

Wattled Crane

Lelkraanvoël

Bugeraus carunculatus

The Wattled Crane is largely restricted to southern and central Africa, with an isolated population in Ethiopia (Urban *et al.* 1986). The global population is c. 7500 individuals, mainly found in the southern and central African region, with the Ethiopian population numbering only a few hundred birds (Collar & Stuart 1985). The major stronghold lies in Zambia which supports c. 5500 birds, with 2700 concentrated on the Kafue Flats (Collar *et al.* 1994).

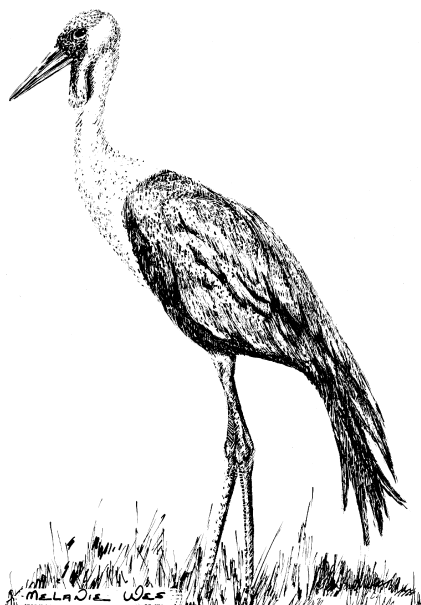
In 1982 there were 81 breeding pairs in KwaZulu-Natal and 29 in the Transvaal, with a total population, including non-breeders, of c. 300 birds (Tarboton *et al.* 1987a). At that time, only two breeding pairs occurred elsewhere in South Africa, in the eastern Cape Province (Vernon & Boshoff 1986) and Transkei (Butchart 1989). In Zimbabwe, it is largely confined to the northeast and the population has been estimated at 250 birds (Irwin 1981). Fewer than 10 pairs breed in Namibia in the Caprivi Strip (Brown 1992), but up to 150 birds visit the Bushmanland region (1920), Etosha and parts of Owambo during episodic high-rainfall events (Hines 1989; C.J. Brown *in litt.*). Estimates of the Botswana population vary between below 100 to 1000s, with alleged movement to and from Zambia; most records are from the Okavango and Makgadikgadi regions (Collar & Stuart 1985). It is a vagrant in Lesotho (Bonde 1993).

It is found in pairs, small groups and sometimes even in large flocks (Collar & Stuart 1985), over 200 having been reported in the Okavango (Randall 1988c). It is conspicuous and easily identified.

Habitat: In South Africa, it is characteristic of the permanently inundated, fairly small, high-altitude (>1500 m) wetlands (sponges) of upper catchment regions in high-rainfall sour grasslands (Tarboton *et al.* 1987a). In Botswana and Namibia, however, it occurs in seasonally inundated, large-scale, low-lying tropical floodplains (Collar & Stuart 1985; Brown 1992). In Zimbabwe, pairs inhabit small wetlands ('dambos') in miombo woodland and, in the eastern highlands, small high-altitude sponges in montane grassland (Irwin 1981). The vegetation analysis shows reporting rates which accord with known population sizes in different areas.

Movements: In the past, most Botswana records were April–August and it was assumed to migrate between Okavango–Makgadikgadi and Zambia, although it does breed in the Okavango and there are some records there from other times of the year (Konrad 1981; Collar & Stuart 1985). The Namibian population would also appear to be part of the central African stronghold, although some birds in the Caprivi Strip seem to be resident. The nonbreeding population in Bushmanland moves into this area December–April (Hines 1989; Brown 1992). The South African and Zimbabwean breeding birds are largely resident, except during droughts, but nonbreeding flocks wander locally within their limited ranges in these countries (Irwin 1981; Tarboton *et al.* 1987a).

The model for Zone 1 suggests a slight increase in reporting rates in Botswana and Namibia August–December, contrary to previous statements. Birds in the Okavango move within the system depending on floods, and move into peripheral areas, including Bushmanland in Namibia and the Makgadikgadi, during wet



years, possibly supplemented by migrants from beyond the region. The models confirm residence in Zimbabwe and South Africa. It was believed that the Transvaal and KwaZulu-Natal populations had become isolated from each other, but a colour-ringed female hatched in KwaZulu-Natal has bred in the Transvaal (Tarboton 1995). There is no evidence for any movement between South Africa and populations further north.

Breeding: Egg-laying in the Okavango and Caprivi has been recorded March–September (Brown & Clinning *in press*; N.J. Skinner *in litt.*) but occurs throughout the year in Zimbabwe and South Africa, with a marked winter peak, April–September (Dean 1971; Irwin 1981; Tarboton *et al.* 1987b; Johnson & Barnes 1991).

Interspecific relationships: Wattled Cranes are known to hybridize with Blue Cranes *Anthropoides paradiseus* in South

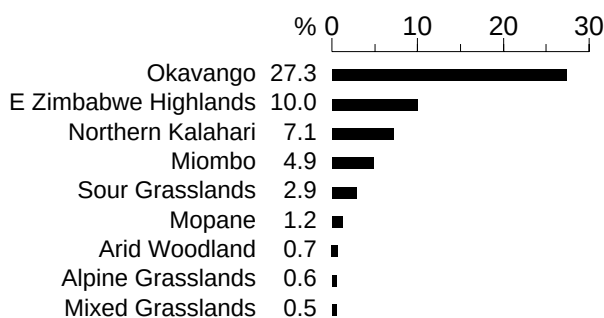
Africa in areas where tiny isolated populations of the former persist and presumably struggle to find mates (Lawson 1968; Johnson 1985; Vernon & Boshoff 1986; W.R. Tarboton *pers. comm.*).

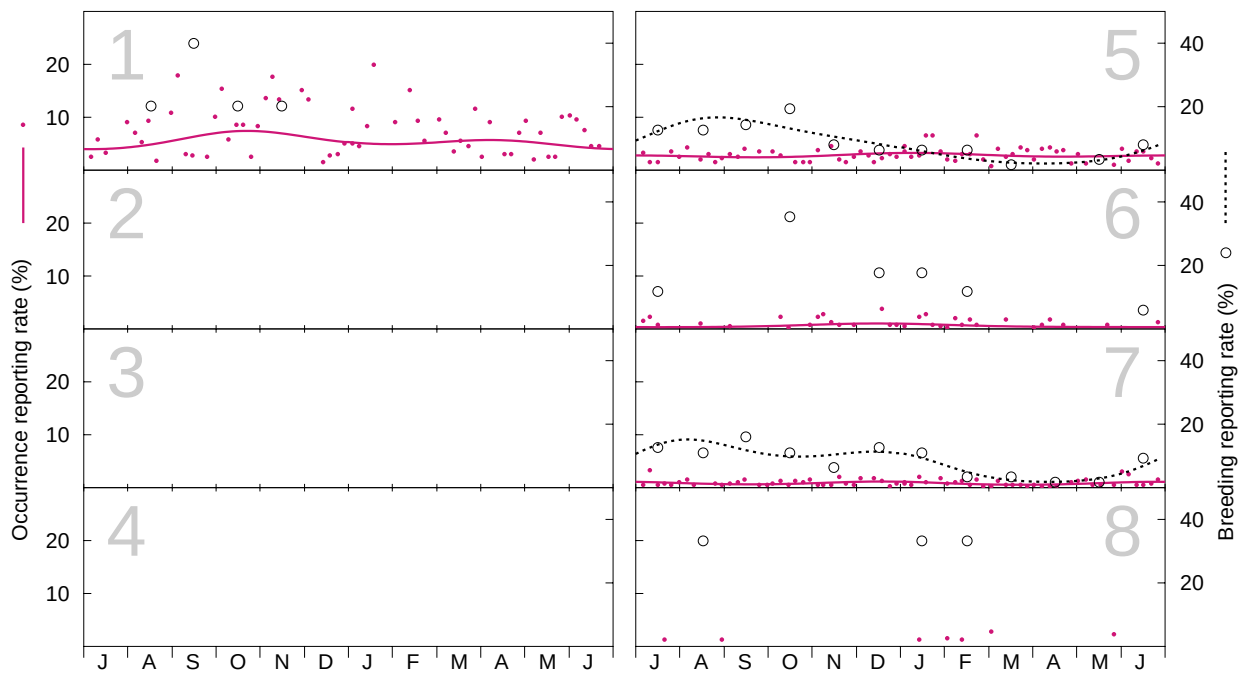
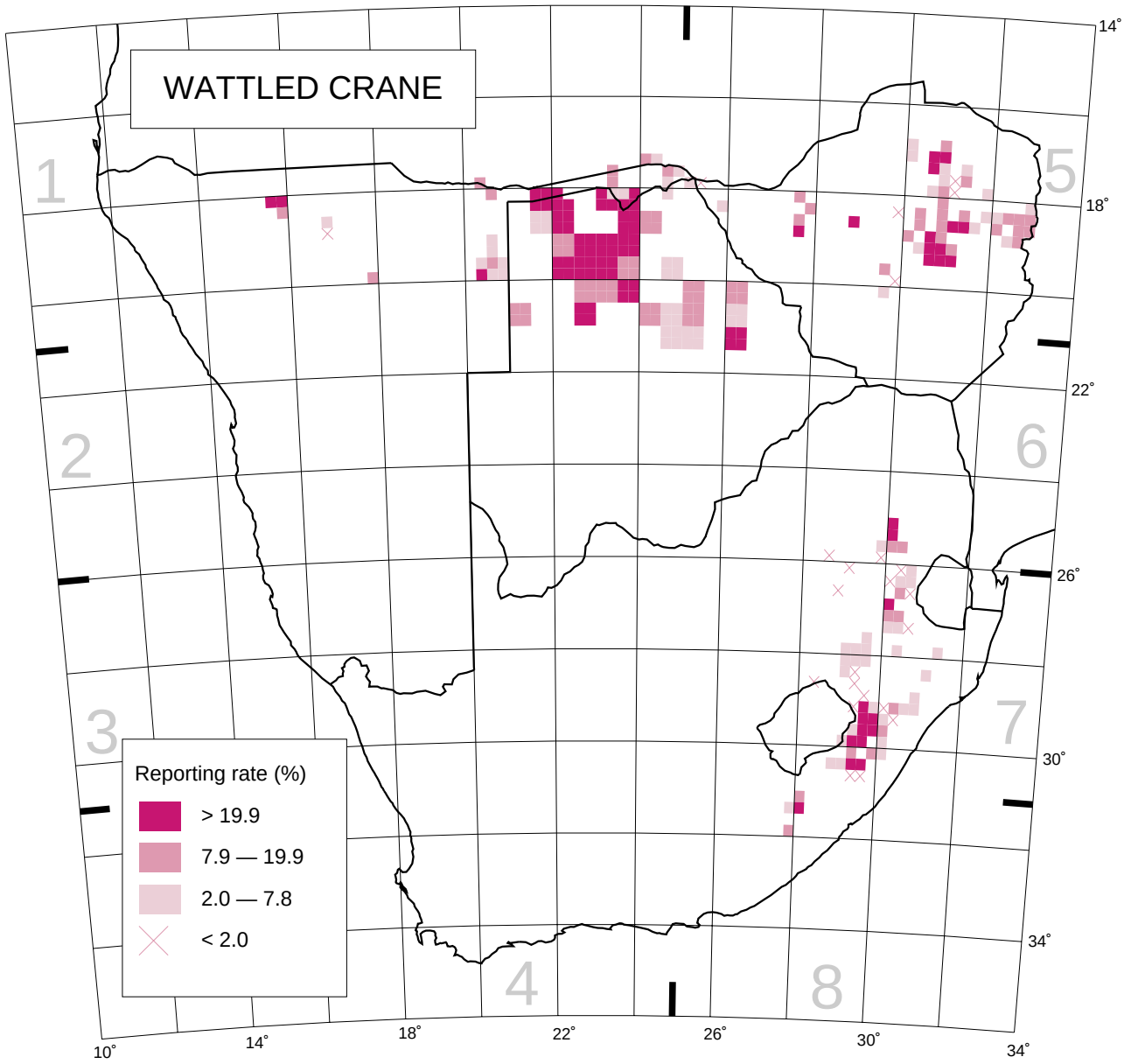
Historical distribution and conservation: It is listed as 'endangered' in South Africa (Brooke 1984b), and 'vulnerable' globally (Collar *et al.* 1994). It once had a much larger range in South Africa, extending from the southwestern Cape Province through the southern and eastern Cape Province, where the last pair disappeared in 1990, to the Free State, southwestern and southcentral Transvaal (Geldenhuys 1984a; Tarboton 1984; Collar & Stuart 1985; Vernon & Boshoff 1986; Brooke & Vernon 1988; Anderson 1990). The main threats are wetland degradation by drainage, damming and afforestation, direct disturbance and poisoning. By 1995 the Transvaal population had dwindled to less than 10 pairs (W.R. Tarboton *pers. comm.*); the KwaZulu-Natal population appeared relatively stable (Johnson 1992, *pers. comm.*). In Zimbabwe it declined during the droughts of the 1980s and 1990s (A.J. Tree *in litt.*). There is little evidence for any significant recent change in Namibia or Botswana. Its prospects in Botswana and Zimbabwe are linked to the overall survival of the central African population in the Zambezi catchment (Irwin 1981; Konrad 1981; Collar & Stuart 1985; Morris 1987; Brown 1992). The Wattled Crane is inherently vulnerable to modification of its wetland habitat – even relatively benign modification, such as for trout dams. The wetlands which it uses must be protected strictly if this species is to survive.

D.G. Allan

Recorded in 274 grid cells, 6.0%
Total number of records: 1608
Mean reporting rate for range: 12.1%

Reporting rates for vegetation types





Models of seasonality for Zones. Number of records (top to bottom, left to right):
 Occurrence: 180, 0, 0, 0, 240, 65, 165, 9; Breeding: 5, 0, 0, 0, 62, 17, 63, 3.