

Artificial Nesting Platforms (ANPs) Do They Spell Success for Loons?

Artificial nesting platforms have been used in attempts to increase loon productivity since the early 1970's. But do loons use ANPs and do they increase loon reproduction? A recent study in northern Wisconsin found that, after 3 years, loons nested on half of the 26 platforms that were placed on lakes during the study. Loons nesting on platforms did have more of their nesting attempts reach the hatching date compared to loons nesting at natural sites (Piper et al. 2002).

So ANPs can be an effective management tool:

- Where loons nested in the past, but nests failed due to nest predation or water level fluctuations
- Where nesting habitat was eliminated by shoreline development and human disturbance
- Where all other qualities for loon reproduction are present (water clarity, quality nursery area, good supply of fish and aquatic insects, quiet bays, and minimal human disturbance).

Artificial nesting platforms can sometimes introduce new problems for loons. Loons nesting on platforms tend to be more visible to avian predators such as crows, gulls, and eagles, and to curious humans. The best way to enhance healthy populations of loons in the *long term* is to protect natural nesting habitat and provide public education.

To determine if an ANP is appropriate and necessary for your lake, consider the following:

- Do loons produce chicks on your lake once every three years?
- Do your loons successfully nest on a nearby lake?
- Are there natural nesting locations on your lake that could be enhanced?
- Are you unsure about how loons are using your lake (just feeding, nesting, etc.)?

If you answered yes to any of these questions, a platform **may not be the right management tool for your lake.**

If you answered **no** to the questions above and are considering an ANP for your lake, there are several things to keep in mind before you begin construction:

- 1) Contact LoonWatch or call your local Wisconsin Department of Natural Resources wildlife biologist for help in selecting an appropriate location.
- 2) In Wisconsin, you must apply for a permit or notify the Wisconsin Department of Natural Resources before you can place a loon nesting platform on your lake. Have information ready for the proposed location (note: county, township, range, section, and quarter section). Also, identify the landowner closest to where the platform will be placed and include their name, address and phone number in the letter. Special Natural Resources Interest lakes require special consideration.
- 3) We encourage you to involve your lake association and neighbors in your plans.

"Eternal" Nest Platform Construction

designed by Sandra Gillum

Materials checklist (Approximate cost \$100.00)

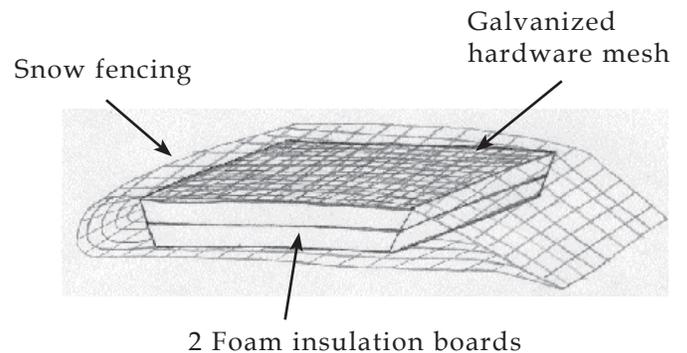
- 4 black ABS piping, 4 x 33 inches
- 4 cans spray foam
- 4 black ABS 90° angle joints
- 1 tube ABS glue
- 1 tube latex or silicone caulk
- 2 2 inch foam insulation boards, 36 x 36 inches
- 2 wood blocks, 2 x 4 x 4 inches
- 8 galvanized 1 inch roofing nails
- 2 Brass bolts, 2 x 3/8 inch, nuts and washers

- 2 solid plastic garden stakes--36 inches each
- 1 1/2 inch galvanized hardware mesh, 36x36 inches
- 2 cement blocks for anchors
- 2 fire hose (or inner tube), 4 x 33 inches
- Dark green or black snow fencing, 4 x 8 ft..
- Packing peanuts
- Nylon cord, 1/4 inch - 100 foot roll
- Sandpaper

To construct platform center

- Angle edge of foam insulation board so bottom board fits snugly under frame.
- Place 1/2 inch hardware mesh on bottom board.
- Sandwich insulation boards and hardware mesh between snow fencing.

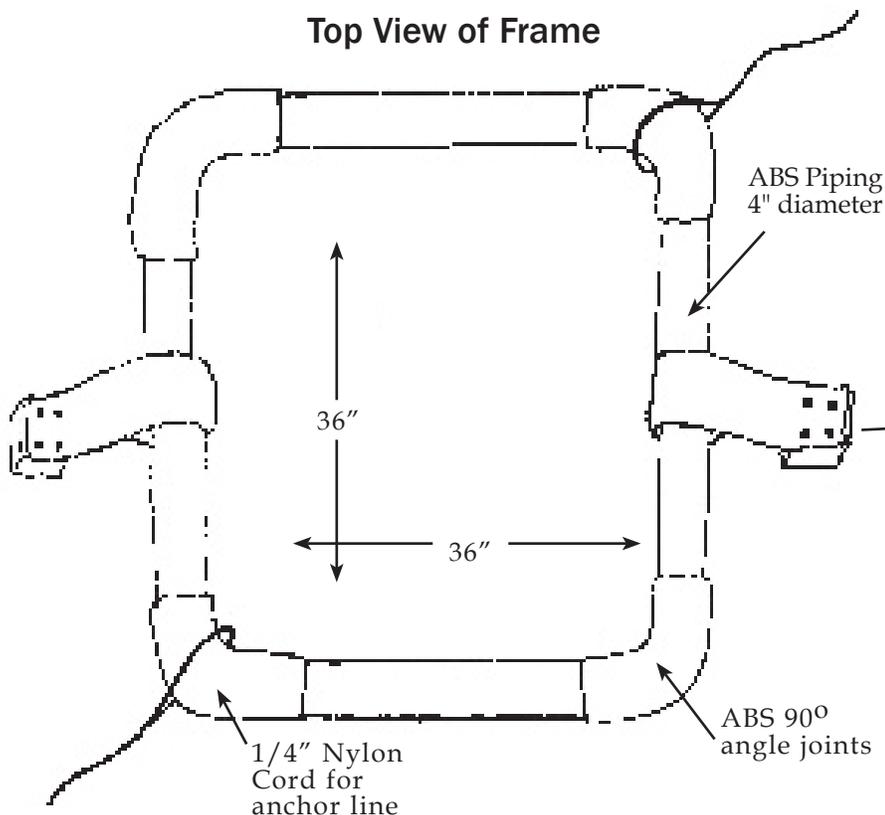
Bottom View



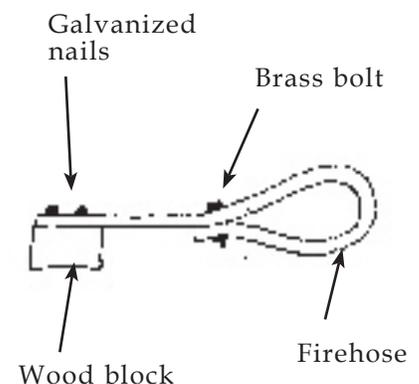
To construct platform frame

- Fill ABS pipes with spray foam.
- Fill the four joints with packing peanuts and fit on pipes, forming a square.
- Glue and caulk joints, creating a good seal to prevent water leaks.
- Rough sand piping to create a better gripping surface for birds.

Top View of Frame



Chick Ramp (side view)

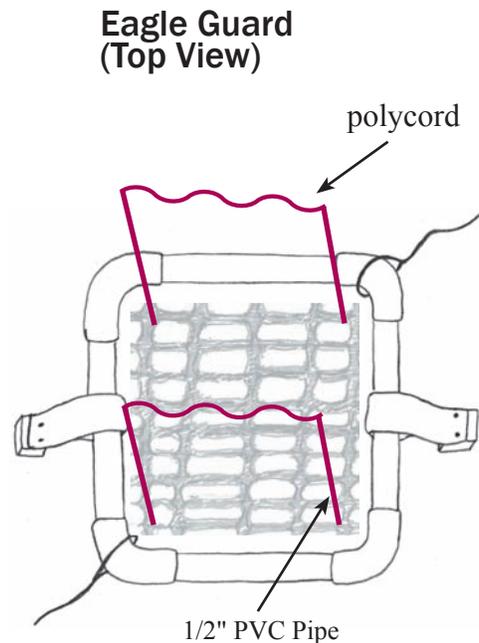
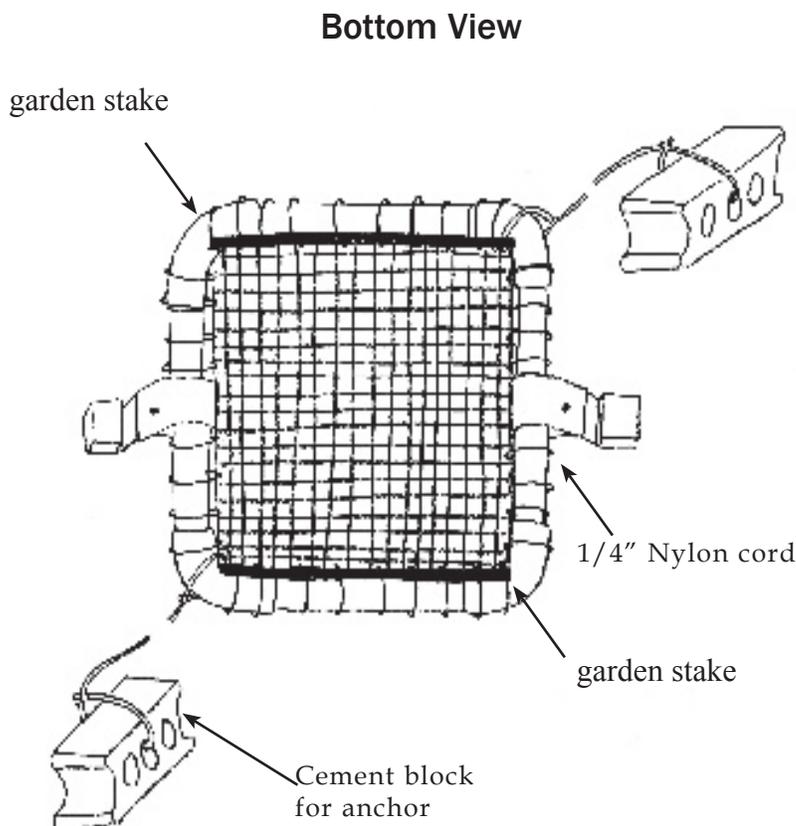


If fire hose is not available, replace with a piece of inner tube from a large tire.

To assemble platform

- Lay garden stakes on opposite sides of bottom, inside the snow fencing. This will give firmness for lashing, to avoid tearing the fencing.
- Lash fencing to all sides of frame with nylon cord, using the hardware mesh to help support the fencing and to prevent ripping it.
- Attach anchor line to cement blocks, leaving enough cord for platform to rise with waves.

If you vary the materials or design and find better alternatives, please let us know.



Final Step: Eagle Guard

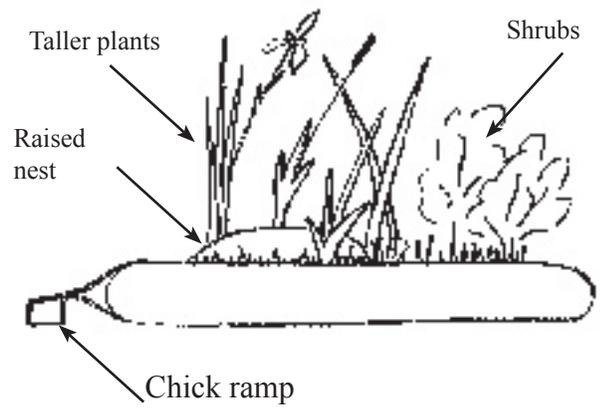
After the platform is completely assembled, a simple solution to dissuade most avian predators from attempting to land on the platform is to drill a 3/8 inch hole 1 1/2 inches into the foam board about 2 inches from each corner. Cut 4 pieces of 1/2 inch PVC pipe 30 inches long. Drill a 3/8 inch hole through the PVC, near the end of each pipe.

Put some silicone caulk in each hole in the foam board and then insert one of the PVC pipes into each hole. Next, loosely tie a piece of 1/4 inch polycord (yellow is good) between the two pipes on the sides where there are no chick ramps. Thread the polycord through the 3/8 inch holes you drilled in the pipes. This will keep the cord from slipping down.

Avian predators glide in on spread wings when they land. With an "eagle guard" in place, a spread wing landing is hampered.

To plant a loon platform garden

Always plant your platform with the nesting spot in mind. Form a large dish shaped nest with mud, sand, dead vegetation and twigs (about 18" diameter and about 4" high), then surround the nest on three sides with plants such as small alder bushes, grasses, reeds and sedges. Leave one of the chick ramp sides without vegetation for easier access. Arrange tall plants around the nest to provide the brooding loon with shade from intense sun and to shield it from avian predators such as eagles, gulls and crows. Do not overload the platform, as it needs to hold the weight of 1 or 2 loons, as well as the vegetation.



Platform Placement

Before placing a platform, contact your local Department of Natural Resources (DNR) wildlife biologist to obtain permission, and advice on choosing a location. You must also have permission from the landowner adjacent to the area where the platform is placed, if you do not own the land yourself. Some guidelines for placing a platform include:

- Far enough from shore to deter land predators
- In water 4-6 feet deep
- Within the loon territory, preferably near the traditional nesting area
- Away from areas of high boat traffic and human use
- Away from Bald Eagle nests or perch sites
- In an area protected from winds

Platform Maintenance

The "eternal" nest platform was designed to be light weight and able to stay on the lake through the winter, if you wish. Each spring after ice out, the platform should be inspected for damage to the frame, foam boards, and to replant or prune "the garden" if needed.

Loon Protection

Loons nesting on platforms tend to be more visible than those at natural nest sites. Help protect the loons by:

- Placing **Loon Alert** signs at public landings to inform lake users of the loon's presence. Loon Alert signs are available through LoonWatch.
- Informing your lake neighbors** about loon nesting activity. With an educational approach, people can learn to enjoy watching loons from a distance, allowing loons space to live and raise their young.
- Sending your loon observations to LoonWatch so we can include them as part of our annual monitoring database. Contact us for more information about becoming a volunteer **Loon Ranger**.

Do ANPs spell success for loons? The answer is--not always. Platforms can be an easy out from the true challenge of balancing human lake use and the habitat needs of loons and other species. Protection of nest sites from development, coordination of water level fluctuations to protect nests, and an understanding of habitat suitability are essential. If you would like more information on ways you can help protect loons and their habitats, please contact LoonWatch.

LoonWatch works to protect Common Loons and their aquatic habitats through education and research. LoonWatch is a program of the Sigurd Olson Environmental Institute, Northland College in Ashland, Wisconsin. For more information, call (715) 682-1220, email us at loonwatch@northland.edu or visit our website at www.northland.edu/loonwatch.

A full paper on Artificial Nesting Platforms can be found at: Walter H. Piper, Michael W. Meyer, Margaret Klich, Keren B. Tischler and Amy Dolsen, 2002. *Floating platforms increase reproductive success of common loons*. *Biological Conservator*. 104(2): 199-203.



