

Catching wildfowl by artificial light

ROY H. DENNIS

At Fair Isle Bird Observatory we use an assortment of methods for catching birds to ring. The majority of our catch each year are either passerines trapped in permanent Heligoland traps, small wire traps and mist-nets, or Fulmars, Shags, auks and gulls, ringed on the cliffs. Since 1959 we have been catching a variety of species by the use of artificial light at night. We have been particularly interested in those species which do not usually enter our normal traps, including wildfowl, waders and wintering gulls. We have so far caught and ringed by the use of artificial light about 630 birds of 51 species. In 1965, we caught 166 birds of 28 species by this method alone.

Fair Isle is generally speaking a poor place for wildfowl. Thirty species of wildfowl have been recorded on the island, but all, except the Eider which breeds, are usually recorded in small numbers on migration. The latest addition to the list was a pair of Harlequin Ducks, which stayed in one of the geos from 11th January to 2nd February, 1965. Most of the wildfowl recorded are on diurnal passage past Fair Isle and after flying over the island or circling a few times they continue their migrations. In bad weather, some of them stop on the island to await better conditions and it is at these times that they roost overnight on the island and we have a chance to dazzle-net them. The migrant sea-ducks stay in the rocky bays and are generally out of our range, but the rest of the ducks, geese and swans usually roost on the island. Invariably, they roost in a different area from that where they spend the day and most of them are found at night on small lochs or burns. Mallard and Teal, which have become 'semi-resident' on the island, forage at night in the burns and marshy areas.

One difficulty with the dazzle-netting technique is that the weather conditions must be suitable otherwise one will have little success. The ideal night is one with no moon, a howling gale and lashing rain; if one is brave, or daft, enough to venture out with an artificial light and a net, there is a very good chance of catching wildfowl and waders.

Equipment

The most important item of equipment is a powerful lamp. We now use, after trying a variety of electric torches, a converted Tilley lamp. Originally, this lamp was a

Tilley radiator heater, which has a heating mantle mounted on a vaporizer and a dish reflector. The base of the heater is a pressurised tank for holding paraffin; a pump is fitted in the side of the tank for pumping the paraffin up the vaporizer and into the heating mantle. We had the reflector silvered and replaced the heating mantle with a 500 candle power lighting mantle shielded by a glass dome for outside work. Another lamp we converted has a 300 c.p. mantle and we find this nearly as efficient and easier to keep alight.

This equipment gives a very strong wide beam. A powerful torch with a narrow beam is not as efficient, because one has to spend so much time sweeping with the torch beam to find a bird, whereas the Tilley lamp gives off a beam of, say, 150° arc and illuminates all the birds in front of the operator. Also, on Fair Isle, we find it cheaper and handier to run a lamp on paraffin, rather than buying batteries for a large torch, especially as the batteries are only of use for dazzling when they are new; once they are slightly run down they lose most of their effectiveness for dazzling.

The other piece of essential equipment is a good hand-net: really one needs several hand-nets suitable for different weather conditions and species. We make our nets from a length of stout fencing wire, which we shape into a circle, from one-and-a-half to three feet diameter. A net is fixed on to the wire; for smaller birds we use a small mesh and do not have much 'bag' on the net and for larger birds we use a larger mesh and have more 'bag'. If the mesh is too big, the birds tend to get tangled and time is wasted in extracting them. The ends of the wire are twisted together and bound tightly to the end of a bamboo cane or long stick. For all purposes we prefer the longest and lightest pole and the largest diameter of net. Our best hand-net has a 12 ft. bamboo handle, but often the wind is too strong and the larger hand-nets become unwieldy. It is important that the handle is firm and does not whip in a wind and that the wire frame is tightly bound to the handle so that the net will not swing in the wind or rattle against the handle when in use. We use binding wire and string to join the net to the handle and finish it off with adhesive tape.

When dazzle-netting we always carry a small rucksack containing bird-bags and sacks for holding the catch, an electric torch, note book for recording retraps and matches for re-lighting the Tilley if it

blows out. We wear long rubber boots so that we can wade into wet areas. We find the oilskins make too much noise as we walk and scare the birds, so we wear anoraks.

Methods

On Fair Isle the summer months are too light and the first nights suitable for dazzle-netting are in August. The best team for dazzle-netting on Fair Isle consists of two people; the lamp-man who carries the lamp and the net-man who walks directly behind, holding the net. It takes practice to become a good team, because the net-man must keep directly behind the leader and not switch on a torch to find his way over rough ground. Our routine on a suitable night is to make a circuit of the island, visiting various small lochs and marshes and walking along streams. Nearly all wildfowl and waders prefer to roost overnight on or beside water and the choice of roosting area is affected by wind direction and strength. On suitable nights we walk up the Gilsetter burn to Sukka Mire and the Mire of Vatnagard, which are favoured roosting places because they are marshy areas dotted with small pools, in an isolated part of the island.

The leader carries the lamp, in front of him, shining it on to pools and streams; most birds show up as a pale dot in the beam. The light is shone at the bird and both persons approach as silently as possible. Usually the bird either flies away as soon as the light is shone on to it or else it is dazzled and stays on the pool. No talking should be necessary and it takes practice for the net-man to decide which bird is being dazzled without actually being told by the leader. Ducks, once they are dazzled, tend to swim slowly away or round in circles but great care should be taken not to scare them by rushing after them. Making a splash as you step into water is the quickest way to lose a duck. Care must be taken to walk quietly through water, keeping the light shining on the bird. On really dark nights, some wildfowl will actually swim towards the light. If the bird is swimming quietly in front of the lamp-man, the net should be lowered to head height, so that the distance can be judged, and then brought down quickly over the bird. The net-man should not move out of the shadow before the net is over the bird. There are now two courses of action. If it is a solitary bird, the net-man runs to the net as quickly as possible and extracts the bird in the light; but if it is one bird from a flock, the light-man should continue to shine the light on the rest of the flock and walk past the net, the net-

man can then extract the bird in the shadow. The bird is put in a bag and carried by the lamp-man. It is generally easier to catch a single bird than one from a flock. Approach can be made from any direction, but we find into the wind or across it more successful.

Geese and waders tend to walk steadily away from the light and then stop and run towards it; both persons should walk quickly and quietly after the birds until within catching distance. Diving-ducks in shallow pools tend to become dazzled easily and dive as soon as they are netted or become worried. The net should be lowered quickly over them and pulled towards the net-man so that the bird is caught in a bag of netting, sealed by the wire rim of the net; scooping up by a 'shrimping' motion does not seem to work.

We have on two occasions dazzle-netted birds on the sea from a boat. Both birds (a Long-tailed Duck and a Little Grebe) were easily dazzled, once we had found them. We caught them by dropping the net over them and pulling them into the boat, rather than trying to scoop them up, when the net would be visible to them as it entered the water between them and the lamp. Dazzle-netting from a boat has a great potential, but it requires a great deal of local knowledge of boats, tides and rocks. Wildfowl are probably easier to dazzle-net on open water than they are on land, where they are always wary of ground predators.

When dazzle-netting Whooper Swans it is better to use a swan-hook rather than a net to catch them. They are quite easy to dazzle but rather a job trying to control in the dark. If one flies off, it is well worth calling like a swan; they usually answer and land nearby.

We usually take all our captures back to the Bird Observatory for examination and ringing. If it is a wet or windy night we generally roost them overnight at the Bird Observatory in a dry tea chest and release them at dawn, rather than releasing them into a gale at night. If a bird is ringed immediately after capture, rather than being taken back to a base for ringing, it must be held away from the light for several minutes and allowed to become accustomed to the darkness before being released.

During 1965 we dazzle-netted and ringed the following wildfowl at Fair Isle; one Mallard, two Tufted Ducks, one Long-tailed Duck, one Greylag Goose, one Pink-footed Goose, one Barnacle Goose and three Whooper Swans. In previous years we dazzle-netted and ringed two Mallard, two Teal, three Wigeon, one Tufted Duck,

three Eiders, two Greylag Geese and four Whooper Swans.

Dazzle-netting is an extremely exciting method of catching birds for ringing, even though it is carried out in very uncomfortable, and sometimes hazardous, weather conditions. Part of the thrill is that you never know what species your lamp beam will pick up next. Unusual species we have caught and ringed at Fair Isle at night

include Heron (2), Ringed Plover (62), Little Stint (3), American Pectoral Sandpiper (1), Great Black-backed Gull (111), Glaucous Gull (5), and Snow Bunting (5).

Finally, it should be pointed out that all qualified ringers require a licence to use artificial light at night, under paragraph (e) of sub-Section (1) of Section 10 of the Protection of Birds Act, 1954.

