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A SIMPLE, INEXPENSIVE TRAP FOR CAPTURING PARROTS AND OTHER CAVITY NESTING BIRDS

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Many studies require that birds be individually caught during the nesting cycle for marking and sampling. Numerous forms of trap for capturing nest box or cavity-nesting birds on the nest have been devised. The simplest of these may be just a hand net, sliding door or similar that is set off manually, but these require constant monitoring by the researcher. Somewhat more sophisticated designs often operate automatically, through the use of a spring-operated mechanism (e.g. de Haven and Guarino 1969) and/or with a trigger stick to prop open a trap door (e.g. Stutchbury and Robertson 1986; Robinson *et al*. 2004). Many of these traps have been designed with small, nest box breeding northern hemisphere songbirds in mind. However, we have found a number of these designs inadequate for trapping parrots, and other large and dexterous species, in the southern hemisphere. Some species are capable of opening spring-loaded doors or avoiding dislodging the sticks or perches required to trigger other traps. Here, we describe a simple, cost effective, automatic trap that we have used successfully for trapping parrots and other large birds in nest boxes. This trap can be easily installed in side- or top-opening nest boxes, and can be adapted to some natural cavities.

Our trap consists of a rectangular piece of light gauge, 12.5 millimetre wire mesh, which is large enough to cover the entrance hole of the nest box with approximately 2–5 centimetres (depending on the size of the nest box) protruding past the bottom edge of the hole (Fig. 1). The sharp edges of the mesh should be filed off. The mesh is attached to two small picture hooks, by placing the horizontal wire forming the uppermost edge of the mesh rectangle in the hooks and bending the hooks closed to still allow the mesh to swing freely. The hooks can be connected to each other with strong tape to keep them parallel and a fixed distance apart. To place the trap in the nest box, we used pushpins to fix the hooks onto the inside wall of the nest box, just above the entrance hole. The trap should be placed so that the wire mesh fully covers the entrance hole and can swing inwards freely.

Nesting birds must push past the mesh to enter the nest box. As the mesh will only swing inwards the bird is then trapped. This trap is particularly effective because the wire mesh provides full coverage of the entrance hole. Trapped birds must perch on the mesh itself when trying to open it from the inside to exit the nest box, making it impossible for them to pull the door open inwards and escape.

A worthwhile addition to the trap is a small tag attached to the wire mesh in such a way that it protrudes horizontally out through the entrance hole when the trap is initially set but falls down vertically, and is thus concealed inside the box, when the wire mesh has been swung inwards. This provides a visual indication that a bird has entered the nest box, thus eliminating the need to regularly check inside the boxes.

These traps can be constructed very quickly and easily under field conditions with a minimum of tools and technical expertise. The materials required are readily obtainable from most hardware stores and are very cheap. Proficient use requires only minutes of training, unlike many spring-operated traps or mist nets, and installation or removal takes only seconds.

The trap has so far proven to be effective with Rosellas *Platycercus* spp., Common Starlings *Sturnus vulgaris*, Great Tits *Parus major*, and some other parrot species. In the course of our studies the trap had virtually 100 per cent effectiveness, and worked even with repeated captures of the same individual separated by as little as one day. In most cases the bird entered the box within minutes, regardless of whether it had prior experience of the trap. Thus, capture rate is generally limited only by the normal visitation frequency of the nesting birds. No cases of injury were attributed to the trap during our studies. Obviously, traps must be checked regularly and not left set for long periods unattended. We found that birds and their offspring were safe in the nest box for up to one hour after capture.

In summary, the main advantages of this trap over many previous designs include: 1) economy; 2) ease of construction and use; 3) adaptability to a wide range of nest configurations and species; 4) effectiveness with parrots and other large, agile or dexterous species (e.g. Common Starlings); 5) automatic operation with the ability to catch more than one bird without being reset (we sometimes caught both parents at almost the same time as pairs often visit the nest together, with the first parent caught acting as a 'call bird'); and 6) it can not be disturbed or accidentally triggered by wind or active nestlings within the box. Although numerous traps have been devised and proven effective for catching birds automatically at nest boxes, we believe the simple design described here has a unique set of features and for many studies could offer a substantial improvement in efficiency and adaptability over most previous designs.

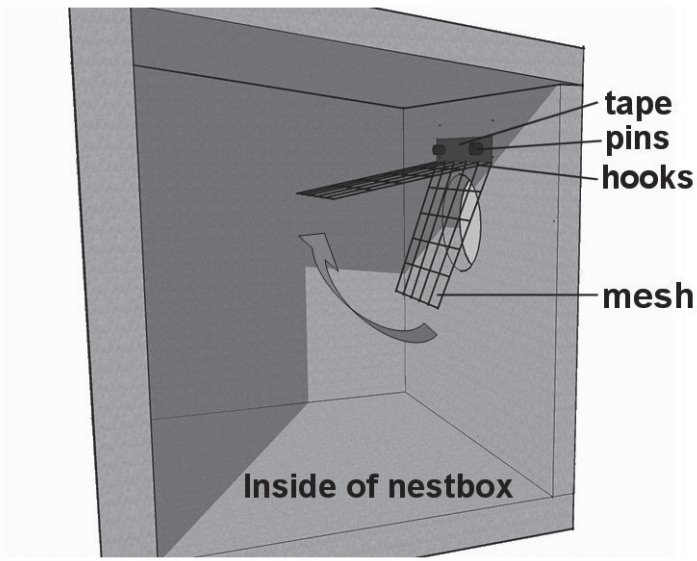

Figure 1. Nest box trap used for parrots and other birds, showing the placement and movement of the swinging wire mesh door.

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