Flamingo survey in Namibia, Botswana and South Africa

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Flamingo numbers fluctuate, particularly from November onwards when birds arrive from elsewhere (probably East Africa) to breed in Sua Pan or Etosha Pan. We set out to gauge just how many birds occur in southern Africa at such times, by organising a survey in March 1999 covering the main areas where large numbers congregate each year. This process was aided by the presence of on-going research at Sua Pan by G. McCulloch, who determines flamingo numbers by aerial photography over the pan, and a network of Namibian and South African counters (acknowledged below).

Regions covered: Instantaneous counts are the only way to count these highly mobile birds so counters were asked to count in a one week period from 28 March to 3 April, or as close to it as possible. Areas covered included coastal areas and Etosha Pan and surrounds in Namibia, Sua Pan in Botswana and Kamfers Dam and Lake St Lucia in the Northern Cape, South Africa. These are all areas that either hold significant wintering populations or have experienced breeding activity. Because of the short notice, other areas with lower numbers in past years were not counted in South Africa. It is unlikely that these areas would make a substantial difference to the totals because none are known to hold breeding flamingos.

Total numbers: Overall numbers of Greater Flamingos were high at Namibia's two main coastal wetlands, Walvis Bay and Sandwich Harbour. Greater flamingos numbered 48,623 birds at these two wetlands alone (96% of Namibia's total: Table 1). Walvis Bay had a record 35,970 birds, and Sandwich Harbour had a record 12,653 birds. Only two young birds were apparent in these totals. Including all other Namibia wetlands, the total for Namibia was 50,690 Greaters, itself a record number compared with previous instant estimates in July 1997 when 42,984 Greaters were counted in Namibia (Simmons 1997).

In South Africa, counts from Kamfers Dam, a permanent pan fed by treated sewage water on the outskirts of Kimberley, were also high at this time. A mid-March count found 8439 Greater Flamingos. A count exactly one month later found fewer Greaters (387) as the water level of the dam fell. A minimum of 150 Greaters was counted at Lake St Lucia. No Greater Flamingos were recorded at Sua Pan which was deserted by the last 10,000 birds on March 10th.

Combining these figures we see that the total count for Greater Flamingos in Southern Africa in late March 1999 was just under 59,000 adults. Only two young birds were seen.

The total Lesser Flamingo population was just under 52,000 birds of which 0.3% were juveniles (Table 1).

Lesser Flamingos were still breeding in Sua Pan at the time of these counts (G. McCulloch). We counted 15-20,000 Lesser Flamingos on the pan at the end of March. While some young birds had left (200-300), many later chicks (10-15,000) suffered an all too familiar fate and perished as the water in the Nata River inflow and the pan dried up. It was no surprise, given the breeding activity in Botswana, that the numbers in Namibia were fairly low at 24,507 birds.

At Kamfer's Dam 7200 Lessers were present in mid-March (Table 1). A count exactly one month later (mid-April) found increased numbers of Lessers (13,845), which coincided with lowered water levels. Included in this figure were some juvenile Lessers, presumably from the breeding event at Sua. By mid-May (2 months later) numbers had swollen to 19,356 Lesser Flamingos of which 239 were juveniles (M. Anderson). On the Kwazulu-Natal coast of South Africa, Caroline Fox reported no Lesser Flamingos at the southern end of Lake St Lucia, but was unable to fly to the northern end of the St Lucia estuary to assess numbers. Thus her count is a minimum estimate.

Movements

Since these counts were being made at a time when birds were breeding and movements were likely, we expected to see large changes in numbers as well as young birds moving in from breeding events in Sua Pan, Botswana. In Etosha young (brown) Lesser Flamingos were first seen arriving in the eastern Fisher's Pan the week before the counts (c. 22 March: T. Stohls), and adult Greaters were clearly passing through as evidenced by the 900+ birds seen on 24 March on the main pan (between Stinkwater and Leeunes peninsulars) and their disappearance by 30 March (N. Brain). On the western edge of Etosha a small group of 30 juveniles arrived on 2 or 3 April and had disappeared a week later (W. Versfeld). This suggests youngsters do not travel with their parents back to the coast.

At the coast, influxes of young Lesser Flamingos were more dramatic. At the time of the main count in Walvis Bay, no brown/grey juveniles were seen in among 20,000 Lessers. One day later (29 March) 35 were counted, and nine days later 150 were apparent (6 April). A large influx occurred that night and 700 young birds were counted the next day (K. Wearne). Note that these birds are not included in the totals. Thus, large movements of young and adult birds were apparent between 24 March and 7 April moving in a westerly direction. Since no breeding took place on Etosha in 1999, these birds were probably from Sua where over 20,000 pairs bred between December 1998 and March 1999.

Young Lesser Flamingos also occurred at Kamfers Dam after the count when 761 grey birds were found one month later (mid-April: M.A.). Greater Flamingo movements were also evident since totals declined by just over 8000 birds to 387 birds.

Conclusion

From this rapid survey of flamingos in Namibia, Botswana and South Africa we can conclude that healthy populations were present in southern Africa, particularly Namibia, in March/April 1999. Indeed the totals were the highest recorded for Greater Flamingos in recent years. The previous highest instantaneous count for Namibia was 43,000 birds in July 1997. Clearly, large movements went on just after these counts and young birds in particular were leaving Sua Pan where breeding took place, and in the absence of adults

made their way back through Etosha to the coast in the first week of April. Birds also arrived at Kamfers Dam sometime between mid-March and mid-April.

We are unable to gauge the success of Lesser Flamingos breeding on Sua Pan, but we do know that 700 young birds arrived at Walvis Bay shortly after the main counts and 761 youngsters arrived in Kimberley at the same time. How many grey juveniles winged their way to East Africa is unknown.

Thanks to simultaneous counts in Botswana and the main areas of concentration in South Africa and Namibia, we know that a minimum of 59,000 Greater Flamingos and 52,000 Lesser Flamingos occurred in southern Africa just as breeding concluded in March 1999. How many
stayed as "residents" should be revealed by January 2000 counts.

Table 1: Numbers of Greater and Lesser Flamingos counted in Namibia, Botswana and northwestern South Africa in late March/early April 1999. Juveniles (young of the year in brackets) are included in the totals.

NAMIBIA	Counters	Date	Greaters (juv)	Lessers (juv)
Sandwich	Rob Simmons Kate Simmons	31.3.99	12,653 (2)	65 (48)
Walvis Bay	Keith Wearne + Tony Tree	27.3.99	35,970 (0)	20,610 (0)
Mile 4	S. Johnson, H. Hamunyela	09.4.99	554 (0)	494 (0)
Cape Cross	A. Uwe-khaeb, Rod Braby	29.3.99	140 (0)	450 (0)
Luderitz	Patrick Lane	08.4.99	300 (0)	200 (0)
Etosha Pan	Nad Brain	24.3.99	900 (0)	0
Etosha – Aruu	Nad Brain	07.4.99	0	150 (0)
Etosha – Fisher's	Tim Osborne	30.3.99	171 (0)	2684 (78)
Etosha – Oponono	Wilfred Versfeld	30.3.99	2 (0)	24 (0)
Etosha – Okondeka	Wilfred Versfeld	02.4.99	0	0 (30)
NAMIBIAN TOTAL			50 690 (2)	24 677 (156)
SOUTH AFRICA				
Kamfers Dam	Mark Anderson *	17.3.99	8439(0)	7200 (0)
Kamfers Dam (1 mo later)	Mark Anderson	15.4.99	387 (0)	13,845 (761)
Kamfers Dam (2 mo later)	S. Kruger, M. Badenhorst	17.5.99	649 (0)	19,356 (239)
Lake St Lucia	Caroline Fox	16 April	150	0
BOTSWANA Sua Pan	Graham McCulloch	30.3.99	0	20,000
TOTALS	12 sites		59,279 (2)	51,877 (856)

*M. Anderson stated that at the time of these counts, South Africa's Bushmanland was very dry and the pans there were very unlikely to hold water, so no flamingos. Since other areas in South Africa and Botswana rarely hold either breeding flamingos or numbers over 1000 birds (bar the Berg River estuary), we believe these figures to be within about 3000 birds of the actual total for each species.

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assistance with waterbird counts in the Northern Cape, and Keith Wearne and the Etosha staff for follow-up counts to assess movements.

Reference

Simmons, R.E. 1997. The Lesser Flamingo in Southern Africa. In: Howard, G. (Ed.) Conservation of the Lesser Flamingo in Eastern Africa and beyond. Pp. 50-61. IUCN Lake Bogoria, Nairobi, Kenya.

(*Supplementary figures received from Graham McCulloch from Lake Makgadikgadi, indicate that in addition to the 20,000 pairs of Lesser Flamingos that bred in the south of Sua Pan, approximately 5,000 Greater Flamingos attempted breeding in the same area – their traditional breeding site being flooded - but due to the lateness of the attempt no chicks survived*.).