



An unusual photograph of three (of a group of five) Blue Cranes in the rain (behind springbok) a few km east of Adamax on **10/2/07** (photo Royi Zidon)



On **4/5/09** I came across these two Blue Cranes on the main road across Salvadora in Etosha - the right one had a green ring on the right leg (photo Hartmut Kolb, tour guide; ringed bird is possibly NHD, ringed Apr 06 – W. Versfeld)

MORE BLUE CRANE SIGHTINGS

Linda Millington, email millington@gmail.com
 Jeff and I saw three adult Blue Cranes on Monday, **13/4/09** at 9:50 AM along the main road in Etosha about 2 kilometers east of the turnoff for Salvadora. The cranes were striding alongside a herd of springbok who were giving them some attitude!

Wilferd Versfeld, email versfeld@mweb.com.na
 I was out at Halali on **16/4/09** and at Salvadora there were 8 Cranes. Our radio bird NHD is flying well, cannot see transmitter on back only antennae sticking out with tail feathers. In the group of 5 were two rings, NBN and NHF. Also in this group was a juvenile the same size as radio bird NHD. So they must have bred somewhere. Also the two were back at the Seepage, NHD and his mate. The Salvadora three were much relaxed with the others and I could drive to the gravel pit, see photo (page 1).

Vernon Swanepoel, email frantic.naturalist@gmail.com
19/4/09: I am in Etosha and just wanted to let you know that I saw a total of six Blue Crane today. We saw two adults at Two Palms and two adults and two young on the other side of Fisher's Pan. I saw no tags or anything but we were far from the second group. We also saw one good sighting of a Woolly-necked Stork which I don't remember seeing in the park before.

Peter & Andrew Cunningham
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Saw 5 Blue Cranes at Koinachas area on **3/5/09** @ 14h30 foraging in vegetated wet pan area, but unfortunately 500m or so from the road and thus I could not ID rings/tags, etc. Coordinates: 0701066E, 7920386N (UTM). None in the Andoni area or north of king Nehale Gate area though. On holiday in Namibia for a few weeks and in Etosha with family & brother and his family, therefore the sightings.

CRANE ECOLOGY

Pertinent facts about Blue Cranes (Roberts VII)

- Sexually mature at 3-5 years (our first ringed bird to take up a mate, NHD at Halali seep hatched out in 2006 i.e. 3 years old)
- Age at first breeding (in captivity): males 5-8 years, females 4-7 years
- Incubation 29-30 days
- Fledges at about 12 weeks
- Simultaneous moult of primaries (tertials replaced sequentially), probably biennial not annual; flightless period about one month, February in Western Cape and January in captive birds.
Ed: do we have any evidence of moult at Etosha? Possibly among Andoni groups, or at Oponono?

Why cranes sometimes flee and don't fly

Bradley Gibbons, email bradleyg@ewt.org.za

Moulting blue cranes are not often seen in the Karoo, but this year people have been privileged to see some 'runners'. "This term is used for these birds when they moult. Then they cannot fly for almost 30 days, and they behave strangely, running away with their wings held high when they perceive something as a threat – even if it is a long distance away," says blue crane expert, Bradley Gibbons. "The cranes immediately start to run when they spot an unfamiliar thing and this strange behaviour worries many people who fear the birds are injured, or have eaten something might be poisonous. Moulting cranes are often accompanied by other cranes that can fly and this is possibly for safety." Cranes tend to stay in groups of varying in numbers when they moult also mainly as a safety measure. This year there was a group of 16 cranes near New-Bethesda and another of seven near Richmond. Cranes usually moult in February and March, following good rains. This indicates that there is still enough food for them. "Cranes are not able to travel far when they moult and cannot fly so, they settle in veld that is in good condition mostly with a dam for water and a good place to roost at night,"

says Bradley. "The grey crowned crane, one of the two other species found in South Africa, can fly while moulting – which doesn't really make sense, as they have lovely wetlands in which to hide. The wattled crane, like the blue crane cannot fly while moulting."

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Further comments on cranes and water

Carl Mitchell Wildlife Biologist, U.S. Fish and Wildlife Service, Southeast Idaho Refuge Complex, Wayan, Idaho 83285 USA, email Carl_Mitchell@fws.gov

CM 6/4/09: Regarding the observation on p4 (newsletter No. 41) that Blue Cranes associate with herbivores, in addition to the preference for short grass and predator protection that was mentioned, several biologists working on Greater Sandhill Cranes (*Grus canadensis tabida*) over the long term here in the western US have suggested cranes find additional food resources (beetles, grubs, worms, fly larvae, etc.) on cattle dung. Indeed, I have found a rich invertebrate fauna associated with cattle faeces here. A number of fecal samples await quantification. Presumably both fresh and old ungulate dung would provide a rich and diverse source of invertebrate prey for Blue Cranes as well.

Ed: This point has been raised before, e.g. in the report "Etosha blues - cranes hang on in Namibia" by Rob Simmons (Africa Birds & Birding Sept 06, p51; see www.nnf.org.na/cranes.htm under Products). One thing is puzzling though. When we visited the Lake Oponono area north of Etosha, which the Blue Cranes use at certain times of the year (during the dry season), we checked under the many cattle dung pats there and found - only one small beetle. So this may not be a source of food throughout the year, but possibly only during bottle-neck times, when other sources of food are not readily available. We still need to check more thoroughly at Etosha - not always easy with all the predators around!

CM 27/4/09: I find it quite interesting how similar some aspects of crane ecology is, wherever one is. I'm not familiar with the Etosha area (I haven't made it there yet!) but I suspect that the invertebrate community is quite different to what we have here in our relatively mesic, montane wetlands. We find flies, fly larvae, various worms and beetles, and sometimes in great abundance. Although, as you found, sometimes not. With all the larger predators you have in your environs, I suspect there are myriad reasons for Blue Cranes to associate with large herbivores. Flushing insects and small reptiles, etc., insects attracted to dung, early warning of predators, screening from predators, and so on. Do you happen to know if Blue Cranes associate more with cattle or buffalo, or larger bodied, more abundant herds of wild ungulates, or if they prefer smaller groups or smaller animals? The associations and crane behavior would be very

interesting to look at. We seem to have a lot of predation on eggs and colts (chicks) but not too much on adult cranes. Of course, the largest predator occurring in our crane habitat is the coyote, a slightly larger than jackal-sized canid.

CM 28/4/09: Thanks for the photo. It looks like some places in Idaho! Although we are at about 2150 m, and, at least this time of the year at least, quite wet. We have only Greater Sandhill Cranes here. For many years this was the site of the first cross-fostering Whooping Crane (*Grus americana*) experiment, but it eventually failed. Gray's Lake and its immediate vicinity supposedly has the largest nesting concentration of Greater Sandhills anywhere. We normally have 250-300 nesting pairs on about 15,000 ha or so.

I think the association of cranes with ungulates deserves more attention. I have some hopes of doing that here someday. Unfortunately, other duties currently prevent any real quantitative behavioral work. But I do think Sandhill Cranes at Gray's Lake can benefit from domestic livestock because of habitat alteration (grazing shortening grasses for better visibility), and dung pats as sources of invertebrates. Of course, young steers will also "mob" crane colts, simply out of curiosity, and trample them. And cranes do collide with fences needed for cattle management here.



Here are a couple of photos. The first is about what it looks like here right now (top). We had a lot of snow this winter and it has been a cold, late spring. The second (below) is just a good photo of Sandhill Cranes (*photos Carl Mitchell*)

Rainfall in arid zones: possible effects of climate change on the population ecology of blue cranes

Res Altwegg & Mark D. Anderson

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Summary

1. Understanding the demographic mechanisms through which climate affects population dynamics is critical for predicting climate change impacts on biodiversity. In arid habitats, rainfall is the most important forcing climatic factor. Rainfall in arid zones is typically variable and unpredictable, and we therefore hypothesise that its seasonality and variability may be as important for the population ecology of arid zone animals as its total amount.
2. Here we examine the effect of these aspects of rainfall on reproduction and age specific survival of blue cranes (*Anthropoides paradiseus* Lichtenstein) in the semi-arid eastern Nama Karoo, South Africa. We then use our results to predict the effect of changes in rainfall at the population level.
3. Using combined capture-mark-resighting and dead-recovery models, we estimated average survival of cranes to be 0.53 in their first year, 0.73 in their second and third year, and 0.96 for older birds.
4. We distinguished between three seasons, based on the blue cranes' breeding phenology: early breeding season, late breeding season and nonbreeding season. Cranes survived better with increasing rainfall during the late but not early breeding season. Based on road counts and success of monitored nests, reproduction was positively associated with rainfall during the early but not late breeding season.
5. A matrix population model predicted that population growth rate would increase with increasing rainfall. A stochastic analysis showed that variation in early breeding season rainfall increased population growth slightly due to the nonlinear relationship between rainfall and reproduction. This effect was opposed by the effect of variation in late breeding season rainfall on survival and overall, variation in rainfall had a negligible effect on population growth.
6. Our results allow predictions to be made for a range of climate-change scenarios. For example, a shift in seasonality with drier springs but wetter summers would likely decrease reproduction but increase survival, with little overall effect on population growth.

Key-words: capture-mark-recapture, climate forcing, environmental stochasticity, Leslie matrix, ring recovery

GENERAL CRANE/WETLAND BIRD NEWS

Poster series on Namibia's threatened bird species

A new set of three posters on Namibia's threatened bird species features the attractive artwork of well-known local artist Christine Marais. The series focuses on 60



species of cranes/inland wetland birds, raptors and coastal/marine birds that are currently Red-Listed according to Simmons R.E. & Brown C.J. 2006 (Birds to watch in Namibia: Red, Rare and Endemic Species. Unpublished report, National Biodiversity Programme, Windhoek). The poster series is funded by the GEF Small Grants Programme and the NACOMA Project. Please contact us at email ecoserve@iway.na for details of where you may collect your copies of these posters – unfortunately too heavy to send by post!

The Namibian Biodiversity Database

(NaBiD; www.biodiversity.org.na)

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The Namibian Biodiversity Database currently houses 209 000 distribution records for 17 000 Namibian plant and animal species from terrestrial, aquatic and marine habitats. Various sources of information are used, including existing atlases and other databases, the literature, museum specimens and unpublished records. The database includes bird atlas data (quarter degree grids); and raptor road count data (1 km resolution). The resulting database holds a huge amount of data and allows the easy extraction of information. The website represents the first steps towards putting Namibia's bird data into the public domain. The initiative was funded by the Namibia Environmental Fund through DANIDA. Of particular interest is the web version of the Namibian Bird Atlas: <http://www.biodiversity.org.na/birds/birdhome.php>. Here you can see distribution maps for individual species, or generate bird lists for a particular QDS or protected area. Other parts of the site present wetland bird counts, raptor road counts, nest records or museum specimen data (this represents the *status quo* as it was when the Avifaunal Atlas was produced in ca. 2000). Your feedback on the website, comments and suggestions are welcome! (Please contact Alice for the Bird Atlas and other associated bird pages; and John for the rest of the site.)

An investigation of wetland birds using reeds alongside the Okavango River and the impact of reed harvesting on those birds

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Here is a short report on a project funded by the GEF Small Grants Programme, through the Namibia Crane Working Group and supervised by Shirley Bethune. The research will be done by the end of May and the final report will be submitted by early July 2009. The project has