Photospot: A breeding island for Lesser Flamingos *Phoeniconaias minor* at Kamfers Dam, Kimberley, South Africa

*Mark D. Anderson* and *Tania A. Anderson*

Kamfers Dam is a 500-ha perennial wetland located just north of Kimberley, South Africa. This wetland was previously an ephemeral pan, but is now permanently inundated as it receives most of Kimberley’s effluent water. It also receives storm-water run-off from Kimberley and from a c.160 km² large catchment. Kamfers Dam probably supports the largest permanent population of Lesser Flamingos *Phoeniconaias minor* in southern Africa, with sometimes >80,000 individuals present.

During September 2006, following months of planning and a protracted Environmental Impact Assessment process, a flamingo island was constructed by Ekapa Mining at Kamfers Dam. The construction was a massive undertaking, with more than 26,000 tons of material being moved. The cost of construction was an estimated half a million rand (c. UK£45,000). Within two weeks of the 200-m causeway being removed, the first Lesser Flamingos made use of the island for roosting purposes. Within a few months c.30,000

---

**Figure 1.** Kamfers Dam, prior to the island’s construction, with the city of Kimberley visible in the background (Mark D. Anderson)

Kamfers Dam avant la construction de l’île, avec la ville de Kimberley en arrière-plan (Mark D. Anderson)

**Figure 2.** The S-shape limits the area of the island exposed to water and wind erosion, and the two sheltered bays permit the flamingos easy access to the island. The island was constructed mainly of calcrite, from a nearby quarry, but was also topped with a 20-cm layer of clay (providing material for the flamingos to construct their nests). Four large ponds were constructed on the island, fed by water from a pump submerged in the dam and powered by solar panels. The causeway was removed once the island construction was completed (Mark D. Anderson)

L’île a la forme d’un S, limitant ainsi la surface exposée à l’érosion par l’action de l’eau et du vent, et les deux baies abritées facilitent l’accès des flamants. L’île a été construite principalement avec du calcrite provenant d’une carrière proche, auquel une couche d’argile de 20 cm a été ajoutée (fournissant ainsi aux flamants le matériau pour la construction des nids). Quatre grands étangs ont été construits sur l’île, remplis d’eau par une pompe immergée et actionnée par des panneaux solaires. La route d’accès a été enlevée dès que la construction de l’île fut terminée (Mark D. Anderson)
Photospot: Lesser Flamingos at Kamfers Dam, Kimberley, South Africa
Lesser Flamingos were roosting on the island at night, with many birds also using the island during the day. Despite nest construction and egg laying, the 2006/07 breeding attempt was unsuccessful.

Subsequently, for about four months during 2007, no flamingos used the island.

The Lesser Flamingos returned to the island in large numbers in September 2007 when breeding...
displays were observed. On 2 January 2008, the first chicks were seen and, by April 2008, it was estimated that 9,000 chicks had hatched during that summer’s breeding event. The Lesser Flamingos bred again in 2008/09, this time producing an estimated 13,000 chicks.

The 2009/10 breeding event started a month earlier, in early September 2009, but rising water levels and then heavy rains during early November 2009 resulted in the loss of probably >1,000 chicks and an unknown number of eggs, and the flooding of about three-quarters of the island. It is estimated that c.7,500 nests were destroyed by the rising waters. In early January 2010, the island was still flooded and only c.500 Lesser Flamingo chicks fledged.

The breeding of Lesser Flamingos at Kamfers Dam represents (a) the first time that the species has bred on an artificial structure, (b) the first-ever successful breeding event in South Africa, (c) the third breeding locality in southern Africa, (d) the fourth breeding locality in Africa, and (e) the sixth breeding locality globally (Anderson 2008, Childress et al. 2008). In addition to Kamfers Dam, Lesser Flamingos only breed at Etosha Pan in Namibia, Sua Pan in Botswana, Lake Natron in Tanzania and at the Zinzuwadia and Purabcheria salt pans in north-west India (Anderson 2008, Childress et al. 2008).

Importantly, the Lesser Flamingos have bred at Kamfers Dam during three successive summers, whilst at other localities they nest less frequently (for example they are successful every ten years at Etosha Pan: Simmons 1996).

Kamfers Dam, the breeding island, and the dam’s flamingos currently face several important threats, including: (a) rising water levels (through an increased inflow of sewage water), (b) deteriorating water quality (for the same reason) and (c) the development of Northgate, a massive housing development (comprising 6,500 middle-class homes) on the property adjoining Kamfers Dam. The Save the Flamingo Association (www.savetheflamingo.co.za), Kamfers Dam’s landowners, Herbert & Brenda Booth, are very supportive of this important conservation project. Barney Horwitz, Helen Dagut and Terry Winstanley have provided expert legal assistance. The FlamCam (webcam) was sponsored by Ekapa Mining and Nedbank. Brooks Childress, Alan Johnson, Arnaud Bechet, Warwick Tarboton and Rob Simmons have provided useful inputs during the project. The Save the Flamingo Association has actively campaigned for the conservation of Kamfers Dam and its flamingos.

Acknowledgements

The island was constructed by Ekapa Mining, and Jahn Hohne and Peter Hohne’s contributions in particular are very gratefully appreciated. Kamfers Dam’s landowners, Herbert & Brenda Booth, are very supportive of this important conservation project. Barney Horwitz, Helen Dagut and Terry Winstanley have provided expert legal assistance. The FlamCam (webcam) was sponsored by Ekapa Mining and Nedbank. Brooks Childress, Alan Johnson, Arnaud Bechet, Warwick Tarboton and Rob Simmons have provided useful inputs during the project. The Save the Flamingo Association has actively campaigned for the conservation of Kamfers Dam and its flamingos.

References


* BirdLife South Africa, PO Box 515, Randburg 2125, South Africa. E-mail: director@birdlife.org.za

† McGregor Museum, PO Box 316, Kimberley 8300, South Africa.

Received 25 December 2009; revision accepted 19 May 2010.