
Hoop-net for the Capture of Barn and Cliff Swallows

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Most banding studies concerned with the Barn Swallow (*Hirundo rustica*) have involved the indiscriminate taking of birds at the entrance or inside the structure used for nesting. We needed to capture individual Barn Swallows on territories for color-marking and designed the trap described here for that purpose. The trap has also been used successfully for capturing Cliff Swallows (*Hirundo pyrrhonota*) nesting inside barns by Wolinski.

Our trap was constructed using wire and mist netting with dimensions as shown in Fig. 1A. The prongs serve as points of attachment and as hinges during operation of the trap. The wire frame is bent to shape using a pattern drawn on heavy cardstock. The wire frame was placed with the prongs lining up with the bottom (or top) shelf string of a mist net. The center of the netting was pulled above the frame about 10-15 cm to form a shallow bag. The netting was then cut using the wire frame as a guide. An extra 2 cm of netting was allowed on the outside of the frame for threading onto the frame. Construction was aided by spreading the mist net onto a light colored surface while cutting. The shelf strings were attached to the frame by use of electrical tape. The shelf string was left slightly loose as this allowed the net to conform to the nest shape.

The traps were attached (Fig. 1B) to the supporting beams by means of wire staples or screw eyelets. The frame was positioned in front of the nest and one prong attached to the beam. The attachment point for the other prong was determined by the fit of the shelf string around the base of the nest. The trap was then swung up and the location of the eyelet for the drawstring established. The drawstring was attached to the trap and strung to a central location (or blind) in the building via eyelets attached to beams or walls. This kept the drawstrings out of flight areas. White string (such as chalk line) was used because it is more easily seen in dim light conditions where it must remain hanging down, thus avoiding possible entanglement of the birds. The drawstring was positioned so as to not obstruct the nest by allowing it to droop down in front of the nest.

Two different methods of operation were used. The first was to use the trap during the day from a blind. The second involved setting the trap(s) about an hour before dark

and arriving before light the following morning to pull them up. During use of the latter method traps were checked prior to departure to insure that no birds remained off the nest because of fear of the trap or were entangled in the string or netting where they would hang all night.

Most birds accepted the trap within 5 min and we did not have any bird refuse to enter the nest upon its first encounter, though some of the untrapped adults of a pair would become trap-shy during daylight operation and refuse to enter the nest until it was removed. Once captured with the trap during the day the birds would not enter the nest a second time while the trap was in place. This was not a problem with night trapping, where on more than one occasion both adults have been captured on the nest at the same time or the remaining adult was captured at a later date with the trap. Tolerance of the trap using the night time method is well illustrated by a female which was trapped for three consecutive nestings on the same nest over a two year period. There were no escapes with either method once the trap was pulled up into place against the ceiling.

We found no adverse effects on adults, eggs or young. Nests in various stages of the nesting cycle were trapped. There were no desertions of nests that contained less than a full clutch of eggs. However, we recommend that caution be used if trapping colonies unaccustomed to human disturbance and that only nests with full clutches of eggs be trapped as attachment to the nest and contents may not be strong enough to avoid abandonment. Nests trapped that contained young less than seven days of age provided the best results, presumably because adults ceased prolonged incubation shortly before or once homeothermy of nestlings was attained (Wolinski, pers. obs.).

Acknowledgements

We wish to express our appreciation to Elwood and Iola Miller, Elmer and Doris Boillat and Russell Stroud for their cooperation and interest by allowing us the use of their farms. Special thanks are due to the Honors Council at Central Michigan University for a grant which funded the early phases of the study under the auspices of the Center for Cultural and Natural History, and to Dr. H.D. Mahan as Director. Assistance with figure preparation was provided by Judy Novak Kelley whose work we gratefully acknowledge. The manuscript also benefited greatly from comments from C.R. Brown, J.A. Jackson and R. Lohofener.

Fig. 1A

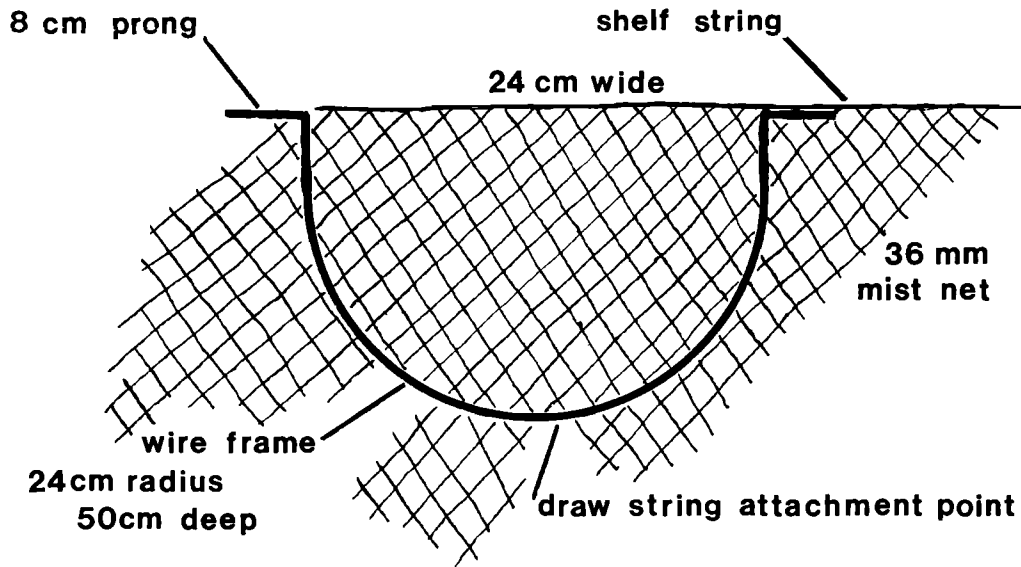


Fig. 1B

