

BIOMETRICS OF SABINE'S GULLS *LARUS SABINI* IN THE SOUTH ATLANTIC
DURING THE NORTHERN WINTER

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Sabine's Gull *Larus sabini* is a Northern Hemisphere breeding species, with one of its wintering areas off the South African and South West African/Namibian coasts (Lambert 1967, 1975). Although the species was rarely recorded in South African waters before 1965 (Zoutendyk 1968), flocks of up to 1 000 adult Sabine's Gulls and 0 - 8 first year birds were seen in December 1979 and January 1980 at the Green Point sewage outfall, Cape Town, where such large numbers are now regularly observed (Furness in press), and are characterized by an extremely low proportion of first year birds (Cochrane 1978).

On 12 December 1979 four Sabine's Gulls were shot, under licence from the Sea Fisheries Institute, near the Green Point sewage outfall, to examine their stomach contents. The birds were weighed immediately on collection and their stomachs removed and preserved in formalin for later examination. Measurements of maximum chord wing length, bill depth at gonys, exposed culmen length, and primary moult scores were taken, and the birds were aged by plumage and sexed by dissection. Biometric methods were those recommended and described by Spencer (1972).

It appears that the masses are the first published for this species, and certainly the first from the wintering grounds. Dement'ev *et al.* (1951) say specifically that no mass data are available. Liversidge and Courtenay-Latimer (1963) described three adult specimens collected in South African waters in 1958 and 1959. Zoutendyk (1968) collected five specimens off Slangkop, Cape Peninsula, on 18 January 1967 and listed measurements and stomach contents. These, and our measurements are given in Table 1. Primaries of the four birds we collected were all quite worn, so that wing lengths will be shorter than for birds in fresh plumage. The primary moult had just begun in three individuals, which agrees with the pattern described by Stresemann and Stresemann (1966). Having examined two specimens collected off Peru in December 1881 and four from the southern hemisphere in February, they tentatively suggested that moult of remiges begins in early December and is completed in April. Moult in winter quarters is typical of sea-birds undertaking long-distance migrations (Salomonsen 1976).

Biometrics suggest that the birds wintering off South Africa are from the nominate race *L. s. sabini* (Sabine) which breeds in Greenland and arctic Canada, rather than from any of the larger three races (Portenko 1939) (Table 2).

Only one of the stomachs contained food remains : a fish otolith that was too eroded to be identified, and the jaws of a Northern Hemisphere pelagic polychaete.

TABLE 1

BIOMETRIC DATA FROM ADULT SABINE'S GULLS *LARUS SABINI* COLLECTED AT GREEN POINT SEWAGE OUTFALL, CAPE TOWN ON 12 DECEMBER 1979, & BY LIVERSIDGE & COURTENAY-LATIMER (1963) & ZOUTENDYK (1968)

Date	Sex	Mass (g)	Wing length (mm)	Culmen length (mm)	Bill depth (mm)	Tail length (mm)	Tarsus length (mm)	Primary moult score
Liversidge & Courtenay-Latimer (1963)								
26 Feb 58	male	-	268	28,1	-	98 - 117	32,9	-
6 Feb 59	male	-	263	28,1	-	88 - 111	34,5	-
6 Feb 59	female	-	260	26,1	-	84 - 112	31,4	-
Zoutendyk (1968)								
18 Jan 67	female	-	270	29,8	-	120	31,6	-
18 Jan 67	-	-	280	30,7	-	128	33,0	-
18 Jan 67	female	-	258	26,0	-	126	28,0	-
18 Jan 67	-	-	270	28,0	-	126	31,3	-
18 Jan 67	-	-	270	27,5	-	127	29,8	-
this paper								
12 Dec 79	male	164	278	25,1	7,2	-	-	0 ¹⁰
12 Dec 79	male	174	271	27,5	7,2	-	-	1 ²⁰⁸
12 Dec 79	female	168	274	26,2	6,9	-	-	2 ¹¹⁰⁸
12 Dec 79	female	170	270	27,1	7,2	-	-	1 ¹⁰⁹

TABLE 2

MEAN MEASUREMENTS OF ADULT SABINE'S GULLS *LARUS SABINI* COLLECTED OFF SOUTH AFRICA
WITH MEAN WING LENGTHS OF THE FOUR SUBSPECIES DESCRIBED BY PORTENKO (1939) FOR COMPARISON.
VALUES TABULATED ARE SAMPLE SIZE, MEAN & STANDARD DEVIATION

Category	Adult male		Adult female		All adults	
	n	s.d.	n	s.d.	n	s.d.
Mass (g)	2	169	2	169	4	169
Culmen length (mm)	4	27,2	5	27,0	12	27,5
Bill depth (mm)	2	7,2	2	7,0	4	7,1
Tarsus (mm)	2	33,7	3	30,3	8	31,6
Wing length (mm)	4	270	5	266	12	269
<i>L. s. sabini</i> (Greenland)	5	270	2	252	-	-
<i>L. s. palaearctica</i> (Taimyr-Lena delta)	6	285	7	275	-	-
<i>L. s. tschuktschorum</i> (Chukchee peninsula)	14	278	19	270	-	-
<i>L. s. woznesenskii</i> W. Alaska)	0	-	2	268	-	-

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