

Short Note

The breeding success of Flamingoes in Etosha National Park, 1986

by

T.J. Archibald

and

T.B. Nott

Department of Agriculture, Nature Conservation and Veterinary Services

Etosha Ecological Institute

P O Okaukuejo

via Outjo

9000

The Etosha Pan in Etosha National Park encompasses an area of approximately 4 500 km. During the rainfall season which lasts from December to April, with a peak in February, the pan becomes partially and temporarily flooded. This flooding is a result of local rainfall as well as floodwaters originating north and north-east of the pan. Both the Lesser Flamingo *Phoenicopterus minor* and Greater Flamingo *Phoenicopterus ruber* have been known to breed successfully on the pan during years of above average rainfall measured at Namutoni (Berry, 1972). The breeding success of flamingoes during years of below average rainfall (Namutoni) or short duration flooding in Etosha, is less known. It is the intention of this note to document the breeding success of flamingoes in 1986 (annual rainfall at Namutoni - 354mm) when the pan experienced short duration flooding.

In mid-April, an aerial reconnaissance was undertaken to establish whether or not flamingoes had bred. All breeding sites reported by Berry (1972) were inspected. At a locality 8 km west of Okerfontein, two deserted nesting sites were found. The number of nests determined from enlarged photographs of these sites totalled 2080 and 3130 respectively. Scattered carcasses of chicks indicated that breeding had occurred. This was confirmed by a ground check of both nesting sites. At least half the nests in the larger colony contained broken and dried eggs that had not hatched. Massive nest mounds at both sites bore testimony to continual usage by breeding flamingoes over the years. Lappetfaced Vultures *Torgos tracheliotus* and Grey-headed Gulls *Larus cirrocephalus* were present in and around the colonies.

Approximately 1200 month-old chicks were found moving in a south-westerly direction away from the nesting sites towards land. Five groups formed a broken column that stretched over a distance of 5 km. Chicks at the trailing end of the column had already travelled 3 km from the nests (Fig. 1). Only two attending adult flamingoes were seen with the chicks. These adults were not at the spearhead of the column and there was no indication that the chicks had been led in the direction they were heading.

Approximately 250 adult flamingoes were found in a shallow, water-filled depression 7 km SSW of Gemsbok Island (Fig. 1). A nursery of 60 month-old chicks was situated nearby.

During a second aerial survey one week later, no trace was found of the 1200 flamingo chicks that had previously formed the column. However, the nursery of 60 chicks near Gemsbok island had increased to an estimated 300. The surface area of the water in the depression had diminished drastically and only 20 adults compared to the previously recorded 250 remained.

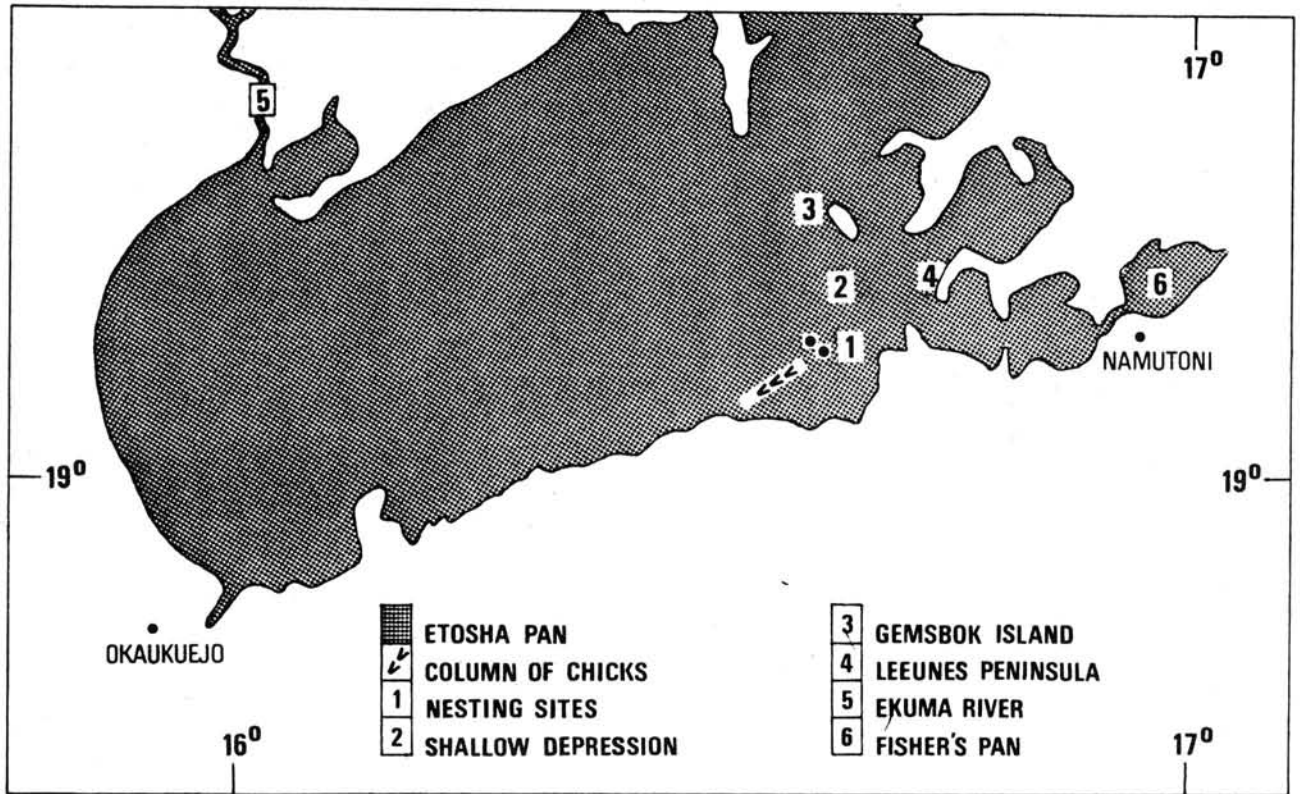


FIGURE 1: Nesting sites and concentration areas of flamingoes on Etosha Pan.

The survey was extended to include the area south-east of Leeunes Peninsula where approximately 1500 adults were congregated, but no chicks were seen.

During the final survey one month later, no surviving chicks or juveniles were observed on the then completely dry Etosha Pan, along the Ekuma River or at Fischer's Pan near Namutoni. The Ekuma River and Fischer's Pan contained the last remaining suitable flood water around the Etosha Pan and approximately 15 000 adult flamingoes were recorded at these sites. The dry surface of the depression near Gemsbok Island was scattered with dried flamingo chick carcasses on which Tawny Eagles *Aquila rapax* were feeding. At the nesting sites, hyaena tracks were found and a single Black-backed Jackal *Canis mesomelas* was present.

From our observations it would appear that flamingo egg-laying commenced in mid-February, at the peak of

the rains. Rapid disappearance of the floodwaters created unsuitable conditions causing the adults to desert unhatched eggs. Subsequent drying of all the water on the pan caused desertion of the remaining month-old chicks, none of which survived.

In conclusion, flamingoes may breed annually at Etosha Pan but breeding success appears to be limited by the duration of flooding. We suggest then that breeding attempts be monitored annually using aerial survey and photographic techniques but executed with caution to avoid disturbance.

REFERENCES

- BERRY H.H.
1972: Flamingo breeding on the Etosha Pan, South West Africa, during 1971. *Madoqua* 1(5): 5-31.