

## SWIFT TERNS *STERNA BERGII* BREEDING ON ROOFS AND AT OTHER NEW LOCALITIES IN SOUTHERN AFRICA

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Swift (Greater Crested) Terns *Sterna bergii* construct nests as shallow scrapes in bare sand, rock or coral (Gochfeld & Burger 1996). The nests are on flat open ground, occasionally on gently sloping ground. They are often unlined but sometimes include grass, stones or the bones of cuttlefish *Sepia* sp., and sometimes are in low-lying vegetation that is trampled or pulled out to form a depression (Langham & Hulsman 1986, Higgins & Davies 1996, Crawford *et al.* submitted ms).

Between 1996 and 2000, Swift Terns bred on the roofs of buildings at Sandy Point in St Helena Bay (32°44'S, 18°01'E) and at Saldanha harbour (33°02'S, 17°56'E), both Western Cape Province, South Africa. Counts of the numbers of breeding pairs were undertaken by climbing onto the roof at Sandy Point, and from high ground overlooking the building at Saldanha using a telescope. Twelve pairs bred at Sandy Point in 1996, six in 1997, 127 in 1999 and 10 in 2000. About 300 pairs bred at Saldanha in 1999, and 442 pairs in 2000. The nominate race of Swift Tern *S. b. bergii* is endemic to southern Africa, numbering 6088 pairs (Cooper *et al.* 1990). Therefore, about 7.5% of the population bred on roofs in 2000.

The building used by Swift Terns at Sandy Point was the storage facility for fish meal of Sandy Point Canning Co. Ltd. The roof was about 6 m above ground level and had a slope of 18°. The Swift Terns nested in a gutter between adjacent sections of the building on a mat of material, mostly guano, that had accumulated in the gutter, as well as on level boards that had been placed across the gutter. The area used by Swift Terns for nesting was less than 20 m<sup>2</sup>. Breeding success was not monitored, but in 2000 several large chicks were seen.

At Saldanha, Swift Terns bred on the roof of a building of Sea Harvest Corporation Ltd that is used for processing trawled fish. The roof had a slope of 5°, and its apex was 11 m above ground level. Its area was about 7500 m<sup>2</sup>. No nesting material was used by Swift Terns. Breeding success was not measured, but in both 1999 and 2000 many large chicks were seen indicating that some breeding was successful.

Hartlaub's Gull *Larus hartlaubii* bred on the roof of the same building at Sandy Point in 1996 and 1999–2000, but not 1997, and on the roof of the same building at Saldanha in 1999–2000. Additionally, they bred on the roofs of adjoining buildings at both localities. The two species frequently breed in association with each other (Cooper 1977, Cooper & Pringle 1977, Cooper & Sinclair 1977, Cooper *et al.* 1977, Maclean 1985). Unlike the Swift Terns, Hartlaub's Gulls built nests on the roofs.

At Sandy Point on 1 March 1996, there were two eggs and 10 chicks of Swift Terns and six eggs and 56 chicks of Hartlaub's Gull. Both species have incubation periods of about 25 days (Cramp *et al.* 1985, Williams 1990). Therefore, it appears that

the two species initiated breeding at Sandy Point at more or less the same time.

At Saldanha on 11 March 1999, 192 non-brooded Swift Tern chicks were observed as well as adults that were incubating or brooding. Only 54 Hartlaub's Gull pairs had completed nests, many birds were copulating and there were no non-brooded chicks. Therefore, it appears that Swift Terns initiated the breeding on the roof of the building at Saldanha in 1999. However, Hartlaub's Gull bred on the ground in Saldanha harbour, near to the Sea Harvest building, in 1976–1978, 1981–1982 and 1988 (Cooper 1976, Williams *et al.* 1990). Therefore, it was the species that first bred at the locality.

Several other terns have elevated nests in bushes, trees or on cliffs, including Black Noddy *Anous minutus*, Brown Noddy *A. stolidus*, Lesser Noddy *A. tenuirostris* and White Tern *Gygis alba* (Gochfeld & Burger 1996, Surman & Wooller 2000), but Swift Terns have previously only been recorded nesting on the ground. In the Western Cape they are nomadic between breeding localities (Crawford *et al.* 1994), but the reasons for their choosing the roofs of buildings rather than coastal islands are not known.

Swift Terns have been recorded breeding at 22 localities in Namibia and South Africa (Cooper *et al.* 1990). Additionally, they bred at Seal Island in Namibia (26°36'S, 15°09'E) in 1993 (546 pairs), Bird Island at Lambert's Bay (32°05'S, 18°18'E) in 1995 (19 pairs), 1996 (179 pairs) and 1997 (383 pairs), and at Seal Island in Algoa Bay (33°50'S, 26°17'E) in 2000 (606 pairs). Together with Sandy Point and Saldanha, these bring to 27 the number of localities where Swift Terns have bred in southern Africa.

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