A Technique for Trapping Territorial Magpies

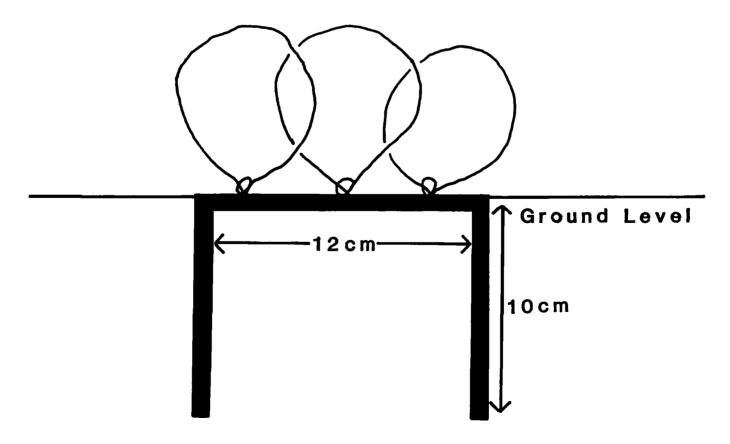
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s part of a behavioral study on Black-billed Magpies A(Pica pica) conducted within the city of Edmonton Alberta, it was necessary to capture and individually mark resident birds. However, their wary nature makes magpies difficult to capture. I found conventional traps such as the ladder trap and the circular live trap (Alsager et. al. 1972) unsatisfactory because they were awkward to relocate, required prebaiting, and were difficult to maintain in an urban environment. Other traps such as the V-shaped drop trap (Johnson 1972), pheasant trap (Johnson 1972), Bal-Chatri mat (Berger and Mueller 1959) and cannon nets (Dill 1950, Salyer 1955), although not used during this study, have met with limited success when used by other researchers (Buitron pers. comm., Reynolds pers. comm., Trost pers. comm.). Baeyens (1981) and Buitron (1983) captured magpies using monofilament-line leg snares placed around a live decoy bird or bait, however, they provided no clear description of these techniques. I describe here a similar trapping system using a tethered bird and noosecovered wickets.

Methods

Noose-covered wickets (Figure 1) were made from 12-14 gauge (2 mm diameter) wire cut into approximately 32-cm lengths; sturdy wire clothes hangers can be used for this purpose. Each section was bent into a wicket with legs 10 cm long and a cross bar of 12 cm. Three or four slip nooses, 6 to 9 cm in diameter, were made from green nylon non-reflective fishing line (7.75 kg or 15 lbs test), and attached to the cross bar. Hindsight suggests that the cross bar could be lengthened to hold more nooses.

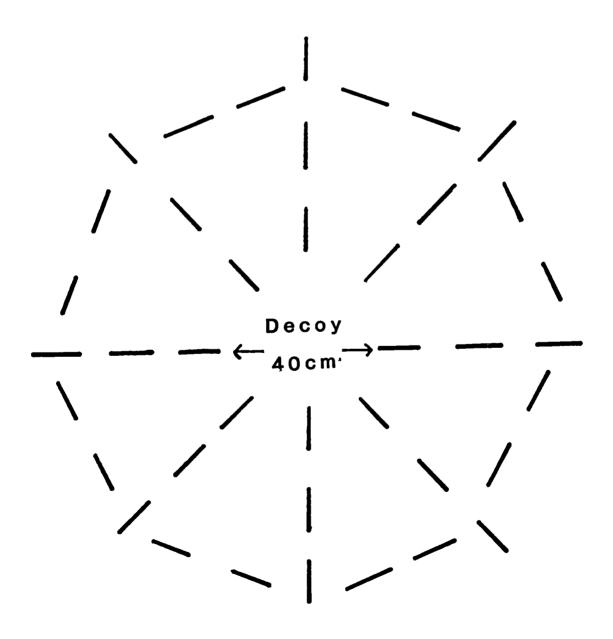
Figure 1. Nooses of monofilament non-reflective fishing line (7.75 kg or 15 lbs. test), were attached to #14 gauge (2 mm) wire bent in the shape of a square wicket. Wickets were placed flush with the ground. Nooses were propped up by vegetation (blades of grass).



The noose-covered wickets were pushed into the ground in a wagon-wheel configuration, leaving a circle of 40 cm diameter in the center in which to tether a live magpie decoy (Figure 2). It was determined that adult males elicited the best response when used as a decoy. Areas of short vegetation (rather than bare areas) were selected in order to camouflage the wickets and nooses. I found it important to stand the nooses at an angle oblique to the ground; usually this was accomplished by propping nooses against blades of grass. The decoy was fitted with a neck collar made from 18 kg (40 lbs) monofilament-line, large enough to move freely around the bird's neck but snug enough to not slip over its head. A 15.3 cm (6 inch) 18 kg (40 lbs) steel fishing leader with ball bearing swivels was used to tether the bird to the ground by clipping one end to the collar and the other to a wicket placed at the center of the trap configuration.

Because of the intense activity near the nest site during the reproductive season (March through July), placing the trapping apparatus near the nest decreased the response time of the birds. Territorial owners often responded aggressively to the "intruding" bird and were caught within minutes. Captured birds were claimed by placing a dark cloth over them while extracting them from the leg snares.

Figure 2. Wickets were placed in a wagon wheel configuration with the decoy bird placed at the center.



Results and Discussion

No territorial magpies were captured when ladder traps or circular traps were used, even for extended periods. Conversely, at least one bird was captured at 36 of 39 sites (93%) when noose-covered wickets were used. At 20 nest sites on the main study area, where trapping effort using the technique was greatest, both male and female were caught at 13, only one individual at 6, and neither at 1. No birds deserted their nests after being captured. Of 54 birds captured using nooses, 32 were males and 22 were females, based on measurements (Scharf unpublished) and behavior. Although not significant, this difference may indicate that males are more aggressive in defending territories or that males patrol their territories more often than females, which spend much time in their nests during the reproductive period.

Although it was not the intent of this study to recapture individuals, it is possible to do so using the technique I have described. If an attempt at capturing a particular bird has resulted in a bird escaping from the nooses, the technique could be adapted for use on other birds which frequent the ground and exhibit strong territorial behavior.

Summary

A trapping technique used to capture territorial Black-billed Magpies (*Pica pica*) in an urban setting is described. Noose-covered wickets placed around a live decoy were effective in capturing at least one member of a pair of magpies in 93% of cases where it was tried. This technique appears superior to conventional methods for capturing magpies and may also be effective for capturing other territorial birds.

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Literature

Alsager, D., J. Stenrue, and R. Boyles. 1972. Capturing Black-billed Magpies with circular live traps. J. Wildl. Manag. 36:981-983.

Baeyens, G. 1981. Functional aspects of serial monogamy: the Magpie pair-bond in relation to its territorial system. Ardea 69:145-166.

Berger, D. D., and H. C. Mueller. 1959. The bal-chatri: a trap for the bird of prey. Bird-Banding 30:18-26.

Buitron, D. 1983. Extra-pair courtship in Black-billed Magpies. Anim. Behav. 31:211-220.

Dill, H. H., and W. H. Thornsbury. 1950. A cannon-projected net trap for capturing waterfowl. J. Wildl. Manag. 14:132-137.

Johnson, J. 1972. Ecology of the Black-billed Magpie in Southeastern Washington. MSc. Thesis. Washington State University.

Salyer, J. C. 1955. Improvements in the cannon net traps. U. S. Fish and Wildl. Ser., Branch of Wildl. Res., Wildl. Manag. Ser. No. Washington. 27p (multilith).

(Western)

