AN IMPROVED CAGE TRAP FOR BIRDS OF PREY

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DIGEST

The ancient Indian idea of trapping birds of prey with a cane cage covered with horsehair nooses has been altered and used successfully by contemporary bird banders. Several modifications on the modern trap increase the catch of birds and trapping efficiency.

INTRODUCTION

For centuries Indian falconers trapped birds for their sport using a cage made of cane which contained several small birds as bait. The toes of a striking falcon would become ensnared in slip-nooses of horsehair tied to the cage. MacPherson (1897) named this device a "shikra trap." The Indian name "bal-chatri" (boy's umbrella), given by Craighead and Craighead (1942), is now used commonly.

Berger and Mueller (1959) described two designs for bal-chatri traps made of hardware cloth mesh. The first was a cylindrical trap, six inches in diameter and two and one half inches high. The second was hemicylindrical ("Quonset" shaped), twelve inches long, ten inches wide, and six inches high. Nooses of monofilament nylon were tied to the tops of both and secured with commercial bonding cement.

MODIFICATIONS

In our hawk-trapping experience, we have encountered several difficulties with the described traps:

1. Mice used as bait in the traps have the frustrating ability to pull nooses into the cage and gnaw through the nylon. A pair of efficient mice can ruin many hours of labor and can spoil trapping success in a few hours of nibbling.

2. Birds of prey coming to the bait only occasionally strike the trap directly on top. They usually land beside the cage, hopping around it (often for long periods of time), striking at the mice moving inside. When their circling attempts have been frustrated, they usually jump atop the trap and become caught. If, however, they are disturbed and flushed while circling, many are reluctant to return to the cage.

3. The top of the cylindrical cage often affords a very poor view of the mice inside, especially if viewed from an acute angle. A hawk can easily see mice inside the hemicylinder regardless of trap position.

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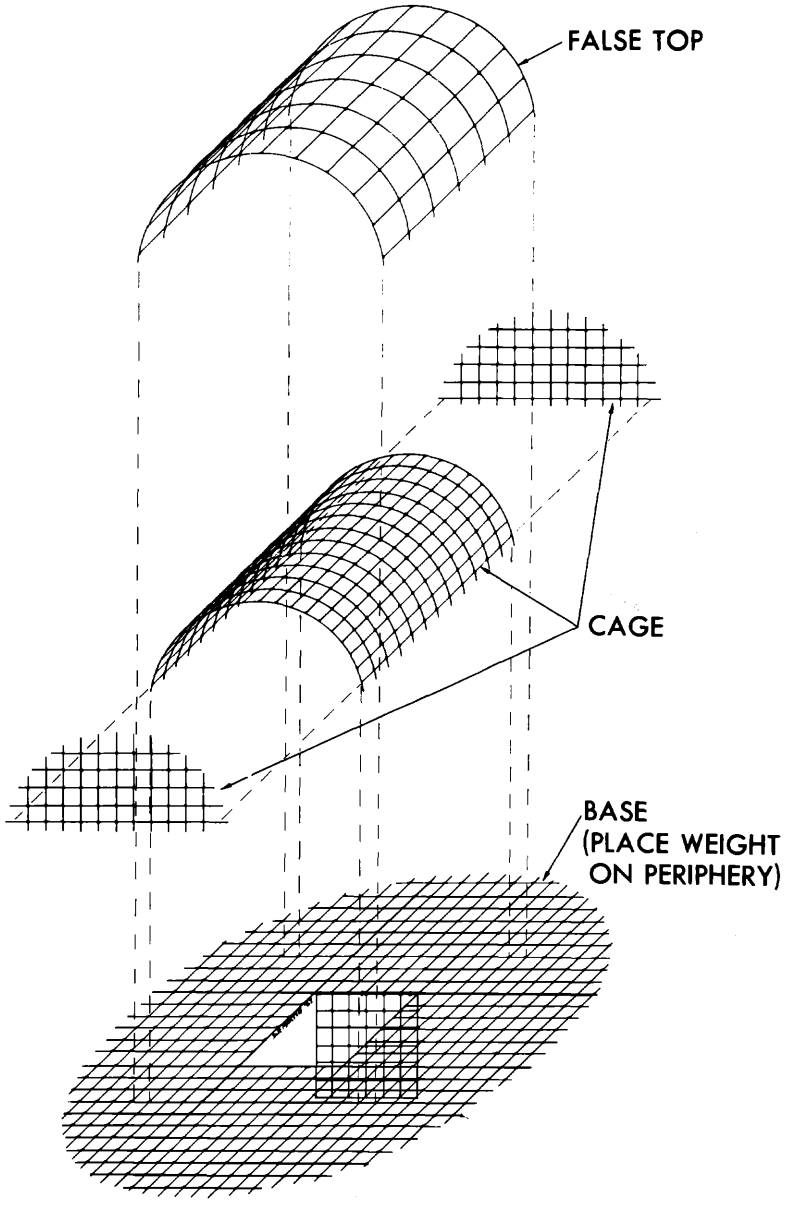

Figure 1. The modified bal-chatri disassembled. A circular weight should be fastened to the periphery of the base.

Our modifications of the wire-mesh bal-chatri eliminate these problems (Figure 1). The cage is a hemicylinder (a dome-shaped cage would be ideal but is almost impossible to fashion from hardware cloth). The "Quonset" shape allows maximal vision of the bait inside from any angle.

The cage is affixed to a circular base that is larger than the cage itself, making a ledge on which a hawk can become ensnared while "circling" the trap. The base should extend at least two inches from the corners of the cage. A hoop fashioned from a small aluminum rod (available from most small-animal veterinarians) and fastened to the circumference of the base will weight and stabilize the trap. Hardware cloth can be bent very tightly around the hoop with pliers. The circular weighted base will usually cause the trap to right itself even when erratically dropped from a moving vehicle.

The problem of mouse-chewed loops is solved by installing a false top of larger wire mesh over the hemicylindrical cage. Monofilament snares are tied to the false top and protruding portions of the circular base. Snare tying, snare density, and trap weights have been described by Berger and Mueller (1959) and Berger and Hamerstrom (1962).

We have consistently captured sparrow hawks (*Falco sparverius*), using mice as bait, with a modified bal-chatri having a base twelve inches in diameter and a cage six inches long and wide and three to four inches high. The cage, base, and false top are made of half-inch mesh with a clearance of half an inch between the cage and false top. We have used larger and heavier traps with stronger nooses and false tops made of one-inch mesh to efficiently trap red-tailed hawks (*Buteo jamaicensis*), red-shouldered hawks (*B. lineatus*), broad-winged hawks (*B. platypterus*), and marsh hawks (*Circus cyaneus*) with mice as bait.

This design can also be used (made from larger-mesh hardware cloth or chicken wire) with sparrows, starlings, or pigeons as bait to capture many species of raptors (Berger and Hamerstrom, 1962). The false top here is valuable in preventing bait birds from pulling nooses through the wire mesh and hanging themselves.

SUMMARY

The wire-mesh bal-chatri hawk trap has been modified to consist of three parts: a hemicylindrical cage, a large weighted circular base, and a false top. This design allows maximal vision of the bait inside, will quickly and consistently trap wary hawks that circle the cage, and will prevent mice from chewing through nylon nooses or bait birds from hanging themselves. The size and weight of the trap and the bait can be varied according to the species being trapped.

LITERATURE CITED

BERGER, D. D. and HAMERSTROM, F. 1962. "Protecting a Trapping Station from Raptor Predation." *J. Wildl. Mgmt.*, **26**(2): 203-206.

BERGER, D. D., and MUELLER, H. C. 1959. "The Bal-Chatri: A Trap for the Birds of Prey." *Bird-Banding*, **30**: 18-26.

CRAIGHEAD, F., and CRAIGHEAD, J. 1942. "Life with an Indian Prince." *National Geographic*, **81**(2): 247.

MACPHERSON, H. A. 1897. "A History of Fowling." David Douglas, Edinburgh.

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CAPTURE AND CARE OF PILEATED AND RED-HEADED WOODPECKERS

By ROBERT L. RUMSEY

Two methods of stocking an outdoor aviary with Red-headed (*Melanerpes erythrocephalus*) and Pileated (*Dryocopus pileatus*) Woodpeckers have been tried at Alexandria, Louisiana. Adult birds were captured and put in an aviary, and nestlings were raised from the age of 26 to 28 days. Adult birds were the more satisfactory; they readily acclimatized to the aviary.

Information on the care and maintenance of these two species in captivity is sparse. Bent (1964) gives an account of a young Red-headed Woodpecker being hand-raised from the nest to adulthood. Hoyt (1950) captured a nestling female Pileated and kept it for 9 years. Kilham (1959) reared a female Pileated and several other species of woodpeckers. Pfitzenmeyer (1956) raised nestling Pileateds to adulthood, but other researchers at Pennsylvania State University were unsuccessful in keeping Pileateds captured as adults (Progr. Rep. for Proj. 1256. 1959. Pa. State Univ., University Park).

THE AVIARY

An aviary was constructed for a study of ways to prevent woodpecker attacks on wooden utility poles. It provides a high-risk testing area for materials that may prevent attack. The structure (Fig. 1) is made of metal framing enclosed by 1-inch mesh poultry netting, and is located in a quiet park-like area. There are five contiguous cages, each measuring 10 × 20 × 8 feet. Each cage has a 3- × 8-foot gate framed with angle iron. A 6-foot-wide strip at the top of each cage is covered with galvanized roofing to afford protection from bad weather. This design has proved satisfactory. The metal framing prevents damage by the birds, and the poultry netting affords light, ventilation, and perching sites.