EXPERIENCE WITH COLOUR-DYED COMMON TERNS

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In order to determine the location of daytime roosts of Common Terns *Sterna hirundo* making use of a night roost at Betty's Bay 34°21S, 18°52E, 59 were dyed on their necks and underparts with picric acid. Approval for colour-marking was first obtained from the Ringing Organiser. Picric acid crystals were dissolved in white methylated spirits to a concentration of 2 %, and applied with a 5 cm paintbrush. The feathers needed to be fairly thoroughly wetted for the dye to be successful. Picric acid, when first applied, is lemon yellow, but oxidizes to a deep orange within two or three days.

A search for the dyed terns was subsequently conducted at several daytime roosts. At roosts on rocky shores, we found that the brown colour of the rocks tended to reflect off the white underparts, and for birds on which only a little dye had been applied, it was sometimes difficult to see whether they were in fact dyed or not. However, provided the terns were viewed from the front, these problems presented little difficulty.

Of 40 birds dyed between 21h00 and midnight on 6 January 1987, seven were spotted before 13h00 the next day at four localities stretching along 27 km of coastline (Hangklip, 7 km W of ringing site (RS); Grootvlei, ringing site; rocks E of Davidskraal at Betty's Bay, 3 km E of RS, and the mouth of the Bot River Lagoon, - 20 km E of RS). Three days after ringing, on 9 January, eight yellow terns were spotted in this section of coastline.

Of 146 Common Terns ringed between 23 December 1986 and 17 January 1987, no recoveries were reported, although the coastline between Hangklip and Bot River Lagoon is heavily utilized during the summer holidays. Many of the visitors are conservation conscious and would have reported any dead ringed terns found. We thus feel fairly confident that we have overcome the problems experienced in mass tern ringing (Cheke 1976, Underhill and Prys-Jones 1986, Vernon 1976, Waltner 1976) by catching them in small numbers, keeping them in spacious ventilated holding boxes, and processing them as quickly as possible.

Thus, assuming that all 40 birds dyed on 6 January survived ringing, and that the birds were not at daytime roosts further afield, it appears that on the morning of 7 January

approximately 80 % were at sea. The fact that seven dyed terns were found at daytime roosts at which all 1 410 present were examined, indicated that the Common Tern population utilizing this section of coast could have numbered some 8 000 individuals.

We estimated that the overall percentage of ringed terns in roosting flocks was 2,7 % (14 ringed terns noted out of 512 examined for rings at daytime roosts). This is similar to the percentage of ringed terns retrapped, six out of 146, or 4,1 %. Five of the six retraps were foreign rings, three Finnish, one Polish and one Soviet. The sixth was of a bird ringed at the same lake on 7 January 1986 and retrapped on 28 December 1986, and provides a record of site-faithfulness during the austral summer.

Reports of further sightings of these 59 dye-marked terns from elsewhere in the southwestern Cape, or further afield, should be sent to the authors.

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