

The Manes Bat House



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The Manes Bat House is located in a clearing on an island among the Thousand Islands region of the St. Lawrence River. It stands away from an existing summer house poking just beyond a cluster of trees.

When homeowner Susan Manes decided that she wanted to remove the approximately 2,000 - 3,000 bats that were living in the attic and walls of her house, she did something that most people wouldn't even consider. She built a house for the animals, knowing the tremendous benefit they provide to the local ecosystem.

Bats help control the insect population by each consuming thousands of insects a night. However, most people overlook the major role bats play in nature. A popular misconception is that the majority of bats have rabies and should be considered dangerous. This is untrue, and it is

a harmful way to think about the beneficial creatures. Bats are mammals, like humans, and seek a type of habitation that is warm and dry. While it can be annoying that bats do choose to roost in the attics of houses, this is not a reason to harm them.

Fortunately, there has been an increased interest nationwide to find a solution to this problem. Mrs. Manes wanted to construct a home for the bats that would be away from her house, so she approached a local Design/Build company, *Steve Taylor - Builder, Inc.* to help her. Having never attempted this type of project, STB consulted a handbook provided by the *Bat Conservation International* (a non-profit group based in Austin, Texas) that outlined basic construction techniques for bat houses. These included using 3/4" wide chambers, 2' deep for the bats to roost in. This gives the animals

enough space to move up or down in the house depending on what temperature they prefer. Another technique included creating a "sandwich" of plywood layers to increase the surface area and allow more bats to roost. The BCI handbook provided plans for small houses that could hold up to 100 bats. However, Mrs. Manes had such a large quantity of bats that STB had to modify the design.

The design of the bat house consisted of a repeated pattern of three individual houses that together made up a unified whole structure. Reminiscent of a Japanese temple, or pagoda, the structure was meant to be both sculptural and functional. Since the houses increase in size from the top down, the guano from the bats is able to fall free of the structure. The guano can then be collected and used for fertilizer in nearby gardens.



[Steve Taylor]

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1 View of Ojibway Island from the southwest.

2 The Bat House standing above foliage on back side of the island.

3 The disassembled roofs are sent to a roofing company to be clad in copper.

4 The pieces of the house are shipped by scow to the island for assembly.

STRUCTURE

The entire bat house (except for the posts) was constructed in the shop first, disassembled and reassembled at the site. This meant that the entire assembly had to be well thought out before it was transported. First 1/2" plywood panels were cut into pieces and plastic mesh was attached to the back side (to make it easier for the bats to climb up into the house, see photo 10). Then the pieces were assembled into modules, one for each side of each house (see photo 9). Each of the three houses were then assembled on the floor of the shop, and framing for each of the roofs was completed (see photo 8). The roofs and exterior panels were then taken apart and sent to a roofing company to be clad in copper. All the pieces were then loaded onto a scow and shipped out to the island for final assembly (see photo 4). At the site, the 20' long 6x6 Douglas fir posts were then cut to match the contours of the ground to provide a level base. The posts were bolted to bedrock for rigidity. A scaffolding was built off of the four 6x6 posts and the uppermost house was attached, roof first (see photo 7). Working down, the rest of the roofs and sides were attached. Finally, a mixture of bat guano and water was sprayed up into the slots to attract bats to the new homes.

5 Each of three houses are attached one side at a time to the four 6x6 posts.

6 Framing the roof of uppermost house

7 Scaffolding was built on the 6x6 posts in order to install the roof and sides of the uppermost house.

8 3/8" plywood sheets are used for the roof to be able to bend to the slight curve in the frame.



[Jeremy Greene]

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