

## Citizens United to Protect the Maurice River and Its Tributaries, Inc.'s

# Osprey Colony Project

Citizens United to Protect the Maurice River and Its Tributaries, Inc.'s Osprey Colony Project is one of our most successful endeavors. The project was established to help re-establish an osprey colony on the Maurice River and its tributaries.

The osprey, often referred to as the fish hawk, is a bird of prey: a raptor. Today the largest concentrations of osprey are found on the northeast coast of the U.S. But in the 1960's their populations plummeted; this marked the beginning of a national environmental crisis. By the 70's osprey were considered an endangered species; it was thought they might perish altogether, emptying the skies of osprey making their annual migrations to and from South America.

Research showed that their decline was the result of chemical contamination by DDT (dichloro-diphenyl-trichloroethane). In concentrations up to a million times greater than those found in water, it was affecting the female bird's hormonal balance and in turn reproduction. Toxic effects inside the oviduct where the eggshell is formed caused insufficient calcium, resulting in thin eggshells. The incubation of the eggs could not be successfully completed because the weight of the parent's body would break the eggs. As a result, in the early 1970's there

were only about one hundred pairs of osprey left of the thousand that had once nested between New York and Boston. Historically New Jersey had about 500 nests. By 1975 only 50 remained.

Why care? Osprey, like many creatures at the top of a food chain, serve as biological indicators of contaminants in the environment long before the problem is evident in human health records. The osprey's plight has long served as one of the sentinels of a need for change. The osprey's food chain is an excellent model of our own vulnerabilities to toxins in the environment:

2 million algae  
to feed 2,000 mayfly nymphs  
to feed 200 minnows  
to feed 20 bass  
to feed 2 pickerel  
to feed 1 osprey  
additionally,  
an osprey catches 6 lbs. of fish daily  
to feed its family.

Older students might study the lengthy battle that ensued from Rachel Carson's best seller *Silent Spring* in 1962 (which warned of the DDT threat) and led to the ultimate banning of DDT by the EPA, in 1973.

The ban has long stood as a precedent for current environmental law.

Intervention by humans has been the hallmark of osprey recovery. Along with a ban on DDT, one of the key ingredients to recovery has been the construction of nesting platforms. New Jersey now has approximately 200 nests. Osprey have gone from an endangered status to a threatened status and naturalists are hopeful of their full recovery.

However, osprey are not out of danger yet. On the Delaware Bayshore, NJ Endangered and Nongame Species Program biologists have documented a failing colony due to DDE, a derivative of DDT. And on the Atlantic Coast during the summers of 1997 and 1998 there were severe nest failures, possibly linked to food supply. Nevertheless, the Maurice River osprey colony has been on a steady increase, and we hope this pattern continues. We believe this increase is indicative of the improved water quality and abundance of prey species in the Maurice River watershed. In 1998 we banded a record 39 chicks. Forty one percent of the total chicks banded in NJ were from the Maurice River colony.

In 1986 Citizens United's first pilot nest was erected on the Maurice River. Prior to that time one or two nests were erected by New Jersey Fish, Game and Wildlife and about three-six chicks fledged annually. Over the past 14 years Citizens United has erected over 30 nests. In addition to these

nests we have constructed six for the NJ Bureau of Emergency Response for the top of oil spill boom pilings, eight for NJ Division of Fish Game and Wildlife, and 21 for Public Service Electric and Gas Co.'s Estuary Enhancement program. Our nesting platform is now NJ's official design. It is hoped that its distinctive "Y" shape looks more like a crook in a tree than a telephone pole to the osprey which use it. Since birds imprint to the structures in which they are raised, this shape may entice young pairs to use trees. However, osprey are known for the wide array of places in which they construct nests.

Citizens United is providing plans for our osprey platforms because we are frankly proud of our project and the design. Erecting osprey platforms is a formidable task and unsuitable for the majority of students. This project should be coordinated by experienced and knowledgeable persons. Maintaining nesting structures and banding birds involves special permits as well as real dedication. However, each year young students help assemble the nests. We have had Boy Scouts assist us in the construction and erection of platforms in order to earn their Eagle Scout badge. Older shop classes have offered to construct platforms that Citizens United then erects. We are most grateful to all the numerous volunteers that have participated in this project over the years.

During the summers of 1997 and 1998 volunteers helped to capture an osprey with the NJ Division of Fish Game, and Wildlife — Endangered and Nongame Species Program. The University of Minnesota's Raptor Research Center then equipped the osprey with a satellite transmitter that tracked the bird to its wintering ground in South America. Students can go to the Internet and see the locations of Southern New Jersey ospreys during migration. The address is: <http://www.raptor.cvm.umn.edu>.

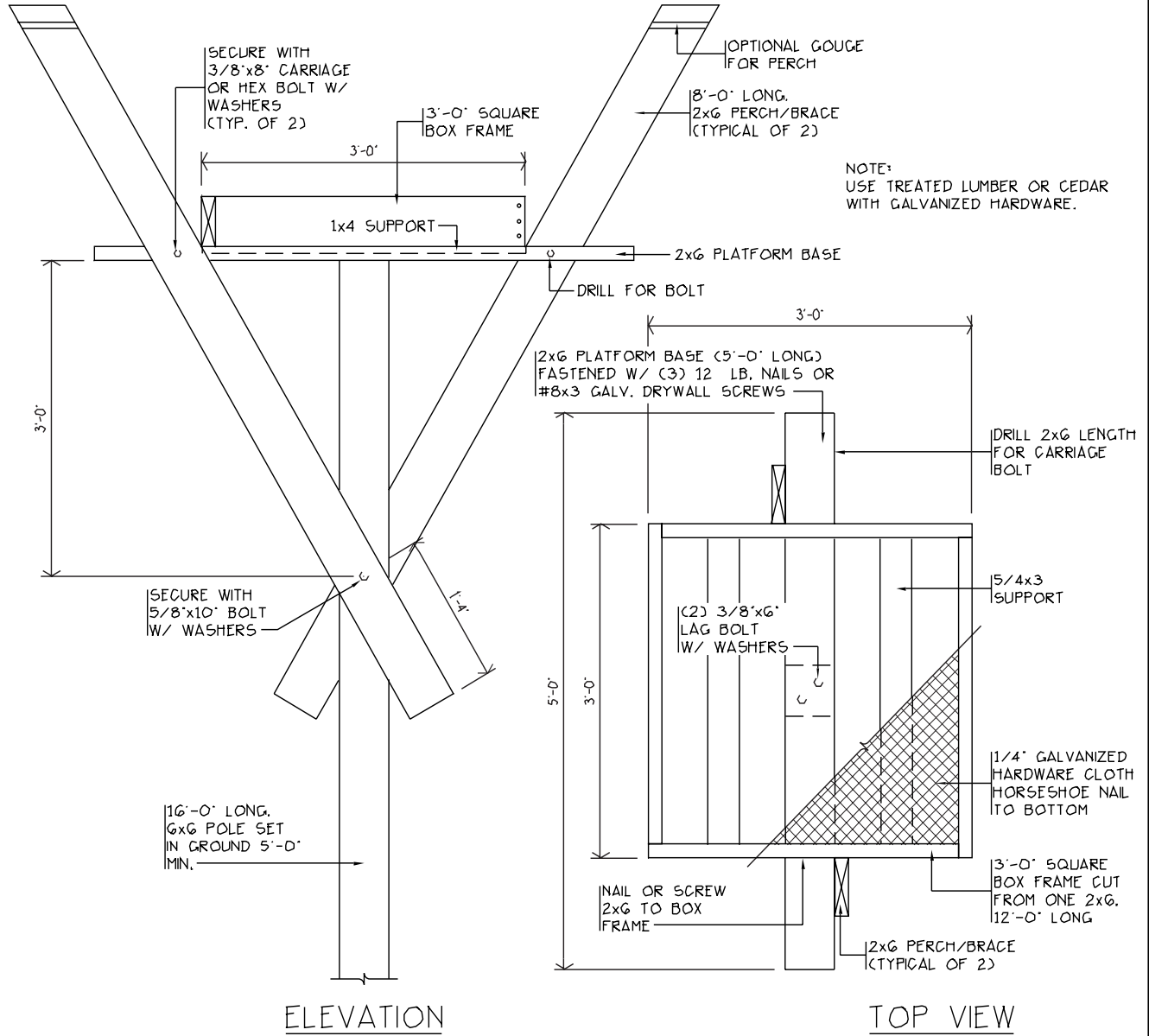
We often suggest the less cumbersome construction and erection of bluebird houses as a beneficial project for younger students. School yards are often suitable habitat for bluebirds, with open fields and hollow dead trees. Their numbers are jeopardized by peoples' naiveté about the numerous benefits of dead trees.

Why not think up your own habitat project? It can be rewarding, fun and lead to a lifelong appreciation of nature. These projects teach numerous skills: research, wildlife identification and classification, following directions, manual dexterity, construction techniques, wildlife habitat needs, measuring, composition of materials, cooperative work habits and all around good stewardship.



# OSPREY NEST PLATFORM

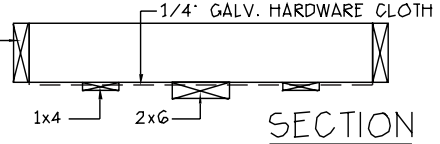
ENDANGERED & NONGAME SPECIES PROGRAM  
N.J. DIVISION OF FISH, GAME & WILDLIFE



ELEVATION

TOP VIEW

2x6 FASTENED W/ (3) 12 LB. NAILS OR #8x3 GALV. DRYWALL SCREWS



DESIGNED BY: CITIZENS UNITED TO PROTECT THE MAURICE RIVER AND ITS TRIBUTARIES

## Materials List for Osprey Platform

<u>Item</u>	<u>Quality</u>	<u>Size</u>	<u>Description</u>	<u>Approximate Price</u>
<b>Lumber</b>				
Pole	1	16'	6" x 6" pressure treated	\$36.51
Box frame	1	12'	2" x 6" pressure treated	\$11.22
Platform base	1	5'	2" x 6" pressure treated	\$ 7.89
Perch brace	2	8'	2" x 6" pressure treated	\$15.78
Side supports	1	3'	5/4" x 6" pressure treated (ripped)	\$ 5.04
<b>Wire mesh</b>				
Hardware cloth	1	3' square	1/4" galvanized	\$ 7.00
<b>Fasteners</b>				
Platform base to pole	2	3/8" x 6"	galvanized lag bolts	\$ 1.70
	2	3/8"	galvanized flat washers	\$ .18
Box to platform base	8	#8 x 3"	galvanized Drywall screws (3.99 per lb.) or (12b galvanized nails)	\$ .70
Four corners of box	12	#8 x 3"	galvanized Drywall screws or (12b galvanized nails)	\$ 1.00
Perch brace to platform base	2	3/8" x 8"	galvanized carriage bolts	\$ 2.72
	2	3/8"	galvanized washers	\$ .18
Perch braces to Pole	1	1/2" x 10"	galvanized hex bolt	\$ 2.20
	2	5/8"	galvanized flat washers	\$ .88
Fasten wire to box	40	3/8"	galvanized fence staples (1.20 per lb.)	\$ .50
Side supports to box	8	8b	galvanized nails (1.19 per lb.)	\$ .25
<i>Estimated Total Cost*</i>				\$93.75

***All poles must have a predator guard!***

*Please contact:*

Kathy Clark, Principal Zoologist  
 Department of Environmental Protection  
 Division of Fish, Game and Wildlife  
 Endangered and Nongame Species Program  
 2201 Route 631, Woodbine, NJ 08270  
 (609) 628-2103

Let the program know where you place osprey nest platforms and when they are used by a pair of ospreys. They will include the site in biennial surveys. Thank you for helping osprey in New Jersey.

**N110a**

\*prices based on 1999 costs