Some observations on nesting Barn Owls in New Jersey

Leonard J. Soucy, Jr.

The Barn Owl *(Tyto alba)* nests regularly throughout New Jersey. From 1973 to 1977 a study of this species was conducted in Somerset and Hunterdon counties where the bird breeds commonly. The following is an account of one nest which yielded some interesting information.

The nest site, known as Somerset II, is an ususued wooden water tank 2.4 m (8 ft) in diameter, 2.1 m (7 ft) high, and 6.1 m (20 ft) above the ground. The tank, unlike many, is in good condition, solid-sided with a tin roof and only one .45 m x .6 m (18" x 24") hole in the top. This single opening is ideal because it affords the bander an opportunity, if quiet (and lucky), to cover the hole before any birds inside can escape. Two occupied houses, a large barn with livestock, and two other farm buildings surround the tank.

12 July 1973: Banded one adult female plus two nestlings, six weeks old. The site was not used again in 1973.

24 June 1974: Banded six nestlings, five to six weeks old. No adult birds present. The site was not used again in 1974.

14 June 1975: Banded seven nestlings, six to eight weeks old. Two adult birds were found roosting in the nearby barn. Neither could be caught.

05 August 1975: Removed three stained, addled eggs. No birds present.

13 May 1976: As I was climbing to the tank, two birds flew out, presumably the adult pair. Banded two nestlings, five weeks old.

01 August 1976: Banded one adult female which was alone in the tank. No sign of nesting. On 22 October 1976 this banded bird was found dead on an interstate highway, 0.8 km (1/2 mile) from the nest site.

29 May 1977: Banded one adult female plus one nestling, four weeks old.

31 July 1977: Recaptured the adult female banded on 29 May 1977 with a second brood of five nestlings, one to two weeks old. Also recaptured the single young bird from the 29 May 1977 nesting.

This bird, now twelve weeks old, was healthy and could fly.

18 September 1977: Banded the second brood of five nestlings, most of which were nearly ready to fledge. No other birds were present.

Discussion

Good nesting sites for Barn Owls are becoming increasingly scarce in New Jersey. Although this bird has demonstrated a great adaptability to a variety of nesting circumstances, favored sites should be preserved whenever possible.

Water tanks are commonly used as nest sites by Barn Owls (Stearns 1970; Drinkwater 1953). The tanks provide a degree of safety from predation and are generally free from human disturbance. Reese (1972) stated that frequently-disturbed nest sites usually fail and are abandoned, while the successful sites are used again and again. Somerset II was used and fledged young every year from 1973 to 1977.

The 23 young produced by 5 nestings at this site — an average of 3.83 per nesting — is somewhat higher than the findings of Henny (1969) and Reese (1972). Nestling mortality between the time young are banded in the nest and the time they fledge can occur. Cannibalism has been reported by Hawbecker (1945) and fratricide by Pickwell (1948). My

feeling is that the mortality that occurs from both these causes is minimal. During the five years of monitoring this site I never found there to be a dead or a missing nestling after banding. Reese (1972) likewise saw no direct evidence of fratricide or cannibalism. Whenever possible, I band the young at five to seven weeks of age, which I consider to be the ideal age for banding nestlings.

Wallace (1948) stated that " . . . they often appear to raise a second brood, though what appears to be a second brood could conceivably be merely a reoccupation of a favored nesting site by a new pair after it has been vacated by the first." Potter and Gillespie (1926) caught a banded owl incubating eggs at the same site where it was banded incubating the previous year. Stewart (1972) reports that a banded female taken from a nest with five young on 27 July 1939 was captured on 5 December 1939 from a nest with three young at the same place. The double brood at Somerset II in 1977 was definitely produced by the same banded female.

Conclusions

Over the five year period, 1973-1977, this nest site was used every year. At least three different adult females had been present at this site during that period. Of the 23 young produced I believe a high percentage, if not all, of the young fledged. The 1977 double nesting was done by the same female. A fully-fledged young owl from a previous nesting was in the nest while the parent birds began raising a second brood.

Acknowledgements

I thank Chris Soucy for helping me collect this data and Dr. J.J. Mahoney for reviewing this manuscript.

Literature cited

Drinkwater, H. 1953. Banding barn owls, *EBBA News* 16:4-7.

Hawbecker, A.C. 1945. Food habits of the Barn Owl. *Condor*, 47:161-166.

Henny, C.J. 1969. Geographical variation in mortality rates and production requirements of the barn owl *(Tyto alba* ssp.). *Bird-Banding, 40:277-290.*

Pickwell, G. 1948. Barn Owl growth and behaviorism. *Auk*, 65:359-373.

Potter, J.K. and J.A. Gillespie. 1926. Nesting habits of the barn owl. *Auk*, 89:106-114.

Stearns, E.K. 1970. Notes on the abundance of the barn owl in New Jersey in 1947. *Urner Field Observer*, 12:6-8.

Stewart, P.A. 1952. Dispersal, breeding behavior, and longevity of banded barn owls in North America. *Auk*, 69:227-245.

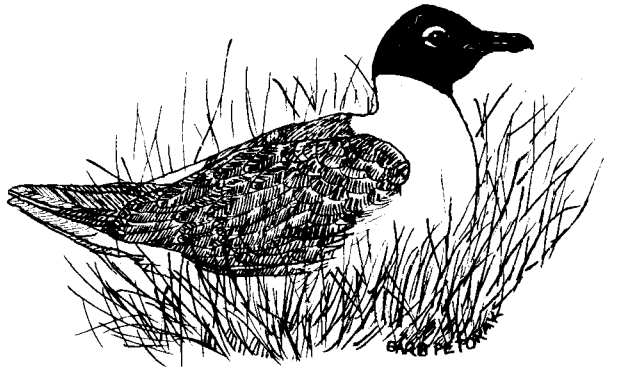
Wallace, G.J. 1948. The barn owl in Michigan, its distribution, natural history and food habits. *Mich, Agric. Exp. Stn. Bull.* 208:1-61.

1390 White Bridge Road, Millington, NJ 07946.

Laughing Gull nesting mortality

John C. Miller

While banding young Laughing Gulls *(Larus atricilla)* at Stone Harbor, New Jersey, on 15 July 1978, I found a few hundred dead Laughing Gulls around their nests and some in their nests. I judged the age of these dead chicks to be about two and a half weeks.



I feel that there were a few major factors causing mortality in this colony. First, inclement weather; we were having temperatures in the low 50's F (10° C). Second, maggots were another cause of death; I saw maggots on some of the live chicks which were in nests with dead ones. Also, apparently there was a very high tide, with water reaching and entering the nests, making the young wet and cold. I was not able to determine if competition from the increasingly large nesting colonies of Herring Gulls and Great Black-backed Gulls in the nearby area caused additional mortality.

On the whole, the gulls had a good nesting year in the salt marshes, even with all the dead chicks. I banded 950± young birds on this day. Few young birds were found dead in the Herring and Great Black-backed Gull colonies on this day.

1220 Prospect Ave., Prospect Park, PA 19076