Breeding attempts by both Greater Flamingo (*Phoenicopterus roseus*) and Lesser Flamingo (*Phoeniconaias minor*) have been recorded this year on the central Namibian coast at Walvis Bay and Swakopmund.

Confranco Feris and a colleague Wilbert Itope of Walvis Bay Salt Holdings (WBSH) found the remains of a flamingo breeding attempt at the Walvis Bay Saltworks on 7 January 2019 (Figure 1-4). The number of nests at this site on the edge of the berm was estimated at 60+, as well as a further 30+ at another site further to the south, also on the edge of the berm (Figure 5-6); breeding was also observed at a third site further south with a similar number of nests, with a possible total of around 100-120 nests. The flamingos were observed to make another attempt to breed at the third site on 4 March 2019, with nest building but no eggs (C Feris pers. comm.).
The above main site is at Pan C in the bird count area of the Coastal Environmental Trust of Namibia (CETN) and south of the Paaltjies road (23.021231S 14.419222E), and the other two sites are further south at Pan F (see Figure 10 and 11; 23.038358S 14.419400E and 23.045907S 14.422998E).

Gulls, and black-backed jackals. The nests were still empty on 22 January.

**Figure 3 & 4:** Egg remains from failed breeding attempts by Greater Flamingo at Walvis Bay saltworks in January 2019 – photos © Ann Scott.

These nests were apparently made by Greater Flamingo; unfortunately no photographs were taken on 7 January 2019, but this species was also present in the area on 22 January 2019, when the nests were photographed (A & M Scott, pers. obs.). According to Confranco, when they discovered the site on 7 January, the nests were already deserted and it appeared that the eggs had been preyed upon by Kelp Gulls.

**Figure 5 & 6:** Second site of three breeding attempts by Greater Flamingo at Walvis Bay saltworks in January 2019 – photos © Ann Scott.

**Figure 7:** Site of breeding attempts by Greater and Lesser Flamingo at Mile 4 Saltworks, Swakopmund in 1997 – photo © Ann Scott.

In 1997, the Mile 4 Saltworks area north of Swakopmund witnessed the first recorded attempt of Greater and Lesser Flamingo breeding in coastal...
areas (Simmons et al. 1998; R Braby pers. obs. in Simmons 2015a, 2015b). Just over 100 nests were built in the salt pan and eggs were laid, but presumed disturbance by black-backed jackal led to early failure. The remains of these nests can still be observed today (Figure 9; 22.582021S 14.519237E). On 5 February 2019 Lesser Flamingos were photographed renovating several of these turrets (Figure 7); however, five days later this activity had ceased (M Boorman pers. obs.).

Some years ago, a few Lesser Flamingo breeding turrets were also found at the Walvis Bay sewage works, but no birds were seen on the nests (Gudrun Middendorff pers. comm. Jan 2019; Figure 8 and 9). These nests are connected to land by a spit, and thus accessible to jackals and stray dogs, which cause a predation problem.

Greater Flamingo is currently listed as Vulnerable in Namibia (Simmons 2015a), while Lesser Flamingo is Vulnerable (Simmons 2015b) and also Globally Near Threatened. Greater Flamingo prefers less saline habitat than Lesser Flamingo. In this country, breeding occurs in large colonies on raised islands on the flooded salt pan at Etosha National Park, often with the two species mixed. Egg-laying is usually induced by extensive flooding. At Etosha Pan, laying of Greater Flamingo typically starts when annual rains exceed 400 mm, usually in February and March, but as early as November and as late as May. By contrast, Lesser Flamingo lays mainly in May and into June. Flamingo breeding frequency and success at Etosha Pan are low, due to receding pan water that reduces food supplies and leads to increased predation.

The chances of flamingo breeding success and chick survival in coastal habitats in this country are considered to be very low, given the rates of predation by black-backed jackal, hyaena and feral dogs. An experimental breeding island was constructed at the Walvis Bay Saltworks in 2001, but was never observed to be used by flamingos (R Braby, H Kolberg pers. obs. in Simmons 2015a, 2015b). It is suggested that some form of deterrent for jackals, e.g. a moat, could possibly increase the chances of survival on such a breeding island (RE Simmons pers. comm.).

Acknowledgements
Walvis Bay Salt Holdings is thanked for providing access to the flamingo breeding sites in January 2019, and Peter Bridgeford and Rob Simmons for their comments on the flamingo breeding attempts.
References


Figure 10: General view of sites of three breeding attempts by Greater Flamingo at Walvis Bay saltworks in January 2019.

Figure 11: Sites of three breeding attempts by Greater Flamingo at Walvis Bay saltworks in January 2019.