TECHNIQUES

ARE DARVIC COIL COLOUR RINGS SUITABLE FOR CAPE GANNETS?

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Three islands off the Namibia coast: Mercury, Ichaboe and Possession, support breeding colonies of the Cape Gannet *Morus capensis*. These colonies were surveyed in November and December 1985. Ringed gannets were caught in order to report on ring numbers. Only the peripheries of the colonies were checked for ringed birds, because of the disturbance caused by entering a colony of tightly-packed breeding birds. A number of metal-ringed birds had one or two Darvic coil colour rings. In all the gannets examined, metal rings were found on the left leg and colour rings on the right leg.

A number of colour-ringed birds had injured feet. Entirely atropied right feet were also observed in some metal-ringed birds (colour rings missing). In most of the injured birds, the colour ring had slipped down and unwound around the foot, tightly constricting the web of the foot. In two cases the ring had pierced through the web of the foot (see Figure 1 overleaf). These 'unwound' rings artificially ankylose the tarsal/metatarsal joint causing atrophication of muscle, damaged nerve tissue, and necrosis of the foot by constriction of the blood supply. In effect the foot is usually permanently crippled.

This problem with Darvic coil rings in Cape Gannets has been observed elsewhere in southern Africa (R. Randall pers. comm., Colclough & Ross 1987). Although the coil colour rings may be lost or forcefully wound around the foot as a result of water resistance during plunge diving (Colclough & Ross 1987), it is also likely that newly-ringed gannets pull at the colour rings with their strong and sharply pointed beaks, causing them to open partially and snap back out of position (personal observations). Colclough & Ross (1987) have shown that the application of adhesives may not be wholly effective in preventing coil ring losses, and it is therefore recommended that some alternative non-coil ring-type is adopted in further colour-ringing studies of Cape Gannets. For example, the Darvic 'ring and corrosion-resistant rivet' system used until recently by the Vulture Study Group (Ledger 1974) or their new self-locking plastic rings (see Safring News 16 (1): p 38) may be more effective, and would certainly eliminate the incidence of foot injuries in Cape Gannets.

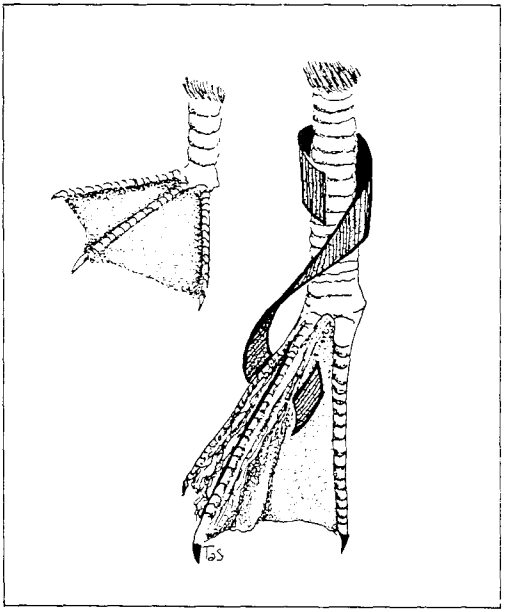

FIGURE 1

A SCHEMATIC ILLUSTRATION OF COIL-RING DAMAGE TO THE WEBBED FOOT OF A CAPE GANNET

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