

AFRICAN PENGUINS *SPHENISCUS DEMERSUS* RECOLONISE A FORMERLY ABANDONED NESTING LOCALITY IN NAMIBIA

J-P. ROUX¹, J. KEMPER^{2,3}, P.A. BARTLETT¹, B.M. DYER⁴ & B.L. DUNDEE¹

¹Ministry of Fisheries and Marine Resources, Lüderitz Marine Research, PO Box 394, Lüderitz, Namibia
(jproux@mfmr.gov.na & wolfbay@ldz.namib.com)

²Avian Demography Unit, University of Cape Town, Rondebosch 7701, South Africa

³African Penguin Conservation Project, c/o Ministry of Fisheries and Marine Resources, PO Box 394, Lüderitz, Namibia

⁴Marine and Coastal Management, Private Bag X2, Roggebaai 8012, South Africa

Received 29 January 2003, accepted 5 May 2003

SUMMARY

ROUX, J-P., KEMPER, J., BARTLETT, P.A., DYER, B.M. & DUNDEE, B.L. 2003. African Penguins *Spheniscus demersus* recolonise a formerly abandoned nesting locality in Namibia. *Marine Ornithology* 31: 203-205.

African Penguins *Spheniscus demersus* disappeared from Neglectus Islet probably between 1885 and 1952. Visiting birds were only noted rarely before the mid 1990s, but since 1995 penguin numbers on the islet have increased and breeding was first confirmed in 2001. Neglectus Islet is the only formerly abandoned nesting locality to be recolonised by African Penguins in Namibia. Although the population is still very small (estimated at around 11 breeding pairs), the re-establishment of this breeding locality is important for the conservation of the African Penguin, which is considered to be Critically Endangered in Namibia.

Keywords: African Penguin, *Spheniscus demersus*, breeding distribution, recolonisation

INTRODUCTION

Historically the African Penguin *Spheniscus demersus* probably bred at 16 localities along the Namibian coast: 14 islands and two mainland sites (Shelton *et al.* 1984, Loutit and Boyer 1985, Crawford *et al.* 1995, Whittington *et al.* 2000, Simmons & Kemper 2003, Bartlett *et al.* 2003). As the population decreased in size, a number of breeding sites became extinct (Crawford *et al.* 1995) and, in the late 1990s, penguins were breeding at only 10 localities (eight islands and two mainland sites) in Namibia (Whittington *et al.* 2000, Bartlett *et al.* 2003).

“Neglectus Islet” (26° 08.2' S, 14° 56.8' E) is a small island (unnamed on the charts) c. 80 m offshore in Hottentot Bay along the central Namib Desert coast, approximately half-way between Ichaboe and Mercury Islands. Owing to its small size (roughly 25 x 6 m), the islet has attracted little attention in the past and is poorly documented. However, it is known to have been frequented by seabirds (African Penguins and cormorants *Phalacrocorax* sp.) since the 19th century (Eden 1846, Anon. 1885). These early descriptions led Shelton *et al.* (1984) to consider Hottentot Bay to be a former penguin breeding site abandoned for at least a century. During the first recorded visit by an ornithologist in late November 1985, Williams (1987), who named the islet, found a breeding colony of 90 nests of Bank Cormorants *P. neglectus* but no penguins (Crawford *et al.* 1995). During three of the subsequent visits, penguins were present on the islet in small numbers (four birds in November 1986, three in November 1991 and 10 in February 1994), but no signs of breeding were recorded (Crawford *et al.* 1995).

METHODS

Counts of penguins were made on five occasions from vantage points on the mainland with binoculars and spotting scopes at a distance of between 80 and 100 m. Those counts are minimum estimates, because the entire surface of the island cannot be observed from the mainland. During this study, landings on the islands was made on 28 November 1995, 10 February 2001, 15 January 2002 and 25 January 2003 and complete counts were done as well as thorough searches for nest sites and active nests. Following Kemper *et al.* (2001), active nests are defined as nests containing either eggs or chicks, and active nest sites are nests with recently added nesting material.

RESULTS AND DISCUSSION

Observations made during nine visits to Hottentot Bay between 1991 and 2003 are summarised in Table 1, together with the five previously documented visits (Crawford *et al.* 1995). Since the mid 1990s, penguins were present at Neglectus Islet during all visits, in numbers ranging from nine to 60. This contrasts with penguins being present on the islet during only three visits out of six made prior to 1995 (Table 1). One suspected nest site was recorded in 1995, and breeding had possibly occurred during that year. The first conclusive evidence of breeding was noted in February 2001 when eight active nests were found. In January 2002, nine active nest sites were found (including four active nests). Chicks, guarded and fed by adults, were also observed during two subsequent counts from the mainland (18 April and 18 November 2002). On 25 January 2003, 10 active nests, all containing eggs, were counted. An additional nest was still being constructed. Of these, seven nests

and the nest site were clustered in the rubble of a collapsed structure; the other three nests were scattered amongst a colony of breeding Bank Cormorants. To date, no observations have been made between May and September. It would be useful to obtain counts during those months to establish the the seasonality of breeding on the islet.

From the data summarised in Table 1, it is clear that the numbers of African Penguins at Neglectus Islet have been increasing since 1994, and that penguins started to breed there sometime between the mid 1990s and 2001. The population linked to this colony is likely to be small at present (c. 11 breeding pairs on account of the number of nest sites found in January 2003) but is possibly still increasing. The coincidence of this recolonisation with a large population decrease at Ichaboe Island (19 km to the south) after 1995 following a Benguela Niño event (Kemper *et al.* 2001) seems to indicate that immigration of birds from Ichaboe Island, triggered by an environmental anomaly in 1994-1995, is likely to have played a role. Two banded adult penguins were observed in January 2002 but the band numbers could not be read. Another banded penguin, in late moult, was seen in January 2003. Since no penguins have been banded on Neglectus Islet, these birds must have originated from other localities.

Along the central Namibian coast, Hottentot Bay is the only sheltered bay offering safe anchorage between Lüderitz and Sandwich Harbour and has been known and used since the early days of shipping in the region. The Namibian coast has been searched intensively by sealers, whalers and subsequently guano traders since the 18th century. As was the case in many regions,

early mariners regularly raided seabirds, and particularly penguin colonies to obtain fresh meat and eggs. Collections of penguins and penguin eggs have been reported many times along the Namib coast by visitors during the 18th and 19th centuries (Anon. 1845, Eden 1846, Best & Shaughnessy 1979, Kinahan 1990). A small seabird colony like that on Neglectus Islet, easily accessible in an often visited sheltered bay, was therefore particularly at risk from human depredation and disturbance. In addition, the proximity of Ichaboe Island exposed Hottentot Bay and Neglectus Islet to constant disturbance at the time of the "Ichaboe guano rush" (1843-1845), when hundreds of vessels were loading guano less than 20 km away and making use of the bay for shelter (Craig 1964). At the peak of the rush between October 1844 and January 1845, up to 460 vessels lay next to Ichaboe, frequently dragging anchor and colliding, using Hottentot Bay as temporary shelter and for repairs. In addition, at that time approximately 6000 sailors and labourers were employed in the Ichaboe guano operation and they consumed penguins and penguin eggs regularly (Anon. 1845). It is therefore likely that the bird population decreased markedly during that period. Neglectus Islet was probably also scraped for guano at that time; as the Ichaboe supply was becoming exhausted, vessels turned their attention to smaller islands (Anon. 1845, Watson 1930, Craig 1964). Yet, in June 1845, Neglectus Islet seemed to still have been frequented by seabirds since Eden (1846, p. 100) describes the islet as "a rock in Hottentot Bay, a few yards from the main land, where a small quantity of guano, and a few birds were to be seen".

Later in the 19th century penguins still remained on the islet which Captain John Spence (Anon. 1885, p. 10) describes as "a small island inside of Hottentot Bay, to which we have given the name of Hottentot Bay Island; it has a very small quantity of guano and is frequented by duikers [cormorants] and penguins." Captain Spence was at the time visiting Hottentot Bay on a yearly basis as his company, De Pass, Spence & Co., was involved in guano collection, fishing and sealing along the Namibian coast between the Orange River and Sandwich Harbour and on all the islands. Those activities included the mining of a "fossil" guano deposit (of low quality) at Hottentot Point since 1850, which yielded between 150 and 300 tons per year. A permanent establishment was maintained by that company at Hottentot Point at the time (Anon. 1885, p. 21).

The early 20th century was marked by the beginning of a Cape Rock Lobster *Jasus lalandii* fishery operating from Lüderitz. Whereas most other islands started to benefit from some protection under the authority of the Guano Islands Administration, Neglectus Islet continued to be visited without control. The fishery developed rapidly in the late 1940s and peaked in the early 1950s with approximately 14 000 tonnes of lobster caught in 1952 (Stuttaford 1994). A lobster-processing factory was built in the bay in the immediate vicinity of Neglectus Islet at that time and operated for several years. A small building, probably a pump-house now in ruin, was built on the islet itself. The construction of this building and the frequent (probably daily) visits to the islet during the lifetime of this factory was, most probably, detrimental to any remaining breeding seabird populations on Neglectus Islet. With some of the richest lobster fishing grounds being near Hottentot Bay, the fishing fleet has made extensive use of the bay to overnight and to shelter in rough weather during the fishing season to the present time (pers. obs.).

TABLE 1

Summary of African Penguin observations at Neglectus Islet for the period 1985-2002. Observations have been classified as counts from the islet itself (Is), counts from the mainland (M) or from boats around the islet (B). Counts from the mainland may not represent absolute totals because parts of the islet are not visible from the mainland. Numbers of penguins in adult plumage, immatures and total numbers of individuals (excluding chicks and fledglings) are given, as well as the numbers of active nests (AN) observed

Date	Observation	Adults	Immatures	Total	AN	Source*
29 Nov 1985	Is	0	0	0	0	1
24 Nov 1986	Is	2	2	4	0	1
6 Apr 1987	Is	0	0	0	0	1
29 Jan 1991	M	0	0	0	-	2
26 Nov 1991	B	3	0	3	0	1
Feb 1994	?	-	-	10	0	1
28 Nov 1995	Is	-	-	9	0	1
24 Nov 2000	M	16	2	18	-	2
10 Feb 2001	Is	21	3	24	8	2
15 Jan 2002	Is	33	3	36	4	2
18 Apr 2002	M	15	0	15	2	2
8 Sep 2002	M	-	-	25	-	3
18 Nov 2002	M	25	5	30	1	2
25 Jan 2003	Is	45	15	60	10	2

* Crawford *et al.* 1995 (1), this study (2), T.G. Cooper, Ministry of Environment and Tourism pers. comm. (3)

In their review, Shelton *et al.* (1984) noted that several Namibian penguin populations, particularly in the vicinity of Lüderitz, were declining or becoming extinct during the early 20th century: that of Penguin Island became extinct before 1900, Halifax Island was decreasing before 1956, North Long Island had become extinct by 1926, North Reef and Possession Island's penguin populations were already decreasing early in the century. With perhaps the exception of North Long Island, these decreases are attributable to human disturbance from the town of Lüderitz at Penguin Island, by sealers at Possession and North Reef, and by guano scrapers at Halifax Island. With intensified human presence and activity, linked to lobster fishing and processing in Hottentot Bay, it is probable that the small Neglectus Islet penguin population, if it had persisted into the 20th century, became extinct at about that time. Subsequent decreases in numbers between Lüderitz and Table Bay have been attributed to the collapse of the Sardine *Sardinops sagax* resource in Namibia and exacerbated by a shift to a system dominated by Anchovy *Engraulis capensis* in the 1970s (Crawford 1998).

Since the mid 1950s the total penguin population in Namibia has declined by 72% and is still declining (Shelton *et al.* 1984, Crawford *et al.* 1995, Kemper *et al.* 2001) and none of the other formerly occupied breeding sites has been recolonised to date. Neglectus Islet is now an established breeding locality for a Critically Endangered species in Namibia, the African Penguin (Robertson *et al.* 1998) and a globally Endangered species, the Bank Cormorant (du Toit *et al.* 2002). Therefore, despite its small size, Neglectus Islet has become important from a conservation viewpoint. It warrants careful monitoring to prevent further disturbance and legal protection together with the other Namibian seabird islands.

ACKNOWLEDGEMENTS

T.G. Cooper is gratefully acknowledged for his unpublished observation and comments on the manuscript. Y.J. Chesselet, I.G. Cordes and R.E. Simmons are thanked for their help in the field and the last for useful comments on an earlier draft. J. Kinahan is acknowledged for information on the history of Hottentot Bay. JK acknowledges support for the African Penguin Conservation Project from the Namibia Nature Foundation (NNF).

REFERENCES

ANON. 1845. The African guano trade. Being an account of the trade in guano from Ichabo, and other places on the African coast. *Nautical Magazine* 11: 617-666.

ANON. 1885. Proceedings of the Angra Pequena and West Coast Claims Joint Commission. March-September 1885. Cape Town: Saul Solomon.

BARTLETT, P.A., ROUX, J.-P., JONES, R. & KEMPER, J. 2003. A new mainland breeding locality for African Penguin and Bank, Crowned and Cape Cormorants on the Namib Desert coast. *Ostrich* 74: 222-225.

BEST, P.B. & SHAUGHNESSY, P.D. 1979. An independent account of Captain Benjamin Morrell's sealing voyage to the south-west coast of Africa in the *Antarctic*, 1828/29. *Fisheries Bulletin of South Africa* 12: 1-19.

CRAIG, R. 1964. The African guano trade. *The Mariner's Mirror* 50: 25-55.

CRAWFORD, R.J.M. 1998. Responses of African Penguins to regime changes of sardine and anchovy in the Benguela system. *South African Journal of marine Science* 19: 355-364.

CRAWFORD, R.J.M., DYER, B.M. & BROWN, P.C. 1995. Absence of breeding by African Penguins at four former colonies. *South African Journal of Marine Science* 15: 269-272.

DU TOIT, M., BOERE, G.C., COOPER, J., DE VILLIERS, M.S., KEMPER, J., LENTEN, B., PETERSEN, S.L., SIMMONS, R.E., UNDERHILL, L.G., WHITTINGTON, P.A. & BYERS, O.P. (Eds.) 2002. Conservation Assessment and Management Plan for Southern African Coastal Seabirds. Cape Town: Avian Demography Unit & Apple Valley: IUCN/SSC Conservation Breeding Specialist Group.

EDEN, T.E. 1846. The search for nitre and the true nature of guano, being an account of a voyage to the south-west coast of Africa. London: Groombridge and Sons.

KEMPER, J., ROUX, J.-P., BARTLETT, P.A., CHESSELET, Y.J., JAMES, J.A.C., JONES, R., WEPENER, S. & MOLLOY, F.J. 2001. Recent population trends of African Penguins *Spheniscus demersus* in Namibia. *South African Journal of marine Science* 23: 429-434.

KINAHAN, J. 1990. The impenetrable shield: HMS *Nautilus* and the Namib coast in the late eighteenth century. *Cimbebasia* 12: 23-61.

LOUTIT, R. & BOYER, D. 1985. Mainland breeding by Jackass Penguins *Spheniscus demersus* in South West Africa/Namibia. *Cormorant* 13: 27-30.

ROBERTSON, A., JARVIS, A.M., BROWN, C.J. & SIMMONS, R.E. 1998. Avian diversity and endemism in Namibia: patterns from the Southern African Bird Atlas Project. *Biodiversity and Conservation* 7: 495-511.

SHELTON, P.A., CRAWFORD, R.J.M., COOPER, J. & BROOKE, R.K. 1984. Distribution, population size and conservation of the Jackass Penguin *Spheniscus demersus*. *South African Journal of marine Science* 2: 217-257.

SIMMONS, R.E. & KEMPER, J. 2003. Cave breeding by African Penguins near the northern extreme of their range: Sylvia Hill, Namibia. *Ostrich* 74: 217-221.

STUTTAFORD, M. 1994. Recovering from the near collapse of a rich resource. Focus on fisheries and research. *Namibia Brief* 18: 12-17.

WATSON, A.C. 1930. The guano islands of southwestern Africa. *The Geographical Review* 20: 631-641.

WHITTINGTON, P., CRAWFORD, R.J.M., HUYSER, O., OSCHADLEUS, D., RANDALL, R., RYAN, P., SHANNON, L.J., WOLFAARDT, A., COOPER, J., LACY, R. & ELLIS, S. (Eds.) 2000. African Penguin Population and Habitat Viability Assessment, Final Report. Apple Valley, USA: IUCN/SSC Conservation Breeding Specialist Group.

WILLIAMS, A.J. 1987. New seabird breeding localities, and an extension of Bank Cormorant range, along the Namib Coast of southern Africa. *Cormorant* 15: 98-102.

