AFRICAN CRANES, WETLANDS and COMMUNITIES

NEWSLETTER 15

Contents

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Editorial

This 15th edition of the African Crane Wetlands and Communities Newsletter cover a diversity of research and conservation issues, including results and implications of crane surveys, lessons from the field, preliminary results from ongoing ecological research, and recent site-level, national and global developments that helped put cranes and wetlands on the spotlight.

Richard Beilfuss and Griffin Shanungu share some exciting news from the Kafue Flats, Zambia. Though a detailed analysis of the results of the Wattled Crane survey they undertook in April is yet to be completed, preliminary indications suggest that the current population of the species in the area could be as high as 2300. This is a major finding and a big breakthrough for one of the world's most important wetlands for Wattled Cranes. Ann Scott and her team from the Namibia Crane Working Group have been providing regular updates on the situation with Blue and Wattled Cranes in Namibia for over a decade. They present results of their annual crane census carried out in March this year. Though this year's breeding status assessment results are depressing, their consistency in determining trends in crane numbers and breeding status every year is critical for informed decision making. Shimelis Aynalem shares a synopsis of preliminary results from his ecological study aimed at understanding the ecology of Black Crowned Cranes in relation to land use changes in Ethiopia. His research will also provide insights on the status, distribution and ecological requirements of the species in Ethiopia's highly transformed landscapes. The Western Cape (South Africa) contains some of world's most important sites for Blue Cranes. Due to planned wind farm developments and projected climate change, threats to the Blue Crane population are set to escalate dramatically. Tanya Smith presents the scope and implications of ongoing work to better understand the movements of Blue Cranes and human-crane conflict in agricultural landscapes.

Togarasei Fakarayi reports on how World Wetlands Day celebrations helped put the Driefontein Grasslands, Zimbabwe's key area for both Grey Crowned and Wattled Cranes, on the spotlight. In 2013, wetlands in the Driefontein Grasslands received global recognition when the landscape was accorded Ramsar site status. The area was selected as a venue for this year's provincial World Wetlands Day celebrations. In June, the International Crane Foundation (ICF) organised a retreat for its global staff and other conservationists affiliated to the organisation. The retreat provided training and experience sharing opportunities for four members of the African Crane Conservation Programme, a partnership between ICF and the Endangered Wildlife Trust (EWT). We share with you some of the topical discussions and training covered during the retreat that will undoubtedly have positive implications on crane and wetland conservation in Africa. Developing species and habitat conservation plans is relatively easy but getting the much-needed buy-in from the government for effective implementation is a cumbersome process. Jimmy Muheebwa describes a multi-stakeholder process that he spearheaded earlier this year. Jimmy and his team of national stakeholders revised the Uganda Grey Crowned Crane species action plan and submitted it to the Ministry of Tourism, Wildlife and Heritage for final ratification by the government.

In the spirit of sharing lessons from the field, my colleagues (Jimmy and Toga) and I worked together to compile an article on innovative strategies to secure the future of wetlands. The strategies are based on lessons from sites where community-based wetland conservation has been underway for more than 12 years in Uganda and Zimbabwe. The second article on lessons learnt summarises success factors for effective community engagement based on our experiences from Chrissiesmeer, South Africa. A synthesis of lessons learnt from different sites will help us adapt our projects and improve our community engagement approaches.

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Great news from Zambia: Wattled Crane survey reveals highest count for the species in more than 25 years!

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In April 2015, we completed 29 hours of intensive aerial surveys over the Kafue Flats, Zambia. Our preliminary survey estimate suggests the total population on the Kafue Flats is more than 2300—the largest population of Wattled Cranes in the world and the highest count anywhere since the 1980s!

Our survey was a collaborative initiative between the Zambia Wildlife Authority (ZAWA), International Crane Foundation (ICF) and WWF-Zambia. Our team of six included Zambians; Wilfred Moonga (ZAWA Warden of Lochinvar National Park, covering the southern half of the Kafue Flats), Diilwe Syamuntu (ZAWA Ecologist based at Lochinvar), Chaka Kaumba (ZAWA GIS Expert), and Griffin Shanungu (Coordinator of the Zambia Crane and Wetland Conservation Project). Richard Beilfuss (CEO and President of ICF) served as cockpit navigator, data recorder, and spotter during all the flights. This was his 5th time aerial survey in the Kafue Flats which helped him clock 400 hours of aerial surveys in Africa. Our pilot, Timo Kehr, flies for Flying Mission Zambia (FMZ), a Christian mission that runs aid operations throughout Zambia.

Packed tightly into our tiny Cessna 208 for five days, our team flew 81 transects back and forth across the plains at 100 mph, about 300 feet above the ground. We counted and mapped visible wildlife on the flats (large mammals and large waterbirds), and recorded evidence of human involvement in the park (including settlements, cultivation, fishing camps, and cattle posts, incidents of burning, logging, poaching, and charcoal production, and counts of all livestock, especially cattle-which numbered in the hundreds of thousands). Since this was the first intensive survey in 10 years, we were confident we would draw useful conclusions on population estimates from the results. These population estimates and distributions, along with detailed mapping of human impacts on this protected area, will be the basis for park management for the coming years. As a Park Warden, Wilfred Moonga was particularly keen to put our results into action on the ground.

The survey team in front of the Cessna 208 *(Photo: R. Beilfuss)*

Wattled Crane counts in the Kafue Flats are particularly important. Kafue Flats is home to the highest Wattled Crane population ever recorded (more than 3000 in the 1970s), but there was strong evidence of decline during the past 25 years. During our survey, however, we directly observed 920 Wattled Cranes on the floodplain, including one huge flock of more than 400 birds. Because this was a sample survey (covering about 15% of the plains) our actual population estimate is much higher, and our preliminary projection suggests a population of more than 2300 birds. This places the flats as the most important wetland for Wattled Cranes, home to more than 25% of the estimate 8000 Wattled Cranes in Africa. Combined with the Liuwa Plain (with an estimated 2000 Wattled Cranes) and Bangweulu Swamps (estimated 1200 individuals), one can quickly understand why Zambia is one of the most important places in the world for us. Griffin and Diilwe will follow-up the aerial surveys with ground visits to locations where we observed Wattled Crane breeding grounds and large flocks, to determine population structure, monitor nesting success, assess field conditions (hydrology, vegetation, grazing), and evaluate human threats over time.

Kafue Flats is renowned as a bird paradise, and the wetland teems with waterbirds—we counted thousands of Spurwinged Geese and African Openbill Storks, and recorded more than 40 species of wetland birds overall. The Endangered Grey Crowned Crane also occurs on the flats, but is less common and mostly seen from the ground (we observed a flock of 80 in 2014). The Kafue Flats is also the only place in the world where the endemic Kafue Lechwe occurs. It is a wetland-dependent antelope that grazes down vast areas of floodplain grasses as annual floodwaters recede, creating excellent foraging habitat for Wattled Cranes. We counted several thousand lechwe on the floodplain, and our estimate will hopefully top 30,000. We also observed many hundreds of zebra, a herd of 150 Africa Buffalo, and smaller numbers of hippo, wildebeest, reedbuck, and deep marsh-dwelling sitatunga.

It was particularly rewarding to work with the ZAWA team. Diilwe, along with four other ZAWA ecologists also based at sites near wetlands important for cranes, visited ICF in July with Griffin for advanced training in wetland and wildlife ecology. The training will strengthen the capacity of a network of ecologists for effective wetland research and monitoring across Zambia under the supervision of Griffin. Immediately after the survey, we were joined by a film crew from Zambia national television, who flew an extra flight and filmed the vast herds of lechwe and flocks of Wattled Cranes. Snippets of what was filmed were broadcast on the evening news, with assurance of a longer documentary to be aired later. This media coverage will raise awareness about the importance of the Kafue Flats for wildlife conservation, a national treasure for all Zambians.

What was the take home lesson? Wattled Cranes are challenging to study on these immense floodplains, and we are still learning why the species is increasing in places, and decreasing elsewhere. Our theory is that as human populations grow across Africa and smaller wetlands are drained, converted to agriculture, or disturbed by people and dogs, large floodplain systems like the Kafue Flats are increasingly vital to Wattled Crane survival. There are five floodplains in Africa that likely harbour 80% of their global population. And that means our efforts to keep these big floodplains wet, free of invasive species, and full of the big grazing antelope that Wattled Cranes depend on has never been more important!

Maintaining landscape values and tenure systems: Innovative strategies to secure the future of wetlands

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The international theme for this year's World Wetlands Day was "Wetlands for our Future". This theme was appropriate, catchy and thought-provoking environmental campaign or event. Themes in environmental awareness are meant to stimulate thoughts (questions) about causes of environmental problems and how to prompt pro-conservation actions. When themes of environmental events are disseminated, readers, listeners, viewers and event participants envision future scenarios of desired wetland ecosystems and benefits from the ecosystems. Envisioning the future is easy but coming up with ways to make the vision a reality can be a challenge. One question that we asked ourselves during this year's World Wetlands Day should was: how can our vision of the desired wetland scenarios characterised by lush grass, waterlogged soils and abundant wildlife be achieved and maintained? To answer this question, we can draw lessons from our crane and wetland conservation projects. Two of the main lessons involve the development of strategies to promote land tenure systems that contribute to wetland protection as well as enhancing socio-economic values attached to wetland landscapes by local communities.

Themes in environmental campaigns are often coined with human welfare in mind. This is meant to give environmental conservation a human face. Whilst this may sound like giving priority to human welfare at the expense of biodiversity conservation, it is basically done to highlight the linkages between human well-being and the status of biodiversity (current and future). This gives rise to the issue of social and environmental values. Insights from crane conservation projects in East and Southern Africa show that by maintaining socio-economic values attached to wetlands, the status of the wetlands as viable crane habitats can also be maintained. The case of the Driefontein Grasslands, Zimbabwe, where local communities value a mosaic of riverine wetlands and adjoining grasslands as their communal grazing zone is a practical example that illustrates this pertinent point. In addition, a network of these wetlands in Driefontein provides other essential services and goods that include flood regulation, water provisioning, thatching grass, supporting agriculture and biodiversity. Grey Crowned and Wattled Cranes breed at sites located within these grazing zones. The community acts collectively to prevent any phenomenon that could degrade their grazing area, e.g. fires.

Wattled Crane nest in a grazing zone in the Driefontein Grasslands (Photo: O. Mabhachi)

In the process, they protect Wattled Crane nest sites during the dry winter season. As part of its crane and wetland conservation project, BirdLife Zimbabwe funded the establishment of a community garden so as to prevent the proliferation of individual household-owned gardens in the community grazing area which would otherwise affect crane breeding sites and the entire wetland hydrological processes. By so doing, a balance was attained without compromising socio-economic and environmental values. A land use system (livestock grazing) that is not detrimental to crane survival has been sustained for over a decade. Recently, BirdLife Zimbabwe also conducted a pilot study on ecosystem services using a participatory approach. This generated invaluable knowledge required to quantify socio-economic values of wetlands from the perspective of local communities. Acknowledgement of social and ecological values is therefore contributing to ongoing efforts to secure the future of wetlands, cranes, livestock and humans in Zimbabwe's prime Wattled Crane area.

Most threats to wetlands are human-induced. They are linked to decisions made, actions taken and practices adopted by wetland user communities. Collectively, decisions, actions and practices, define human behaviour. Human behaviour that has implications on wetland management is strongly influenced by prevailing land tenure systems. Tenure systems determine how and when landscapes that contain wetlands are accessed, used, managed, owned and sold. To conserve a wetland so that it continues to provide habitats of species of conservation concern, it is important to promote a land management system that clearly defines how patches can be used without compromising the overall integrity of the wetland. It is also important to regulate access to specific sites within the patches so as to minimise disturbance to the species. Above all, it is important to have a tenure system that is locally acceptable and allows individuals or groups of users to take overall responsibility for the management of the wetland. These factors highlight the importance of incorporating tenure issues in wetland conservation. This can be done by enhancing already existing tenure systems if they have positive implications on habitat integrity and species protection. Secondly, a conservation-friendly tenure system can be promoted with input from the relevant local communities and state agencies. These strategies have been implemented at two sites that are crucial for Grey Crowned Cranes in Uganda. In the catchment of Rwebicere Wetland, Nature Uganda recognised the existence of a tenure system which allowed farmers to fence off and sustainably manage their agricultural plots, which encompassed wetlands containing crane breeding sites. The farmers were encouraged to act as custodians of the wetland patches and a 50% increase in crane breeding success has been reported since 2007. At Nyamuriro Wetland, Nature Uganda worked with local communities to develop a community-based management plan which has, for the past eight years, prevented encroachment into community-enforced wetland buffer zone, which was also enhanced through physical planting of papyrus. This year, an action plan for the conservation of the Grey Crowned Cranes was finalised and will be officially launched by the Ministry of Tourism Wildlife and Heritage. The Action Plan highlights the need for effective approach for the conservation of wetlands in Uganda. Though the two Ugandan cases involve human-modified wetlands, they highlight the fact that critical ecological attributes of wetlands can be maintained through an approach rooted in tenure systems.

A pair of Grey Crowned Cranes on a wetland plot owned by a crane custodian *(Photo: O. Mabhachi)*

One commonality about the innovative strategies to secure the future of wetlands is that their success largely depends on the engagement, participation and buy-in from wetland user communities. Our experiences in both Uganda and Zimbabwe have demonstrated the importance of understanding local contextual factors to order to prevent conflicts and identify appropriate entry points in working with communities. These factors include quantified socio-economic benefits derived from wetlands (values) by wetland users and the resource management institutions (tenure systems). The examples presented above are success stories that represent evidence of how the appreciation of local values and tenure systems when planning and implementing projects can translate into tangible wetland conservation impacts.

Provincial World Wetlands Day celebrations held in the Driefontein Grasslands, Central Zimbabwe

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The Shashe community has been involved in crane and wetland conservation in the Driefontein Grasslands, located in central Zimbabwe, since 2003. They proudly hosted the provincial World Wetlands Day celebration on the 19th of February 2015. Though the Driefontein Grasslands straddle three provinces (Masvingo, Midlands and Mashonaland East), it was selected by Masvingo Province as the venue for the event. It is one of the seven wetland landscapes that were declared Ramsar sites in Zimbabwe in 2013. The event was organised by the Environmental Management Agency (EMA) and BirdLife Zimbabwe (BLZ) was held under the theme '*Wetlands for Our Future - Join Us*'. It attracted a wide range of stakeholders, who included representatives of four Site Support Groups set up by BLZ, Gutu Rural District Officials and EMA Officers from Masvingo, Midlands and Mashonaland Provinces. Community members, teachers, schoolchildren and traditional leaders also attended. Dennis Landenbergue from WWF-International, who was also representing the Ramsar Secretariat, took part in the celebrations.

In appreciation of BLZ's role in wetland conservation and protection of Zimbabwe's two crane species (Grey Crowned and Wattled Cranes), the Secretarybird and many other 'Specially Protected Birds that occur in the Driefontein Grasslands, the organisation was requested by NEMA to officiate at the event. BLZ's Projects Officer, Togarasei Fakarayi, spoke on his organisation's decade-long involvement in crane and wetland conservation in the area. He used the opportunity to explain the status of cranes and the importance of wetland conservation for biodiversity conservation and livelihoods. He also thanked the local communities that he has been working with to ensure the survival of both crane species and sustainable management of wetland habitats. He reminded communities that BLZ was exploring other opportunities to help them improve their livelihoods through appropriate income-generating and food security projects. BLZ Vice-President, Ms Julia Pierini, delivered the key note address. In her speech, she highlighted that wetlands provide essential ecosystem services such as water provision, supporting agriculture and enhancing biodiversity. She called upon all stakeholders to come on board in protecting wetlands and its biodiversity so that future generations will derive the same benefits that the current generations are enjoying.

The Local Councillor explaining land use history to participants *(Photo: T. Fakarayi)*

Interesting and strong conservation messages were also put forward by school children through poems and drama. In their drama performance, Shashe Primary School demonstrated consequences of degrading wetlands that negatively impact on cranes and how they also affect human beings in the long run. Leaders of Site Support Groups gave short speeches, which confirmed their knowledge about cranes, a direct result of BLZ's crane and wetland conservation awareness over the past 12 years. In addition to receiving conservation messages through speeches, stakeholders had the opportunity to tour a community garden project funded by BLZ at Shashe Village. The garden is used as a model for demonstrating community involvement in balancing livelihoods and conservation. Chief Serima gave vote of thanks on behalf of the traditional leaders and expressed gratitude to the organisers of the event. He was happy that such an important event was held in an area under his jurisdiction.

The event was an eye opener to most people who realised the importance of conserving wetland birds, cranes in particular, and using them as indicators of sensitive wetland ecosystems. Apart from creating a platform for celebrating wetlands, this event connected people, birds and wetlands.

Understanding Blue Crane *Anthropoides paradiseus* movements and landscape use for conservation planning in the Western Cape

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The Blue Crane *Anthropoides paradiseus* is South Africa's national bird and is a near-endemic to South Africa, with 99% of the world's population occurring in South Africa. Historically, the Blue Crane population was estimated to be in excess of 100 000, but today it is estimated at between 25 000 and 30 000 individuals. Over the last two decades, the population has been stable overall but the population's stability is undermined by threats that include habitat loss through human alteration of the landscape (e.g. through mining), destructive human activities (poisoning and illegal trade) and, potentially, landscape transformations and land utilisation changes driven by climate change.

Blue Crane numbers and distribution patterns within South Africa have changed over the years. Most notably, the agricultural activities and the resultant landscape mosaic of agricultural patches in the Overberg and Swartland Region of the Western Cape have benefited Blue Cranes. The area has become a stronghold for the species in South Africa, with approximately 60 % of the country's population found in the region. The species has adapted well to the use of the pastures and wheat fields of the Western Cape for breeding and foraging. Looking forward, changes to the socio-economic environment and climate in the area could alter farming practices to the detriment of the cranes. A significant increase in the number of wind farms and other similar developments in the Western Cape pose a major threat to the country's key Blue Crane populations.

Thanks to the Table Mountain Fund, we have commenced a research project aimed at understanding the movement and landscape utilisation patterns of Blue Cranes in the Overberg and Swartland region of the Western Cape. We will achieve this by placing satellite trackers onto 15 adult Blue Cranes within the region and supplementing the tracking data with field observations describing roosting, foraging and breeding habitat and utilization. Secondly, we aim to gain an understanding of farmers' perceptions and their understanding and tolerances of an increasing Blue Crane population within the agricultural landscape. We will achieve this through questionnaire-based surveys involving farmers in the Overberg and Swartland. This will assist us to determine if there is a potential threat of conflict between farmers and cranes due to crop damage, disease transmission or feed competition with livestock, perceived or real, and if so what level of threat exists and where. The results of research to address the two objectives will guide applied conservation action for South Africa's National Bird.

Blue Cranes in the Overberg *(Photo: Wicus Leeuwner)*

Glenn Ramke, widely regarded as the crane guru in recognition to her 20-year involvement in crane conservation in the Wakkerstroom area, has moved down to the Overberg region of the Western Cape to help us implement this project in partnership with the Percy FitzPatrick Institute of African Ornithology University of the Cape Town, the Overberg Crane Group and CapeNature.

I look forward to reporting on the progress of this research project over the next year.

A synopsis of the ecology of the Black Crowned Crane *Balearica pavonina ceciliae* in relation to land use changes at Lake Tana, Ethiopia

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The Black Crowned Crane *Balearica pavonina ceciliae* is found throughout the western areas and in the Rift Valley lakes region of Ethiopia. The species depends on wetlands in these areas. Wetlands in the Lake Tana area support a large population of the species. Estimating the total population of Black Crowned Cranes in Ethiopia is a challenge since there are many places that are yet to be explored. The Ethiopian Wildlife and Natural History Society (EWNHS), Nature and Biodiversity Union (NABU), Ethiopian Crane Working Group, International Crane Foundation (ICF) and Jimma University have, over the years, worked jointly to determine the population status and the distribution of the cranes at some sites in various parts of the country. A lot of work still needs to be done particularly to better understand the distribution of the species all over Ethiopia. It is equally important to address knowledge gaps on the basic ecology of Black Crowned Cranes in the wild but ecological data required to address the gaps is lacking. Given that Ethiopia's landscapes are being transformed rapidly, studying the species' ecology in relation to land use changes in areas where large populations are found is very important for the effective conservation of this threatened species. This was the main reason why an ecological research project was initiated.

The project is being conducted in the Lake Tana area, mainly because it is known to be a nesting and foraging area for the species. Specific sites where the project is underway were assessed before the commencement of the actual study. The general and specific objectives of the study were then set. The primary objectives include: (1) determining the distribution of breeding sites and habitat characteristics around nests, (2) determining the frequency of nesting during the entire season, (3) assessing the impact of timing of nesting within seasons on breeding success, and (4) assessing the morphometric features of nests and eggs. The other objectives are: (1) determining the foraging behaviour (including assessment of macro invertebrates and the habitat quality), (2) assessing the species' distribution in the Lake Tana sub-basin, (3) detecting and mapping patterns of land use change in relation to wetland shrinkage over the last 20 years at various spatial scales, and (4) to correlate the observed patterns of change with biophysical variations. Ultimately, the study will contribute to the development of a land use database covering the last 20 years.

Field studies will be undertaken over a period of two years. Since the project started in August 2014, the first year study has already elapsed. Data on the breeding biology and foraging ecology of the species has been collected for the 2014-2015 season. More research results are expected as the project continues until August 2016.

Breeding biology

To date, 19 nesting sites have been studied. Six of the nests were without eggs and 13 had eggs. Three eggs were recorded in three nests, 2 eggs in each of the other 10 nests, translating into a total of 29 eggs. There was 100% hatchability, but the fledging success was variable. For example, at Yiganda wetland, all cranes fledged but only 60% fledged at Chimba wetland. One of the reasons for reduced fledging success is human-livestock pressure and predation by reptiles and birds of prey. Several parameters of the breeding biology (nest morphology, egg, water depth where nests are established) were recorded.

Feeding ecology

Data on the feeding ecology of cranes were collected. These include descriptive data on habitats and vegetation in areas where cranes are found during the winter season. Macrophytes (cover proportion, distribution and species type) were also identified and the data recorded. These data are important in order to determine the types of vegetation utilised for nest construction, feeding and cover and how it is used for hiding after chicks are hatching. A total of 18 marophyte species were identified.

Observations and experiences during field work *(Photo: S. Aynalem)*

We know that Black Crowned Crane chicks spend a greater part of their time in the wetland feeding until they fledge. During the early phase of their development,

protein-rich feed resources are essential for the growth of the chicks so that they can fledge timely. This implies therefore that assessing the feed characteristics, especially the presence of macro invertebrates and arthropods in the wetland, is very important. More than 15 types of arthropods at family level were identified. Further classification at genus level using a dissecting microscope will be done.

The Lake Tana area is rich in natural resources. However, it is being degraded due to human activities and natural phenomena. The following are main problems:

- Pollution of wetlands as a result of agricultural chemicals
- Cultivation of wetland edges by local communities
- Withdrawal of water from wetlands for small scale irrigation
- Vegetation removal by livestock and by local communities for commercial purposes
- Dredging of wetlands
- Poor knowledge of wetland plants and animals and how these translate into values and benefits in that particular area
- Lack of clarity on the ownership of aquatic and wetland resources

There are various components of the research that are ongoing. Data on land use/cover are being collected and will be validated when finalized. The overall distribution of Black Crowned Cranes in the area is still being investigated.

Acknowledgments

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Annual Crane Census at Etosha, Namibia

Ann Scott, Mike Scott, Hanjo Böhme, Nad Brain, Seth Guim, Holger Kolberg, Wilferd Versfeld and Ute von Ludwiger

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Our combined ground/aerial census took place between the 16th to the 20th of March 2015. The team consisted of Wilferd Versfeld, Holger Kolberg, Hanjo Böhme, Seth Guim, Ute von Ludwiger, Dr Nad Brain (our pilot) and Mike and Ann Scott.

This season, nests were recorded at three sites only namely Charitsaub, Salvadora and Halali Seepage. The faithful Charitsaub pair is the only one that successfully raised a chick. The other two attempts failed even though both pairs re-laid two eggs that also failed. Interestingly, this is our first record of second clutches in Namibia (with only four other second clutches on record in Roberts VII). It is speculated that the low breeding success this year was likely a result of the relatively dry summer.

We counted a total of 17 adults and one chick. The chick was still too small to be ringed, and unfortunately did not survive to ringing size. The long flight on 19 March 2015 yielded only two Blue Cranes and one Wattled Crane at Andoni and three Wattled Cranes at Oponono. The Lake Oponono area was extremely dry, with people and cattle at practically every source of water. We saw large groups of pelicans some distance from the water and two vulture groups (an unusual sighting here).

Nine ringed birds were recorded this season. Details of individuals sighted and locations are presented below:

- NHH (2007) & NHF (2006) at Charitsaub
- NHM (2009) at Salvadora

- NHD (2006) & NBN (2008) at Halali Seepage
- NBZ (2008) at Chudop (non-breeding pair)
- NCL (2014) & NCK (2014) in Halali/Rietfontein area (non-breeding sub-adults)
- An adult with metal ring only at Andoni

Pictures of Blue Cranes taken during the survey *(Photos: Ann Scott)*

At present the causes for the decline of Blue Cranes in Namibia are still based on speculation, but believed to be a combination of factors ranging from loss of habitat, illegal hunting outside Etosha and the possible effects of environmental changes. Genetic aspects are also being investigated in view of possible inbreeding effects due to reduced genetic heterogeneity. Time will tell whether this tiny remnant population will be able to survive – but in the mean time the Namibia Crane Working Group will continue with its conservation efforts.

Acknowledgements

Many thanks to our dedicated team for this ongoing effort! Special thanks to the Ministry of Environment & Tourism for logistical support, and to our pilot Nad Brain for the delicious campfire meals. The generous sponsorship of this combined survey by the Environmental Investment Fund of Namibia for the third consecutive year is acknowledged with sincere appreciation. We would also like to thank all our other donors for their ongoing contributions, in particular Mathias Stein and Barbara Hudec and the Hessische Gesellschaft für Ornithologie und Naturschutz e.V. (HGON) in Germany.

Lessons from two years of community engagement in Chrissiesmeer, South Africa

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Over the past two years, our work in Chrissiesmeer and surrounding areas has been primarily geared towards engaging local stakeholders so that they can appreciate the importance of conserving wetlands, grasslands and associated biodiversity. This work was undertaken under projects funded by the HCI Foundation, Global Environmental Facility (GEF) and the National Lottery Distribution Trust Fund (NLDTF). The project thrust was on creating platforms for collective action in solving environmental problems, promoting technical options for improving livelihoods, introducing integrated waste management systems to reduce pollution, improving environmental knowledge and changing environmental behaviours among rural and township communities. In February this year, an exercise was undertaken to identify lessons learnt since 2013. This article summarises some of the lessons.

Our project was the first to introduce the concept of integrating conservation and community development to communities in Chrissiesmeer, Lothair and Sheepmoor. It provided an opportunity for us to learn about how different stakeholder groups (township residents, farm workers, schools) respond to different facilitation techniques and interventions. We noted that buy-in from beneficiaries was influenced by the presence of competent leaders and champions (individuals who develop interest in the project faster than the other community members) within target communities. This was particularly the case in the vegetable gardening initiatives we introduced at six schools. Three schools that were quick to adopt the gardens as livelihood options and showed evidence of self-organisation had committed leaders / champions (School Principals and dedicated members of the Community Works Programme). The other three schools needed extra extension support from the Community Field Officer for them to accomplish tasks. The key lesson we learnt was that it is important to learn about the local contextual factors that influence project successes, including prevailing leadership skills. Leaders and champions we identified are now useful contacts and drivers of change in our project.

We observed that it is critical to identify appropriate entry points (influential individuals, social events/platforms and activities that draw the communities' attention). Our Community Field Officer managed to make a breakthrough in building trust and working relationships with various community groups and partners after consulting locally reputable and influential leaders. These included youth leaders, the ward councillor and individuals who had intimate knowledge about the community such as teachers. The idea of introducing vegetable gardens proved to be effective in winning local support as it made the community realise that we were not just promoting wildlife conservation but we were also concerned about their well-being. Identification of the entry points helped us connect with the community quickly and learn about the social structures and community aspirations.

The project helped us identify several opportunities for socio-economic upliftment that were yet to be fully tapped. For example, we noted that a significant proportion of households in rural and township communities had not been utilising available land to grow vegetables. Our vegetable gardening interventions are already making the community realise that they can reduce food expenses if they adopt backyard gardening. The key lesson here is that external facilitators (NGOs and government agencies) can trigger social learning change and innovation in communities by demonstrating a wide range of feasible livelihood options. Despite the lack of technical skills to start livelihood projects for the majority of community members, we discovered that there are individuals who already possessed skills and if provided with the relevant support, could impart new skills to other community members (e.g. individuals already trained in woodwork and tailoring). These facts highlight the importance of assessing potential opportunities and existing technical capacity before involving external trainers.

Pumpkins from a vegetable garden at Badjiesbult Primary School *(Photo: O. Mabhachi)*

Our experiences revealed that projects that integrate conservation and community development have diverse socio-economic, institutional and environmental impacts. While the socio-economic and institutional impacts may become visible during the project period, the environmental outcomes may not be fully realised within short project timeframes. We were successful in building ties between stakeholder groups and demonstrating projects that generate tangible socio-economic benefits. But, in order for the communities to fully appreciate the connection between social outcomes and the broader environmental impacts (crane and wetland conservation), there is need for follow-up programmes. This also highlights the need for the development of long term monitoring and evaluation systems that enables project facilitators to track changes in social, institutional, socio-economic and behavioural and attitudinal aspects. This will, in the long run, help in determining factors contributing to successes.

Though we were successful in linking various stakeholders through meetings and community events we organised, promoted

livelihood options and disseminated messages on the uniqueness of natural resources in the Chrissiesmeer area, we noted that some of the ultimate targets that we envisaged (e.g. changes in income levels through livelihood options promoted and change in environmental behaviour needed for improved waste management) will be realised if there is continued engagement of the target communities. The reason for this is that these envisaged changes are linked to social processes and practices which generally take long to change. As noted earlier, we believe we laid the foundation for change and identified the right starting points for the change we seek to achieve. Since we have a permanent presence in the area, we will continue to work with the local stakeholders and adapt our activities accordingly.

Uganda finalises a national action plan for the conservation of Grey Crowned Cranes

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The Grey Crowned Crane *Balearica regulorum* is the national bird of Uganda. It features prominently on national emblems, including the national flag and the Coat of Arms which were designed and adopted when the country gained independence from Britain in 1962. Grey Crowned Cranes depend on wetlands. They prefer undisturbed wetlands for breeding, making them good indicators of the ecological health of wetlands. Unfortunately, most the wetlands in Uganda have been extensively transformed and degraded due to human activities (mainly agriculture). Cranes are associated with intricate folklore and have diverse cultural values among the people of Uganda. These values include totem of clans. For example, for the Bahinda, a clan in south-western Uganda, cranes are revered as birds of good omen, believed to cast bad spell if hurt and known to be time tellers. As part of the current national crusade against HIV/ AIDS, cranes have come into the limelight as a practical symbol of fidelity on the basis of their strict life-long monogamy. On the economic front, birds (cranes inclusive) are important as they attract tourists. Because Uganda 11% of the world bird species and 50% of Africa bird species occur in Uganda, the country is renowned as a birding destination. Tourism is the leading foreign exchange earner with records showing that in 2008, the country earned $6 million from birding-related tourism activities.

Uganda is a stronghold of the Grey Crowned Crane. Despite the ecological, cultural and socio-economic importance of the species, its population plummeted over the past four decades with numbers declining from over 60 000 in the late 1970s to about 13 000 birds in 2003. The national population of the species is estimated to have declined further to approximately 8 000 birds by 2013 according results of a review undertaken under the auspices of the African-Eurasian Migratory Waterbird Agreement (AEWA). The bird is now categorized as Endangered (EN) on the IUCN Red Data List. The uplisting to Endangered was done in 2012, just three years after the species had been declared Vulnerable.

Uganda is one of the few range states that have, to date, developed a Species Action Plan (SAP) with a view to developing appropriate solutions to save the remaining Grey Crowned Crane population and reverse the negative population trends. The process started in 2009 as part of a project funded by the Whitley Fund for Nature (WFN) through the International Crane Foundation / Endangered Wildlife Trust Partnership. Delegates from Uganda, Kenya and South Africa converged in Entebbe and put forward ideas on actions to address threats to cranes. Though the finalisation of the plan took years, all hope was not lost. The process was revived in February 2015 when the government of Uganda, through the Ministry of Tourism, Wildlife and Heritage approached Jimmy Muheebwa to take a lead in ensuring that Grey Crowned Crane SAP was revised and finalised. Jimmy Muheebwa worked as the coordinator of the Uganda Crane and Wetland Conservation Project for over a decade in a collaborative initiative involving Nature Uganda and the International Crane Foundation / Endangered Wildlife Trust Partnership. The SAP process followed the AEWA Single Species Action Planning approach.

The revised version of the action plan is quite comprehensive and summarises pertinent issues that have to be tackled to save the country's national bird. It includes information on the general crane biology, ecology and threats to the species and its habitats. It also covers relevant wildlife legislation, research gaps and actions to address them. For clarity, the threats have been categorized as follows:

- Threats directly causing reduced adult and juvenile survival
- Threats causing a high degree of habitat loss, fragmentation and degradation
- Threats causing reduced breeding success and reproductive rates.

Four high-level strategic actions were suggested and included the action plan. They are**:**

- Activities that enhance active conservation of cranes and their habitats by reducing adult and juvenile mortality
- Actions that enhance conservation of cranes through reduced loss, fragmentation and degradation of habitats
- Actions that enhance understanding of the ecology of cranes and addressing gaps in terms of knowledge about the species
- Actions that support the conservation of Grey Crowned Crane through implementation of alternative livelihoods to reduce pressure on wetlands and minimise disturbance.

Members of the task team discussing the Grey Crowned Crane Species Action Plan *(Photo: J. Muheebwa)*

The final version of the plan was submitted to the Ministry of Tourism, Wildlife and Heritage (MoTWA) in July, 2015 for subsequent approval and launch. The timeframe for implementation is 10 years but the plan will be reviewed and updated after 5 years. The team tasked to finalise the plan highlighted the need to have a National Crane/Species Working Group whose role would be to coordinate and catalyze the implementation of SAP, support range districts in the implementation of the SAP and monitor and report on the implementation and the effectiveness of the SAP. A full-time coordinator, based at a research institution or conservation organization would take charge of the day-to-day operations of the Species Working Group and work in close cooperation with the government and the AEWA office.

Global staff retreat provides insights on approaches for impactful conservation

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Events that bring together conservationists working in various parts of the world are important platforms for sharing experiences and jointly develop effective methods for mitigating threats to wildlife and ecosystems. They enable cross-national learning and inspire new approaches for improving impacts of conservation initiatives. Recognising the need for capacity development and shared learning among crane conservationists, the International Crane Foundation (ICF) organised a retreat for its global staff and affiliates working on conservation projects in Africa, Asia and North America. Four members of the African Crane Conservation Programme, a collaborative initiative between ICF and the Endangered Wildlife Trust (EWT), participated in a series of workshops organised as part of the retreat during the last two weeks of June 2015 at the ICF headquarters in Wisconsin, USA. The African Crane Conservation Programme provides technical support organisations and individuals involved in projects aimed at conserving crane species across Africa.

To facilitate shared learning, participants were first given opportunities to present on past and ongoing crane conservation projects in their regions. These presentations provided the context for focused discussions in the form of field scenarios, stakeholder engagement approaches, crane and habitat monitoring methods, project planning techniques and evaluation methodologies. A major outcome of the discussions was the identification of feasible options and approaches for improving the performance and impacts of projects. Three approaches that are particularly relevant for crane conservation projects in the African context include the need to develop crane monitoring methods that provide opportunities for community participation (citizen science approaches), identifying innovative ways of changing community behaviour for tangible conservation impacts (e.g. social marketing) and the use of the Theory of Change methodology to clearly define how the envisaged social and ecological impacts of projects evolve over time. Elements of these approaches will be incorporated into project plans for community-based crane conservation work to be implemented over the next five years in Kenya, Rwanda and Uganda. The process will involve analysing the social and biophysical contexts at each project site and identifying how community engagement techniques, crane monitoring methods and field conservation actions can be adapted, inspired by the field

experiences and lessons identified during presentations and the ensuing discussions.

Approaches for improved planning and effective implementation of conservation projects discussed during the retreat are in line with the EWT's spirit of "Conservation in Action". The organisation recognises the need for protracted efforts to help communities residing in landscapes targeted for conservation become active players in conservation projects. This includes involving the communities in monitoring environmental impacts of project interventions and how the impacts are linked to community behaviour change. In today's world, the nature and magnitude of threats to species and ecosystems change as the human communities' needs and priorities change. To ensure that projects tackle current and key threats to threatened species and ecosystems, the EWT undertakes regular reviews of its species conservation strategies to identify emerging threats, adopt new methods of tackling the threats and ensure the right stakeholder groups are engaged. The retreat was therefore a beneficial event as it exposed the African Crane Conservation Programme team to a host of new approaches for facilitating impactful conservation projects. A new dimension to the way crane conservation projects are implemented is being added as the team puts into practice the knowledge they gained.

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