

## DYE-MARKING WADERS AT LANGEBAAN

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### Introduction

Because ringing recovery rates of our waders are very low compared with those in more populated areas such as Europe, we have to work much harder to get the same amount of information on the migrations of our waders. One way we can improve our recovery rates is from sightings of dye-marked birds. This technique has been used very successfully in Greenland, with many subsequent sightings in Europe.

The idea of starting a dye-marking scheme at Langebaan was put forward to the Western Cape Wader Group and it was agreed that we should start such a scheme to cover the migration season of 1976. The species involved will be Knot Calidris canutus, Sanderling Crocethia alba and Curlew Sandpiper Calidris ferrunginea. As well as dye-marking to obtain sightings on migration it was suggested that we dye birds through the summer, in order to obtain information on the home range of populations which use Langebaan - in other words how far they spread themselves over southern Africa from Langebaan.

A sub-committee composed of John Cooper, Stephen Pringle and Ron Summers was formed to co-ordinate the scheme.

### Methods

The colours have been chosen for the three species:

RED  
GREEN  
YELLOW

*Serrata*  
- SANDERLING ~~KNOT~~  
- ~~KNOT~~ ~~CURLER~~ ~~SANDPIPER~~  
- ~~CURLER~~ ~~SANDPIPER~~ ~~SANDERLING~~

The dyes to be used are Pyric Acid and Rhodamine B. Two dyes, Printer's Ink and Irgalite (Ciba-Geigy) were rejected as they were slow to dry and clogged the birds' feathers. As well as using distinctive dyes for the species we intend only to dye certain parts of the birds. We can therefore have an absolute check on the validity of any sightings.

### Dye-marking in summer

Dyes will be applied with small brushes to the underside of the bird only - to the underside of the wings and tail, and a spot on the breast. How accurately we can apply the dye remains to be seen. It is likely that the birds will rub some dye from the underwing to the flanks.

For the months February, March and April when the birds change into breeding plumage any marking on the breasts of Knots and Curlew Sandpipers are likely to be obscured by the breeding plumage. Therefore during those months we only intend marking the underwing and under tail. Sanderlings will still receive a spot on the

breast.

We appeal to all bird-watchers to look out for these birds. If you do see a marked bird, which should be especially obvious in flight, please contact one of the following: Ron Summers or John Cooper of the PFIAO or Stephen Pringle of the Physics Department, U.C.T., or NUBRA. Please give as many details as possible including the colour of the dye and its position on the birds.

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#### POTENTIAL DIFFICULTY WHEN RINGING TERNS

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In 1971 and 1972 over 2 500 terns were ringed in the Cape Province. Amongst these were a group of 953 birds ringed in a three day period. Of these birds 41 were found dead or dying within two days of ringing. As no dead unringed birds were found, the birds obviously died as a result of being ringed. The total number of birds dying may have been higher.

The person who found these terns considered that the ringer was responsible for their death. The ringer, Tony Tree was satisfied that all the terns were perfectly capable of flight when released. However, some birds flew out and alighted on the water where they quickly became water-logged and were washed to shore. He suggests that this "is a physiological problem and only affects sea terns. Sea terns are used to windy, cool or cold conditions and almost certainly cannot stand temperatures over a certain level when unable to use normal cooling mechanisms. And this comes about when terns are in cotton bags which normally suffice for Charadriiformes. Future ringers, to offset this, should use wire mesh cages through which the wind can blow constantly and hence maintain temperature level".

Have any readers any similar experience with terns? There is obviously a need to identify the climatic conditions under which it is unfavourable to ring terns. Clear guidelines need to be provided to prevent future occurrences of a similar nature.

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