Short communications

Grey Crowned Cranes *Balearica regulorum* are gregarious rather than social

It has long been known that Grey Crowned Cranes *Balearica regulorum*, in common with most other crane species, are usually seen in pairs—or sometimes several pairs together—and are believed to mate for life (Pomeroy 1980a, Urban *et al*. 1986). Sighting of a single crane is often considered to be evidence for its mate being at a nest. Apart from the few months when they are nesting, Grey Crowned Cranes form flocks, occasionally as many as 2000 in Kenya (Gichuki & Gichuki 1991), but the largest in Uganda are only a few hundreds, and most flocks are much smaller.

For at least ten years, a flock of Grey Crowned Cranes (hereafter simply cranes) spends most of the day feeding on Kampala's main rubbish dump at Kiteezi, some 12 km north of the city centre. Other birds that feed on the dump include Marabou Storks *Leptoptilos crumeniferus* (sometimes more than a thousand of them), Cattle Egrets *Bubulcus ibis* and Pied Crows *Corvus albus*. At times (but not always, T. Kitongo, pers. comm.), the cranes return to their roosting places during the day, then most go back to the dump for a final feed in the afternoon. The roosting sites are 1–2 km west of the feeding sites. Most of the cranes roost on the ground, in a large field, sometimes with cows, whilst others roost on tall high voltage pylons in the same area, often with Hooded Vultures *Neophron monachus* and Marabou Storks.

From a balcony on my house, between 18:00 and 19:00 (but mostly near sunset, which, at that time, was at 18:55), I can watch and count many of the cranes as they make their evening flight back towards their roosts. For 25 evenings between 6 June 2020 and 2 July 2020, I recorded each group separately (taking a group as separate from any other if there is a gap of 50 m or more between them; and, for this purpose, including single birds as a 'group of one'; Table 1). Although immatures can be recognized for most of their first-year (Pomeroy 1980b), they were not distinguishable in flight at a distance. On three evenings, the numbers counted exceeded 50—the highest count being 55—and this probably means that the whole flock was seen on that day. On other days, some may have left early, while others will have followed routes not visible from the balcony.

As can be seen from the results, group sizes varied from 1 to 24. Interestingly, in a much larger crane population in Kenya, the commonest group size was similar to this (Wamiti *et al.* 2021). Larger groups sometimes form loose V-shapes, but birds move about within the flocks (making counting more difficult, but in most cases each flock was counted twice as a check). Of the 168 groups counted, only 91 had an even number of cranes, and the commonest group was of single birds. And even-numbered groups could contain two singles. The results also show that on a few evenings, some birds flew in the opposite direction; it is hard to see why.

It is obvious from the table that groups varied in composition from day to day. Gichuki & Gichuki (1991) found that during the day, foraging flocks also varied in size with time, from 15 to 60, with maxima in mid-morning and mid-afternoon. The

results show that occasionally, as with groups of 18 on successive days (13th and 14th, and again 16 June), it is possible that these were the same birds staying together, though there are few such instances. It would appear that the 50-plus flock was made up of many pairs and a good number of lone individuals, but there was very little cohesion amongst the flock as a whole; hence, gregarious rather than social. Almost all cranes in Uganda breed on seasonal wetlands outside protected areas (Olupot *et al*. 2009), and in southern Uganda they can breed in June and July (Pomeroy 1980a), but all possible wetlands within at least 10 km of the roost have been drained and in many cases, built on. Therefore, if any of the single birds have a partner on a nest, it must be a long way away, which seems unlikely. However, much as the basic groups are of one or two birds, more individuals joined larger groups, of four or more—882 as compared to 59 in the smaller groups.

Table 1. Groups and numbers of Grey Crowned Cranes at Kiteezi in June–July 2020. Each symbol represents one record. The penultimate column gives actual flock sizes where they were more than 16 in number. Y = cranes flying towards roost area. O = cranes flying back towards dump. These were not counted in the daily totals, but were included in group totals.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Others	Sum
6-Jun	Y	Y	YY	Y		Y				Y								29
7	Y		Y														17	21
9	Y	Y		Y											Y	Y		38
11	Y	YY								Y							22	37
12		YYYY				Y		YY						Y				44
13						Y											18	24
14		YO	Y			Y											18	29
15	YY		YY	Y								YY						36
16				YY													18	26
17		Y						Y			Y						21	42
18								Y			Y							19
19				Y		Y	YY	Y	Y	Y								51
20		YY														Y	19	39
21	OYYY	OY	YYY			Y		Y									18	46
22	YYYY	Y		YY					Y	Y		Y						44
23	YY	YY		Y										Y			20	44
24	O	Y	Y		Y			OY					Y					30
25	YYYY	Y		Y		YY								Y			18	53
26	YY			YYY	Y			Y	Y									36
27	YY	Y				Y	Y						Y				18	48
28		Y	YYY			Y				Y	Y						17	53
29		Y		Y	Y	YY		Y	Y									40
30	OOY	Y		YY		Y						Y					24	52
1-Jul	YY					Y	Y		Y	Y								34
2	O	OY	Y					Y		Y							24	45
Total	30	25	14	16	3	13	4	11	5	7	3	4	2	3	1	2	(14)	951

Acknowledgements

I am most grateful to Micheal Kibuule for help in various ways and both he and Kerryn Morrison for their helpful comments on a draft of this note.

References

Gichuki, N.N. & Gichuki, C.M. 1991. Relationship between habitat selection and flock characteristics in foraging Grey Crowned Cranes *Balearica regulorum* in Kenya. In: *Proceedings 1987 International Crane Workshop*, 1-10 May 1987, Qiqihar, Heilongjiang Province, People's Republic of China: International Crane Foundation, Baraboo, Wisconsin, USA. pp 357–361.

Olupot, W., Mugabe, H. & Plumptre, A.J. 2009. Species conservation on human-dominated landscapes: the case of crowned cranes breeding and distribution outside protected areas in Uganda. *African Journal of Ecology* 48: 119–125.

Pomeroy, D.E. 1980a. Aspects of the ecology of Crowned Cranes *Balearica regulorum*. *Scopus* 4: 29–35.

Pomeroy, D.E. 1980b. Growth and plumage changes of the Grey Crowned Crane *Balearica regulorum gibbericeps*. *Bulletin of the British Ornithologists' Club* 100: 219–223.

Urban, E.K., Fry, C.H. & Keith, S. 1986. *The birds of Africa*, vol 2. London: Academic Press.

Wamiti, W., Gichuki, N., Sigana, D.A.O., Njoroge, P., Nowald, G. & Fox, D. 2021. Population, flocking behaviour and habitat selection of the Grey Crowned Crane *Balearica regulorum* at Lake Ol' Bolossat basin, Kenya. *Scopus* 41(1): 13–23.

Derek Pomeroy
Department of Zoology, Makerere University, P.O. Box 7298, Kampala, Uganda.
Email: derekp@cantab.net.

Scopus 41(1): 45-47, January 2021
Received 13 August 2020