

TABLE 1.

Proportions of nest boxes used by Starlings at different distances from cleared land.

	Box distance (in m) from mowed or agricultural land							
	0 to 100	100 to 200	200 to 300	300 to 400	400 to 500	500 to 600	600 to 700	700 to 2,000
Boxes used	11	11	9	8	7	1	0	0
Boxes not used	2	1	4	7	6	9	6	21

$$\chi^2 = 49.62, df = 7, P < 0.001.$$

Ontario, Starlings are locally distributed at settlements, clearings, and agricultural land. Because they are largely ground foragers in open areas with low vegetation, an examination of nest site selection in relation to cleared land was undertaken. In the Timiskaming District of Ontario they nest in boxes erected for Common Goldeneyes (*Bucephala clangula*). These were placed along 30.6 km of the Englehart River on Robillard, Kinogami and Kushog Lakes, known collectively as Long Lake. The village of Charlton (47°48'N, 79°50'W) lies at the southeast end of this lake chain. Box arrangement and form are described by Lumsden (*Wilson Bull.*, **88**: 665-666, 1976). The relatively steep hills surrounding Long Lake are largely forested to the water's edge. A large part of the forest was burned in 1922 and now supports a relatively dense mixed stand of trembling aspen (*Populus tremuloides*), white birch (*Betula papyrifera*), black ash (*Fraxinus nigra*), balsam fir (*Abies balsamea*), white cedar (*Thuja occidentalis*), and white spruce (*Picea glauca*). Areas of agricultural land, a few cleared and mowed tourist establishments, and summer cottage lots are clustered at intervals along the shores.

A highly significant ( $P < 0.001$ ) decline was noted in the proportion of boxes used by Starlings with increasing distance from foraging areas (Table 1). The farthest that Starlings nested from cleared land was 503 m. Not all boxes close to foraging areas were used; 18% within 300 m were never used. It was impossible to follow the nests through the summer to compare success rates with distances from foraging areas. Likely, a maximum distance occurs beyond which Starlings are unable to carry enough food to nourish a brood, and probably this distance is about 500 m under the soil, climate, flora, and insect faunal conditions of northern Ontario.—HARRY G. LUMSDEN, *Ontario Ministry of Natural Resources, Box 50, Maple, Ontario L0J 1E0*. Ministry of Natural Resources, Wildlife Research Section Contribution No. 79-18. Received 25 September 1979, accepted 10 December 1979.

**A Technique for Live-trapping Nesting Horned Grebes.**—The use of gill nets for live-trapping water birds has received little attention. Lensink (*J. Wildl. Manage.*, **21**: 103-104, 1957) used a submerged net to capture waterfowl in Alaska, and Johnson (*J. Wildl. Manage.*, **36**: 1277-1279, 1972) used a similar technique for capturing flightless young goldeneyes (*Bucephala clangula*) in Minnesota. This note describes a method for capturing nesting Horned Grebes (*Podiceps auritus*) with the aid of a gill net. The technique was devised in June 1974 while I was studying grebes at Minnedosa, Manitoba.

The materials consisted of a 5-cm mesh nylon gill net, two 1.5-m lengths of wooden dowelling (2-3 cm in diameter) and a spool of monofilament fishing line. For work on small prairie marshes, I found that a net measuring 10 m × 2 m was ideal and that it could easily be set by one person. Dimensions of the net and length of the dowelling may be adjusted to suit individual requirements. On shallow marshes at Minnedosa, 94% of all Horned Grebe nests ( $n = 119$ ) were located in water <60 cm deep (Ferguson, M.S. Thesis, Univ. Manitoba, Winnipeg, 1977). Construction of the apparatus is simple. Each end of the net is fastened to a dowel so that the top of the net (the float line) is roughly 5 cm from one end of the dowel and the bottom of the net (the lead line) is about 30 cm from the other end. Monofilament fishing line is used to secure the net to the supports and to repair any holes in the net.

The success of this capturing technique is based upon the grebes' behavior of leaving a nest by diving to open water rather than by swimming or flying. Incubating birds of both sexes were easily caught by placing a submerged net between the nest site and the open water so that it intersected their route of escape. To minimize the chances of nest desertion, trapping efforts were restricted to the 2-week period between clutch completion and hatching of the first egg. Placement of the net depends primarily on water depth. The lower 30 cm of each dowel was pushed into the marsh soil for support while the float line of the net was allowed to rest on or slightly above the water surface. In water <60 cm deep, I pushed the dowels in at an angle, leaning toward the nest site, so that most of the net was submerged. The net was usually set within 7 m of a nest. Setting the net loosely enabled entangled birds to reach the surface of the water and aided their retrieval. The operator must select a remote observation site that provides concealment and affords good visibility of the area surrounding the net. Occasionally grebes became entangled in the net while they were approaching a nest. Immediate retrieval of entangled birds is necessary to prevent possible injury or drowning. Most grebes, however, were reluctant to swim over or dive under the float line. They avoided the net by swimming along its length and then around either end. Incubating grebes were very attentive and readily returned to the nest, often within 5 min. As a general rule, I waited until the bird had settled on the eggs before flushing it from the nest. This was accomplished by approaching the nest from the nearest shoreline so that the incubating grebe was forced to retreat in the direction of the net. After weights and measurements were recorded, birds were released in the water a considerable distance from the net. A released bird was reluctant to return to its nest and generally spent several minutes bathing and preening. During this time, the nest was normally attended by its mate. By flushing the mate off the nest, I was able to capture this bird as well. When this was accomplished, I removed the net promptly to avoid the possibility of re-trapping the first bird.

Forty-three adults were captured using this technique. The capture rate per trapping effort was not quantified, but most initial attempts were successful. Grebes that avoided or escaped from the net were easily caught in a subsequent attempt by altering the placement of the net. On nine occasions, both members of a pair were captured in one trapping attempt. All grebes were released unharmed and, in most cases, nesting activities were interrupted only temporarily. Of 33 pairs in which one or both sexes were captured, only one deserted its nest. This occurred after both sexes had been captured simultaneously. Perhaps the greatest restriction in using this technique is its seasonal limitation. Outside the nesting period, grebes do not exhibit strong affinities for sites close to shore. This method was also unsuitable for capturing young grebes.

I wish to thank Bruce D. J. Batt and Robert W. Storer for their assistance in reviewing an earlier draft of the manuscript. Fieldwork was funded by National Research Council of Canada and Northern Studies Committee of the Department of Indian and Northern Affairs (grants awarded to Spencer G. Sealy, University of Manitoba), Gulf Oil Canada Limited, Manitoba Department of Renewable Resources and Transportation Services, and National Audubon Society.—ROBERT S. FERGUSON, *Ducks Unlimited (Canada), Box 776, Dauphin, Manitoba, Canada R7N 3B3*. Received 21 September 1979, accepted 30 January 1980.

**Preventing Fox Predation at a Least Tern Colony with an Electric Fence.**—In the summer of 1978, as part of a program for protecting nesting terns at Cape Cod National Seashore, an electric fence was erected around a colony of Least Terns (*Sterna albifrons*), as an anti-predator device. The colony on Nauset Spit, Eastham, Cape Cod, MA contained 138 nests on 17 June; its circumference was one mile.

This colony was one of several being monitored to determine the reproductive success of Least Terns within the Seashore. The area was posted with interpretive signs explaining the situation and urging no trespass; a large buffer zone was created between the outermost nests of the colony and a restrictive fence, as recommended in "Guidelines For The Protection And Management Of Colonially Nesting Waterbirds" (Buckley and Buckley, National Park Service publication, 1976). In addition, tern wardens, student conservation aides, and park rangers patrolled the area daily from 23 May to 30 August. Observers worked solely from blinds; no banding or marking activities were pursued.

To protect the colony against predation by Red Foxes (*Vulpes fulva*), over one mile