

Keeping-cages and keeping-boxes

NIGEL A. CLARK

Department of Zoology, University of Edinburgh, West Mains Road, Edinburgh EH9 3JT, UK

Citation: Clark, N.A. 1986. Keeping-cages and keeping-boxes. *Wader Study Group Bull.* 46: 32–33.

Keeping-cages have been used to many years to house birds which have been extracted from cannon-nets and are awaiting processing. The design of special cages for Curlews *Numenius arquata* and other long-legged waders has already been published (Bainbridge 1975, Stanyard 1979). However, the basic design of keeping-cages for smaller waders has not been published, although cages of this design have been in use by some groups for many years. This paper describes the design of both keeping-cages, and some simple keeping-boxes which can be used to move birds from the net to the keeping-cages.

Keeping-cages

The design is shown in Figure 1. The best material has proved to be hop sacks made from 50/50 hessian and polypropylene. This is strong, and dark enough to deter the birds from escaping. Each cage consists of a 4.2 m long semi-circular tunnel which is divided into seven compartments, each with a hole in the top for inserting and removing birds. The cage is kept rigid by eight 1.4 m long wire hoops, the ends of which are pushed into the ground. A guy-rope at each end, with an elastic loop, keeps the structure taut and prevents birds from escaping through the slits.

A keeping-cage is constructed as follows:

- ❑ Mark out a 4.7 m × 0.9 m piece of sacking is marked out as shown in Figure 2a. The sacking is now folded along B1 and A1, is sewn to C to form a narrow tube. Repeat through A8–B8 making sure that all the tubes are on the same side.
- ❑ Now cut along D to make the slits for the entrance holes and on each side sew a flap that extends about 20 mm over the slit. This overlap will help prevent birds escaping.
- ❑ Cut eight semi-circular pieces as shown in Figure 2b, fold along E–E and sew this flap down. Attach each of the semi-circles to the strip by sewing E–E to B. This is best done with thick twine and a sacking needle.
- ❑ When all the semi-circles are sewn in, thread the wire hoops through the tubes.

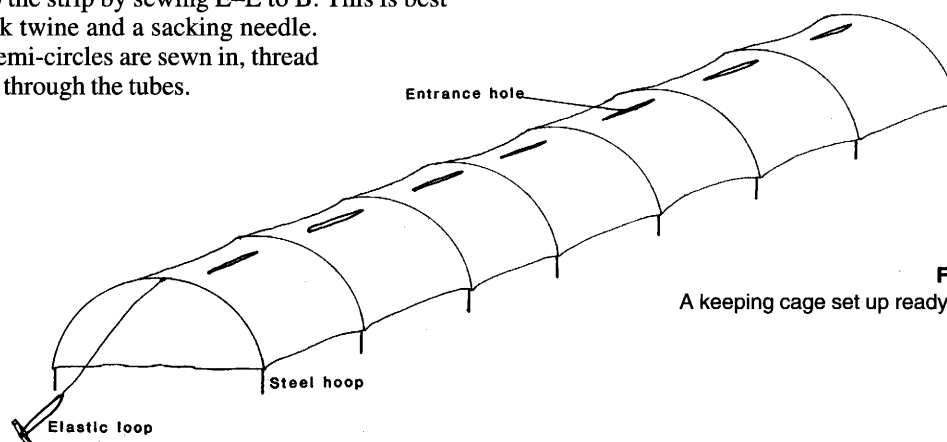


Figure 1.
A keeping cage set up ready for use.

The best hoops are made from 5 mm galvanised pre-stressed steel wire. Ordinary fencing wire is not strong enough to be pushed into the ground without it bending.

- ❑ Finally, tie a guy-rope around the top of the hoop of each end wire. On one end guy-rope tie a 300 mm loop of thick elastic. This not only tensions the cage, but when the cage is folded up (like a concertina), the loop can be placed around all the hoops and sacking to keep the cage closed during transit.

When birds are caught in winter or the cages have to be erected on damp ground, they should be placed on top of hessian covering material or, better still, on strips of old carpet. This prevents the birds getting cold and wet whilst in the cages. A complete keeping cage will normally hold about 35 Oystercatchers *Haematopus ostralegus*, 100 Knot *Calidris canutus* or 140 Dunlin *Calidris alpina*.

Keeping-boxes

In recent years, we have been operating with experienced, but small, teams. By using various types of keeping boxes to transfer birds from the net to the keeping-cages, all members of the team can extract birds from the net, thus speeding the process. At first we used collapsible boxes of the type designed by Sheldon (1977). However, although useful, these boxes are easily damaged. We then tried converted wooden fruit-boxes and although these were better, they lasted only about one year. For the past five years we have been using 25 litre plastic containers. These come in a variety of shapes, but the best for small waders (up to the size of Grey Plovers *Pluvialis squatarola*) are rectangular with dimensions of about 400 × 300 × 200 mm and a carrying handle moulded into the top. To prepare the boxes for use, cut a 150 mm hole is cut in the centre of the largest side and sew a piece of soft rubber, with a cross cut in the centre of it, over the hole. This



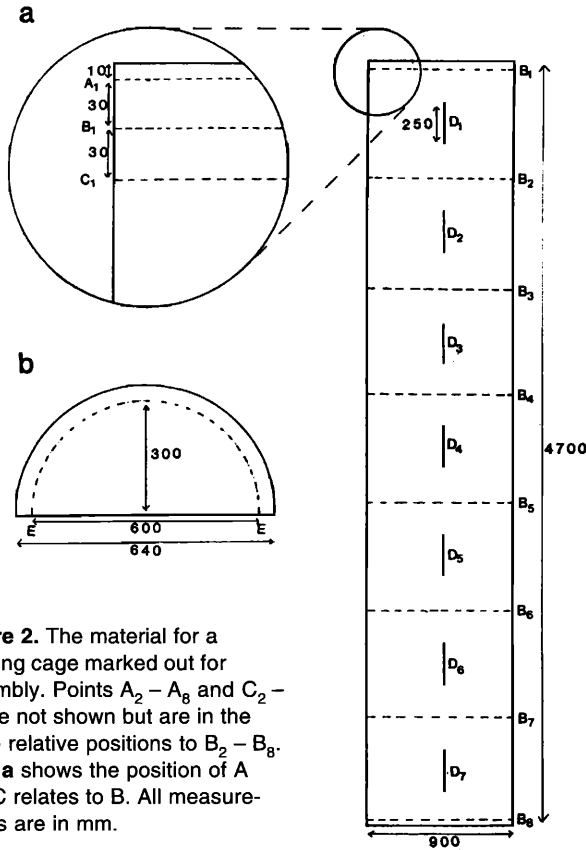


Figure 2. The material for a keeping cage marked out for assembly. Points $A_2 - A_8$ and $C_2 - C_8$ are not shown but are in the same relative positions to $B_2 - B_8$. Inset **a** shows the position of A and C relates to B. All measurements are in mm.

enables a bird to be placed in the box with one hand. We have found that a piece of an old wellington boot works well for this flap, as it is soft enough not to harm the top, and it and the remaining sides have 100–200 5 mm-diameter holes drilled in them to allow ventilation. Do not drill holes in the lower half of the sides, otherwise small waders such as Dunlins could get their bills caught in them.

These boxes will hold up to 15 Dunlins or 10 Knots for transfer to the keeping-cages. Boxes of this type should be used to keep birds in captivity for only *very short periods*, otherwise condensation forms inside the boxes and the birds' feathers become wet even if they are dry when placed into the box. This problem is reduced if a piece of carpet is used on the bottom on the box, but this must be washed regularly. Although these boxes are more bulky to transport than collapsible boxes, they have the advantage that they are virtually indestructible, and can even be used when empty as seats for the processing team!

References

Bainbridge, I.P. 1975. Curlew, cramp and keeping cages. *Wader Study Group Bull.* 16: 6–8.
 Sheldon, J. & Williams, A. 1977. Instructions for the construction of boxes suitable for the keeping of waders. *Water Study Group Bull.* 19: 21–24.
 Stanyard, D.J. 1979. Further notes on Curlew cramp and keeping-cages. *Wader Study Group Bull.* 27: 19–21.

