

## A large concentration of Allen's Gallinules *Porphyrio alleni* in Ruaha National Park, Tanzania and other interesting observations of the species in Tanzania

Estimating numbers of waterbirds is important to guide authorities in establishing Ramsar sites. The 1% criterion states that a wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Another criterion states that a wetland should be considered internationally important if it regularly supports 20 000 or more waterbirds. These are the prime reasons for holding regular waterbird counts. With sufficient effort, reasonably accurate counts can be undertaken for the larger, more conspicuous species, and meaningful trends can be established (Monval & Pirot 1989). However, for swamp-dwelling species such as Allen's Gallinule *Porphyrio alleni* that are also nocturnal migrants, this is simply impossible.

Wetlands International have issued five global Waterbird Population Estimates since 1994 (Rose & Scott 1994, 1997, Delany & Scott 2002, 2006, and Wetlands International 2012). Throughout this period the population estimate for *P. alleni* has been within the coded ranges of either, C = 25 000 to 100 000 birds or D = 100 000 to 1 million birds. In other words, no one had any idea how many there were. In the fifth Waterbird Population Estimate (2012) the 1% criterion was set at 10 000 birds. There can be very few sites that meet this criterion.

Ihefu Swamp in the north-eastern section of the Usangu Flats is now within Ruaha National Park, having previously been gazetted as a Game Reserve. The birdlife of the Usangu Plains was detailed by Proctor (1968), but Ihefu Swamp is not mentioned by name and Allen's Gallinule is not included in the checklist. Using Google Earth, Ihefu Swamp covers 422 km<sup>2</sup> with a perimeter of 103 km. It is 42 km from the southwest to the northeast, 21 km east to west, and 20 km north to south through the centre of the swamp at 8°21'S, 34°30'E.

On 21 January 2005 we were conducting waterbird counts in the area and approached the southeast edge of the swamp from the village of Ikoga. We soon became aware of considerable numbers of Allen's Gallinules in the flooded grasslands at the edge of the swamp and decided to try to estimate those present. Four of our team were tied together by string at 25 m intervals and began to walk into the swamp towards the deeper water. We positioned our vehicle on a grassy termite mound enabling us to look over the area being surveyed. As the team waded into the water, we counted the gallinules leaving the 75 m wide transect, but not the ones that flew further in front of the beaters/surveyors. 97 birds were counted before the water became too deep to continue. We estimated the transect length at 600 m producing 97 birds for 0.045 km<sup>2</sup> or 2155 birds/km<sup>2</sup> or 1373 birds/km of shoreline, giving a crude estimate of 133 000 birds. There were clearly more birds beyond our transect, but we did notice that the numbers decreased towards the end of the transect as the water depth increased.

We are not suggesting that Ihefu held some 150 000 Allen's Gallinules at this time (although that is a possibility), but there were surely many more than 10 000 birds present and this single count strongly suggests the African population will be well within coded range D and well beyond coded range C.

Moyer (2000) noted large numbers of *P. alleni* at Ihefu during survey work in May 1999 with many birds in juvenile plumage. However, none were present during a follow-up survey in September 1999, strongly suggesting that the large numbers

arrive to breed following the December rains and then migrate away before the end of the dry season.

The Tanzania Atlas database holds only 264 records of *P. alleni* from 63 (18%) Atlas squares. It is a widespread species occurring from near sea level to 1570 m (where they breed) and is surely to be found in many more sites than suggested here. In particular it should be looked for in ephemeral wetlands a month or so after flooding when the wetland vegetation has developed.

Evidence for nocturnal migration in Tanzania includes 9 birds caught and ringed in Mufindi (at 1980m) in May 1995 (EMB) and individuals that had died striking buildings in Dar es Salaam and Iringa (per. obs.).

Twenty-nine observations from a known breeding locality in Iringa include records from December through to July with egg-laying confirmed in December. There are no records for August through to November although the site was well watched during this period.

Observations from a well-known roadside locality west of Dar es Salaam include records for January (eggs), February (eggs), March, April, May, July, August (eggs), September, and November, suggesting some birds are resident at this site.

In the early evenings, *P. alleni* climb to the tops of the vegetation and fly short distances to feed or interact with other birds. This behaviour is noticeable at all the sites we are familiar with and is sometimes the first indication that birds are in any particular habitat.

On the evening of 16 January 1998 “thousands” were observed moving through the tops of the vegetation in Silale Swamp in Tarangire National Park. At the time this was the first record of this species for this well-watched park. This is probably because night driving is not allowed without special permission, which we were fortunate to have had at the time.

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### References

- DELANY, S. & SCOTT, D. (EDS.) 2002. *Waterbird Population Estimates – Third Edition*. Wageningen, The Netherlands: Wetlands International Global Series.
- DELANY, S. & SCOTT, D. (EDS.) 2006. *Waterbird Population Estimates – Fourth Edition*. Wageningen, The Netherlands: Wetlands International Global Series.
- MONVAL, J.-Y. & PIROT J.-Y. (EDS.) 1989. *Results of the IWRB International Waterfowl Census 1967–1986*. Slimbridge, UK: International Waterfowl and Wetlands Research Bureau Special Publication No 8.
- MOYER, D.C. 2000. Avian Biodiversity of Ihefu Swamp and floodplain in Usangu, Tanzania. Unpublished report. Wildlife Conservation Society.
- PROCTER, J. 1968. The birds of the Usangu Plains. *Tanzania Notes & Records* 69: 1–14.
- ROSE, P.M. & SCOTT, D.A. 1994. *Waterfowl Population Estimates. IWRB Publication 29*. Slimbridge, Gloucester, UK: International Waterfowl and Wetlands Research Bureau.
- ROSE, P.M. & SCOTT, D.A. 1997. *Waterfowl Population Estimates – Second Edition. Wetlands International Publication 44*. Wageningen, The Netherlands: Wetland International.
- WETLANDS INTERNATIONAL, 2012. *Waterbird Population Estimates – Fifth Edition. Summary Report*. Wageningen, The Netherlands: Wetland International.

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