



BIRD POPULATION MONITORING INSTRUCTIONS

Thank you for volunteering to take part in the BirdLife Botswana National Bird Population Monitoring (BPM) scheme, which has been designed to keep track of bird populations in Botswana. The scheme surveys are quick, simple and, most importantly, enjoyable birdwatching exercises. Survey plots are based on the 50x50-kilometre (km) squares of the national grid.

The main aims of BPM

1. To provide information on year-to-year and longer-term changes in population levels for a wide range of birds across a variety of habitats throughout Botswana. Knowing to what extent bird populations are increasing or decreasing is fundamental to bird conservation. Monitoring birds has the added advantage that they act as indicators to the health of the environment.
2. To promote a greater understanding of the population biology of birds and in particular to focus on factors responsible for declines. BPM provides information to the Department of Environmental Affairs (DEA) for potential use as part of Botswana's suite of biodiversity indicators and is a key component of BirdLife's monitoring strategy.
3. To promote bird conservation through the involvement of large numbers of volunteer observers in survey work in Botswana.

Paper forms to receive

Once you have expressed a wish to be involved in the scheme, you will be allocated a point count transect within a randomly selected grid square.

- 1 x BPM Instruction sheet
- 2 x Field Recording Sheets
- 1 x Information about the transect route, including details of the starting point

We recommend that observers take a copy of the Field Recording Sheet out in the field to record their sightings on. The sheet provides space for you to record birds of each species as you see them at each point, and a column for you to sum the counts from all points to give a total count for each species. Once completed, the form should be returned to your regional representative or to the BPM Project Officer at BirdLife Botswana (BLB).

Which square should you survey?

You will be provided with information regarding the area we would like you to survey. Sites have been chosen according to a formal sampling strategy to cover all habitats and regions. Please make every effort to cover the site that is allocated to you.

In cases where survey work proves impossible in a large part of the site you have been allocated, e.g. because it is physically impossible to visit, or access permissions are not granted, please report this to your BLB Regional Representative or the BPM Project Officer so that a replacement site can be provided. It is **very important** not to reject sites because they appear uninteresting – squares containing few species in degraded habitats are just as valuable as squares with many species in more pristine habitats.

Tips to volunteers

1. Do not record birds you see or hear whilst walking to your first point or between points along your transect route.
2. On arriving at the point, start your count immediately. Birds flushed as you approach your stop should be recorded and included in the totals for that point if they are no longer present during the counting period.
3. For the count, record all birds seen or heard during a 5-minute counting period. Do not record any birds that you see or hear at that point after the end of the 5-minute period.
4. Bird species names are recorded on the Field Recording Sheet in the order in which you observe them.
5. Ensure that only the number of birds recorded is written in each box on the count summary forms. Additional information such as '+', '>' or 'many' complicates the forms and should be avoided.

Finding and marking a route

If the site has been surveyed before, you will be provided with precise information regarding the counting route (the point transect line) taken by the previous observer, together with the name and quarter degree grid square reference of the transect. This route must be followed to ensure consistency of recording at that site (i.e. if a different route is taken, different birds will probably be recorded). If the route has to be changed because you can no longer get access to it, please consult with your Regional Representative or the BLB Project Officer. If the site

has never been covered before (BLB will tell you this), you will need to create your own transect route and a unique identifying name, based on the information and coordinates that has been provided.

The bird survey will take the form of a point count transect, each containing 11 counting points (numbered 1 to 11) 200m apart, covering a distance of approximately 2.0km. If a GPS is available, please record the GPS waypoint reference for each point. **Please try to ensure that the location of each counting point is the same as in previous years.** In order to help locate each point again in future surveys, it may be necessary to mark the points in some way, either by using permanent landmarks (trees, boulders, buildings etc) or by using temporary markers (coloured tape or cord etc), and if possible, annotating a sketch map of the site. On your first visit to the site, please also make a note of any additional information that you may wish to provide about your point count transect, for instance GPS waypoint references, information on identifying features (or marks) to assist in the future relocation of points or information on broad habitat types.

A point transect may take any shape (straight line or circular route), but to minimise the risk of double counting, observers should ensure that if a circular route is chosen that no point is within 200m of any other. In practice, routes will most likely be based on easily identifiable and navigable tracks or paths.

When to visit

Each site should be surveyed twice a year, once in November with a second visit in February. The first point count should ideally start around 07h00 and the last finished before 11h00. Please try to keep the starting times similar within and across years. Please also try to keep visit dates similar across the years. Counts will be more productive earlier in the day, with birds generally becoming quiet and inactive during the middle of the day.

Weather

Please do not attempt to carry out surveys in conditions of heavy rain, poor visibility or strong wind. Birds generally become inactive in windy and wet conditions. However, activity often increases considerably after rain showers and therefore showery weather is generally okay for conducting surveys. Please record weather conditions in the boxes provided on the forms that describe cloud cover, rain, wind speed, and visibility. Choose one number (1-3) from each of the four headings below and enter these in the box provided. If the weather conditions change during your survey visit, please select a single weather category that best represents the overall conditions.

Cloud cover	Rain	Wind	Visibility
0 – 1/3 rd = 1	None = 1	Calm = 1	Good = 1
1/3 – 2/3 ^{rds} = 2	Light = 2	Light = 2	Moderate = 2
2/3 ^{rds} – total = 3	Heavy = 3	Strong = 3	Poor = 3

Recording birds

Please record all the birds you see or hear at each point. If you are working in a team of two or more, ideally, only one observer should record birds whilst the other is completing the Field Recording Sheet. Birds that are flushed as you approach a point may be recorded in the totals for that point, **but do not record birds whilst moving the 200m between points.** As you will not be recording birds between points, you may choose to move between the points either on foot or by vehicle. **If you choose to use a vehicle to move between points, on arrival at each point, bring the vehicle to a standstill, switch off the engine and start recording birds immediately.** Where possible, please stand outside your vehicle to carry out your count – you need not move away from the vehicle, but you may see and hear birds more clearly if you do.

On arrival at each point, start counting birds immediately, recording and identifying all birds that you see or hear for a set period of 5 minutes. Record the time that the count started at each point in the space provided on the recording forms. Do not exceed 5 minutes because you are sure a certain 'good bird' is there but not yet recorded. Remember to scan for birds flying overhead and include these in the count. Record all the birds you see and hear on the Field Recording Sheet in the appropriate point columns 1-11. Space is provided on the recording form to allow you to record different individuals of each species seen for each point. Each transect has 11 points, each point being 200m from the next (for guidance and help in estimating distances, 200m is the length of two football pitches). Try not to record the same individual bird twice, e.g. an individual that can be heard singing from several points should be recorded once, at the point where it was first detected. If you observe a bird during the point count but do not identify it, it is OK to spend time after the end of the 5-minute period working on the id, recording the individual as being in the count at that point. Do not use any method of coaxing birds during the count – it is important that all counts are done consistently to produce reliable results. Please note the starting time of each 5-minute count period using a 24-hour clock, e.g. 0730 for 7:30am, 1300 for 1pm. As a guide, an average visit should last around 2 hours.

We would strongly encourage observers to use standard species names (e.g. that used in current field guides for the region). These should be written in the appropriate space on the Field Recording Sheet.

Example of a completed Field Recording Sheet (header)

Name of compiler		Pete Hancock				Number of observers		2		
Site name		Rakops-Matswere				Names of others involved in count				
Quarter degree square (eg 2124A2)		2124A2				Rumbidzai Kaparadza				
Visit date (DD:MM:YY)		6/11/09								
Weather (1,2 or 3)		Cloud	Rain	Wind	Visibility	Tel. No:	7684453			
		1	1	1	1	Email:	birdlifemaun@gmail.com			
Time each point count started										
Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8	Point 9	Point 10	Point 11
06:30	06:45	06:55	07:10	07:25	07:35	07:45	07:55	08:10	08:20	08:35

If necessary, please ensure that you have obtained the relevant permission to enter private land over which your point transect line crosses.

Recording potential threats to your site

At the end of the Recording Sheet is a section where you may use your more general local knowledge of the site and/or area to provide information on any potential threats (both current or future) to the habitat and/or birds around your transect. This simple, but essential information will allow us to assess how the site is doing, what problems (if any) affect it and what is, or can be done to tackle the problem. If you are able and wish to provide information in addition to that provided here, please contact the BirdLife Botswana IBA Project Coordinator at the address below, who can send you a more detailed form.

Possible threats to consider may fall into one the following categories:

Agricultural expansion and intensification	Human intrusions and disturbance
Residential and commercial development	Natural systems modifications
Energy production and mining	Invasive and other problematic species
Transportation and service corridors	Pollution
Over-exploitation, persecution and control	Climate change and severe weather events

Using the following guidelines, and based on your observations and information, please score each threat that is relevant to the birds and/or habitat at your site for Timing, Scope and Severity. The numbers are there to help you score, but are intended as guidance only.

Scores:

Timing	Score	Scope	Score	Severity	Score
Happening now	3	Whole area/population (>90%)	3	Rapid deterioration	3
Likely in short term (4yrs)	2	Most area/population (50-90%)	2	Moderate deterioration	2
Likely in long term (>4yrs)	1	Some of population (10-50%)	1	Slow deterioration	1
Past/no longer limiting	0	Small area/few individuals (<10)	0	Imperceptible deterioration	0

Return of data

Please return all completed forms to the Project Officer at BirdLife Botswana by the end of March for the February visits and by the end of December for the November visit. Forms can be sent electronically as an email attachment to <mailto:education@birdlifebotswana.org.bw> or blb@birdlifebotswana.org.bw, or by post to the address below. Once we have received your completed forms, you will receive an acknowledgement from BirdLife Botswana.

If you have any queries about BPM please contact either your BirdLife Botswana Regional Representative or the BPM Project Officer (BirdLife Botswana, P O Box 26691, Game City, Gaborone, Botswana, Tel/fax: +267 319 0540, Email: blb@birdlifebotswana.org.bw) or visit our website: www.birdlifebotswana.org.bw

BirdLife Botswana Branches & Regional Representatives

Maun Branch, P.O. Box 1529, Maun, Botswana, Tel. 6865618
Also in: Francistown, Ghanzi, Kasane and Jwaneng

Many thanks for helping with this important project and enjoy your counting!

The Bird Population Monitoring Scheme is organised and coordinated by BirdLife Botswana with the support of the Global Environment Support Small Grant Programme, the Department of Wildlife and National Parks (DWNP), the Department of Environmental Affairs (DEA), BirdLife International and the Royal Society for the Protection of Birds (RSPB).