

5

Ringling

5.1 RINGING EQUIPMENT

Bird ringers need to equip themselves with the basic tools for fieldwork. Apart from being able to affix rings in the best possible way, ringers usually need to weigh and measure the birds handled. The financial outlay is considerable, but less than taking up many other hobbies. Most of the equipment lasts for years without need for replacement, if properly cared for.

5.2 EQUIPMENT REQUIRED ON THE RINGING TABLE

- rings in holding container
- SAFRING recommended ring-size guide
- small ringling pliers
- large ringling pliers
- stainless steel wing rule (15 cm, 30 cm)
- stainless steel tail ruler (optional)
- spring scales 0–100 g/0–2000 g
- vernier or dial callipers
- pencil/pen
- data-recording sheets
- bird moult cards
- bird identification guide
- torch or headlamp
- friar's balsam, mercurochrome
- ear-buds
- fishing line
- crochet hook (1.75 mm)
- nail-cutter or pair of small scissors
- circlip pliers

5.3 BASIC CAPTURE EQUIPMENT AND AIDS

- net poles
- pole pegs
- nets

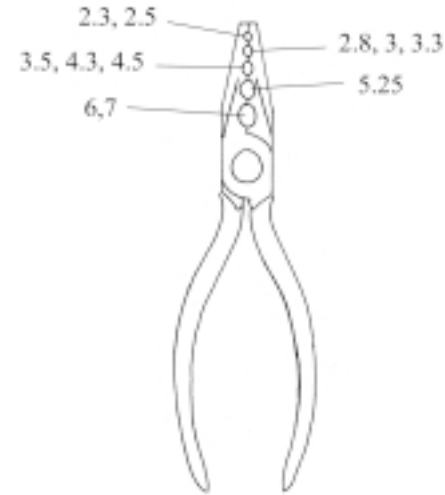


Fig. 5.1. Small pliers.

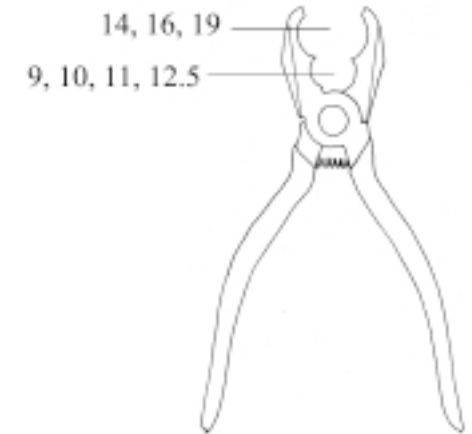


Fig. 5.2. Large pliers.

- guy ropes and pegs
- hammer
- bird bags
- slasher/panga
- large pruning shears

5.4 PERSONAL EQUIPMENT

- insect repellent
- sun-tan lotion
- refreshments
- assistants!

5.5 PROCESSING EQUIPMENT AVAILABLE FROM SAFRING

5.5.1 Ringling pliers

Three types of ringling pliers are used, of which the first two are only available from SAFRING, and the third from a hardware store. The small ringling pliers are basically long-nose pliers with a series of holes drilled through them with the pliers closed. The diameters of these holes are designed to close rings with internal diameter sizes ranging from 2.3 mm to 7 mm (Fig. 5.1). The large ringling pliers are used for 8 mm internal diameter ring sizes and above (Fig. 5.2). The third type of pliers used by ringers are Elliot Lucas pump pliers, bought at hardware stores; these are especially useful for closing the large rings of hard metal, e.g. 10 mm Incoloy and sizes above this. They are also used for closing penguin flipper bands.

5.5.2 Spring scales

While any type of scale or balance can be used for weighing birds, the most suitable and reasonably accurate types for fieldwork are the Pesola or Salter spring scales. The Salter scales are cheaper than the Pesola; although they are most probably less accurate, they are easier to read. Care should be taken to check the zero value of the spring balance at regular intervals. It is also a good idea to have a set of standard weights, and check that the balance continues to show the same values for these weights at regular intervals. Several weight ranges of spring balance are available, each suitable for different weights of birds.

Electronic balances can also be used. Although these are more expensive than spring scales, a given balance usually has a wider range; it may be possible to use one balance instead of several spring scales which may be needed. Electronic balances are generally more accurate than spring scales; birds can probably be weighed faster on an electronic balance.

5.5.3 Stopped rule

This consists essentially of a metal ruler graduated in millimetres with a 'stop' at one end. It is used for measuring wing lengths, and can also be used in conjunction with a pair of dividers for measuring bill, tarsus, tail length (although most ringers favour an unstopped rule for this measurement) and total length. SAFRING sells small (150 mm) and large (300 mm) stopped rules with the stop riveted to the ruler. Suitable stopped rules can also be made by purchasing a ruler which is graduated from the very end. To make the stop, take a piece of 12.7 mm or 19 mm aluminium or stainless steel angle, make a bracket the same width as the ruler, and fasten the bracket to the end of the ruler by sticking it on with an epoxy cement or get it spot-welded or riveted at a plumber or engineering firm. A problem with the epoxy cement is that it eventually dries out and, when the rule is dropped, the stop comes off.

5.5.4 Vernier callipers

These are used for measuring the culmen, head and tarsus (length and width). They can be obtained from hardware stores. Callipers vary from the cheapest plastic models (not recommended) through the fibreglass dial types (strongly recommended) to the most expensive stainless steel type with digital read-out and memory. The edges on the stainless steel types need to be sanded down with very fine water sandpaper to avoid cuts and other injuries to the birds.

5.6 PLACING THE RING ON THE BIRD

The SAFRING ring guide gives a good indication of which ring should be used for which bird. To determine ring size independently of the guide, measure the thickest part of the tarsus at three positions, top, middle and bottom. A bird's tarsus is usually oval or egg shaped, and the largest measurement is from front to back. Choose a ring size immediately larger than the biggest of the three measurements. For example, if the measurements were 2.9 mm, 2.7 mm and 2.8 mm, choose a 3.0 mm ring. If the bird is

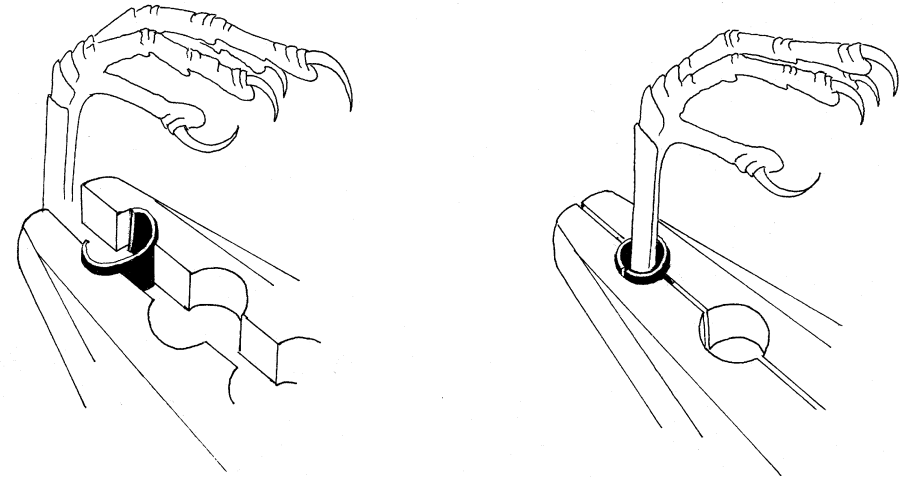


Fig. 5.3. Placing a metal ring on the leg of a bird.

aquatic, for example a duck, plover or sandpiper, use a stainless steel ring on that bird. If it is a bird of a species that does not normally wade or swim, use a hard aluminium alloy ring. The idea that weavers, shrikes and barbets can remove aluminium rings has largely been disproved by the number of birds of these species recaptured with the rings intact and undamaged. Using aluminium rings for terrestrial species considerably reduces the cost of ringing and is also safer for the birds because aluminium rings are easier and quicker to close than stainless steel rings, reducing overall handling time.

Extra care must be taken with ringing nestlings. If they are too young, their tarsi may either be thinner or thicker than tarsi of adult birds. This is where the SAFRING guide must be used. A good rule when ringing nestlings is: **if the recommended ring size for the adult appears to provide an incorrect fit, do not ring it.**

The ring must be placed on the tarsus, i.e. on the leg bone immediately above the toes. The ring should be closed with the pliers so that it is almost perfectly round. The ring should be loose enough for it to move freely up and down the tarsus and also be able to turn around. On the other hand, it should be tight enough that it cannot slide over the joints above and below the tarsus and tight enough that objects cannot easily catch between the ring and the tarsus. The ends of the ring should butt tightly, so that nothing can slip through the gap, and squarely, so that there are no projecting corners.

Hold the bird in the standard ringer's grip with its right leg between the thumb and index finger. Place the ring over the tarsus with the left hand, and hold the ringing pliers in the right hand (left-handed ringers place the ring on the bird's left leg with the pliers held in the left hand). All ring sizes from 2.3 mm to 7.0 mm internal diameter should be slipped into the appropriate hole of the ringing pliers and the gap in the ring aligned with the front of the pliers. Choose the correct pliers-hole and squeeze the pliers gently until the two ends of the ring meet, and the ring can no longer be removed from the tarsus (Fig. 5.3). Open the pliers, swivel the ring through a right angle, so that when

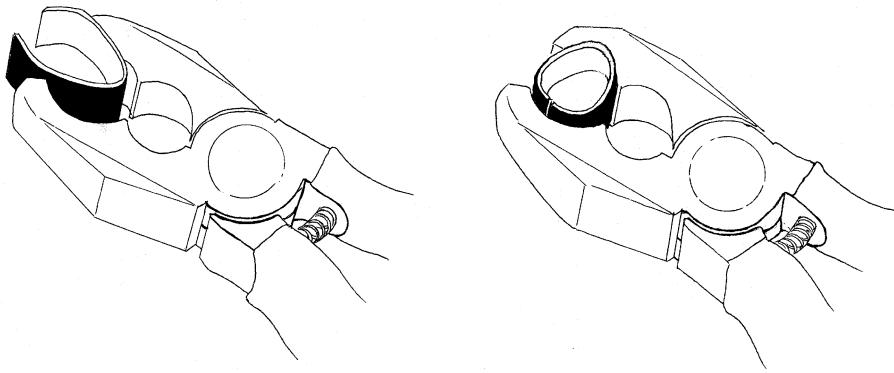


Fig. 5.4. Closing a U-shaped ring with pliers.

the pliers are closed again, the ends of the ring are both within the same closed half of the pliers hole. Apply pressure gently. If the gap between the ends of the ring is completely closed and the ring butts perfectly, the job is done. If not, swivel the ring around through another right angle. Apply pressure gently with the pliers again, and check again whether the ring is completely closed. Repeat as many times as necessary. With stainless steel rings, this process needs to be repeated several times before the ring is closed. Objects, e.g. thread, can slip through this gap so that the bird may become trapped.

In the case of 1.8 mm aluminium rings, the first hole of the pliers is too large to close the ring completely and a gap will always remain; to close this gap the front flat part of the pliers should be used. Considerable care is needed. Alternatively, ringers who possess excellent fine motor control can use their fingers to put on and close a 1.8 mm ring.

Some sizes of incoloy, monel and larger stainless steel rings are U-shaped. Although the shape is counter-intuitive to trainee ringers, and gives them problems, the design is deliberate. For a skilled user of these rings, the U-design enables the rings to butt perfectly, but this requires some careful manipulation (Fig. 5.4).

There is no consensus whether the numbers on the rings should be the right way up or upside down when the rings are on the birds' legs. Ring spotters, some of whom even read the numbers of metal rings with a telescope, prefer the ring numbers to be the right way up.

The technique for putting a U-shaped ring on a bird has the following steps:

- ❑ Apply pressure to one end of the ring and turn that side of the ring in slightly.
- ❑ Apply pressure to the other side of the ring and turn that side of the ring in slightly.
- ❑ Repeat the first stages until the two ends of the ring meet. It is better to make several repetitions, closing the ring slightly each time, rather than to do so only once using maximum force. The latter may cause the pliers to slip or the ring to close too far. The ring will now have a teardrop shape.
- ❑ Swivel the ring round so that the ring abutment is at right angles to the opening of the pliers and apply pressure. This should cause the ends to come together tightly and the ring to bend into shape.

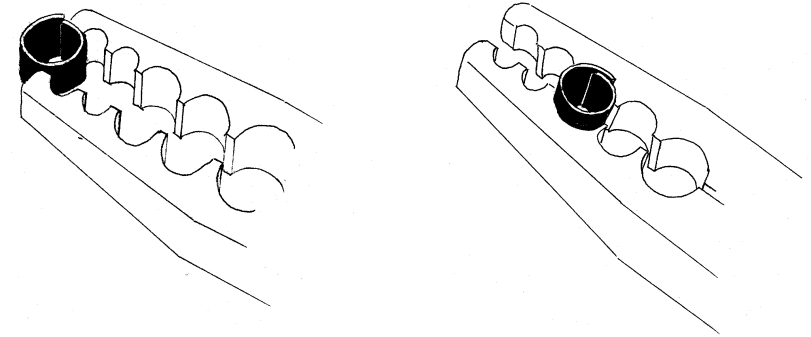


Fig. 5.5. Overlapping a ring.

The large 26 mm internal diameter clip rings can be closed by hand and the flange turned over with pliers.

Special skills are needed to put flipper bands on penguins. Ringers in the Western Cape are sometimes needed to put bands on de-oiled penguins at SANCCOB after large numbers are impacted by oil spills. Ringers in this region should try to learn these skills before an emergency arises, and keep in practice.

The technique of closing rings is best demonstrated practically. It cannot be learned from a manual. On-the-job training is essential.

5.6.1 Overlapping rings

It is sometimes necessary to overlap the ends of a ring to obtain the best fit. After the ring has been almost closed in the normal way, the ring should be held in the front flat part of pliers so that pressure is put on the one end of the ring. This will cause this end to bend inwards. Then swivel the ring so that pressure is now put on the other end of the ring; hold it in the appropriate plier hole to do this. This causes the two ends to overlap by sliding past each other. By swivelling the ring round and by applying light pressure at various points it is possible to shape the ring to the desired form (Fig. 5.5). In all operations it is best to apply several sets of light pressure rather than one large effort. Overlapping rings is a skill that requires fine motor control.

5.7 HOW TO REMOVE A RING

Rings usually need to be removed when they were fitted too tightly or if the person applying the ring overlapped the ring inadvertently. Badly worn rings, both from SAFRING and foreign schemes, need to be removed when birds are recaptured, and replaced with a new ring of the appropriate alloy. Sometimes steel and incoloy rings, which tend to spring open when one is trying to butt the two ends, overlap suddenly if too much pressure is applied, resulting in the ring fitting too tightly. Birds must never be released with incorrectly fitted rings. Removing a ring is usually easier if two people

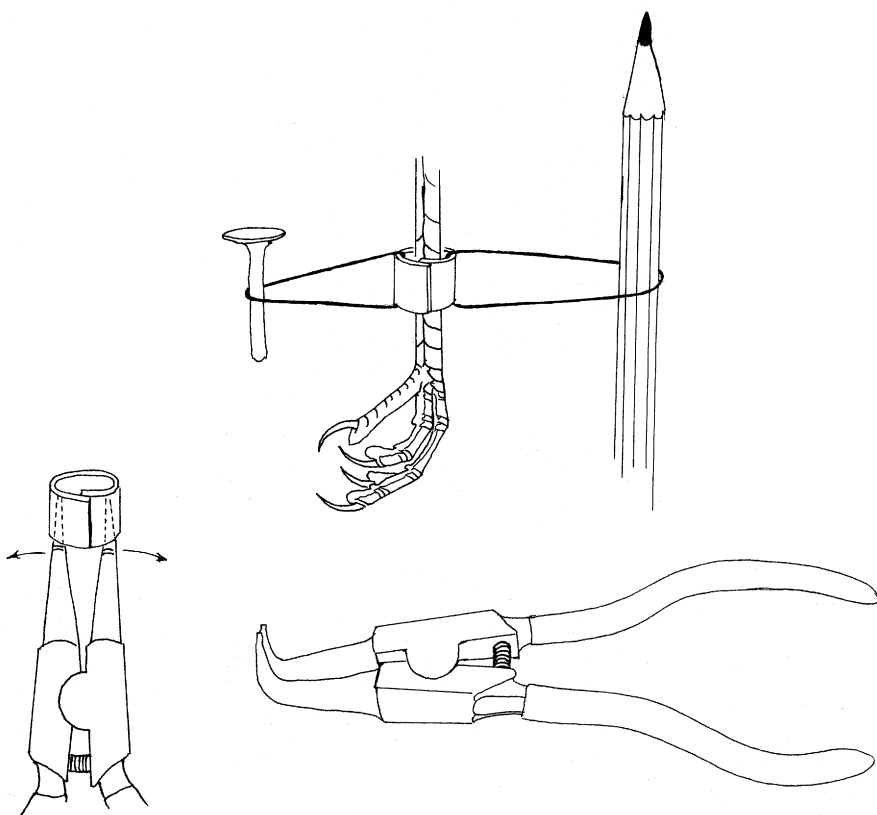


Fig. 5.6. Removing a badly fitted ring.

are involved (Fig. 5.6). The best way to avoid the nuisance of removing an incorrectly fitted ring is to put it on properly first time.

- ❑ It is almost invariably difficult to remove a ring. Aluminium alloy rings can be removed by enlarging the ring opening with a pocket knife or, better still, a jeweller's screwdriver. You can then insert your finger nails to further the opening to get it off the bird's leg.
- ❑ Another method is to insert two strands of strong steel wire (guitar or piano wire), one strand on each side of the ring. Tie the two pieces of wire into two circles and hook one over a fixed projection, insert a pencil through the other, then carefully pull to open the ring.
- ❑ Specific pliers have been devised for removing rings from birds' legs, and circlip pliers are handy for removing large rings.
- ❑ Another method for removing a ring uses a metre length of nylon fishing line, with a breaking strain of about 10 kg. Leave the bird in the bag and expose just the leg

with the offending ring. Place the bag and the bird on your lap, with the leg towards you. Push the one end of the nylon line through the gap between the ring and the tarsus and extend it for 30 cm. Push the other side of the line through the gap on the opposite side of the tarsus and extend for 30 cm. The line on the one side of the ring is taken into one hand and the line on the other side is taken in the other hand. Pull your hands apart, thereby forcing the ring to open without putting any pressure on the bird's tarsus. The fishing line is thin enough to go through the gap between the tarsus and the ring, yet strong enough not to break. An even thinner line can be used to open the smaller rings.

If the tarsus was scratched and the leg is bleeding, mercurochrome or friar's balsam should be applied and the bird should be kept in a bag for a period of time to recover before another ring is fitted (on the other leg) and the bird allowed to go free. Sometimes, a ring which has been removed can be reshaped and smoothed by closing it around a round object like a crochet needle, pencil or the handle of the pliers. Check that all the lettering is still legible.

5.8 RINGING NESTLINGS

Nestlings should be handled with extreme care when they are ringed, and should never be ringed in bad weather conditions. The best age at which to ring nestlings will vary, depending on which species are being ringed.

For most passerines ringing should take place when they are between six and eight days old, i.e. when the feathers are in pin or just beginning to emerge. Do not ring chicks with feathers sprouted, as they tend to explode out of the nest and are not likely to survive. In the case of a single nest this can be prevented by covering the nest with a dark cloth and taking the young out underneath the cloth one at a time and placing each one back as soon as it is ringed.

In the case of precocial birds (where the young leave the nest shortly after hatching) one has to be careful when ringing young birds. Gamebirds such as francolins, guineafowls, korhaans, quails, sandgrouse, ducks and geese should not be ringed at all until the young are fully grown because in these species the tarsi grow until the young birds reach adulthood. On the other hand, the young of waders and plovers can be ringed on the day of hatching; the legs of the young are remarkably well developed, and are virtually the identical thickness to those of the adults.

Special precautions should be taken when ringing nestlings in breeding colonies. This applies particularly to gull and tern colonies, and to heronries, where besides herons and egrets, ibises and cormorants may breed colonially. No ringer should attempt to ring in these situations without special training.