

THE BREEDING STATUS OF THE GLOSSY IBIS IN NEW YORK

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For the period through 1959, Hailman (1959) reviewed the northward expansion of the Glossy Ibis (*Plegadis falcinellus*) breeding range. The first New York State breeding record was in 1961 at Jamaica Bay, where 3 nests were found (Peter Post, 1962). This represented a jump of 135 km from the nearest known breeding area, Brigantine Refuge, N.J. In 1964, 3 pairs of Glossy Ibis nested at the Lawrence, L.I. heronry (Davis, 1966). This colony is about 13 km east of the easternmost Jamaica Bay site.

The population on Long Island has been increasing (Table 1). Seven pairs nested in New York in 1964; by 1967, an estimated 115 pairs bred. Heavy rains at the end of June, 1968, destroyed Ibis nests in the Lawrence colony, accounting for the few nests recorded.

NEW NESTING LOCALITIES — In July 1967, we found a large, unfledged Glossy Ibis in a pine plantation at Oak Beach, L.I. Its nest was 2.5 m above the ground, on the leaning trunk of a Japanese Black Pine (*Pinus thunbergi*). Snowy Egrets (*Leucophoyx thula*) were nesting in adjacent trees. This site is about 32 km ENE of Lawrence, and thus it is the farthest north the Glossy Ibis has nested along the Atlantic.

In 1968, the Ibis did not nest at the Oak Beach heronry. However, in the salt marsh north of Oak Beach, up to 95 Ibis were feeding daily in May and June. We noticed that many of these birds were flying west at night, and we found that they were flying the 13 km to Jones Beach to roost in another heronry, nest to Parking Field 9. On 5 July 1968, we found 2 active nests in the Jones Beach heronry. Like the Oak Beach site, the colony is in a small plantation of *P. thunbergi* (see Figure 1). The Ibis were nesting in the branches of the pines from 2.5 m to 4.0 m above the ground. The nests were made from the stems and branches of pines. They were lined with pine needles and a few *Phragmites* stems, and were 7 to 10 cm thick, and considerably more substantial than heron nests. On 23 July, we examined 6 nests:

- 1) 2 m high; containing 2 eggs and 1 young about 3 days old
- 2) 2 m; 4 eggs (2 pipping)
- 3) 4 m; 3 eggs
- 4) 2 m; 3 eggs
- 5) 4 m; 3 young, ranging from 2 to 7 days old
- 6) 3 m; 3 young, ranging from 5 to 14 days old.

In 1969, a third new nesting site was found on the Jones Beach strip. We found a group of Ibis nesting in a heron colony north of Parking Field 1. This is 6 km west of the Parking Field 9 colony. All known nesting localities are shown in Figure 2.

NEST SITE SELECTION — The Glossy Ibis is adaptable in choosing nest sites. The Ibis nesting at Lawrence joined an established heronry located in a grove of deciduous shrubs and small trees. On the other hand, all three colony sites on the Jones Beach strip are in coniferous trees near a highway. The Lawrence colony was on an island separated from the mainland by salt marshes and channels and the colony at Canarsie Pol is on an isolated island. However, the colony near the East Pond of Jamaica Bay Refuge is accessible by land and the nesting sites on Jones Beach also are not isolated by water or by marsh.

Nest heights vary according to the height of the vegetation being used. At Lawrence, the average height of 20 nests was 1.5 m. In the pines at Jones Beach, the average height of 6 nests was 2.8 m.

The adaptability of the Glossy Ibis in nest site selection may be a factor in its increase.

RELATIONS WITH HERONS — The Ibis have relied on established heronries for nesting sites. The Ibis roost in the heronries in the spring, when the herons have already started to lay eggs. They consistently nest later than the herons. For example, at Jones Beach on 20 June 1969, most heron nests had well grown young, while most Ibis nests still had eggs. On 10 September 1969, Henry Kemp (personal communication) found a nearly fledged Glossy Ibis in a nest at the Parking Field 1 colony.

There may be several advantages in the late nestings: 1) less competition for nest sites. The Ibis occupy some of the used heron nests or nesting places. Davis et al. (1967) found Glossy Ibis using Snowy Egret nests of the previous year; 2) less intracolony predation. Beckett (1964) found young Black-crowned Night Herons (*Nycticorax nycticorax*) eating young White Ibis (*Eudocimus albus*) in the same colony. On Long Island, Black-crowned Night Herons are the first *Ardeidae* to finish nesting; 3) after most of the herons have left the colony, there may be less attraction to predators from outside the colony.

FUTURE OF THE GLOSSY IBIS IN NEW YORK — Since its first nesting in 1961, the Glossy Ibis is consolidating its range along the New York coast. In 8 years its breeding range has expanded only 45 km to the east. The critical requirements for its continued range expansion are protected nesting sites close to good feeding areas. The Jones Beach strip is attractive because of the pine groves, which are generally protected from humans, and because of good feeding areas such as the Oak Beach marshes and Tobay Pond. However, most sections of L.I. marsh have been ditched for mosquito control, and such marshes are less suitable to feeding Ibis. In addition, most nesting sites outside parks or not on isolated islands are soon disturbed. In the unprotected groves at Oak

Table 1. Number of Pairs of Glossy Ibis Nesting in New York

YEAR	1961	1962	1963	1964	1965	1966	1967	1968	1969
LOCATION									
Canarsie Pol	2 (PP, PB) (FH, JH)	2 (PP)	7 (PP, GR)	4 (PP, GR) (GR, DP)	18 (HH, JB)	60	70 (HH)	50 (HH)	70 (HJ)
East Pond. JBWR	1 (HJ)							40	30 (HJ)
Lawrence				3 (PP, RP) (LM)	13 (PP)	25	44	6	40
Oak Beach							1		
Jones Beach Parking Field 9								12	15
Jones Beach Parking Field 1									11
TOTAL	3	2	7	7	31	85	115	108	166

Uninitialed observations by authors; other observers: JB—Jacqueline Backstrom; PB—Paul Buckley; MG—M. Gochfeld; HH—Helen Hays; FH—Fred Heath; JH—Joseph Horowitz; HJ—Herbert Johnson; RP—Richard Plunkett; DP—Dennis Puleston; PP—Peter Post; GR—Gilbert Raynor

Beach, there was shooting during the summers of 1968 and 1969. In 1968, about 55 pairs of herons nested in the groves. There were none in 1969.

The Glossy Ibis may have reached an end point on Long Island. The next heronry farther east was at East Moriches, and it was recently abandoned (Davis and Heath, 1965). The heronries on Gardiner's Island, Fisher's Island, and in Rhode Island should be watched closely.

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Figure 1. Pine grove near Jones Beach Parking Field 9. Glossy Ibis first nested there in 1968.

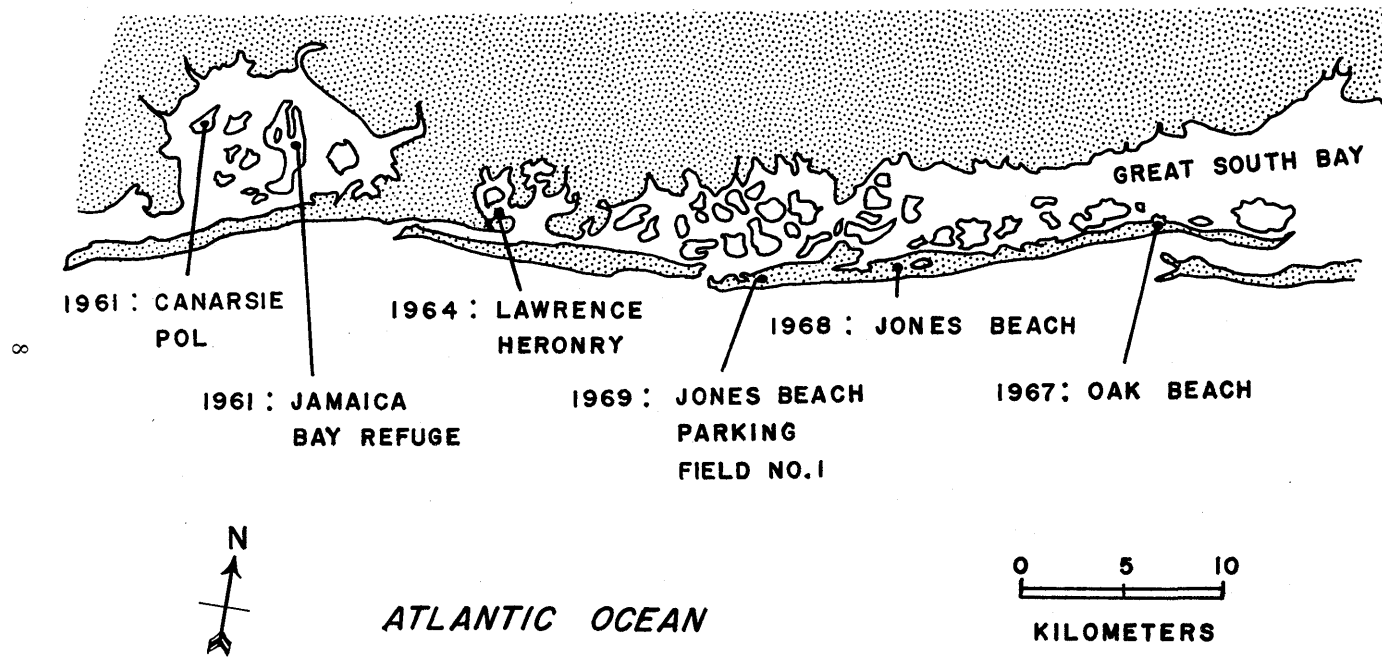


Figure 2. Locations where Glossy Ibis have been known to nest in New York State.