

# Banding System and Technique in the Field

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In the last issue I dealt with banding standards and measurements in the field. This paper deals with tools and a system used in a permanent banding station.

## Introduction

One of the difficulties of banding is that even after mastering the art of banding one still has to find suitable tools and a good system before being able to operate efficiently. Since the metric system is not yet the accepted standard in this country, metric system tools are frequently difficult to obtain and often have to be modified to suit ones purpose.

Additionally it is pointless taking data from specimens if they are not easily comparable with other results. Shoddy paperwork not only wastes time but is frequently useless since it is difficult, or perhaps impossible, to decide just what is meant by abbreviated notes taken months or years before, particularly if originally recorded by another person.

## Tools

### Measuring

**RULES—** 0-6 inch with a metric scale on one side; metal, preferably stainless steel.  
0-12 inch as above.  
0-3 foot steel tape with metric markings on one side.

**DIVIDERS—** 5 inch, usually obtainable from engineering drawing sets.  
7 inch, obtainable from large suppliers of drawing tools.  
For larger measurements, use modified blackboard compasses.

### Weighing

**SPRING BALANCES—**"Pesola" spring balances made in Switzerland are imported by the Association from the BTO, and are excellent, particularly for non-permanent situations. The current "Pesola" range, although not necessarily available in Australia, includes: 0-10 gm, 0-30 gm, 0-100 gm, 0-300 gm, 0-1 kg and 0-2½ kg.

**BEAM BALANCES—** These are more accurate than spring balances and should be used in permanent stations.

**BAGS—**A range of bags is necessary for holding birds prior to and during weighing. Use of a single bag is considered unsatisfactory and dirty. It will become very soiled and parasites will pass between birds. When a single weighing bag is used, there is a strong tendency to consider the weight of the bag as remaining constant. In fact, its weight can increase from 2 to 50 grammes, from a clean to dirty state depending on the species being captured, the size of the bag, and the weather. A 10 per cent increase in bag weight is not uncommon.

**MODIFICATIONS TO TOOLS—**To permit rules to be used accurately, a "stop" should be fitted. The "stop" generally takes the form of a brass angle butted to the end of the rule and joined with "Araldite" or similar adhesive. This permits the carpal joint to be stopped against the "butt plate".

Where dividers are to be used to measure eggs the sharp tips should be filed off and the ends bent in by about 30 degrees to permit the extreme ends to be measured. Where many eggs are to be measured, engineering vernier calipers are ideal although they should be used with caution as the adjustment screw operation exerts sufficient pressure to break most small eggs.

## Method

The system described here is suitable for permanent banding station operation. It is the system in use at Fair Isle Bird Observatory (U.K.).

Large numbers of birds are often caught in a series of a dozen Heligoland traps. Because of the numbers caught, a series of 'holding' boxes is built along one of the walls of the banding room. Birds are released through a trapdoor in the wall when work is completed.

When a bird is removed from a holding box, the sliding cover is reversed to show white for empty instead of red for occupied. The bird is then placed in a bag.

*Note.* Birds caught late at night are frequently held until dawn before release.

The procedure follows:

1. The bag containing the bird is weighed while the catching time and trap number are noted on the standard form.
2. The total weight of the bird and bag is recorded.
3. The bird is removed from the bag which is replaced on the scales while the identification is checked and the bird examined for injuries.
4. If uninjured the bird is banded.
5. The species, band number and the weight of the bag are recorded.
6. Wing, bill, tarsus and tail measurements are taken and recorded.
7. If possible the bird is aged and sexed.
8. The wing formulae are taken and the bird is examined for racial characteristics where these may be of interest.
9. Mallophaga and other parasites may be collected and a moult card may be completed where time permits and if anyone is interested.

Where large numbers are being taken, only items 1 to 5 are completed, these being done at the catching box of the traps for more common species. A normal run of items 1 to 8 takes

roughly five minutes. Of course, this is reduced where two or three persons are operating the banding room as a team. A full examination can take over 30 minutes and this must be justified on scientific grounds before a bird is submitted to such an examination.

Ageing by skull ossification or sexing by cloacal examination is attempted only in cases where no other method is known.

### Recording

The banding room sheets are an internal recording scheme and are not official. When time permits all information is abstracted from these sheets for the consolidated logs and the BTO returns.

(For the record, 7,335 birds of 134 species were banded at Fair Isle Bird Observatory during 1968; 79 birds ringed at the observatory were recovered elsewhere, while 30 birds from other locations were recovered.—Fair Isle Bird Observatory Report, 1968).

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## Bird Banding Supplies

The following are the revised prices for supplies stocked by the Mist Net Service (of the Association) and these prices are now operative.

### Standard Mist Nets

Black terylene, 3-shelf, 14" diagonal mesh, lightweight thread.

20 ft x 9 ft	\$6.00	30 ft x 9 ft	\$8.20
40 ft x 9 ft	\$10.60	60 ft x 9 ft	\$14.30

### Special Large 4-shelf Nets

Other specifications as for standard nets.

30 ft x 12 ft	\$9.55	40 ft x 12 ft	\$14.00
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### Wader Nets

Black terylene, 3-shelf, 2" diagonal mesh, lightweight thread.

40 ft x 9 ft	\$8.40	60 ft x 9 ft	\$12.40
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### Duck Nets

Black terylene, 3-shelf, 3" mesh heavyweight thread.

60 ft x 9 ft	\$11.10
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### Bulk Netting

Available in any desired length. Black terylene, no shelf strings, 14" mesh, lightweight thread, 3 ft. high. Suitable for repairing nets, extending the height of nets, for single shelf work in heathland scrub, in grassland (for quail), or along forest roads with low undergrowth. Per 10 yards \$1.60

Note: Bulk netting is measured with the mesh stretched. 40 yards long and 2/6" high.

### Repair Material

Thread—for net repair	65 cents per spool.
—shelf string	65 cents per spool.
Netting needles	25 cents each.

Directions for repair are included in the booklet *The Use of Mist Nets in Australia*, (CSIRO Division of Wildlife Research Technical Paper No. 8, 1965).

### Pesola Spring Balances

100 grm short	\$7.00	300 grm long	\$8.75
50 grm long	\$8.75		

A few 100 gramme short balances are in stock but when sold, will not be replaced. The 50 gramme long balance is a more accurate instrument.

Orders: Should be addressed to

Mr S. J. Wilson, The Bird Banders' Association of Australia,

2 Scott Street, NARRABUNDAH, A.C.T. 2604.

Cheques should be made payable to the Association and money orders made payable at Canberra G.P.O. Banders are requested to remit 'cash' with order. Please quote your CSIRO permit number; Victorian banders please also quote your State mist net permit number.

Postage: Nets will be forwarded by registered mail; it is requested that postage be added to remittances to cover this cost, which is approximately 50c for one net and 70 cents for two nets.

Note: All prices quoted are subject to 12½ per cent discount to financial Full Members (licensed banders) of The Bird Banders' Association of Australia.