

AN INSTANCE OF OSPREY BREEDING IN THE TOWN OF HEMPSTEAD

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Introduction

Ospreys (*Pandion haliaetus*) historically have bred on the eastern end of Long Island (Geraud 1843) including Gardiner's, Shelter, Plum, Fisher's and Robins Islands, and on both the north and south forks. In the late 1800's an estimated 250 nests were located on Plum Island (C.S. Allen 1892, *in* Bull 1974) and in the early 1900's at least 300 nests were located on Gardiner's Island (Chapman 1908, *in* Bull 1974).

While most of the Osprey population still occurs in eastern Long Island, its numbers are considerably lower then originally. Ospreys were adversely affected by the use of DDT from the late 1940's through and until the mid 1960's, when its use in Suffolk county was finally discontinued. The final banning of DDT nationwide by the Environmental Protection Agency, however, did not occur until 1972. A widely used pesticide, DDT eventually had entered the food chain and a breakdown product, DDE, interfered with calcium deposition during egg development. Thin egg shells, which broke during incubation, resulted and consequently nesting success was practically nonexistent.

After curtailment of DDT use on Long Island, Osprey numbers began to show recovery by the mid 1970's (Nova 1986) wherein both egg hatching rate and chick survival improved. During the last ten years from 1977 to 1987, the number of active Osprey nests on Long Island more than doubled from 72 in 1977 to 152 in 1987 (Schiebel 1987 and *pers. comm.*). This increase in Osprey numbers allowed this species to be moved by the New York State Department of Environmental Conservation from the endangered species category to the threatened list in 1983.

Of 152 active nests in 1987 (Schiebel 1987) the largest concentration, 91% of the total, occurred in eastern Suffolk and adjacent islands (Fig. 1) distributed as follows:

	Nests	%
Gardiner's Island	52	34.2
Orient and the north fork	35	23.0
Fisher's Island	8	5.3
Shelter Island	15	9.9
South fork	15	9.9
Robins Island	5	3.3
Subtotal, eastern Long Island	138	90.9

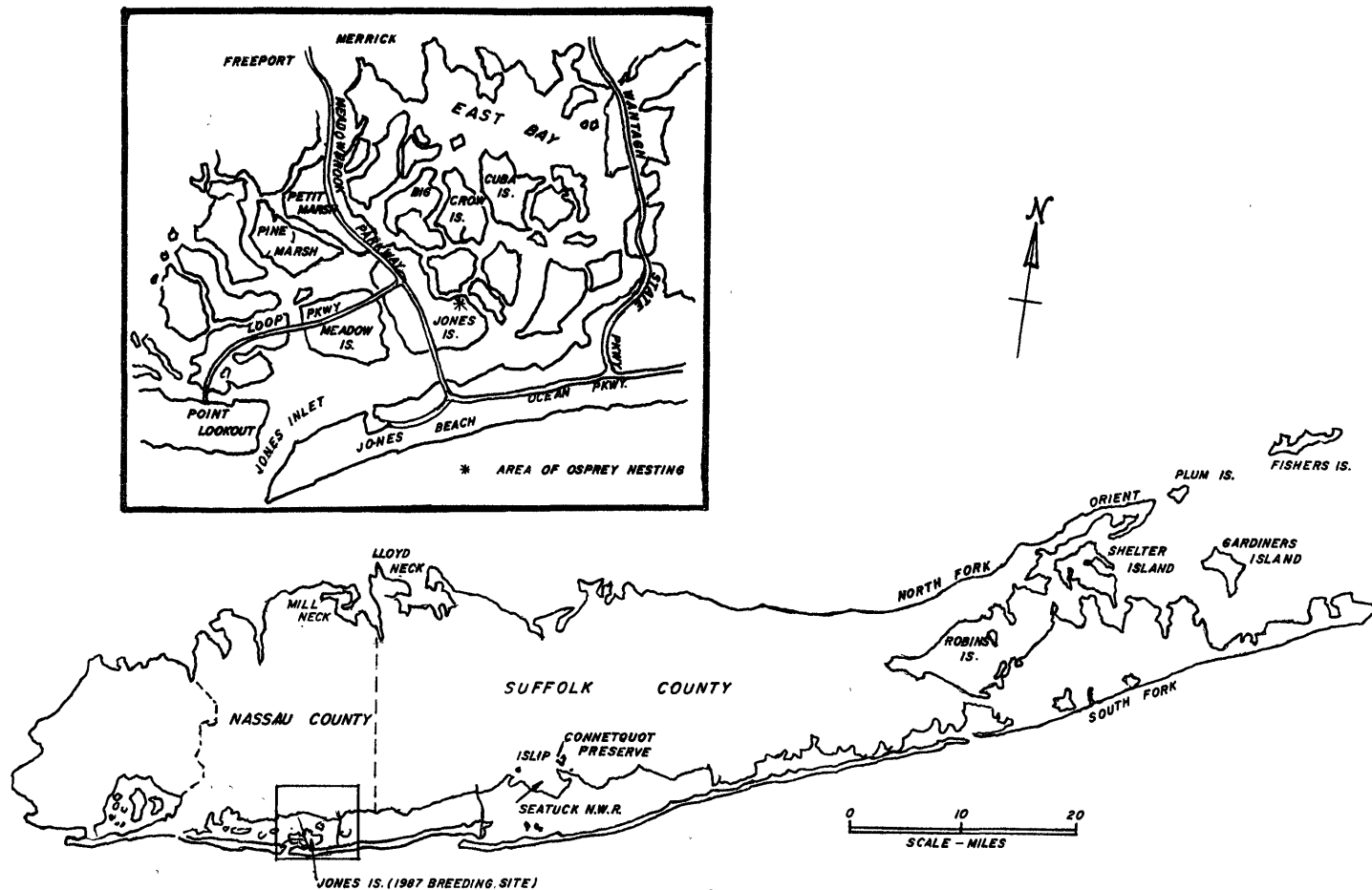


Fig. 1. Location map of Long Island showing recent (1987) osprey nesting site along the south shore, Nassau County.

Areas in central and western Suffolk County, which includes Caumsett State Park in Lloyd Neck only accounted for 12 or 7.9% of the total. Nassau County with one nest on the north shore in Mill Neck and a new nest on the south shore in the Town of Hempstead (Fig. 1), accounted for the remaining 1.3% of the total.

The limited nesting which has occurred in western Long Island on the north shore has been documented previously (Bull 1974) and includes Lloyd Harbor (Caumsett State Park) in western Suffolk and Oyster Bay and Mill Neck in Nassau County. Nesting along the south shore of western Long Island, however, has been sparse. In 1974 breeding occurred at the Connetquot State Park (Bull 1976) and in 1983 at the Seatuck National Wildlife Refuge in Islip (D. MacLean *pers. comm.*). Documented records of osprey nesting are lacking west of Islip along the south shore. Two observations are, however, noteworthy. In the late 1930's nesting was reported to have occurred along Parsonage Creek in Oceanside (Kelly 1978 and *pers. comm.*) and in the early 1950's at the northern reaches of Tobay Sanctuary (A. Dignan *pers. comm.*, who observed the nest site with John J. Elliott).

Osprey Nesting Program

The Town of Hempstead Department of Conservation and Waterways has jurisdiction of approximately 19,000 acres of wetlands (marshes, channels, bays and flats). To provide nest sites in southern Nassau County, it initiated an osprey nesting platform project in 1978 when four units were established. Until the end of 1987, 14 usable units have been established by the Town of Hempstead Department of Conservation and Waterways and by the Nassau County Mosquito Control Division. Provision of nesting platforms where natural sites such as dead trees are lacking undoubtedly encourages nesting. It is known that nearly half the nests built by Ospreys in the northeast are built on platforms (Nova 1986), the Osprey being an opportunistic breeder.

Two examples of structures being readily adopted for nesting can be cited along the south shore. Successful nesting occurred on a platform at the Connetquot State Park, Oakdale, in 1974 after it was established the previous winter (B. Behonick *pers. comm.*). Successful nesting also occurred on a platform erected on the Seatuck National Refuge, Islip, in the spring of 1983 following its establishment in the fall of 1982 (D. MacLean *pers. comm.*).

The potential for Osprey nesting within the Town of Hempstead was realized to an extent during the 1980-85 years of the breeding bird atlas census, when Ospreys were observed using pole-platforms within the Town of Hempstead as feeding perches well beyond the spring migration period of March-April. Their continued presence during the entire summer indicated a sustaining food source was available in the estuary

at least for adults. Among early observations of Ospreys using nesting platforms locally was one seen periodically during the spring and summer of 1983 on North Line Island during the same year in which a platform was erected. With the establishment of two more poles each in 1984 and 1985, one or more Ospreys were also observed from time to time each year using all of these poles as feeding perches. All poles used by Osprey have been placed on remote areas of the marsh. These include three poles located east of the Meadowbrook Parkway and two east of the Wantagh Parkway.

Local Nesting

In 1987, a pair of Ospreys successfully fledged two offspring on Jones Island (Figs. 1 and 2) from a pole-platform erected by the Town of Hempstead, Department of Conservation and Waterways, in May 1985. The marsh island on which nesting occurred lies south of Merrick, east of the Meadowbrook Parkway and north of the State Boat Channel, within the Town of Hempstead in Nassau County. In reference to other nesting areas, the current nest location is approximately 21 miles west of the previous most westerly located nest along the south shore on the Seatuck National Wildlife Refuge in Islip and approximately due south of the most westerly located nest on the north shore in Mill Neck.

The pole-platform unit used for nesting consisted of a 4" x 4" x 16' CCA treated pole with an attached, braced wood pallet approximately 4' x 3.5". The pole is imbedded 4' below the marsh and is reinforced with 2" x 3" stakes. Sections of snow fence were added to the platform sides so that a basket about one foot high was formed, into which branches were placed. The resultant nest height is approximately 13' above marsh level.

An Osprey was first recorded using the platform on Jones Island on 8 May. Prior to this date, a Herring Gull occasionally was seen landing on it. After 8 May, frequent use by 1 to 2 Ospreys was noted. On 22 May, one adult was sitting low and assumed to be incubating eggs. This activity appeared to continue through early July, after which time the behavior of the adult indicated possible chick feeding. Because of the long distance and the angle of observation, however, a juvenile was not observed until 22 July. The young then were estimated to be two or more weeks old. On 18 Aug two adults and two juveniles were observed. The juveniles were large, about the size of the adults. On 21 Aug both fledglings were observed to have flown off the nest for an extended period of time, not returning to the platform until I had left the area. By 25 Aug only one Osprey was observed feeding on the platform. An adult and two juveniles believed to be from the Jones Island platform nest were observed to the north, also in East Bay, on a pole-platform located on Crow Island.



Fig. 2. Osprey nesting structure on Jones Island, Town of Hempstead, successfully used for nesting — 2 adults, 2 fledglings.
Photo by J.D. Zarudsky *8/18/87*

It is likely that, if the adults return in subsequent years, nesting will occur earlier than during their first breeding occurrence. Increased opportunity for nesting locally is also possible, provided that surviving juveniles which reach sexual maturity in several years return to this area. For continued successful nesting, the assumption is made that food sources will remain adequate and that protection from predators will be afforded.

Conclusion

A pair of Osprey bred successfully on Jones Island in southern Nassau County during 1987 producing two offspring on a nesting platform established by the Town of Hempstead Department of Conservation and Waterways in 1985. The nest location currently is the most westerly situated along the south shore of Long Island. This isolated breeding incident, although earlier than expected, was perhaps predictable given an expanding Osprey population on eastern Long Island and the availability of numerous nesting sites made possible through the establishment of elevated platforms.

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