

# EXTENSION NOTES



## BUILDING NESTING PLATFORMS FOR OSPREYS

Although they were once scarce in Ontario, ospreys have made a striking comeback in recent years. Thanks to concerned people working together to build and install special nesting platforms, these large brown and white fish hawks are now a familiar sight along many waterways.

This Extension Note provides information on how to construct and install two types of nesting structures — the single-poled platform and the quadropod platform.

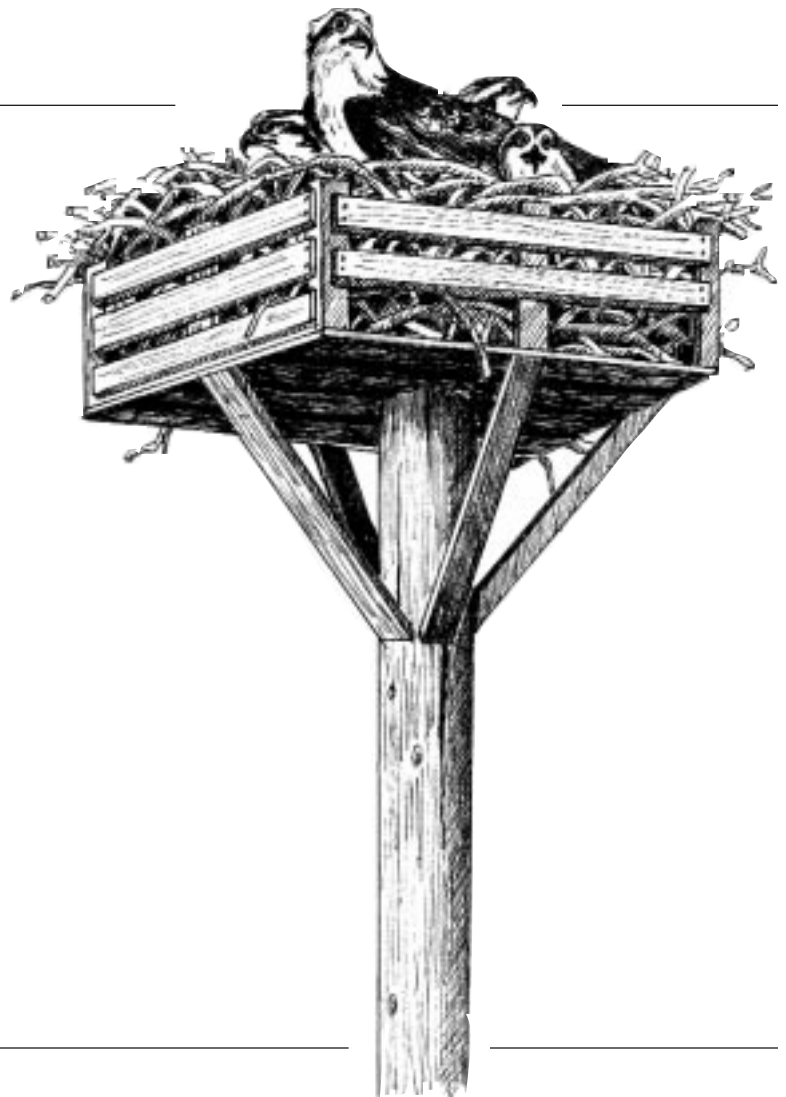
### THE OSPREY STORY

Ospreys are found across Canada and in most parts of the world. In Ontario, they nest in regions as far north as Algonquin Park.

During the 1950s and '60s, osprey populations dropped dramatically in the province. Pollutants, such as the insecticide DDT, had contaminated many waterways and were accumulating in fish. Because fish are an important source of food for ospreys, they too were affected. Fortunately, the use of DDT was banned in Ontario in 1974.

Today, ospreys are returning, but only to face another obstacle. Ospreys generally build their nests in tall, isolated trees that are close to shallow bodies of water. During their 20-year absence, many of these natural nesting sites were destroyed, forcing some ospreys to nest on hazardous structures such as hydro poles and television towers.

For the past few years, the Ministry of Natural Resources, along with groups of concerned citizens from Georgian Bay to the St. Lawrence River, have embarked on a campaign to build nesting structures specially designed for ospreys.



## BEFORE YOU START

Erecting platforms in lakes and rivers may require a permit. Before you begin, contact the Ministry of Natural Resources for more information. Other agencies, such as

Parks Canada and local conservation authorities, may also have to be informed.

## NESTING PLATFORMS

There are different types of nesting platforms for different site conditions. The quadropod is designed to be placed directly in the water, while the single-poled structure is designed for use on land.

When choosing a site for a nesting platform, consider the following:

- Ospreys feed almost exclusively on fish. Sites should be no more than three kilometres from shallow bodies of water — 50 metres is ideal.

- Platforms should be erected in open areas, giving the osprey room to build a nest as well as to protect it from predators, such as raccoons and owls.
- Sites should be sheltered from prevailing winds and major ice movement. They should also be at least 100 metres from human activity.
- When building several nesting platforms on one site, they should be placed at least 300 metres apart.

## THE QUADROPOD PLATFORM

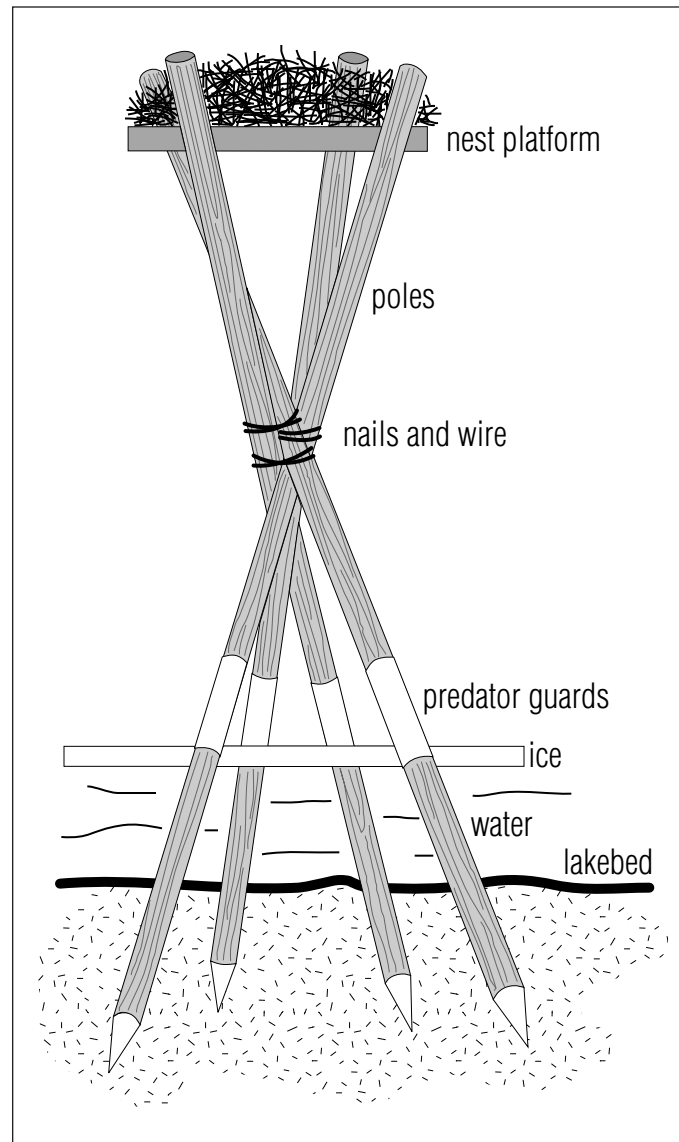
As the name implies, this platform has a four-legged base. Because it's left in the water year-round, it's important to choose a location where it won't be a hazard to boaters, and where winter ice won't disrupt it. Good locations include quiet bays or isolated marshes.

Install the quadropod during winter months when ice conditions make it easier to get around. You'll need three or four people to carry equipment, position poles and erect the platform.

### EQUIPMENT

- four cedar poles, six metres in length (sharpen thick end)
- 1.2 by 1.2 metre skid or pallet
- eight-inch auger
- 2 eight-inch spikes
- 30 two-inch roofing nails
- 12 four-inch spiral spikes/nails
- 12 six-inch spiral spikes/nails
- six metres of black fencing wire
- pliers, claw hammer, sledge hammer, saw and ice pick
- four pieces of one-metre-square sheet metal or children's plastic roll-up toboggans for predator guards
- 1.2 metres of chain
- hardwood block (about 10 x 10 x 25 centimetres)
- five-metre ladder

Quadropod platforms are designed for use in water. Quiet bays and marshes are ideal locations.



## INSTALLATION

Follow these steps to install the quadropod platform.

1. Drill four holes into the ice at a 45 degree angle. The holes should be approximately two metres apart, forming a square.
2. Ram the sharpened poles down into the ice holes and then use the sledge hammer to knock them at least one metre into the ground below the ice. To make the job of hammering easier, attach the block of hardwood to the side of each pole using a length of chain. To hold the chain in position, notch a small V into the pole using the saw (see Figure 1).
3. Place the wood pallet or skid in a level position between the tops of the poles. The platform should be at least 2.4 metres above the ice. Using the six-inch spikes, nail and wire the platform to the poles.
4. Wire and nail the poles together using the eight-inch spikes where they cross near the centre of the structure.
5. Wrap the predator guards (sheet metal or plastic toboggans) around each leg of the structure. Nail

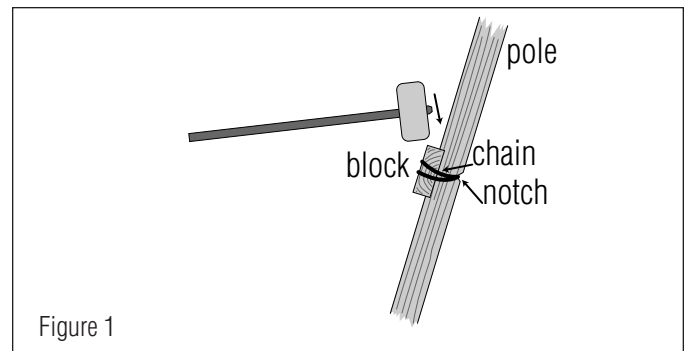


Figure 1

them in place with roofing nails, ensuring that they are pounded in flush and can't provide toe-holds for predators.

6. Wire a few "starter" sticks onto the bottom of the platform to attract an osprey. An extra perch can be installed off to the side or above the platform. This provides a place for the male to roost during the nesting season.

## SINGLE-POLED PLATFORM

The single-poled platform is better suited for use on land. It's adaptable to areas with deep soil, as well as areas with no soil. Your first challenge may be to find a long and sturdy pole. Old hydro poles are ideal. Try contacting your local utility company or Bell Canada office to inquire about obtaining poles for this purpose.

### EQUIPMENT

- one pole, six to nine metres in length
- 1.2 by 1.2 metre skid or pallet with 10-inch high retaining fence
- four wood or metal braces
- power auger (for deep soil sites)
- rock drill and mounting set (for rocky sites)



The single-poled platform is designed for use on land. It can be erected in deep soil or on rock.

- six-inch spikes
- two-inch roofing nails
- steel guy wire
- four eye bolts (minimum two-inch thread)
- cement
- pliers, claw hammer and sledge hammer
- one piece of one-metre square sheet metal or children's plastic roll-up toboggans

### DEEP SOIL

Follow these steps to install a single-poled platform in deep soil:

1. Attach the nesting platform (skid or pallet) to the pole. Wire a few "starter" sticks to the platform.
2. Use the power auger to drill a hole one to two metres deep.
3. Place the pole in the hole and secure it with cement, sand or rock.
4. If necessary, attach guy wires to add extra support.
5. Wrap the predator guards (sheet metal or roll-up toboggans) around the pole. Nail them in place with roofing nails, ensuring that they are pounded in flush and can't provide toe-holds for predators.

### ROCK

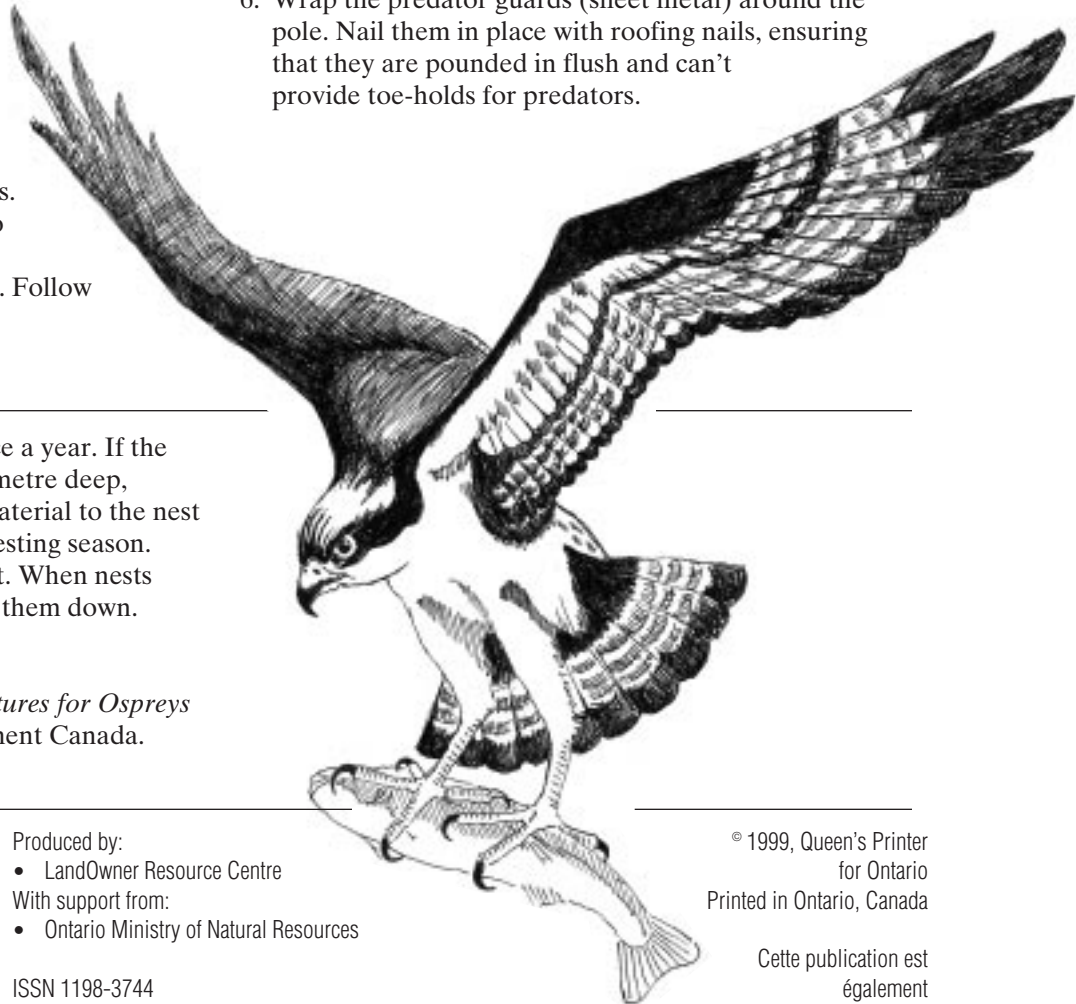
While a little more involved, it is still easy to erect nesting poles in rocky areas. The most difficult piece of equipment to come across may be the rock drill and mounting sets used by utility companies. Follow

these steps to install a single-poled platform on rock.

1. Attach the nesting platform (skid or pallet) to the pole. Wire a few starter sticks to the platform.
2. Use the rock drill to make the holes to accommodate the mounting set.
3. Set the bracket inside the holes. Pour in cement for additional support.
4. Raise and anchor the pole in place using the mounting set.
5. If necessary, attach guy wires prior to raising the pole to add extra support.
6. Wrap the predator guards (sheet metal) around the pole. Nail them in place with roofing nails, ensuring that they are pounded in flush and can't provide toe-holds for predators.



The pole is anchored with a mounting set.



## MAINTENANCE

Inspect the nesting platform at least once a year. If the material in the nest is more than half a metre deep, remove a layer of sticks. Ospreys add material to the nest at the beginning and at the end of the nesting season. Although nests look sturdy, they are not. When nests become too large, windstorms can blow them down.

Further reading:

- Ewins, P.J. 1994. *Artificial Nest Structures for Ospreys — A Construction Manual*. Environment Canada. Toronto, Ontario. 41p.

For more information contact:

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