

Analysis Tutorial Prospectus
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1. Title

Different bird species found in Bardiya National Park and their status.

2. Research question(s)

What is the species diversity and abundance of birds in Bardiya National Park?

How do different habitats within the park influence bird diversity and distribution?

What are the seasonal variations in bird populations and their migratory patterns?

What are the population trends of endangered and critically endangered bird species in Bardiya National Park?

What are the major anthropogenic and natural threats affecting bird populations in the park?

How do habitat degradation and land-use changes impact the avian biodiversity in Bardiya National Park?

What role does climate change play in altering bird populations and habitats in the park?

3. Objective(s)

To document and analyze the diversity and distribution of bird species in Bardiya National Park.

To assess the conservation status of bird species, particularly endangered and critically endangered ones.

To identify major threats affecting bird populations in the park, including habitat loss, climate change, and human activities.

To evaluate the effectiveness of existing conservation measures and policies for protecting bird species in Bardiya National Park.

Provide R code that supports communication of these methods.

4. Approach

1. Research Design

- A descriptive and analytical approach to document bird species, their distribution, and conservation status.
- A combination of qualitative and quantitative methods to assess threats, conservation measures

2. Data Collection Methods

Secondary Data Analysis

- Review existing literature, reports, and conservation records from government agencies, NGOs, and research institutions.
- Analyze past and current bird population data to track trends.

Threat Assessment

- Conduct habitat assessment to examine deforestation, land-use changes, and climate impacts.

3. Data Analysis

- Use R for habitat mapping and analyzing land-use changes affecting bird populations.
- Conduct statistical analysis (e.g., diversity indices, regression models) to determine correlations between threats and bird abundance.

5. Selected References

1. Birds of Bardia (2006). Bardia National Park.
2. Birds of Bardia National Park (2014).
3. BCN and DNPWC (2018). Birds of Nepal. An Official Checklist. Kathmandu Nepal.
4. BirdLife International. (2018). Important Bird Areas factsheet: Bardia National Park. Retrieved from <http://www.birdlife.org>