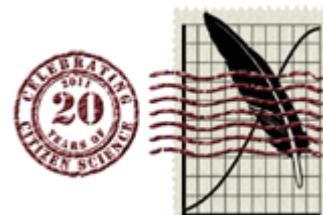


Guide to Access Avian Data for Environmental Impact Assessment Reports

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1. Introduction

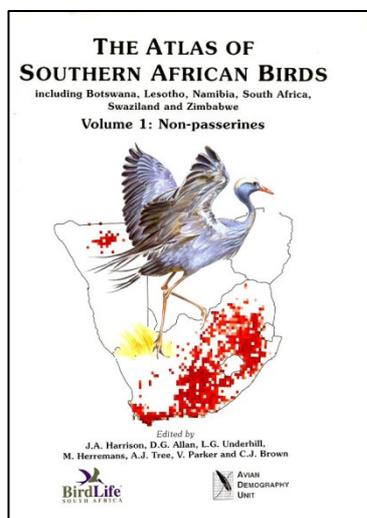
BirdLife South Africa registers on a regular basis as an Interested and Affected Party for developments that might affect areas which are important for birds. Although some EIA reports contain sufficient information most reports do not provide an accurate reflection of the avifauna that occurs in the proposed area of development. In many instances the conservation status of the species are also not mentioned.

This situation is not acceptable especially considering that we have numerous avian data sources available in South Africa that can be used by EIA specialists. These data sources are also available to the general public. However, not all EIA practitioners might be aware how to access these data sources. As it is of extreme importance to BirdLife South Africa that these data sources be used to its fullest, this short guideline has been written.

Please note the links and steps provided below might change as the Animal Demography Unit (ADU) changes its website occasionally. In such a case the data will still be available on the website and a quick study of the website should reveal the new location of the data sources.

2. Available Data Sources and how to access the data

2.1. South Africa Bird Atlas Project 1



The South African Bird Atlas Project was conducted from 1987 to 1992. The data were submitted by citizen scientists with millions of records submitted for the whole of South Africa. The data was published in two publications.

The data were submitted per quarter degree square and therefore the resolution of the data is rather coarse. As 20 years have passed since the end of the project the data are also a bit out of date but can still be used in cases where enough data cannot be obtained from other data sources.

All data went through a vetting process.

The data are now electronically available from the Southern African Bird Atlas Project 2 website and can be accessed as follows:

- Go to www.sabap2.org
- Click on “Summaries” and on “Gap Analysis”.
- On the map of South Africa click on the degree square where the development will take place.

- Scroll down to the QDS that is relevant to your study and select “SABAP1 Species Data”.
- A PDF document will open up with detailed information about the species recorded in the QDS including the reporting rate and during what time of the year the lists have been submitted.

The data can now be evaluated in terms of their Conservation and Endemic status of species. For a list of species see point 3 below.

2.2. Southern African Bird Atlas Project 2

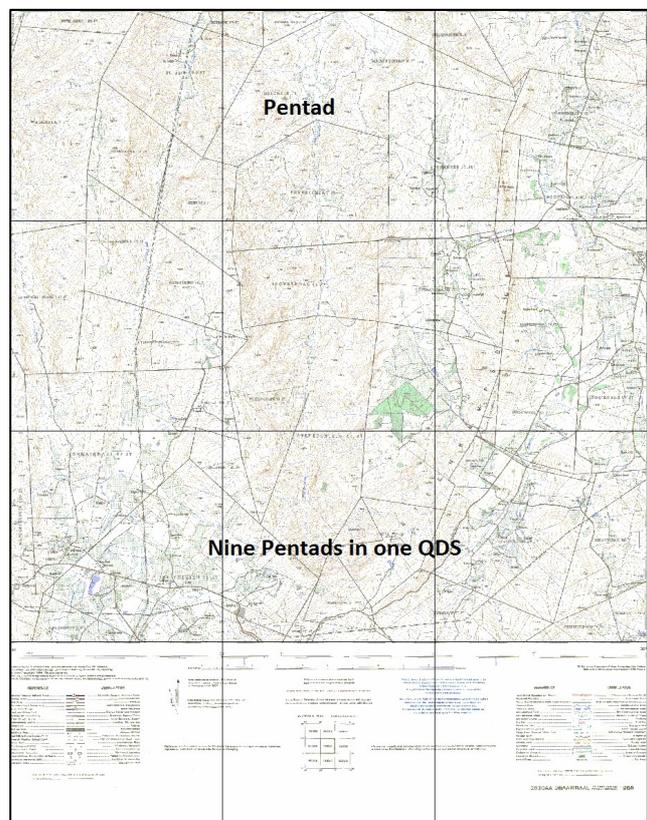
The Southern African Bird Atlas Project 2 started in July 2007 and is ongoing. At the time of writing more than 2.5 million records have been submitted to the project and records are added on a daily basis.

In contrast to SABAP1 the resolution of the data is much finer and the protocol used more stringent. For this project the data are submitted by atlasers for an area called a pentad. A pentad represents a 5 minute x 5 minute cell (in contrast to the 15 minute x 15 minute cells used during SABAP1 – see image to the right).

As indicated above the data are much more recent and reflect the current situation much better than the SABAP1 data. However not all of the country has been atlased sufficiently and there are some area with insufficient data.

To obtain data for each pentad the following process should be followed:

- Go to www.sabap2.org
- Select “Coverage Maps”
- Select “Google Map with Coverage”
- Under the map of South Africa in the block provided for “Search for an address” enter the name of a town or locality near the proposed development. Search on the map for the area. The map functions the same as a Google Earth Map. Pentads are indicated as blocks on the map and the colour of each block indicates the number of lists that have been submitted per pentad.

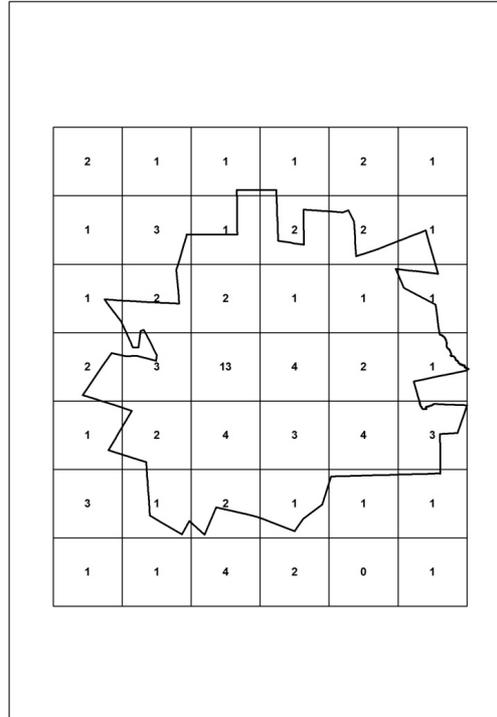


- Click on the relevant block (you will have to repeat this process for each pentad within which the development resides). The code of the pentad will be listed under map next to the text “Selected pentad”. Click on Submit.
- A list of species recorded in the pentad will be listed in the order of reporting rate with the species with the highest reporting rate (most common) at the top.
- Repeat this process and record the species seen in all the relevant pentads. It is also important to list the number of lists that have been submitted for each pentad and the seasons during which the lists have been submitted.

By combining the data for the whole area a list of species can be compiled and analysed in terms of their Conservation and Endemic Status.

It is proposed that for each development a buffer zone can be created around the proposed development. The buffer zone can for example be similar to the one created in the image to the right.

The number in the blocks indicates the number of lists that have been submitted per pentad. Creating a buffer will allow for a better set of data as birds do fly around and birds recorded in the buffer zone can easily be found in the area of proposed development.



2.3. Co-ordinated Waterbirds Counts Project

The Coordinated Waterbird Counts (CWAC) was implemented in 1992 and consists of a programme of mid-summer and mid-winter censuses at a large number of South African wetlands. The counts are conducted by citizen scientists at more than 400 wetlands around the country.

If the area of development is near or in a CWAC site this data can be of great value. However in some provinces the data are not available to the general public unless permission is requested from the relevant provincial authority. A species list for all sites, also for those where the province did not provide permission, can however be gleaned from the ADU website.

To access the data follow these steps:

- Go to: <http://cwac.adu.org.za/index.php>
- Select “Sites” from the main top menu
- You can view the sites for which data have been submitted through the Google Earth map or by selecting the relevant site from the alphabetical list at the bottom of the map. Click on

the relevant site on the map or from the list and it will open a list of species that have been recorded at the site. It will also indicate the number of birds that have been recorded (Min, Ave and Max). It will also indicate if the species has passed IBA and Ramsar thresholds.

When evaluating the data in terms of thresholds passed it must be taken into consideration that there can be more than one count site within one Ramsar site and that the data should be combined in order to see if the species passes the threshold. This might not always be possible as counts are held on different days and are therefore not comparable.

3. Evaluating the data

A number of factors must be considered when analysing the above mentioned data:

- It is extremely important to note that the data represent **a minimum scenario**. In other words the data represent the species that have been recorded in the area. That does not mean that other species cannot also occur in the area. Some species might have been missed by the observers or not all habitats have been visited. The number of lists will provide a good guideline as to how accurate the data are. A good guideline is that if more than 7-10 lists have been submitted for the area, the lists should provide an accurate assessment of the species occurring in the area. This means that any EIA specialist should use the knowledge of an avian expert to add to the list based on the general distribution of birds, also taking into consideration the different habitats in the area that might provide an indication of the birds occurring in the area.
- Species with low reporting rates need to be evaluated carefully. Although the data have been vetted it should be checked for errors by checking the data against known distributions of the species. There might also be other factors that can play a role for example species might be under reported due to the fact that it is difficult to see or hear (i.e White-winged Flufftail) or might be difficult to identify (for example Larks and Pipits).
- All species should be analysed in terms of the Regional and International Conservation Status of Species as well as their endemic status. A list of these species can be found here: <http://www.birdlife.org.za/checklists>. Naturally where these species have been recorded within a proposed development, their status should clearly be mentioned in the report and actions proposed to ensure that birds will not be negatively be affected by the development.
- BirdLife South Africa wants to make it clear that accessing this data in no way can replace on site assessment of the birds occurring in the area. Other factors should be investigated as for example the location of roosting and breeding sites. Assessing the above mentioned data should only be seen as an initial assessment and a further source to inform the EIA process.

4. Important Bird Areas

The above guidelines are with regard to species. However BirdLife South Africa is also responsible for the management of the Important Bird Areas (IBA) Programme. This programme is implemented worldwide by BirdLife International and BirdLife South Africa is the partner implementing the programme in South Africa.

The goal of the IBA Programme is to identify, monitor and protect a global network of IBAs which are critical for the long-term viability of bird populations. IBAs form a global network of more than 10 000 sites crucial for maintaining bird species' overall ranges and populations. Of these 1230 are found in 58 countries in Africa. IBAs are a major part of the larger network of key biodiversity areas, i.e. the most important sites for biodiversity conservation worldwide.

In South Africa the The Important Bird Areas of Southern Africa directory was compiled in 1998 and identified within South Africa 122 IBAs containing 59 threatened and 64 near-threatened bird species. All these IBAs were objectively determined using established and globally accepted criteria. An IBA is selected on the presence of the following bird species in a geographic area:

- Bird species of global or regional conservation concern;
- Assemblages of restricted-range bird species;
- Assemblages of biome-restricted bird species; and
- Concentrations of numbers of congregatory bird species.

Since the publication of the directory two more IBAs have been declared.

What this means in practice is that when an area, for example a wetland, grassland or forest complex, contains species that are endangered, vulnerable or threatened or have species that are endemic to a region or contain large concentrations of waterbirds, the area is defined as an IBA. The *rationale* behind the IBA Programme is that in order to conserve species of conservation concern you need to conserve the habitat that the species occupies and uses.

Even though IBAs do not have formal protection status it is important to indicate in EIA reports when a development falls within an IBA.

More information about South Africa's IBAs and where they are located can be found on the BirdLife South Africa website here: http://www.birdlife.org.za/conservation/iba/149-iba_map

The Google Earth Inter Active Map will indicate the boundaries of the. The IBA shape files can also be downloaded from the BirdLife South Africa website- <http://www.birdlife.org.za/conservation/iba/documentaiondownloads>

5. Conclusion

Many of South Africa's bird species are under extreme pressure due to a variety of threats. Of these threats change in land use is most probably the most important. Every year large areas of bird habitat are lost due to industrial and housing developments. It is therefore of cardinal importance that the avian data in EIA reports are of a high quality and EIA practitioners should ensure that companies understand that they have a responsibility to conserve the avifauna of South Africa. This is naturally just as true of other taxa and our environment in general.

For more information about the information provided in this document you can contact Ernst Retief at conservation.gauteng@birdlife.org.za.