Dear Ann & Mike,

On behalf of all the Crane enthusiasts, supporters and workers, and everyone who receives Crane News, I would like to extend to you our thanks and appreciation for the support and encouragement that you have given to us all, for your sustained hard work on behalf of the Cranes of Namibia, and for your regular production of Crane News that keeps us informed, connected and enthusiastic. Congratulations on a job really well done, and all best wishes for your endeavours next year.

Kind regards,

Chris Brown
Namibia Nature Foundation

I would be grateful if you would publish the following short note of appreciation in the next Crane News:

Chris Brown has the last word (4/12/06):

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Namibia Crane News 24
December 2006

NEWS ROUND-UP

Do Blue Cranes feed on beetles associated with cattle dung, as well as those found under the dung of wild ungulates and elephants. Wilferd Versfeld replies: "I have not looked at the cattle dung for beetles as such, as dung around there usually dries out fast and most of it is usually dry. What I have found was at certain times of the season there are masses of small beetles at night so that you cannot put on a light. Has anyone looked at grazing effect, do the cranes prefer a trampled or short grazed area to long/tall grasslands? At Oponono the cranes are away from the water on the 'dunes', which are reasonably overgrazed by the number of cattle up there, compared to the park, which usually has a lot of tall grass around parts of Fischer's Pan and Andoni" (15/11/06).

Immanuel Kapofi reports that 8 Blue Cranes are still reported regularly at Andoni waterhole, including two juveniles. Namutoni has already had more than 100 mm of rain, and Halali 120 mm.

From Tsumkwe, Dries Alberts mentions that they have had 65 mm rain so far (28/11/06). "And to my surprise, found a lone Wattled Crane last week at Gura (still full from the previous season). Don't know if he got lost or what or was going on with him - maybe a scout? - like the flamingo?"

Martin Wood & Sheila Waywell (email mrw@ucs.co.za) report: "We saw 3 Wattled Cranes on 20/11/06 in the Mahango Game Reserve (next to Popa Falls) together with our overseas visitor Stephen Baker from Norfolk, England - in the reed beds about 13 kms from the entrance gate. We also saw 3 Wattled Cranes on 14/11/06 in the Whytes Island area on our Mokoro trip in the Okavango Delta. Both sightings were really special to us and we observed the birds for a good half-hour on each occasion." These Wattled Cranes at Mahangu (2 adults + 1 chick) were also reported by Linda Millington on 1-2/12/06.

Congratulations to Kerryn Morrison of the EWT/ICF Partnership – African Cranes, Wetlands and Communities, who has been awarded the prestigious EWT Conservation Achiever of the Year Award!

Wattled Crane

Bugeranus carunculatus Critically Endangered

Range: ne Namibia sw South Africa
Area of Occupancy: 17 852 km²
Population trend: stable/declining
Habitat: large permanent wetlands and ephemeral grassy pans
Threats: Wetland degradation, grass burning

Distribution and abundance

This species, the largest and rarest crane in Africa, is found mainly in the huge wetland areas of Zambia, the Democratic Republic of Congo and the Okavango Delta of Botswana. It occurs from the isolated population in Ethiopia (Stattersfield & Capper 2000) through to South Africa, covering 11 countries in Africa. Its range in southern Africa is centred on the Okavango delta where an estimated 1000 - 3000 individuals sometimes congregate (Stattersfield & Capper 2000). Botswana ornithologists put this figure lower at about 800-1400 birds (Mangubuli & Motala 1996, Tyler 2001, P Hancock in litt) with influxes due to flooding and burning in the delta and the Makgadikgadi Pans (Herremans et al. 2002, Hancock 2003).
A tiny overflow from these populations is found in Namibia’s northern swamps where it occurs in the floodplains of the northern rivers (Okavango, Kwando, Chobe). A few individuals occur in the oshana region north of Etosha NP during wetter periods (map). Other populations are regularly found in the ephemeral pans near Tsumkwe (previously Bushmanland) Pans, with Nyae Nyae Pan holding up to 95 birds prior to 2001 (Jarvis et al. 2001), and 150-275 birds maximum (Hines 1993, Sivhute & Cunningham 2005). Up to 50% of groups in these pans comprise 2 adults and a grown subadult bird (Hines 1993, Sivhute & Cunningham 2005). This area holds the greatest number of Wattled Cranes in Namibia (Simmons et al. 2001). No breeding has ever been recorded however. The Namibian population is estimated at about 300 birds based on the figures above but this probably fluctuates as birds leave the ephemeral Nked Pan systems in n-e Namibia as it dries out in late winter and floods again with local rains in summer (Hines 1993). There are 13 wetlands where this species is regularly recorded, most from Tsumkwe Pans (8 sites) but also from ephemeral lakes north of Etosha at Oponono (ave 16 birds) and Oshituntu (6 birds: W Versfeld pers obs). The only other areas where it has been regularly recorded in the period 1990-2001 are Mahango Game Reserve (ave 5 birds), the Kwando River where a 5 km section supports 2-3 birds, and Sishika Channel which also supports 2-3 birds (in Jarvis et al. 2001). In aerial surveys of East Capriv’s Linyanti Swamps, 25 cranes were observed in June 1986 at Nkasa Lupala islands (Williams 1987). The density of birds in the remaining Linyanti Swamps where few islands exist, was low at about 11 birds (Williams 1987).

An August 2004 survey of n-e Namibia has clarified the recent status of Wattled Cranes there (Brown et al. 2004). In total, just 10 pairs of Wattled Cranes were recorded on the floodplains of n-e Namibia, comprising the following locations: 2 pairs of Wattled Cranes were recorded in the Mahango Game Park on the floodplains of the Okavango River and 8 pairs in East Capriv. Four of these pairs were in the Mamili section (3 pairs on the Kwando floodplains and 1 pr on the Linyanti), 3 pairs on the Linyanti n-e of Mamili, and 1 pr on the Chobe system. There is a clear concentration of Wattled Cranes near the southern end of the Kwando-Linyanti system (Brown et al. 2004). Given that previous aerial surveys of the Linyanti revealed 36 birds in June 1987 and 8 birds in August 2004, there is a suggestion of a four-fold decline in a 17 yr period. Many other factors might explain this decline other than intrinsic decline in the Namibian population but it remains a worrying trend.

The South African population is estimated at 230 individuals with a decline of 36% over the past 2 decades (McCann 2000). This decline has been as a result of severe habitat destruction, particularly of grassland habitat surrounding breeding wetland sites, and powerline collisions (McCann 2000). The African population was previously estimated at 13 000 - 15 000 (Stattersfield & Capper 2000), but recent coordinated aerial surveys through the key wetland systems of south-central Africa have shown the population to be approximately 8000 individuals, this figure reflecting mainly an improved census estimate but also some intrinsic decline of the African population (Beilfuss et al. 2003).

Ecology
Prefers the large low-lying wetlands and swamps in n Namibia, and ephemeral flooded pans, where small amphibians and tubers on which they feed can be numerous. This is in contrast to the habitat preferred in South Africa which comprises high altitude, small permanently flooded wetlands (Allan 1997). Elsewhere it feeds on small reptiles, small mammals, insects, grain, tubers and rhizomes (Maclean 1993). Breeding activity peaks in May to August in South Africa (McCann et al. 1998), but seasons may differ in Namibia where only 4 records indicated young birds occur in August (2) November (1) and April (1) (Jarvis et al. 2001). Virtually nothing is known of breeding in Namibia despite subadult birds appearing in the flooded Tsumkwe pans each year and breeding records from floodplains in the Kwando, Linyanti, Okavango and Chobe rivers (Williams 1987, Jarvis et al. 2001). Wattled Cranes require shallow flooded wetlands in which they build there large ground nests surrounded by a small open moat. They tolerate no disturbance (Dennis & Tarboton 1993) at these nests. Clutches of 1 to 2 eggs are laid (and Johnson & Barnes 1991, McCann et al. 1998), and typically only 1 young survives. The young birds stay with their parents until about 1 yr old, when the adults begin to breed again.

Threats
Because cranes rear only 1 young (McCann et al. 1998), and reach sexual maturity as late as 8-9 yrs old (McCann et al. 1998) their breeding rate and generation time is slower and longer than any other terrestrial bird in Africa. The
Wattled Crane has been found to have the lowest reproductive rate of any crane species worldwide (Meine & Archibald 1996). Thus the ability to recover from natural disasters or anthropogenic disturbance is very limited. While degradation of wetlands is given as the main reason for Wattled Cranes losing ground in southern Africa (Allan 1997, McCann 2000) the wetlands frequented by cranes in Namibia are either partially protected by conservancies (Nyae and Nyae and surrounding pans), remote and rarely visited by humans (Onopono and Oshituntu, n of Etosha) or inaccessible (Linyanti and Chobe Swamps). Thus direct human disturbance is likely to be minimal but the substantial use of fire in these northern regions (Mendelsohn & Roberts 1997), is likely to destroy nests occupied in winter or early spring.

Flow regulation of major rivers is the only other probable threat in Caprivi, as diversion weirs are considered at Divundu on the Okavango River. Increased tourism to tourist destinations such as the Nyae Nyae Pan area may disturb birds there but most areas are inaccessible due to flooding at the time any breeding is likely to occur.

**Conservation status**

This species is classified as Critically Endangered because of its very small population of about 300 birds within Namibia. There have been no known or suspected declines, although populations are expected to fluctuate seasonally as adults and their young move in and out of Namibia. This population is probably contiguous with the large Okavango Delta population given the large movements known to be made by this species (McCann et al. 2001), thus fragmentation is unlikely to influence population genetics. The largest concentrations of 95 birds on the Nyae Nyae Pans (Jarvis et al. 2001) are recognised but not formally protected by 1 of Namibia’s 21 The Important Bird Areas in this pan system (Simmons et al. 2001).

**Actions**

Understanding the movement of individuals and determining the possible location of a relatively large unknown breeding population in Namibia (numbering tens of pairs), is the highest priority. This could be undertaken with a radio-tracking or satellite tracking study as undertaken in South Africa on Blue Cranes (McCann et al. 2001).

With the largest concentration of Wattled Cranes centred on Nyae Nyae Pans, the enhanced protection of this area is a priority, particularly since it may be a nursery area for subadult birds still in the care of the parents, hatched elsewhere in southern Africa. Because of the extended time to sexual maturity in this long-lived species this stage of its life is critical to the long term maintenance of the population. The area should continue to be monitored regularly in the annual wetland counts. A recent (2004) initiative to assist crane conservation in Namibia is the establishment of the Namibia Crane Working Group, funded by the NNF and SIDA. From this a comprehensive Action Plan has emerged which was recently implemented (2005). A regular Crane Newsletter and updates on activities are underway (A & M Scott pers comm), and include surveys, conservation of critical habitat, a booklet on crane conservation, capacity building activities in each species’ main habitat, and crane-related tourism.


Dennis N, Tarboton WR 1993 Waterbirds: birds of southern Africa's wetlands. Struck, Cape Town


Sivhute V, Cunningham P 2005 Namibian Crane News 12. Namibian Crane Working group (ecoserve@iway.na).


Scott, Ann and Mike Crane and Raptor working groups coordinators (ecoserve@iway.na)


RE Simmons: reviewed by Kevin McCann & Rich Beillfuss