

## Common Bird Monitoring in Botswana: Involving citizens in biodiversity monitoring

Join BirdLife Botswana to monitor Botswana's Birds and Biodiversity through the citizen science monitoring programme called "Bird Population Monitoring – BPM".

### **About Bird Population Monitoring Programme (BPM)**

- The BPM Programme was established in 2010 and is part of the global effort to monitor terrestrial birds around the world (for more information see <http://www.bipindicators.net/wbi>).
- The programme is aimed at demonstrating that birds are useful in showing changes in the overall condition of ecosystems or the environment and can be used by decision-makers to influence politicians to find suitable biodiversity management solutions.
- The BPM Programme mobilizes the participation of the citizen scientists in Botswana.
- The Programme connects people with nature and birding and being part of the programme provides the chance to enjoy the contribution made to conserve the environment as well as the opportunity to interact with the environment and learn more from it.

### **Objectives**

The main objectives of the BPM programme are:

1. To develop a Wild Bird Index (WBI) for Botswana showing bird population trends over time and use the trends to:
  - Set conservation priorities and guide relevant legislations
  - Report on biodiversity changes (including the response of Botswana's fauna and flora to climate change) as well as serve as useful input data for Botswana's State of the Environment Reports and national reports to the Convention on Biological Diversity (CBD) and contribute to African/global efforts.
2. To build the capacity of Botswana in bird identification and awareness and increase the level of community participation in wildlife monitoring.



Participants listening attentively during the BPM training workshop held at Maun

### **Why birds?**

- Birds have many characteristics that make them good environmental indicators e.g their abundance, diversity and ease of identification.
- Bird populations are always shifting and changing and so monitoring them is a useful tool to track and know about these changes in our areas.

- Monitoring also helps both citizen scientist volunteers and researchers to potentially benefit from the exercise.
- Citizen scientist volunteers can increase their knowledge and understanding of the scientific process, gain deeper understanding of natural phenomena and issues of local importance, strengthen their attitudes toward their natural environment and participate in making science-based recommendations.

### **Programme output**

- a. A bird database available for use nationally to infer the bird population trends, with some of the trends being of relevance to influence policies related to biodiversity (particularly bird) management and conservation. For example, use of the data by DWNP to guide issuing of game birds hunting quota license and by the Department of Crop Production for proper control of the crop pest Red-billed Quelea.
- b. As the dataset grows, there should be more scope to influence even more policies on invasive alien species whose expansion the monitoring networks should be able to record.
- c. A national Wild Bird Index to give a scientific measure of Botswana's biodiversity – contributes to reduce challenges of over exploitation of natural resources for example reduction in veld products utilization such as firewood collection and chopping down of trees for poles.
- d. Local citizens empowerment, particularly members of rural communities, who participates actively in issues relating to biodiversity monitoring and can influence policy and decision makers to make a contribution to biodiversity monitoring and explore opportunities for engaging on avitourism.
- e. Bird data available at the global, continental and regional level to provide information on birds and biodiversity—and would influence for instance policy decisions on bird migratory routes and pathways and Botswana's commitment towards meeting the obligations of the Convention on Biological Diversity.

### **Beneficiaries**

The project beneficiaries are institutions engaged in managing and monitoring biodiversity and those who are dependent on the natural resources. These include government departments and ministries, the private sector, Non Governmental Organisations (NGOs), Community Based Organisations (CBOs), universities, research institutions, agencies responsible for the implementation of the multi-Lateral Environmental Agreements (MEAs) and the public at large.

### **How to do the Bird Population Monitoring in Botswana?**

The methodology for the BPM programme is a point count technique;

- ❖ A sample 2km route is selected within a 50km by 50km randomly chosen designated grid square.
- ❖ Birds are counted along a 2km transect, stopping every 200m to record all the birds seen or heard for five minutes only.
- ❖ The counts are done twice annually in February and November.
- ❖ Observers are allocated transects by the project coordinator and local representatives in different branches using the 105 designated grid squares chosen throughout Botswana.
- ❖ Transect allocations are done randomly where there is no designated grid square present near the participants to allow flexibility within the programme.
- ❖ The transects are counted by foot or vehicle in early mornings only.



BPM participants during one of their transects visit

### **Acknowledgements**

BirdLife Botswana would like to thank all those who are participating in the BPM Programme for their dedication. The organisation looks forward to continued support in the upcoming counts and calls out more volunteers to join the programme. The programme is a small effort which needs to be sustained over a long period of time. Being part of the programme provides the chance to enjoy the contribution made to conserve the environment as well as the opportunity to interact with the environment and learn more from it. The programme is implemented in partnership with the Department of Wildlife and National Parks (DWNP), Department of National Museum and Monuments (DNMM) and the Department of Environmental Affairs (DEA). It is financially sponsored by the Royal Society for the Protection of Birds (RSPB) Debswana, Orapa Letlhakane and Damtshaa mines and the Global Environment Facility Small Grant Programme (GEF/SGP).

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