

Social behaviour of the Egyptian Vulture

During a visit to Socotra, Yemen, in autumn 2008, we observed two social interactions of Egyptian Vultures *Neophron percnopterus* that appear not to have been described previously. This Globally Endangered species has probably its highest world concentration on Socotra. After detailed surveys from 1999 to 2008, by the Socotra Conservation and

Development Programme and BirdLife International, the population has been provisionally assessed at over 1,700 individuals (Porter & Suleiman in prep.). The species has a wide distribution on the island but the greatest concentration is around the towns, where there is a regular supply of unwanted food and where the vultures are very tame. The

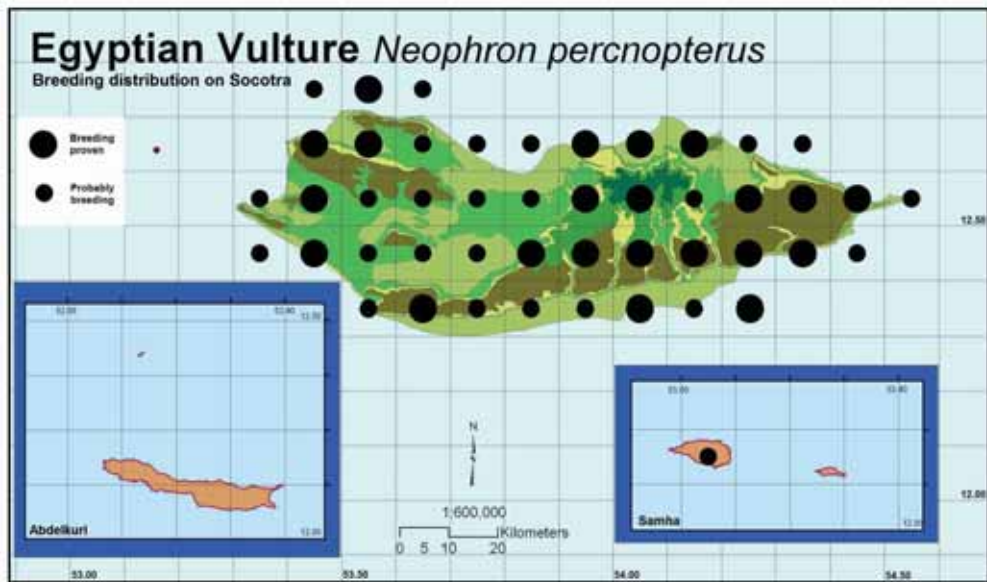


Fig. 1. The breeding distribution of Egyptian Vultures *Neophron percnopterus* on Socotra, Yemen (from Porter & Suleiman in prep.).

Short papers

R. F. Porter



5. The 'submissive' vulture is found lying on its back with outstretched wings and legs pinned to the ground by the 'dominant' vulture.

R. F. Porter



6. With its bill held open and calling weakly, the 'submissive' bird lamely tries to liberate itself.

Diana Quiroz



7. As if expecting something to appear from any direction, both vultures gaze around.

Socotrans call the Egyptian Vulture 'municipal bird'. The breeding distribution on the island is shown in fig. 1.

On the afternoon of 31st October, in the Haggier Mountains, during survey work in a remote area with little human habitation, we came across a group of 14 Egyptian Vultures (12 adults and two second-year birds) in a small (c. 10 × 5 m) grassy clearing, enclosed by the evergreen bushes that covered the hillsides in large patches. There was no animal carcass or other food and the birds seemed to be in a close social gathering. Two 'pairs' were mutually preening head and neck feathers and continued to do so for several minutes. At one stage, an immature made a loose association with one of the pairs and acted as if it wished to engage in the preening; the adults did not drive it away, indeed they almost encouraged it to take part. Another pair was performing what seemed to be a bonding interaction, when they were disturbed by

an intruding adult, and a short but intense fight took place. All the other birds stood around as if waiting to take their turn in this 'vulture lek'.

A few days later, at about 15.00 hrs on 5th November, as we were driving across the west Momi plateau, accompanied by Ahmed Saeed Suleiman, we came across two adult birds performing a display that we have never seen nor heard about before. One adult – the 'submissive' bird – was lying on its back with wings outstretched, held in that position by the 'dominant' bird, which was standing over it and pinning its legs to the ground (plate 5). The submissive bird lamely

tried to liberate itself two or three times by flapping its wings, calling weakly, and during the interaction its bill was held open for most of the time (plate 6). At these attempts, the dominant bird would try to peck (but never actually touched) the other. Frequently, the two birds simply gazed around (plate 7). When we arrived, a third individual was perched on a nearby rock, but this bird flew away as we first drove closer to take photographs. Soon afterwards, as we approached closer still, the dominant bird raised itself from the ground by flapping its wings as if taking off (plate 8; we were unsure whether this was a result of our intrusion or part of the ritual). At this point, the submissive vulture was liberated and flew off (plate 9); the dominant one tried to catch it and



8. Possibly sensing threat, the 'dominant' bird raises itself from the ground by flapping its wings.



9. The 'submissive' bird manages to liberate itself.

managed to tear away several feathers from the nape with its bill. The chase continued and both vultures flew off along the wadi bed and disappeared. We were unable to tell the sex of the birds but both were full adults. The whole event lasted about 10 minutes.

Discussion

The first gathering, on 31st October, was almost certainly some form of lek, where birds were gathering to interact and form, or strengthen, pair bonds. Given the number of birds present, it is surprising that this has not been described before.

The second interaction is more difficult to interpret. Was it part of some elaborate pair-bonding or was it aggression by a dominant male? While the submissive individual was

Short papers

indeed pinned down by its legs, it seems likely that (given the size and power of the bird) it could have freed itself had it wanted to – which would support a pair-bonding display with the male holding down the female. Aerial talon-grappling is a known display feature of raptors in general, and we considered that two birds thus engaged could have fallen to the ground; this seems unlikely since they would surely have disentangled quickly. (Mundy *et al.* (1992) observed that 'statements that courtship [of Egyptian Vultures] involves the partners rolling and preening, claws in the air – so-called Flight-roll, Talon-presentation and Talon-grasping behaviour – are errors, we believe, for aggressive conflicts between pairs.'). Alternatively, this could have been a straightforward fight between two males, although for the subdominant to be pinned down so neatly seems remarkable. Nonetheless, the similarity of the postures of the two vultures to the 'angel' (dominant) and 'fallen angel' (submissive) postures, first named by Weir & Picozzi and recently illustrated by Prytherch (2009), all in relation to Common Buzzards *Buteo buteo*, suggests that we probably observed some form of threat display and response – probably by two males.

Mundy *et al.* (1992) claimed that sexual

dimorphism in Egyptian Vultures is apparent through a dark stripe or smudge on the face in front of the eye in males, which females lack. If correct, that suggests that our dominant bird was a female and the submissive one a male. Unfortunately, after viewing many images of the species, we are unconvinced that this feature is reliable and conclude that the sex of the two birds we observed must remain undetermined.

The density of Egyptian Vultures on Socotra means that communal roosts are large, with often 40 or more birds in a single tree, and over 350 birds foraging in the capital, Hadibu, at any one time. Such a concentration might encourage social interactions not witnessed where numbers and densities are much lower.

Acknowledgments

We would like to thank I. K. Dawson and Ahmed Saeed Suleiman for their helpful discussions.

References

- Mundy, P., Butchart, D., Ledger, J., & Piper, S. 1992. *The Vultures of Africa*. Academic Press, London.
- Porter, R. F., & Suleiman, A. S. In prep. *The Population and Distribution of the Breeding Birds of Socotra*. BirdLife International/SCDP.
- Prytherch, R. J. 2009. The social behaviour of the Common Buzzard. *Brit. Birds* 102: 247–273.
- Weir, D., & Picozzi, N. 1975. Aspects of social behaviour in the Buzzard. *Brit. Birds* 68: 125–141.

R. F. Porter and Diana Quiroz, c/o BirdLife International, Wellbrook Court, Girton Road, Cambridge CB3 0NA