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BLACKNECKED GREBES *PODICEPS NIGRICOLLIS* AT SEA IN THE
VICINITY OF LÜDERITZ, SOUTH WEST AFRICA/NAMIBIA

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INTRODUCTION

Blacknecked Grebes *Podiceps nigricollis* have been reported at sea in South West Africa/ Namibia (S.W.A.) in sheltered coastal areas and in the vicinity of offshore islands. Their occurrence has been briefly reviewed by Ryan (1980), who also observed them in South African waters.

Observations of the birds at sea near Lüderitz (26 39S, 15 10E) and at Possession Island (27 01S, 15 12E) are documented here. Occasional visits were made between 1974 and 1980. These occurred at various times of the year, but not in the months of April, May, June, September and November.

OBSERVATIONS

The mainland coast in the Lüderitz area covered in these surveys extends from Robert Harbour to Diaz Point (Fig. 1). Surveys were made either from the mainland or from Sea Fisheries Research Institute vessels on 18 occasions. On 11 of them, parts of the coastline between Robert Harbour and Angra Point were surveyed. Another two surveys extended further west to Stormvogel Bay and the remaining five extended to Diaz Point.

Blacknecked Grebes were seen on 14 of the 18 occasions (Table 1), with an average flock size of 47 birds, standard deviation 55 and maximum 200. Birds were seen in each month between July and January, with the exception of September and November when no observations were made.

The entire coastline of Penguin and Seal Islands in Lüderitz Bay was surveyed three times between 1976 and 1979. Blacknecked Grebes were seen at Penguin Island on two of these occasions and once at Seal Island (Table 2). In addition, they were sighted frequently on the eastern side of Penguin Island between 9 and 27 January 1978 while I was residing on the island; for instance, 300 birds were seen there on 10 January.

The average flock size for the three sightings noted in Table 2 was 258, with standard deviation 207 and maximum 500.

Eight surveys were made at Possession Island, six of them in the month of January (Table 3). Three of the surveys covered the entire coastline of the island. Blacknecked Grebes were seen at two localities, in the bay on the eastern side near the southern end (Southeastern Harbour) and in the un-named bay at the

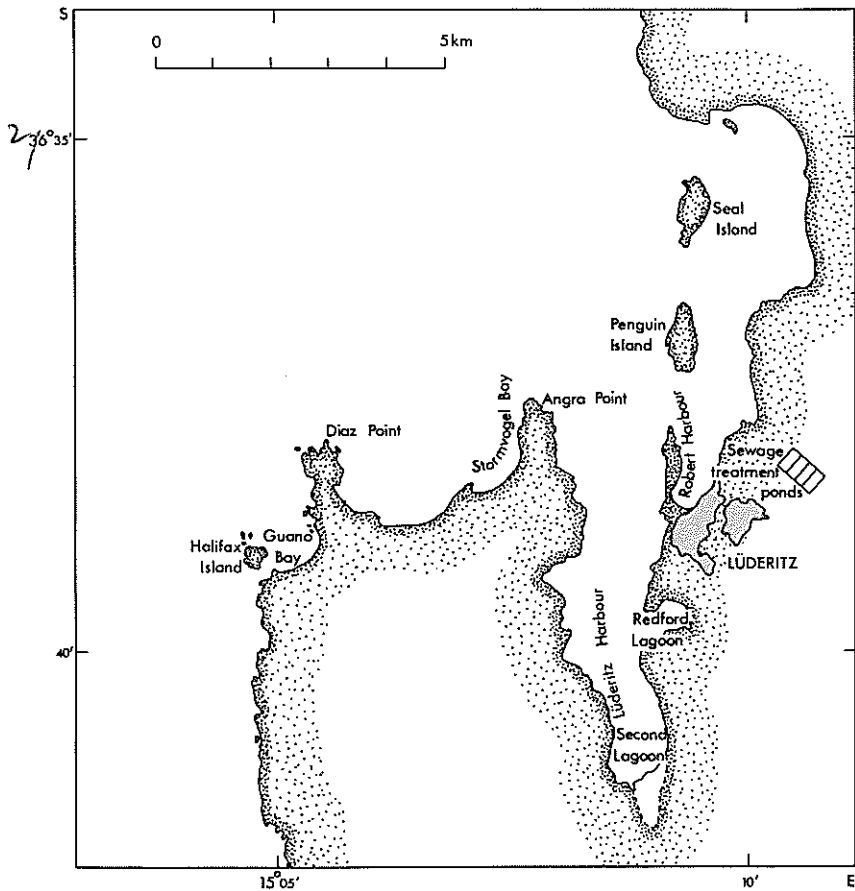


Figure 1
The Lüderitz Bay region

TABLE 1

OBSERVATIONS OF BLACKNECKED GREBES *PODICEPS NIGRICOLLIS* IN THE LÜDERITZ AREA, 1974 to 1980

| Date | No. of birds | Locality | Area surveyed |
|-------------------------|--------------|------------------------------------|---|
| 22 Jan 1976 | 8 | Angra Point | Robert Harbour to Diaz Point* |
| 8 Feb 1976 | 0 | - | Redford Lagoon to Diaz Point |
| 12 Mar 1977 | 0 | - | Robert Harbour to Angra Point* |
| 14 Mar 1977 | 0 | - | Robert Harbour to Angra Point* |
| April, May & June | - | No observations made | |
| 23 Jul 1974 | 5 | Redford Lagoon | also Stormvogel Bay |
| 27 Jul 1974 | 9 | Stormvogel Bay | also east side of Lüderitz Harbour |
| 3 Aug 1974 | 17 | Second Lagoon | also south end of Lüderitz Harbour |
| 9 Aug 1974 | 13 | Redford Lagoon | also south end of Lüderitz Harbour |
| 10 Aug 1974 | 11 | Redford Lagoon | also south end of Lüderitz Harbour |
| 4 Aug 1977 | 200 | Robert Harbour | also Redford Lagoon and south end of Lüderitz Harbour |
| 5 Aug 1977 | 50 60 | Redford Lagoon Lüderitz Harbour | also Second Lagoon and south end of Lüderitz Harbour |
| 9 Aug 1977 ⁺ | 0 | - | Robert Harbour to Diaz Point* |
| 9 Aug 1977 ⁺ | 100 | Robert Harbour | Robert Harbour to Diaz Point & return* |
| September | - | No observations made | |
| 17 Oct 1976 | 30 | Redford Lagoon | Robert Harbour to Diaz Point* |
| November | - | No observations made | |
| 14 Dec 1975 | 100 | Robert Harbour | also north end of Lüderitz Harbour |
| 15 Dec 1975 | 50 | Lüderitz Harbour | also Redford Lagoon and south end of Lüderitz Harbour |
| 18 Dec 1978 | few | Redford Lagoon | also south end of Lüderitz Harbour |
| 19 Dec 1978 | 8 | Robert Harbour | |

* The area was surveyed from a vessel; it excludes Second Lagoon and Redford Lagoon, but includes the north end of Lüderitz Harbour

⁺ a.m. and p.m. respectively

TABLE 2

OBSERVATIONS OF BLACKNECKED GREBES *PODICEPS NIGRICOLLIS* AT PENGUIN ISLAND AND SEAL ISLAND, LÜDERITZ BAY, 1976 TO 1979

| Date | No. of birds |
|-------------|------------------|
| | Penguin Island |
| 26 Jan 1976 | 40 |
| 16 Jan 1978 | 900* |
| 23 Jan 1978 | 0 |
| | Seal Island |
| 26 Jan 1976 | 0 |
| 22 Jan 1978 | 0 |
| 23 Jan 1979 | 350 ⁺ |

* Two groups, 500 and 400

⁺ Two groups, 300 and 50

TABLE 3

OBSERVATIONS OF BLACKNECKED GREBES *PODICEPS NIGRICOLLIS* AT POSSESSION ISLAND, 1977 AND 1978

| Date | Southeastern Harbour | North Bay |
|--------------|----------------------|-----------|
| 12 Jan 1977 | 50 | - |
| 19 Jan 1977* | 50** | 0 |
| 21 Jan 1977 | 0 | 0 |
| 13 Jan 1978* | 300 ⁺ | 0 |
| 19 Jan 1978 | 0 | - |
| 20 Jan 1978 | - ⁺⁺ | 0 |
| 11 Mar 1977 | 0 | 0 |
| 8 Aug 1977* | 0 | 3 |

* Survey of the entire coastline

** Three groups, 10, 20 and 20

⁺ Two groups, 100 and 200; also included in Cooper, Robertson and Shaughnessy (1980)⁺⁺ No observation

northern end. Both bays are protected from the prevailing southwesterly swells.

At the former locality grebes were seen on three occasions. They occurred in six flocks with mean 67, standard deviation 73 and maximum 200. The largest number of birds seen in Southeastern Harbour was 300; they had departed six days later.

The mean flock size at Penguin and Seal Islands is significantly greater than that near Lüderitz and at Possession Island. There was no significant difference between the mean flock sizes at the two latter localities. Significance tests were carried out using Kramer's modification to Duncan's new multiple range test (Kramer 1956) and a significance level of 0,05.

The only other locality in S.W.A. where Blacknecked Grebes were seen was Guano Bay, between Halifax Island and the mainland. Nine birds were recorded there on 9 August 1977. (This record was incorrectly reported for January between 1974 and 1979 in a footnote to Table 1 of Cooper *et al.* (1980).) One hour later 100 birds were seen in Robert Harbour, Lüderitz.

Although other sheltered localities on the coast of S.W.A. were visited in the period covered by this report, no Blacknecked Grebes were seen. These localities were Spencer Bay (visited on 17 March 1977), Ichaboe Island (12 and 13 March 1977 and 18 August 1980), Abenteur Bay (24 January 1979), Albatross Rock (13 and 20 January and 11 August 1977), Long Island-Wolf Bay area (numerous occasions), Sinclair Island and Plumpudding Island (14 and 21 January 1978 and 4 February 1980). Smith (1981) records the Blacknecked Grebe as a rare visitor to Ichaboe Island where he saw 3-6 birds at a time. However, B.H. Smith (pers.comm. to R.P. Wilson) states that up to 67 birds were present on the east side of Ichaboe Island for the seven months prior to February 1980. None was present at this locality on 27 November 1978 (Cooper *et al.* 1980).

SEASONAL OCCURRENCE

Inspection of Tables 1, 2 and 3 indicates that Blacknecked Grebes were recorded in the vicinity of Lüderitz (including nearby islands of Penguin, Seal and Possession) in those months between July and January in which surveys were made (Table 4). None was seen in February or March, but only four surveys were made then. No observations were made in the period April through June.

At Sandwich Harbour, Berry & Berry (1975) reported that Black-necked Grebes left the area in January to breed on inland waters, and returned in May. Observations of Blacknecked Grebes in the vicinity of Lüderitz reported in this study are in accord with this seasonal pattern. However, it is apparent that some birds remain there in February (Becker 1965) and March (Hockey 1982 and Wahlberg, in Gyldenstople 1934), although they may be scarce in March when only four birds were recorded in a comprehensive survey of the islands and coastline of the Lüderitz region in 1981 (Hockey 1982).

It would be necessary to carry out regular monthly surveys in the

TABLE 4

MONTHLY RESUMÉ OF SIGHTINGS OF BLACKNECKED GREBES *PODICEPS NIGRICOLLIS* IN THE VICINITY OF LÜDERITZ*

| Monthly | Surveys in this study | | Other studies | | Source |
|-----------|-----------------------|-----------------|-------------------|--------------------------|----------------------------------|
| | Total no. | No. with grebes | No. of grebes | Date | |
| January | 13 | 7 | | | |
| February | 1 | 0 | >500 | 9-16 Feb 1965 | Becker (1965) |
| March | 3 | 0 | 4 | Mar 1981 | Hockey (1982) |
| April | 0 | -** | 2 ⁺ | late Mar, early Apr 1854 | Glydenstolpe (1934) |
| | | | 75 | Mar/Apr 1959 | Niethammer (1961) |
| May | 0 | - | >1000 | May 1949 | Meinertzhagen ('50) |
| June | 0 | - | | | |
| July | 2 | 2 | | | |
| August | 8 | 7 | | | |
| September | 0 | - | | | |
| October | 1 | 1 | | | |
| November | 0 | - | 120 | 23-24 Nov 1971 | Summerhayes <i>et al.</i> (1974) |
| | | | 777 ⁺⁺ | Nov/Dec 1978 | Cooper <i>et al.</i> (1980) |
| December | 4 | 4 | | | |

* In Lüderitz Bay unless otherwise noted

** No observations made

⁺ Possession, Long, Halifax, Penguin, Ichaboe and Mercury Islands were visited; an unstated number of grebes was seen but the location was not specified

⁺⁺ In Lüderitz Bay on 9 December, 735 at Penguin and Seal Islands on 29 November and 41 at Possession Island on 1 December

Lüderitz area, especially from January to June, to determine if the majority of the birds leave the coast, as reported for Sandwich Harbour. If this were done, it would be interesting to note whether those that remain are in breeding or non-breeding plumage.

BEHAVIOUR

Blacknecked Grebes were not seen at all on land and were rarely seen flying. They undergo a simultaneous moult of their flight feathers (Cramp & Simmons 1977) and it may be that birds moult while at sea off S.W.A. when they would be flightless for a time. The birds sat in a densely packed flock or "raft" on the sea, occasionally within a few metres of the shore. When disturbed while sitting on the sea, they invariably swam slowly away, dived and then reappeared several metres further away. Foraging behaviour of Blacknecked Grebes at Possession Island is described by Robertson (1981).

The birds were usually seen close inshore in protected waters, but on 16 January 1978 a tightly packed flock of about 500 was seen on the west coast of Penguin Island in rough seas with white caps and an estimated wind speed of 25 knots. These birds were watched for 15 minutes while they swam slowly into the wind. Groups of 10 from the rear of the flock repeatedly flew 20 m to the head of the flock.

Blacknecked Grebes were not seen at Lüderitz on the inland waters of the municipal sewage treatment ponds. On the other hand, both Dabchicks *Tachybaptus ruficollis* and Great Crested Grebes *Podiceps cristatus* were seen there, but not at sea. The former were seen on 17 October 1976 (2 birds), 28 January 1978 (3) and 18 December 1978 (2), and the latter also on 18 December 1978 (4 birds). Hockey (1982) records 16 Dabchick present at this locality on 30 November 1978, but none on 6 and 9 March 1981. These records indicate that of the three species of Podicipedidae in southern Africa, only the Blacknecked Grebe regularly ventures into marine environments, an impression also conveyed by McLachlan and Liversidge (1978). However, both the Dabchick and Great Crested Grebe have also been recorded at sea in southern Africa (Robertson 1980, Ryan 1982).

Feeding by Blacknecked Grebes was observed on only two occasions, on 5 August 1977 in Redford Bay and on 10 January 1978 close inshore on the eastern side of Penguin Island. On the former occasion three Hartlaub's Gulls *Larus hartlaubii* were feeding commensally with the grebes. On the latter occasion fishermen were netting mullet *Mugil* spp. in the immediate vicinity.

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