

## A lightweight portable, walk-in trap for catching vultures

David R. Barber<sup>1</sup> and Keith L. Bildstein

Acopian Center for Conservation Learning, Hawk Mountain Sanctuary, 410 Summer Valley Road, Orwigsburg, PA 17961, U.S.A.

<sup>1</sup>Corresponding author: barber@hawkmtn.org

Old and New World vultures can be trapped using many techniques, including cannon nets, padded leg-hold traps, and walk-in box traps (Bloom *et al.* 2007). For vultures that feed in groups, walk-in traps often are the most effective method for capturing large numbers of birds (Bamford *et al.* 2009). That said, most walk-in traps are heavy, difficult to move, and difficult to construct. Here we describe a lightweight, walk-in trap that can be disassembled and reassembled in less than an hour, and in which all of the parts fit into the back of a normal USA-style pick-up truck.

The 40.5 kg trap is  $3.0 \times 3.0 \times 1.8$  m ( $10 \times 10 \times 6$  ft) with a  $1.2 \times 1.2$  m ( $4 \times 4$  ft) door that swings on hinges and is held open by a rope leading to a blind (Figures 1 and 2). The framework is 2.5 cm (1 inch) inner diameter aluminium tubing held together with aluminium slip-on handrail fittings (Figure 1). The fittings are secured to the pipe with set screws, simply slide the fitting on the end of the pipe and turn the set screw to tighten; an Allen wrench is the only tool needed to erect or disassemble the structure.

The door locks using a gate latch for a chain-link fence (Figure 3). The trap is covered with twisted polyethylene netting typically used for soccer (i.e. football) goals with 10cm square panels that is attached to the frame using cable (i.e. zip) ties. The netting, which is sewn together so that it can be applied tent-like to the framework, is less damaging to captured vultures and is highly recommended. The door is closed with a rope of 30 m pulled by the operator in a hide. The gate latch for the door consists of two pieces, a small metal bar and a latch (Figure 3). The small bar is attached to the door using a bolt and electrical tape. The latch is attached to a small piece of wood using the screws provided. Two holes are drilled through the tubing and the piece of wood is attached to the tubing using 8.7 cm screws (Figure 3). The location of the latch on the trap is shown in Figure 2.

The trap consists of 8 corner-fittings, 4 T-fittings, 2 elbow-fittings and 2 hinge-fittings available from McNichols Co. (Atlanta, Georgia, USA) at the cost of \$US 198 in 2010. The trap requires 40 m of

aluminium tubing: 9 horizontal pieces 3 m in length, 5 vertical pieces 1.8 m in length, and 3 pieces 1.2 m in length for the door. Aluminium tubing (2.5 cm inner diameter, \$15 for 3 m [10 ft.]) and gate latch can be found at most local hardware stores. The

soccer (i.e. football) netting was purchased from Seattle Marine & Fishing Supply Co. (Seattle, Washington, USA) for the cost of \$8.99/m (15 m are needed). The total cost of the trap was approximately \$US 540 in 2010.



Figure 1. Portable, lightweight, walk-in trap with door open and taxidermy mounted Turkey Vulture (*Cathartes aura*) for scale. (photograph: David R. Barber).

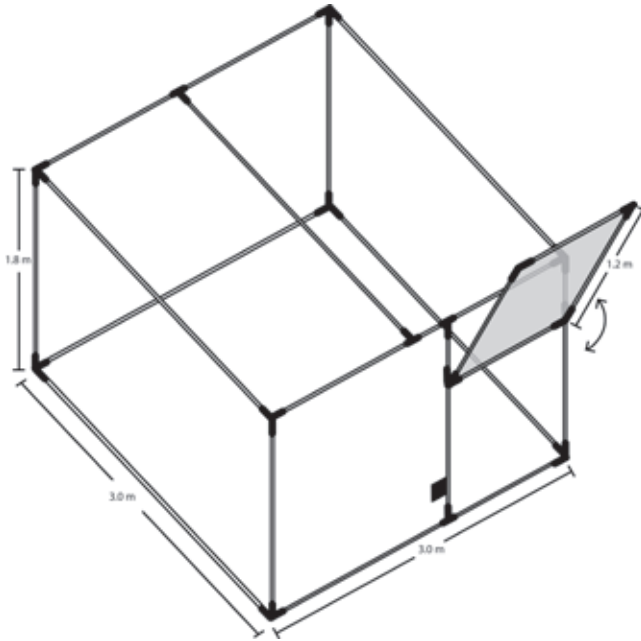


Figure 2. Schematic of portable, lightweight, walk-in trap, with door (shaded area) open, small black square shows location of gate latch.



Figure 3. Close-up of gate latch. (photograph: David R. Barber)

This trap has been used for three years with little maintenance other than occasional repainting and replacing cable (i.e. zip) ties when removing and re-attaching the netting after moving the trap. Whereas we have a swinging door on our trap, this trap could easily be fitted with a funnel that allows vultures to enter and would not require constant monitoring.

We recommend that those interested in catching large numbers of vultures consider constructing and using this type of trap. Those inclined to do so are welcome to contact us with any questions

they may have.

### **Acknowledgements**

We thank Sarkis Acopian and the Acopian family for supporting our work with New World Vultures, and Hawk Mountain Sanctuary for allowing us to pursue these efforts.

We thank Wendy Frew for creating Figure 2 and helpful comments from two reviewers. This is Hawk Mountain Sanctuary contribution to Conservation Science number 191.

### **References**

- Bamford, A.J., Monadjem, A., Diekmann, M. & Hardy, I.C.W. 2009. Development of non-explosive-based methods for mass capture of vultures. *South African Journal of Wildlife Research* 39: 202-209.
- Bloom, P.H., Clark, W.S. & Kidd, J.W. 2007. Capture techniques. In: Bird, D.M. & Bildstein, K.L. (eds). *Raptor Research and Management Techniques*. pp 193-217. Hancock House, Surrey, Canada.

**Keywords:** vulture, trapping, live trap