

Proposal to conduct avian point count surveys over several different habitat types with the implementation of CyberTracker technology

Ryan Dibala, Research Volunteer

Purpose

This study aims to continue the work initiated by Nathan Marcy to document avifaunal diversity over a wide variety of habitat types within Cloudbridge Nature Reserve. It also seeks to develop the utilization of CyberTracker technology in an effort to more accurately detect and monitor avian populations throughout the reserve.

Background

Bio-monitoring efforts have great potential to be misleading or biased as a result of the experience and knowledge of the researcher. Consequently, many wildlife monitoring agencies have implemented the use of new technologies to either evaluate the skill-level of the researcher or aid in the collection of accurate data. CyberTracker is software for PDAs that has enabled novices to accurately collect field data with the use of picture icons. It has the ability to provide electronic field guides, species identification filters, maps, photos, data points, GPS and GIS compatibility and can efficiently export data to PCs. The development and implementation of an effective CyberTracker unit has the potential to increase the feasibility and effectiveness of biological studies at Cloudbridge Nature Reserve.

Proposed Research

Research will be conducted between November 1st and December 21st, 2007. Bird point count surveys will be conducted between the hours of 6:00 and 9:00 AM. Point counts will be conducted similarly to those done by Nathan Marcy in September and October of 2004 using the fixed radius method described in Marcy's 2007 report (Sites will be confined to the 6 used in Marcy's 2004 study and all methods will be similar. There will be 5 observation sessions conducted at each site, each session lasting 1 hour.

The principal component of this study will be conducted in the late morning and afternoons. This time will be spent customizing CyberTracker by designing a screen sequence along with a new database in accordance with wildlife (especially birdlife) at Cloudbridge. Once the handheld computer is customized, the implementation process will begin. Morning point count surveys will be supplemented with the CyberTracker and new data will be exported to the Cloudbridge PC.

Goals

The month and a half of research dedicated to this project aims at accomplishing two goals:

- Continue ongoing efforts to monitor birdlife throughout several different habitat types
- Customize CyberTracker, implement the utilization of this technology in current study, and make available for future studies.
- Contribute to an increase in monitoring efficiency among novices.

References

Nathan Marcy, Bird Diversity Study http://cloudbridge.org/bird_diversity_report.pdf

Cybertracker field observation and analysis software <http://www.cybertracker.co.za/>

Bird software for S Africa designed for Cybertracker <http://www.natworld.org/>