
- Waterway
- Road

preserved and steady in the future. In the fall, we have captured between two and three juvenile marten per nest box.

Tips

In March, when you have a hard snow crust, it's easy to go around on your skidoo and put up your nest boxes. Then it is very important not to disturb the breeding females between the end of March and the end of June.

Early August, it's exciting to go see if the nest boxes have been used. On some of the boxes, we've even added a little door at the back to check if there have been any tenants. If this is the case, there should be a lot of marten hair mixed with grass, leaves and wood chips. The nest boxes are always clean. Don't worry if the birds or squirrels are using the nest boxes. The female marten will fix that problem.

Finally, it is suggested to feed the female marten at the end of the winter; for example, with beaver carcasses placed in their territory. These carcasses should be disposed of at approximately 0.3 km from the nest boxes to avoid predators from finding the female marten.

Addendum

I stored a nest box under my trap camp for several years. My camp is built on piles approximately four feet high. I use that space for storage. Believe it or not, a female marten used the nest box for two years. For fun, I placed a beaver carcass on a stump about 20 feet in front of the camp. Practically each morning for two seasons, the marten would come out from under the camp and snack on the beaver carcass. Just imagine having coffee in the morning watching a marten in action just a few feet away! For some unknown reason, she disappeared. The added bonus - there were no mice to be found around the camp.