

BIRDS AND PEOPLE

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BirdLife Botswana's Bird Conservation Newsletter



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EDITORIAL

The lead article in this issue is about an exciting and important initiative that has long-term implications for the protection and sustainable management of the Okavango River and Delta. This particular project, under the auspices of the Permanent Okavango River Basin Water Commission (OKACOM) aims to predict the response of the Okavango ecosystem to changes in water flow resulting from different water-development scenarios. Central to the project is a predictive model which can be interrogated to provide information on the impacts (both positive and negative) of these potential scenarios on the ecological integrity of the system, as well as on the social and economic benefits.

The Harry Oppenheimer Okavango Research Centre (HOORC) invited BirdLife Botswana to partner with it in this initiative, and the multi-disciplinary Botswana team has been complemented by Angolan and Namibian colleagues making a truly unique three-country team working towards a shared vision for the Okavango River basin. The output from this project will be a user-friendly tool, developed by technical experts based on the best information currently available, which can be used by decision-makers to ensure that the Okavango is not compromised as growing human populations throughout the basin exert increasing pressure on its resources. For more details, you are invited to read the article overleaf.

Pete Hancock



ENVIRONMENTAL FLOWS – PROACTIVE MANAGEMENT OF THE OKAVANGO WATERS

The Okavango Delta is the terminus for the waters of the Okavango River, and is entirely dependent on the amount of water emanating from the upstream countries of Angola and Namibia. These countries, and Botswana, have legitimate water needs to drive social and economic development. As human populations grow, and especially now that peace has returned to Angola, politicians will increasingly be making vital decisions relating to water development programmes in the Okavango River basin.

Historically, the perception has been that increasing water development for hydropower or crop irrigation results in growth of the regional economy, but this simplistic, one-sided view of development has had serious consequences in the past – especially for societies living downstream of such projects and for economic sectors dependent on healthy ecosystems – resulting from a disruption of river flows.

Fortunately, there is a better way of optimising the economic and social benefits of water development while at the same time ensuring environmental protection and the sustainable management of the river ecosystem, and the good news is it is currently being applied to the Okavango River basin. It relates to the concept of **environmental flows** which recognises that environmental water needs (to maintain the ecological functioning of rivers) are important and legitimate. Water flow is the principal driver of river ecosystems, and changes in flow due to water development schemes will impact directly on the biological components (vegetation, aquatic invertebrates, fish, frogs and reptiles, birds and mammals) and this will ultimately affect livelihoods and economies of riparian societies. Water allocated for the environment is not only intended to maintain biodiversity and aquatic ecology, but is vital for ensuring the continuing provision of environmental goods and services upon which people's lives and livelihoods depend. Defining acceptable environmental flows is not solely a question of specifying a minimum flow below which water levels should not be allowed to fall. It is also necessary to account for important flow variations within a system, for example to include flood events which may be vital for supporting wetland, delta or floodplain ecosystems, or flows for migrating fish species.

The relatively new practice of 'Environmental Flow Assessment' has been pioneered by Drs Jackie King and Cate Brown of Water Matters, and Southern Waters Consulting, respectively, in South Africa, and applied to the Okavango River basin as part of the collaboration between the EPSMO and BI OKAVANGO Projects (EPSMO is an acronym for Environmental Protection and Sustainable Management of the Okavango, while BI OKAVANGO is the short name for the project 'Building Local Capacity for Conservation and Sustainable Use of Biodiversity in the Okavango Delta). The EPSMO project in turn is part of a larger 'Transboundary Diagnostic Assessment' being co-ordinated by the Okavango River Basin Water Commission (OKACOM), to develop a well-informed management plan for the basin. It is fantastic that OKACOM should be taking such proactive steps to ensure that the development of the Okavango waters is based on the best, most up-to-date paradigm in river management. The environmental flows component is being undertaken by a multi-disciplinary, three-country team under the guidance of King and Brown. Can you imagine the synergy of having technical experts from Angola, Namibia and Botswana all working together with a shared purpose – that of predicting the response of the Okavango ecosystem to various water-development scenarios, with the ultimate aim of ensuring that the Okavango is not compromised in the process? The Harry Oppenheimer Okavango Research Centre (HOORC) in Maun is taking the lead to provide information relating to all aspects of the Botswana part of the Okavango, and this is being done under the BI OKAVANGO Project. BirdLife Botswana is fortunate to be involved in this important and exciting initiative, providing information on the Okavango's birds - which are good indicators of environmental change. The active participation of Dr Ebenizario Chonguica, the OKACOM Executive Secretary, in the process has been very encouraging.

The project commenced in late 2008 with an extensive field trip to parts of the Okavango River system, from Capico and Mucundi in the catchment in Angola, right down to the distal end of the Okavango at Chanoga on the Boteti River.



Some of the team members view the Cubango River at Mucundi (Photo: C Santos)

The purpose of the field survey was to choose representative sites, identify good indicator species and important features of the ecosystem, and capture supplementary field data that could be used to predict their responses to changes in water flows. The team members then met in Windhoek in Namibia during April 2009, and representatives of each discipline set about the task of predicting – in a semi-quantitative way – the response of each of their indicators to changes in water flow. The bird group, which included myself, Carmen Santos from Angola and Mark Paxton from Namibia, grappled with questions such as “What will happen to birds that breed on sandbanks (as exemplified by the African Skimmer) if the dry season water flows are higher or lower than the present day flows, or arrive earlier or later?” And “How will fish-eating birds that hunt in open water (such as the Reed Cormorant) react to an earlier or later onset of the flood season, or a longer or shorter flood season?”



The Bird Group at the Knowledge Capture Workshop in Namibia (Photo: G Khwarae)

The answers to these questions were captured in the form of ‘Response Curves’ – graphic representations of what would happen to bird abundance – that could then be fed into the model. This model, which goes by the acronym DRI FT (Downstream Response to Imposed Flow Transformations) is the real ‘brain’ of the whole Environmental Flow Assessment process and is a database in which the relationship between flow-change and ecosystem-response for the biophysical components of the ecosystem can be mixed in many permutations to produce scenarios. The model is robust as it is based on good hydrological data, especially from Botswana where there are 46 years of data, and the response curves for many components of the ecosystem could be generated. For example, there was a geomorphological team looking at issues such as sediment transportation and other related issues, a water quality team looking at physical factors such as water temperature, changes in nutrient levels and so on, as well as teams predicting responses from the more obvious biological components such as

aquatic macro-invertebrates, fish, vegetation, wildlife *etc.* Based on the outputs from these teams, a socio-economic team quantified the impacts on livelihoods and economies of the riparian communities, looking at issues such as proliferation of pest species *e.g.* mosquitoes, changes in the abundance of reeds and papyrus, fish, tourism and wildlife *etc.* These impacts were ultimately measured in terms of changes in household income and well-being. The integration of water resources, ecological and socio-economic outcomes in this model is unique.

In June 2009, a further workshop, involving all team members, was held in Cape Town to review the responses of the individual components to four different scenarios – present-day (baseline), low, medium and high water development options. These scenarios describe possible pathways into the future that can be used in discussions and negotiations – they are a way of exploring ideas and possibilities for development, and are not necessarily circumstances that will happen. The findings of this workshop related to how well the model behaves, and were not unduly concerned with the actual impacts of the various scenarios; however all participants were, I think, impressed with the power of the model – in terms of what it can tell us about different scenarios, it is a quantum leap forward compared to what has been used for managing hydrological systems to date. With this tool at their disposal, decision-makers will no longer be able to say that they didn't know what repercussions any water development projects would have on the environment or any sector of society! We look forward to the completion of the project and its application to the Okavango River basin.

Pete Hancock

AFRICAN WATERBIRD COUNTS

July is the month when waterbird counts are conducted throughout the country, and we always welcome additional participants who can count waterbirds along a waterway in their area.

These counts have been undertaken biannually for almost two decades now, and just how useful they are was brought home during the Environmental Flows project (the data were used to help predict the response of waterbirds in the Okavango Delta to changes in the water flows).

If you would like to contribute to these counts, please contact Pete Hancock at the BirdLife Botswana office in Maun, or Dr Stephanie Tyler at steph_tyler2001@hotmail.com.

BARRIERS TO MIGRATION

Last month, most of the migrant birds left Southern Africa on their return journey to the northern hemisphere. It is difficult for us earthbound humans to appreciate what an arduous undertaking this is – some birds will lose almost 50% of their body weight by the time they reach their destination, and will have to moult and replace all their worn flight feathers. Others will perish from exhaustion along the way. To make matters worse, millions of birds will be killed worldwide by man-made barriers this year.



Photo: © Abdullah Alsuhaibany

Dead White Storks (*Ciconia ciconia*) / 90 km south of Jeddah, Saudi Arabia

The central theme for this year's World Migratory Bird Day was "**BARRIERS TO MIGRATION**". It aimed to highlight the effects man-made structures such as wind turbines, communication masts, tall buildings and windows, power lines and fences have on migratory birds.

During migration birds face a number of natural obstacles such as expanding deserts, seas, huge mountains and other natural barriers. Yet, next to these natural barriers, birds are increasingly being confronted with man-made barriers on their journeys. These man-made structures can not only disturb the migratory movements of birds, but it is estimated that bird-strikes due to collisions with man-made structures are responsible for the deaths of many millions of birds worldwide each year.

Among the affected bird species are abundant as well as rare and endangered species. Man-made barriers are believed to be a growing threat and are likely to be a significant contributor to the decline in many populations, especially those of scarcer, more vulnerable bird species.

“Hundreds and thousands of migratory birds, including many that are protected under international wildlife treaties such as the African-Eurasian Migratory Waterbird Agreement (AEWA), are killed in growing numbers by man-made barriers. Some of these cases could quite easily be avoided by introducing technical measures for reducing this often avoidable cause of destruction” said Bert Lenten, Executive Secretary of AEWA and initiator of the World Migratory Bird Day campaign.

However, each year the number of wind turbines, power lines, skyscraping radio, TV and cell phone transmission masts, reflecting plate-glass windows, tall buildings and other structures continues to grow, often without consideration of avoidance and mitigation measures known to reduce avian mortality through collisions with these structures.

Migratory bee-eaters (Photos: P Hancock and W Tarboton)



The location and placement of structures such as wind farms and power lines along major migratory routes or near areas regularly used by large numbers of feeding, breeding or roosting birds, can dramatically affect the likelihood of collisions. Placement of structures along important wetlands, river valleys and in coastal areas where large numbers of migratory birds congregate, are also likely to increase the risk to migratory birds.

Although man-made barriers represent an increasing problem for migratory birds worldwide, so far little attention has been given to possible solutions. We need to raise awareness of these barriers and ensure that action will be taken to reduce the impact of some of these man-made structures on migratory birds.

BOTSWANA TICKBIRD - WORLDBIRDS IN BOTSWANA

Support our web-based bird monitoring system.

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RED LIST UPDATED

The 2009, updated Red List of globally threatened birds has recently been published on the BirdLife International website. There have been three very important additions to the list – as follows:

- ? Grey Crowned Crane – uplisted from Least Concern to Vulnerable
- ? Bateleur – uplisted from Least Concern to Near Threatened
- ? Martial Eagle – uplisted from Least Concern to Near Threatened



Photo: J Bestelink

The change in status of these three species is due to improved knowledge, rather than a recent severe decline since the previous list was published. Their uplisting is not at all surprising, given that they were already regarded as Birds of Conservation Concern in Botswana.

We still need more quantitative data (hard facts) on these species in Botswana, and would appreciate reports of nesting and other observations from throughout the country. BirdLife Botswana is currently working together with Wilderness Safaris to field a study on the Bateleur that will go a long way towards elucidating its status in Botswana (more of this in a future newsletter). However in the meantime, the more information we can get on these three species, the better we will be able to conserve them.

2010 CALENDARS NOW AVAILABLE

The 2010 BirdLife Botswana calendars, featuring birds of our Important Bird Areas, are now available. We are selling three different calendars this year, an A2 version for P125, an A4 version which opens up to A3 for P75 and a desk-top model for P50. Contact your nearest BirdLife Botswana office.

BIRD MONITORING TRAINING

Bird conservation is everybody's responsibility, and BirdLife Botswana – like the rest of the BirdLife Partnership – is committed to building local capacity and creating opportunities for citizens to participate in bird research, monitoring and conservation. With this in mind, a series of three very successful workshops were held during May and early June this year to provide members of the Department of Wildlife and National Parks with the knowledge and skills to contribute to Important Bird Area (IBA) monitoring, Common Bird Monitoring, and the African Waterbird Census. The bird monitoring training was linked to the Management Oriented Monitoring System (MOMS) already being undertaken by the Wildlife Department, and this formed the logical foundation for the workshops. The training was also done in the context of biodiversity monitoring as part of Botswana's commitment to reporting on this to the Convention on Biological Diversity.

The first workshop took place in Jwana Game Park, at the Debswana Environmental Centre (thanks to Debswana for availing us this facility), and was attended by Wildlife Officers from the southern parts of the country. This was followed by a second workshop in the north, held in the Mabebe Community Centre (courtesy of the Mababe Community Development Trust), and proved to be a convenient location for participants from Chobe, Ngamiland and parts of Central District. The final workshop took place in Ghanzi, in the western part of the country, thus completing our nation-wide coverage.

[Mababe workshop \(Photos: M Kootsositse\)](#)



Since a basic knowledge of bird identification is fundamental to every aspect of bird monitoring, the workshops started with sessions on bird ID. Of course it is impossible to learn all the birds found in Botswana during a short course, so the focus was on bird families, bird identification procedures and getting to know the 'trigger' species for each IBA, as well as many of the more common birds.

This was followed by presentations on MOMS by colleagues from the Department of Wildlife, partly as a refresher for those already involved in general wildlife monitoring, but also as a motivation to other participants to contribute as well. This set the scene for the further bird monitoring training.

Virat Kootsositse took participants through the Global Monitoring Framework and its application to IBA monitoring in Botswana. Again, some of the participants were familiar with the procedure and the State-Pressure-Response model upon which it is predicated, but nevertheless, fruitful discussions followed about the details – for example, of the ranking system for threats (pressures), and the difficulties associated with getting hard quantitative data on birds for the State section of the form. During mid-week, the participants had an opportunity for fieldwork, and undertook an IBA monitoring exercise for the area where the course was being held. This resulted in further useful discussions, not only about understanding and following the IBA monitoring forms, but also about more substantive issues related to the theory and application of the system, and the ease or (difficulty!) with which it could be integrated with MOMS.

The Common Bird Monitoring training, conducted by Pete Hancock, followed the same pattern as described above, that is an introduction to the theory followed by a practical session to see how feasible it would be in the field. Transects were set up and participants worked in teams to identify and count birds along these pre-defined routes. Feedback from the participants was encouraging – it wasn't nearly as difficult as they had thought! The waterbird counts could not be trialled in the field (there aren't any waterbodies in the southern or western Kalahari), but since Wildlife Officers can be transferred to any station throughout the country, it was deemed fit to include this component in the workshops.

The highlight of the workshop series was undoubtedly the enthusiasm and commitment evident among the participants. Close on 100 people turned up for the three workshops, far in excess of what we had expected, and at Mababe we even had quite a number of (welcome) 'gate-crashers' – members from the local community Trusts at Khwai and Sankuyo – who had heard about the training and didn't want to be left out! We will be running similar training courses specifically for community members later this year. In the meantime, we are looking forward to the active involvement of more Wildlife Officers in IBA monitoring, Common Bird Monitoring and African Waterbird Counts.

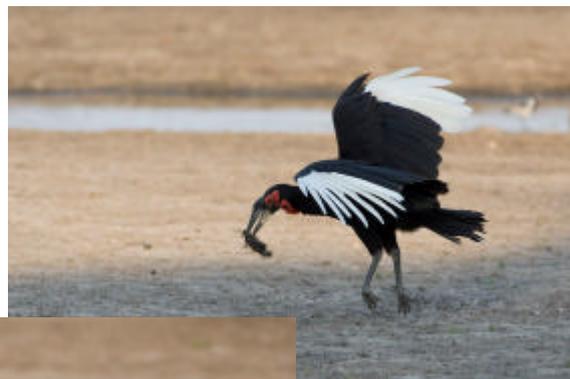
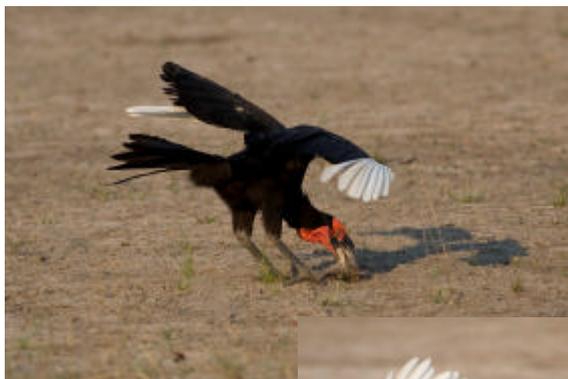
As can be imagined, the success of the training lay in it being a collaborative effort. Firstly, without the organisational and logistical support from Dr Lucas Rutina, Malebogo Sentsho and Justin Soupo from the Wildlife Department, there would never have been such a fantastic turn out of participants. And it wasn't just quantity! Thanks to all who participated so actively, making the workshop challenging and stimulating for us as well. The workshops could also not have been successful without adequate funding, and we are grateful to the Royal Society for the Protection of Birds (RSPB - BirdLife in the UK) for financing the Common Bird Monitoring component, and the EC for providing the funds for IBA monitoring, under the "Instituting effective monitoring of Protected Areas (Important Bird Areas)" project.

We look forward to the next round of training for community members during August, and for BirdLife members and the private sector later in the year.



Pete Hancock and Virat Kootsositse

PHOTO OF THE MONTH



Russel Friedman from Wilderness Safaris sent in a series of photos (of which only three are shown above) showing a Southern Ground-Hornbill in a playful mood, picking up an unidentified object and tossing it around with carefree abandon. These usually dignified birds seem to have a streak of fun about them!



STOP PRESS

BirdLife Botswana has initiated a photo-group on Flickr for photos of Birds of Botswana – you are invited to post your bird photos there, whether they are your favourite shots or photos of birds that you want assistance identifying. You can also upload photos of rarities or new birds for the national list. If you want to participate, and need some assistance, contact Ian White at 71297636 or No1foods@vbn.co.bw – if you just want to look (!), go to www.flickr.com, click on Groups, and under Find a group, type Birds of Botswana and then hit Search- it will bring you out at the site. Enjoy the stunning photos!

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Visit our website <http://www.birdlifebotswana.org.bw/>

and Blog <http://birdlifebotswana.blogspot.com/>

BIRDLIFE BOTSWANA MISSION

BirdLife Botswana aims to conserve birds and important bird habitats, by creating awareness, carrying out research and promoting beneficial relationships between birds and people.

This newsletter appears quarterly. If you would like to contribute an article on your field observations or bird conservation project, please send it to birdlifemaun@botsnet.bw



Membership Details

Membership is due in *January* of each year, as the subscription runs from January to December.

Rates

- Ordinary - P120.00
- Corporate - Minimum P2000.00
- Professional – Rangers, guides and SSG members - P60.00
- Life - P2000.00
- Students studying in Botswana - P15.00
- Schools/Clubs – P50.00 plus P5.00 per club member with a minimum of 10 members per club
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The following details are required:

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I acknowledge that my family dependents, invitees and I take part in the BirdLife Botswana organised events entirely at our own risk. I, in my personal capacity and as representative of my spouse, children, dependents, and invitees hereby keep BirdLife Botswana, its committee, members and agents indemnified and hold them harmless against all loss, injury, or damage to person or property from any cause (including negligence) arising as a result of our participation in events organised by BirdLife Botswana.

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Pete Hancock
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Pete Laver
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Kasane

or phone Pete to
collect 71271207

Kabo Ditshwane
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Jwaneng

or phone Kabo to
collect 71392738

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Birds of Concern Reporting Sheet

BirdLife Botswana is very interested in collecting information on Birds of Concern – they are species that are either globally or nationally threatened. **Please use the format below when submitting sightings to make computerisation of the data easier.**

Note that the co-ordinates of each sighting are essential – it is convenient to get these from a GPS but of course they can be read off any good map. If you have a GPS, please set the datum to WGS 84 and the position format to decimal degrees. If you use any other datum/format, please just let us know what it is. Information in **bold** in the table below is the most important, if you cannot collect it all.

Species (see list below)	GPS co-ords		Quarter degree square e.g. 1923C4	Area e.g. NG 19	Locality e.g. 2 km west of Machaba	Date	Time	# of birds	Ad. M	Ad. F	Ad. ?	# of Imm.	Observer (your name)	Comments
	S	E												

The species that we are interested in are the following:

Slaty Egret	Maccoa Duck	Wattled Crane	Grey Crowned Crane	Lesser Flamingo
Cape Vulture	White-headed Vulture	Lappet-faced Vulture	Hooded Vulture	White-backed Vulture
Bateleur	Martial Eagle	Lesser Kestrel	European Roller	Pallid Harrier
Kori Bustard	Southern Ground Hornbill	African Skimmer	Chestnut-banded Plover	
Black-winged Pratincole				

Breeding records for these species would also be invaluable.

Please send this information to:

BirdLife Botswana, PO Box 1529, Maun, BOTSWANA. Alternatively, please e-mail us at birdlifemaun@botsnet.bw

