

## ROYAL (MACARONI) PENGUIN AT ROBE

NICK REID

On 27 February 1983, Botany students from the University of Adelaide found a live Royal (Macaroni) Penguin *Eudyptes chrysolophus* on a beach at Robe, South Australia. The students recounted the following details to me upon their return to Adelaide.

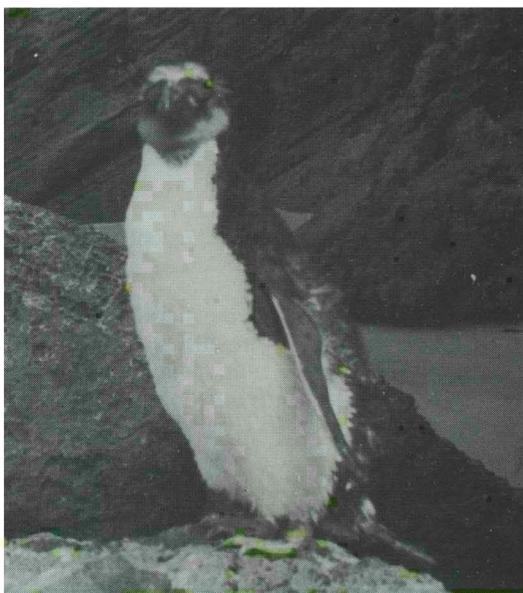
The penguin was located at about noon on a rock at the back of a beach, about 0.5 km west of the Robe jetty in Guichen Bay. The coastline, which consists of a narrow sandy beach backed by low limestone cliffs, is subject to moderate wave action. The penguin did not move from its position on the rock during 15 minutes of observation. Rocks surrounding the bird were covered with green excrement, indicating that the penguin had been there for some time. It raised its flippers, snapped its bill, and called with a quiet guttural hissing when approached closely (Plate 1). However, it was largely silent. The students considered that the bird's reluctance to move and its ruffled appearance indicated that it may have been sick, but a healthy moulting penguin would probably appear and behave similarly under the conditions (P.D. Shaughnessy, pers. comm.).

Two photographs of the penguin are reproduced in Plates 1 & 2. Enlarged colour prints from the same photographs have been lodged with the South Australian Museum and form the basis for the following description:

A large squat penguin with distinctly ruffled appearance, standing about 440 mm tall in semi-crouched position (Plate 1). Blackish above, white below, with grey feathers falling out of plumage on lower back (A. Llewelyn, pers. comm.). Whitish patch on rump. Flippers blackish above, leading edge white. Undersurface of flippers white except for posterior black patch at base, dark line along anterior margin from near base to about half flipper length, and another dark line along distal anterior margin. Crown (below eyes) and throat grey. Broad band across front of crown orange-yellow, merging into several untidy orange-yellow plumes above and behind eyes. Rest of head plumage (?including the frons) blackish. Bill large (exposed culmen, about 55 mm), dull red. Eyes probably reddish. Legs and feet pink, claws dark. (Measurements estimated by comparison with adjacent observer).

The penguin's predominantly black and white plumage and large size distinguish it from the Little Penguin *Eudyptula minor*, the common breeding species along the South Australian coastline (Parker *et al.* 1979).

Features that identify the penguin as *Eudyptes chrysolophus* are the broad orange-yellow band



Plates 1 (top) & 2 (bottom). Royal (Macaroni) Penguin *Eudyptes chrysolophus* on the beach at Robe.

continuous across the anterior crown, grey throat and cheeks, and long bill (Pizzey 1980).

Two subspecies of *Eudyptes chrysolophus* have been generally recognized (e.g. Warham 1971, Condon 1975, Shaughnessy 1975): the Macaroni Penguin *E. c. chrysolophus* of circumpolar distribution, and the Royal Penguin *E. c. schlegeli* which breeds on Macquarie Island. Macaroni Penguins are usually black-faced, while many Royals are white-faced. The RAOU Checklist Amendment Committee (1978) diverged from the practice of treating the two taxa as conspecific for reasons that were not explicit. The Committee may have been influenced by Warham's (1975) tentative argument for regarding *chrysolophus* and *schlegeli* as distinct species, although Warham (1975) treated the two as conspecific. The taxonomy here follows Parker *et al.* (1979) who regard the taxa as conspecific on the strength of Shaughnessy's (1975) conclusions: '...it is not possible to classify *E. chrysolophus* consistently as either Royals or Macaronis solely on the basis of facial colour. At present the only safe criterion to use for distinguishing them is that the former breeds at Macquarie Island and the latter breeds at several other Subantarctic islands'.

Dr P.D. Shaughnessy kindly examined enlarged colour photographs of the Robe bird but was unable to establish its subspecific identity on the basis of either facial colour or under-flipper pattern. Grey-faced *Eudyptes chrysolophus* such as the Robe bird occur in both Macaroni and Royal colonies (Downes *et al.* 1959, Shaughnessy 1975), whilst its under-flipper pattern matches both the Royal's figures in Serventy *et al.* (1971: 51) and the "Macaroni light variation Deception Island" depicted by Watson (1975: 78).

The bird's age may be deduced from a number of characters. The dull red colour of its bill suggests that it was older than one year. The bill of first-year *Eudyptes chrysolophus* is brown, subsequently turning red-brown (Downes *et al.* 1959, Warham 1971). The orange-yellow frontal band was well developed but the plumes above and behind the eyes were not as long as in pictures of breeding adults (see Serventy *et al.* 1971, Rigby 1975). Warham (1971) and Brown *et al.* (1982) suggested that two-year olds and perhaps some three-year olds may be recognizable by their shorter crests. The Robe bird's generally ruffled appearance

indicated that it was just beginning annual moult (Shaughnessy, pers. comm.). That it was only beginning to moult in late February suggests it was at least three years old, judging from Carrick's (1972) Figure 16. These various lines of evidence indicate that the penguin was about three years old.

*Eudyptes chrysolophus* has only been recorded once previously in South Australia (Parker *et al.* 1979): a moulting specimen, S.A. Museum B 16739, collected between Yilki and the mouth of the Inman River, Encounter Bay, on 21 February 1933. Parker *et al.* (1979) described the specimen as "beach-washed". In fact it was alive upon arrival at the Museum a day after it was found at Encounter Bay (Sutton 1933), and thus may have come to shore of its own volition to moult. The specimen is grey-faced with weakly developed head plumes. It was described as having light brown irides with a narrow ring of yellow around the pupils, and a brown bill, paling towards the tip (Sutton 1933). The brown irides and bill, and absence of head plumes characterize first-year birds (Downes *et al.* 1959, Warham 1971). Thus the bird was probably in its first or second year.

Sutton (1933) identified the Encounter Bay specimen as a Fiordland Penguin *Eudyptes pachyrhynchus*, and mentioned another specimen of *E. pachyrhynchus* from Cape Banks, collected on 8 January 1914 (B 1071). The latter specimen was subsequently reidentified by Simpson and McEvey (1972) as Snares Penguin *E. robustus*. This confusion highlights the difficulties in identifying penguins of the crested group, particularly young birds. Recent experience at the S.A. Museum indicates that not even photographs and descriptions are always sufficient even for specialists to make a confident identification of birds found on the southern Australian coastline (S.A. Parker, pers. comm.). Therefore observers should collect as much information about locally occurring crested penguins as possible. Beach-washed remains should be forwarded to the Museum. Photographs should be obtained of living birds, particularly of the head plumage and bill, which are of special importance in distinguishing between species (Parker, pers. comm.). Poorly documented reports have little or no value.

## ACKNOWLEDGEMENTS

I thank Andrew Mann, Cathy Hillam and Annie Llewelyn for providing information of their encounter with the Robe penguin, and Sue Chow and Annie for the use of their photographs. Dr Peter Shaughnessy promptly responded to my queries, provided relevant literature, and made helpful comments on earlier drafts. I am indebted to Shane Parker for his usual guidance, aid and criticisms during the course of the work.

## REFERENCES

- Brown, L.H., E.K. Urban and K. Newman. 1982. **The Birds of Africa. Volume 1.** Academic Press: London.
- Carrick, R. 1972. Population ecology of the Australian Black-backed Magpie, Royal Penguin, and Silver Gull. In **Population Ecology of Migratory Birds: a Symposium.** U.S. Dept Interior Wildl. Res. Rep. 2: 41-99.
- Condon, H.T. 1975. **Checklist of the Birds of Australia. Part One. Non-passerines.** RAOU: Melbourne.
- Downes, M.C., E.H.M., Ealey, A.M. Gwynn and P.S. Young. 1959. The birds of Heard Island. **ANARE Rep.** Ser. B. 1: 1-135.
- Parker, S.A., H.J. Eckert, G.B. Ragless, J.B. Cox and N.C.H. Reid. 1979. **An Annotated Checklist of the Birds of South Australia. Part One: Emus to Spoonbills.** SAOA: Adelaide.
- Pizzey, G. 1980. **A Field Guide to the Birds of Australia.** Sydney: Collins.
- RAOU Checklist Amendment Committee. 1978. Second amendments to the 1975 RAOU Checklist. **Emu** 78: 80-87.
- Rigby. 1975. **Every Australian Bird Illustrated.** Rigby: Adelaide.
- Serventy, D.L., V. Serventy, and J. Warham. 1971. **The Handbook of Australian Seabirds.** A.H. & A.W. Reed: Sydney.
- Shaughnessy, P.D. 1975. Variation in facial colour of the Royal Penguin. **Emu** 75: 147-152.
- Simpson, K.N.G. and A.R. McEvey. 1972. Snares Crested Penguin: two Australian records. **Emu** 72: 110-111.
- Sutton, J. 1933. *Eudyptes pachyrhynchus*, Thick-billed Penguin. **S. Aust. Orn.** 12: 40-41.
- Warham, J. 1971. Aspects of breeding behaviour in the Royal Penguin *Eudyptes chrysolophus schlegeli*. **Notornis** 18: 91-115.
- Warham, J. 1975. The crested penguins. Pp. 189-269 in **The Biology of Penguins.** B. Stonehouse, ed. MacMillan Press: London.
- Watson, G.E. 1975. **Birds of the Antarctic and Sub-Antarctic.** Amer. Geophys. Union: Washington.

*Department of Botany, The University of Adelaide, G.P.O. Box 498, Adelaide, S.A. 5001.*

Received 14 November 1983; accepted 14 March 1984.