A METHOD FOR TRAPPING BREEDING ADULT GULLS

By David K. Weaver and John A. Kadlec

Many thousands of flightless young Herring Gulls (*Larus argentatus*) have been banded, and recoveries of these birds have furnished a wealth of data on the biology of the species. In recent studies, however, it has become apparent that knowledge of parental behavior with respect to reproductive success is lacking. Such information can best be obtained by studying a banded population of breeding adults.

In order to band a great many gulls on their territories, but at the same time cause as little disturbance as possible to the nesting birds, several methods of trapping were considered, including cannon-netting (Dill and Thornsberry, 1950; Thompson and DeLong, 1967), the use of padded muskrat traps and clap-net traps at the nest (Kadlec and Drury, 1969), and the use of soporific drugs (Smith, 1967; Kadlec and Drury, 1969). Cannon-netting and muskrat and clap-net traps could not be used because of their high disturbance effect. A soporific that rendered a gull immobile at its nest without any preliminary flopping (which would alarm adjacent gulls), had no risk of mortality, and had a short recovery time had not been developed at the time of this study.

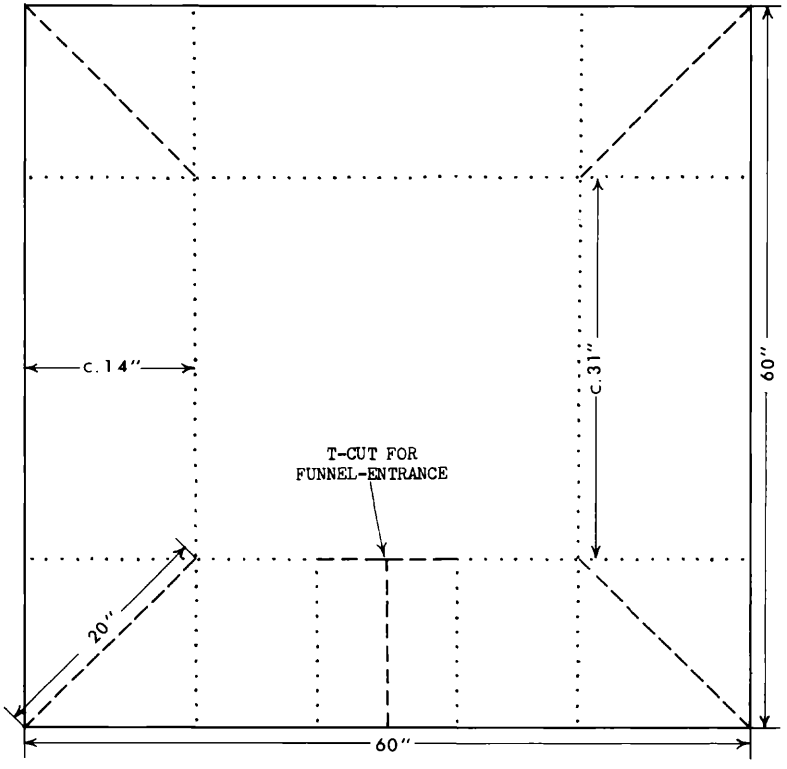
The method of trapping finally used was developed by John C. Coulson of the University of Durham, Durham, England. It was utilized because of its comparatively low disturbance effect, and because it allowed banding of birds at their nests.

The trap was made of 1-inch mesh chicken wire and employed the funnel-entrance principal. "It is not entirely a new kind of trap, as it is a modernization of what is known as the 'lobster pot' trap. Fishermen found that they could catch gulls in lobster pots baited with bread and left on the shore" (Coulson, pers. comm.). A 5-foot square was used initially to form a trap with dimensions of 31″ x 31″ x 14″ (Fig. 1, A). These dimensions were suitable for the grassy and small-cobble beach areas, but were reduced in later traps to facilitate trapping among boulders; the smallest trap we used measured 22″ x 18″ x 12″. The open bottom of the trap was covered with 1 1/2-inch mesh (stretched) fish-twine netting to prevent the escape of a bird if a trap were overturned. The bottom netting was loosely attached to the trap on one or two sides so it could be opened easily to extract the gull.

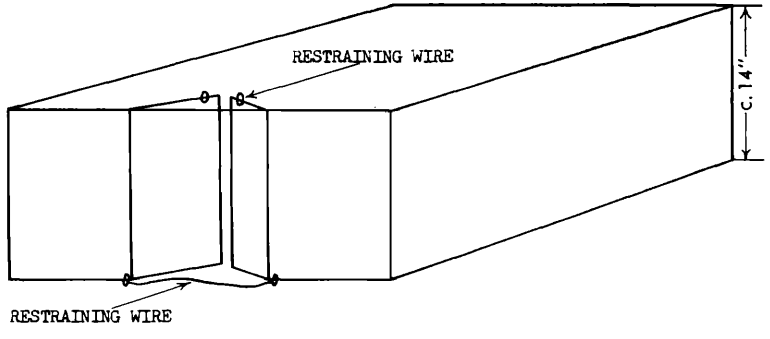
PROCEDURES

The trap was placed on a nest in which eggs were being incubated, and when possible, the funnel-entrance was placed on a gull's normal path of nest-entry. If a path could not be discerned, then, as Dr. Coulson suggested, the trap was placed so that the nest was under the half closer to the entrance. Every effort was made to keep the trap entrance away from neighboring nests so that a bird

Figure 1. Suggested dimensions of the "Coulson trap" (A). Cut on dashed lines and fold into box on dotted lines (A); use restraining wire to secure funnel wings and to hold bottom of trap from spreading open (B).



A



B

would not be kept from entering the trap because of territorial boundaries. If territories were large enough, e.g., in the grassy areas, the positioning of the entrance often was governed by our direction of approach. At our approach, the gull usually would depart its nest by walking away from us; therefore, if the entrance faced our direction, the trapped bird was less likely to escape back through the entrance.

To reduce escapes, the funnel-entrance was partially closed; however, the bird was still able to push its way into the trap with little difficulty. The entrance was formed by cutting down the middle of a 14-inch row of meshes (Fig. 1, A). The rough ends were left exposed to discourage attempts to exit from the trap. To further discourage escape through the entrance, restraining wires were used to secure the wings of the funnel to the top of the trap and to prevent the bottom of the trap from spreading open (Fig. 1,B). When traps were used in areas with slopes or ledges, some rocks were placed in the bottoms to prevent their being overturned and allowing birds to escape through the sides or corners of the loosely-fastened bottom netting.

RESULTS

During June and July of 1967, we trapped and banded adult Herring Gulls on Milk Island off Cape Ann, Massachusetts. In all, 2,096 gulls were captured in 34 traps over 39 trapping days (some of which were curtailed by rain) for an average of about 54 birds per day. Time had to be sacrificed to keep disturbance at a *relative* minimum; even so, productivity was much lower than the mean of 1.06 young/nest observed by Kadlec and Drury (1968). Of the birds trapped, 138 had been banded previously. Two bands were placed on each unbanded bird, the standard aluminum band and an experimental band of Incoloy or titanium. One of the goals of the project is to compare the retentive capabilities of the aluminum band and the experimental bands.

Once a bird was in the trap, it would normally settle down on its eggs with a minimum of difficulty unless the netting was pulled too tautly over the eggs. Once settled, the trapped bird would incubate quietly until we made our banding rounds. Trapped gulls vigorously attempted to escape at our approach. No known mortality occurred as a result of this trapping method; however, minimal injuries often were sustained. Three types of injuries were observed: skin at the base of the upper mandible peeled back by repeated thrusting of the bill through the wire mesh; wrists skinned and bloodied by attempts to fly; and an occasional toe nail caught in the wire mesh and torn.

Dr. Coulson has used this type of trap with some success on other species of sea birds such as terns and wading birds (pers. comm.). Also, in May 1968 and 1969, this trap and techniques were used to trap Great Black-backed Gulls (*L. marinus*).

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BANDING GYRFALCONS (FALCO RUSTICOLUS) IN GREENLAND, 1967

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INTRODUCTION

This paper will summarize the results of a project to band gyrfalcons in Greenland in 1967. For fuller details on some aspects of the falcon-banding project, reference is made to other publications of the author listed at the end of the article.

The gyrfalcon (*Falco rusticolus*) is the largest and most beautiful of the true falcons. It inhabits the north circumpolar regions, mainly in the treeless areas of the Arctic, but also in the sub-Arctic, where some of the population are tree-nesters. A race of dark gyrfalcons is found as well in the Altai Mountains of the Soviet Union, separated from the main circumpolar population.

The gyrfalcon is not as well known as other birds of prey because it nests in remote areas and begins nesting quite early in the season at a time when it is difficult for field workers to move about in northern areas. The gyrfalcon also exhibits polymorphism of color (and possible sexual dimorphism of color and pattern) which has presented a difficult taxonomic problem for ornithologists.