

TRAP FOR CAPTURING SHORE AND SEABIRDS

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INTRODUCTION

In population and behavior studies of birds, it is an advantage if the sex can be identified. The capture technique being employed must not cause desertion of nests, injury to the bird being captured or disturbance to its neighbors. This paper describes a drop trap that causes little disturbance and that incubating sea and shorebirds will readily enter. Since 1964, it has been used successfully in a long-term study of the Red-billed Gull (*Larus novaehollandiae scopulinus*) (Mills; *J. Anim. Ecol.*, **42**: 147-162, 1973; *Ibis*, **121**: 53-67, 1979) at Kaikoura Peninsula, New Zealand. Subsequently it has been used for capturing breeding Oyster-catchers (*Haematopus unicolor*, *H. ostralegus finschi*), White-fronted Terns (*Sterna striata*), Pied Stilts (*Himantopus leucocephalus*), Ring-billed Gulls (*L. delawarensis*), and Black-billed Gulls (*L. bulleri*).

METHODS AND MATERIALS

The frame measures $47 \times 42 \times 29$ cm, is made of 0.64-cm (O.D.) round rod type 304 stainless steel, and is covered on the top and sides

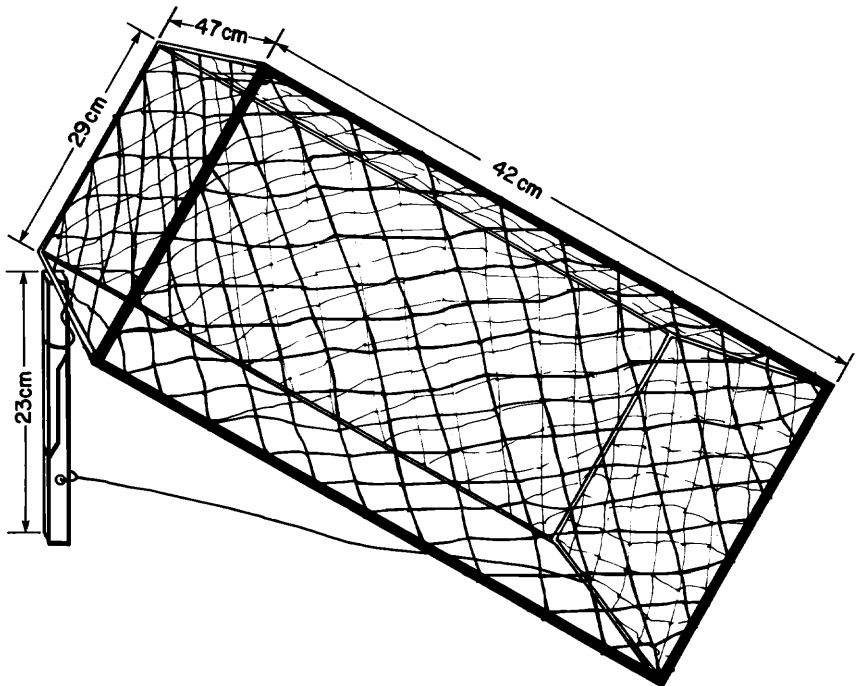


FIGURE 1. Suggested dimensions of the automatic drop-trap.



FIGURE 2. (upper) The trap set over a Red-billed Gull nest. (lower) The captured gull is preparing to incubate while confined.

with 3.81-cm taut mesh nylon fish netting. The top has a small hole (10×10 cm) in the center of the netting through which the captured bird can be held. The trap is propped open at an angle of about 33° by a split peg (23 cm). A nylon line attached from half way up the lower peg extends to the back of the base. The dimensions shown in Figure 1 are suitable for use where nest spacing is 60 cm.

The trap is placed over the nest so that the nylon trip line passes over the eggs. The split pegs are held together by the weight of the trap. When the bird returns to the nest it disturbs the taut nylon line causing the supporting split peg to break and the trap to drop (Fig. 2). Care in placing is essential so that it does not fall on the eggs. For the same reason the back should not be placed too close to the eggs because occasionally the trap bounces slightly forward after it falls. This can be avoided by constructing the frame of heavy gauge wire. When the trap is set, the split peg should be on a slight angle sloping forward. This arrangement helps to ensure that the pegs fall clear of the eggs.

RESULTS

In the 1968–1969 breeding season 580 Red-billed Gulls were captured over a 12-week period and only five eggs were broken by the trap. Both sexes readily entered and most gulls were caught. The time taken to enter varied between 10 sec and 3 min. In trapping Red-billed Gulls it was possible to use two or three traps simultaneously because usually the trapped bird would settle and incubate underneath while confined (Fig. 2).

During the breeding season of 1977, 48 male and 51 female Ring-billed Gulls were caught on Granite Island, northern Lake Superior, Canada. Once captured, no birds escaped or were injured. On the average, trapping times varied from 5–10 min, although on two occasions gulls entered the trap in a matter of seconds after it was set. Neighboring Ring-billed Gulls settled down immediately after being caught, thus showing that the trap caused negligible disturbance in this species.

The trap could be used successfully on nesting White-fronted Terns only when they had small chicks. If trapping was attempted while the adult was incubating, the bird deserted after capture. Oystercatchers and Pied Stilts have also been captured, but it would often take between 15 and 30 min for the bird to enter.

The trap may be baited with bread or fish and used to capture gulls away from the breeding colony. When used in this manner on Red-billed Gulls, two were frequently captured in the same trap. As well as being effective, the trap has the added advantage of being easily transported. In fact, several traps may be designed to fit inside each other.

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