



## SHORT REPORT

### Counts of greater (*Phoenicopterus roseus*) and lesser (*Phoeniconaias minor*) flamingos from Bagamoyo, Tanzania.

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Tanzania hosts the only significant breeding site for lesser flamingos in East Africa on the flats of Lake Natron in the Rift Valley. Greater flamingos also breed “in numbers” at Lake Natron and also at other Rift valley lakes in Tanzania and Kenya. Counting flamingos on the large Rift Valley lakes is fraught with difficulties. Lake Natron is 52km long and 12-15km wide and with surface temperatures exceeding 50°C the heat haze is such that usually all one can see from the shore is a pink haze and often not even that. Lake Manyara to the south is 38km long and 8-12km wide. Lake Eyasi, 50km west of Lake Manyara, is 68km long and 10-16km wide.

There are a further nine flamingo lakes in Tanzania (Baker & Baker 2002) and others in the Kenyan and Ethiopian Rift. It is well understood by anyone living near these lakes and from satellite tagging studies in recent decades that this population is constantly on the move, especially as water levels and salinity levels fluctuate between seasons. During every night of the year at least some birds from this population are in the air. The only way to accurately count these populations would be by a co-ordinated aerial count over a single day. This has often been talked about but has never been attempted. Counts of lesser flamingo in the literature vary between two and four million, but all of these have been estimated. Single site counts of one million birds can only ever be, at best, an educated guess (Baker 1997; Mlingwa & Baker 2007)

Mundkur & Nagy (2012) give 1% thresholds of 20,000 for lesser flamingos and 350 for the East African population of greater flamingos, which may be too low. However, those of us constantly thinking in terms of shadow Ramsar sites have to work with these figures. From 2011 through to 2016 waterbird counts were conducted irregularly on commercial salt pans on the northern outskirts of Bagamoyo (6.4242 S - 38.8927 E).

Four figure numbers of lesser flamingos were only counted three times; 1,000 on the 14<sup>th</sup> June 2015 (personal observation), 1,940 on the 15<sup>th</sup> December 2013 (Jude Jarvis) and 2,000 on the 5<sup>th</sup> July 2015 (personal observation). Even if the low thousands (maximum) that occasionally occur on the salt works at Saadani National Park are included the coastal population is unlikely to ever reach 10,000 birds. For greater flamingos on the Bagamoyo salt pans a count of 350 has been exceeded five times. Three-hundred and sixty-two birds on 18<sup>th</sup> September 2011, 374 birds on 24<sup>th</sup> May 2015, 375 on 16<sup>th</sup> December 2012, 400 birds on 2<sup>nd</sup> January 2015 and 900 birds on 7<sup>th</sup> March 2014 (all personal observations).

The following monthly visits have been made to this site and other less frequented sites in the same general area. Maximum counts for greater flamingo are given for each month.

- January: 15 counts (maximum of 400 birds).
- February: Seven counts (maximum of <100 birds).
- March: 10 counts (maximum of 900 birds).
- April: Eight counts (maximum of 225 birds).
- May: Five counts (maximum of 374 birds).
- June: Six counts (maximum of 225 birds).
- July: Five counts (maximum of 128 birds).
- August: Four counts (maximum of 163 birds).
- September: Six counts (maximum of 362 birds).
- October: Six counts (maximum of 180 birds).
- November: Five counts (maximum of 180 birds).
- December: Five counts (maximum of 375 birds).

Satellite tracking studies of lesser flamingos in the Kenyan Rift Valley have shown considerable movement within the Rift Valley but no birds moving to the coast or to Lake Rukwa in southern Tanzania. (Childress et al. 2007). Data from three greater flamingos fitted with satellite tracking on lakes in northern Tanzania showed that one moved to the Kenyan coast for several months, and another for a shorter stay (Baker et al. 2007). Present knowledge suggests that the Bagamoyo salt works qualify as a shadow Ramsar site for greater flamingos and that the salt pans within Saadani National Park may also qualify.

It is strongly encouraged that future satellite tracking is undertaken at peripheral sites such as coastal salt works and lagoons in Kenya and Tanzania and at Lake Rukwa, which might be a transit point for movement between the Rift Valley and southern Africa.

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