

RACES AND RECORDS OF THE LITTLE SHEARWATER *PUFFINUS ASSIMILIS* IN  
SOUTH AFRICAN WATERS

J.C. SINCLAIR, R.K. BROOKE & R.M. RANDALL

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INTRODUCTION

The Little Shearwater *Puffinus assimilis* Gould as defined by Jouanin and Mougín (1979) breeds in the Northern Subtropical Zone (the zones are mapped in Brooke 1981a and Shuntov 1974) in the Azores and Canary Islands in the North Atlantic; in the Anti-boreal or Subantarctic Zone at Gough Island in the South Atlantic and at Auckland, Chatham and Antipodes Islands southeast of New Zealand; in the Southern Subtropical Zone at Tristan da Cunha in the South Atlantic, at St Paul and islands off southwestern Australia in the Indian Ocean, at Lord Howe Island in the Tasman Sea, at the Kermadec and Austral Islands in the southwest Pacific and on islands on the east coast of North Island, New Zealand. The species is predominantly one of the Southern Subtropical Zone. The Southern Subtropical Zone reaches Africa from just south of Lobito, Angola, south and round to Delagoa Bay, Mozambique (Brooke 1981b). White (1965) says of the Afrotropical distribution of *P. assimilis* as defined by Jouanin and Mougín (1979) "vagrant at Cape Peninsula" and attributes the record to *P. a. elegans* Giglioli and Salvadori of the Tristan and Gough group. This paper reviews the specimen and sight records (50 in all listed in Table 1) of the Little Shearwater in the Southern Subtropical Zone around Africa. While the majority of adult birds do not wander far from their breeding grounds (Serventy *et al.* 1971) some immatures wander thousands of kilometres.

TAXONOMY

There is no modern review or revision of the characters of the races (subspecies) to be recognized in the Little Shearwater *P. assimilis* and the closely related Audubon's Shearwater *P. lherminieri* Lesson of the Tropical Zone. This has made it difficult for us to place the two South African study skins from the Cape Peninsula (Table 1) to race and thus show the area/s from which these visitors came. Only the older specimen was known to White (1965) and he probably did not examine it personally. We compared the two Cape Peninsula specimens, both in the collection of the South African Museum, Cape Town, with the Gough Island series in the Durban Museum reported by Clancey (1981). We assume with Jouanin and Mougín (1979) that the Gough Island series in breeding condition represents the race *elegans* whose type locality is South Atlantic at 43 54S, 09 20E just over half way from Gough Island to Cape Town since they agree very closely in plumage pattern with the illustration of the type in Salvin (1910). This implies non-acceptance of Murphy's (1936) definition of *elegans* based on South Pacific material which differs mensurally,

TABLE 1

RECORDS OF THE LITTLE SHEARWATER *PUFFINUS ASSIMILIS* IN  
SOUTH AFRICAN WATERS

Position	Date	No. of birds	Race	Source
29 30S, 14 20E	25.02.80	5	-	Chapman 1981
30 30S, 14 20E	20.10.79	3	-	Chapman 1981
31 13S, 16 19E	05.12.52	4	-	A. Thomas
32 05S, 18 02E	20.02.77	2	<i>elegans</i>	JCS
32 48S, 17 38E	21.05.77	1	<i>elegans</i>	JCS
33 03S, 16 40E	19.08.80	2	<i>elegans</i>	JCS
33 03S, 17 38E	12.07.77	1	<i>elegans</i>	JCS
33 03S, 16 52E	20.08.77	1	<i>elegans</i>	JCS
Yzerfontein beach 33 20S, 18 10E	28.05.79	1	-	Avery 1980; skeleton SAM Z056666
Koeberg beach 33 40S, 18 27E	21.01.78	1	<i>tunneyi</i>	Avery 1979; skeleton SAM Z056665
33 47S, 16 41E	04.12.52	4	-	A. Thomas
33 55S, 14 22E	18.05.51	2	-	A. Thomas
34 02S, 18 01E	19.08.80	1	<i>elegans</i>	JCS; Fig.1
Noordhoek beach 34 06S, 18 30E	28.05.78	1	<i>tunneyi</i>	skin SAM 56305
Fishhoek beach 34 06S, 18 30E	07.03.52	1	<i>tunneyi</i>	Rowan 1952; skin SAM 21894
34 18S, 17 58E	15.11.81	1	-	B.Rose pers.comm. to JCS
34 18S, 16 14E	19.05.51	2	-	A. Thomas
34 21S, 18 19E	02.07.76	1	<i>tunneyi</i>	Rozendaal 1977
34 37S, 14 47E	18.05.51	1	-	A. Thomas
34 43S, 17 58E	20.05.51	6	-	A. Thomas
35 52S, 16 27E	21.05.51	1	-	A. Thomas
34 14S, 24 59E	11.02.79	2	-	H.P. Silbernagl <i>in</i> <i>litt.</i> to J. Cooper
St Croix Island 33 48S, 25 46E	24.05.78	1	<i>tunneyi</i>	Randall 1978
St Croix Island	03.07.78	1	<i>tunneyi</i>	Randall <i>et al.</i> 1981
St Croix Island	15.06.79	1	<i>tunneyi</i>	Randall <i>et al.</i> 1981
c. 34 00S, 26 00E	07.02.60	1	-	Liversidge & Le Gras 1981
Cintza Beach East London	-	1	-	Courtenay-Latimer 1964
32 50S, 28 05E	-			
28 20S, 31 50E	05.12.54	1	<i>elegans</i>	Clancey 1964

SAM = South African Museum, Cape Town      Localities at sea not named

particularly in wing and tarsal lengths (Table 2). It would seem that *P.a. kempii* Mathews 1912, Chatham Islands, should be resuscitated for these birds.

The Koeberg bird, now a skeleton, and the Cape Peninsula specimens do not fit well with *elegans* on mensural characters (Table 2), particularly in wing and tarsal lengths. Furthermore, they do not show the same colour characters in plumage as explained below. We believe that these specimens are referable to *P.a. tunneyi* Mathews on a combination of mensural characters (Table 2) and plumage characters as defined in Serventy *et al.* (1971). It will be noted that the culmen measurements of Fleming and Serventy (1943) in Table 2 seem to be very short. These authors do not explain how they measured culmens and it is noteworthy that the culmen measurements have been omitted from the summary given by Serventy *et al.* (1971: 138). *P.a. tunneyi* breeds on southwestern Australian islands and it is probably this race which breeds on St Paul Island in the southwestern Indian Ocean (Jouanin & Mougou 1979). The mensural data on three St Paul specimens given by Gill (1967) fit well with *tunneyi* as defined in Table 2.

On the side of the head *P.a. elegans* has an obsolete white superciliary stripe, the grey of the head coming below the eye and virtually completely covering the ear coverts. In the Cape Peninsula specimens which we take to be *tunneyi* there is a clear narrow white superciliary stripe, the grey of the head does not come down as far as the bottom of the eye so that the white of the cheek reaches the lower eyelid and the ear coverts are white lightly flecked with grey. This is well shown in Serventy *et al.* (1971: pl.77) and Fig. 1. The crown, the tips of the back feathers and primaries are less black in *elegans* with the result that *tunneyi* has a grey collar on the back of the neck which is not apparent in *elegans*. The general shade of grey on the upper parts of *elegans* is browner than in *tunneyi*. The white outer parts of the inner vanes of the outer primaries of *elegans* are less clear white and less sharply differentiated from the dark grey inner parts than in *tunneyi*. In both races the undertail coverts are pure white.

#### OTHER RECORDS

Brooke and Sinclair (1978) placed the Koeberg specimen (Table 1) as *tunneyi* after studying Serventy *et al.* (1971). Rozendaal (1977) describes his bird as being black and white and having a relatively large amount of white on the sides of the head with the dark cap not extending below the eye. This fits the characters of *tunneyi* with which we place the record. The St Croix record (Randall 1978: Fig.1) is the fifth we can reasonably attribute to *tunneyi* from South Africa. It was captured and ringed on 24 May 1978. Among the descriptive points noted at the time were that the white of the underparts extended on the face to slightly above the eye and that the tarsus measured 37, the wing 181 and the culmen 25 mm all of which places the bird in *tunneyi*. It was again found roosting on a flat bare rock half a metre from an occupied Jackass Penguin *Spheniscus demersus* nest on 3 July 1978 and 15 June 1979 but not subsequently despite searches (Randall *et al.* 1981). The Zululand specimen reported in Clancey (1964) is not currently available for study but P.A. Clancey (*in litt.* to

TABLE 2

MENSURAL DATA IN MILLIMETRES ON THE LITTLE SHEARWATER *PUFFINUS ASSIMILIS*

Population	Wing n mean $\pm$ s.d. (range)	Tarsus n mean $\pm$ s.d. (range)	Exposed culmen n mean $\pm$ s.d. (range)	Tail n mean $\pm$ s.d. (range)	Source
<i>P. a. elegans</i> Gough Island	10 188,5 $\pm$ 6,1 (180 - 199)	10 41,8 $\pm$ 1,1 (40 - 44)	10 26,7 $\pm$ 1,2 (25 - 29)	10 60,5 $\pm$ 3,6 (53 - 65)	Durban Museum
<i>P. a. elegans</i> South Pacific	6 190,5 (182 - 196)	6 40,3 (39 - 41,5)	6 25,8 (24,0-27,5)	6 66,8 (64 - 69)	Murphy (1936)
<i>P. a. turneyi</i> W. Australia	26 173,5 $\pm$ 3,4 (169 - 184)	31 36,2 $\pm$ 1,4 (34 - 39)	25 23,7 $\pm$ 1,0 (21,9 - 25,5)	31 65,7 $\pm$ 2,2 (62 - 69)	Fleming & Serventy (1943)
<i>P. a. turneyi</i> Southwestern Cape	3 162, 171, 184	3 36, 38, 39	2 26, 26	2 60, 62	South African Museum
<i>P. a. turneyi</i> St Paul Island	3 183, 184, 184	3 38, 38, 40,3	3 24,6, 25, 25	3 67,5, 68, 68	Gill (1967)

TABLE 3

SEASONAL DISTRIBUTION OF RECORDS OF LITTLE SHEARWATERS *PUFFINUS ASSIMILIS* IN SOUTH AFRICAN WATERS

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
No. of birds seen	1	10	1	-	16	1	3	4	-	3	1	9



Figure 1  
*Puffinus assimilis tunneyi* at its roost on St Croix Island  
24 May 1978

(Photograph : R.M. Randall)

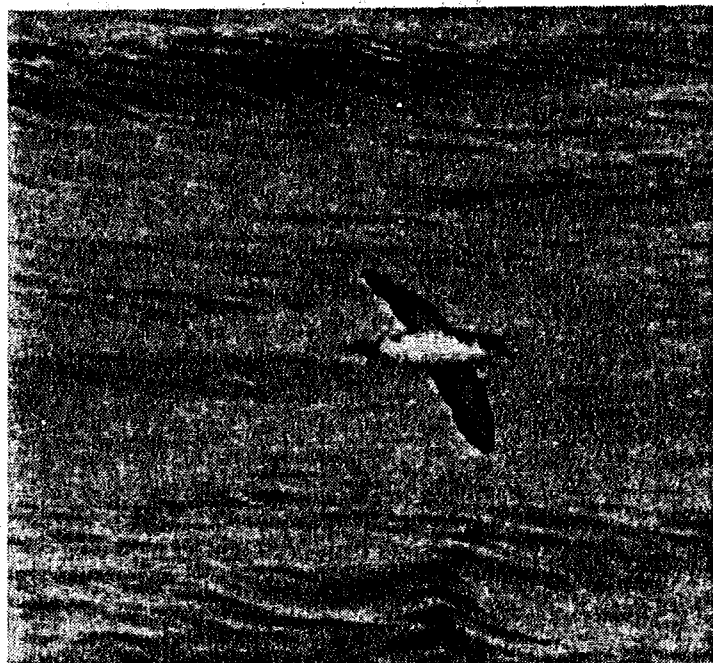


Figure 2

*Puffinus assimilis elegans* at sea off the western Cape  
18 August 1980. Note how far down the side of the face the  
dark colour extends.

(Photograph : J.C. Sinclair)

RKB) believes that the description in his 1964 work was based on that specimen which would place it as *elegans*.

Eight sight records in Table 1 were clearly seen by JCS and they did not show a contrasting black and white appearance. Like the birds he saw at Gough Island they had dark grey, not black upper parts and the most obvious character was the dark grey cap which extended below the eye : one of these birds is shown in Fig. 2. We are confident that if these birds had been collected they would prove to be *elegans*.

Abrams and Griffiths (1981) include the Little Shearwater among the species recorded by Cdr A. Thomas in the Benguela current off the western Cape between November 1950 and June 1953. With the assistance of Mr A.M. Griffiths the original data sheets were examined and the records have been included in Table 1.

#### DISTRIBUTION AND SEASON

On present knowledge the Little Shearwater occurs in the Southern Subtropical Zone around the African coast only in the southern part around South Africa. The most northerly records (Table 1) are at 29 30S (Chapman 1981) in the Atlantic and at 28 20S (Clancey 1964) in the Indian Ocean. Forty-two of the 50 records come from the Benguela current region. This is partly the result of the greater biomass of seabirds and partly the result of more intensive searches for birds at sea there, or so we believe from personal observation since there are as yet no quantified data to back the statements. The two races recorded occur in both oceans and there is no clear pattern separating their South African distribution (Table 1).

There is no apparent seasonality of occurrence of Little Shearwaters in South African waters (Table 3). The Koeberg bird found on 21 January 1978 was found to be in active moult of the primaries in the usual descending mode. P1 - 3 were fresh, P4 was growing and P5 - 10 were old. The March study skin has P10 growing and the May study skin has recently completed its wing moult.

#### SUMMARY

This paper has shown that two races of the Little Shearwater *Puffinus assimilis* occur in South African waters : *P.a. elegans* of the South Atlantic and *P.a. tunneyi* of Western Australia and St Paul Island, Indian Ocean, in about equal numbers. Both races are very scarce visitors to all coasts and there is no apparent seasonality in their occurrence in South African waters. There is as yet no evidence of the occurrence of either race in Africa north of 28S.

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*J.C. Sinclair, Durban Museum, Box 4085, Durban 4000, South Africa.*

*R.K. Brooke, Percy FitzPatrick Institute of African Ornithology,  
University of Cape Town, Rondebosch 7700, South Africa.*

*R.M. Randall, Department of Zoology, University of Port Elizabeth,  
Box 1600, Port Elizabeth 6000, South Africa.*

