CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

I. BASIC DATA

Organization Legal Name: University of Cape Town

Project Title (as stated in the grant agreement): *Understanding the Koue Bokkeveld Geophytes*

Implementation Partners for This Project: Succulent Karoo Ecosystem Programme

Project Dates (as stated in the grant agreement): September 1, 2007 - December 31, 2009

Date of Report (month/year): March 2010

II. OPENING REMARKS

Provide any opening remarks that may assist in the review of this report.

The overall aims of the project were fulfilled, to collect and collate the existing literature and knowledge of Bokkeveld geophytes (including knowledge spread throughout the scientific and grey literature, and across many different fields, from plant-animal ecology to taxonomy to popular media to horticulture) and to collect and collate additional references on geophyte diversity and ecology from other regions (such as Western Australia and California, e.g., Pate & Dixon, 1982). Furthermore analysis of the literature showed which geophyte species would be likely to be vulnerable to climate change and land use changes. The only limitation to fulfilling the objectives was the paucity of information on many of these geophyte species, which allows us to recommend what type of further studies are required to more effectively conserve the many unique and endangered species of this region in the face of climate regime changes and land transformation.

III. NARRATIVE QUESTIONS

1. What was the initial objective of this project?

The initial objective was to develop a desktop review and analysis of the literature and knowledge on Hantam geophyte diversity and life history traits. The ultimate goal was to improve the prediction power of the potential impacts of climate change and effects of land use on geophyte diversity and persistence within this unique and diverse landscape.

2. Did the objectives of your project change during implementation? If so, please explain why and how.

The objectives changed slightly in that upon doing a through literature search it was found there is a great paucity of information on the geophytes of this region, thus limiting

the analyses that could be done. Previous work done by the lead researcher was included and some of the analyses had to be conducted only on the 30 species that were researched during this previous study.

3. How was your project successful in achieving the expected objectives?

The project was successful in that there is now a good database for future researchers to access easily for information on geophytes of this region, and allows for scientists to determine where the gaps in our knowledge are and what recommendations can be made to further extend our knowledge. The analyses showed that there is a need for future work to be conducted on how the unique geophytes of this region will respond to climate change impacts. Findings have been disseminated through stakeholder meetings and conference presentations.

4. Did your team experience any disappointments or failures during implementation? If so, please explain and comment on how the team addressed these disappointments and/or failures.

The initial disappointment was the paucity of data on the unique geophytes of this region. Most of the work done in the past on the Hantam geophytes has been systematic in origin, with very little ecological focus. It is thus clear that more ecologically directed studies need to be conducted in this region in order to understand the biology of these species, knowledge without which we cannot conserve these species effectively. Many of these geophyte species are not in protected areas, and are under threat from increasing land use, including redbush/rooibos tea plantations. The area is also likely to be hard hit by climate change, with higher temperatures and unpredictable rainfall forecast. We need to learn how species respond to changes in land use and climate regime in order to ensure their survival.
In order to overcome the challenge of minimal information on geophytes we broadened our search to include information at a genus level.
A report is still in the works, and will be available during 2010. This report was delayed due to delays in the project caused by finance administration issues (see Section 5).

5. Describe any positive or negative lessons learned from this project that would be useful to share with other organizations interested in implementing a similar project.

One of the lessons learnt was that it is important to find a funding process that works efficiently. This project was delayed due to institutional limitations. The lead researcher obtained funding through an academic institution and from the time funding advances were requested from the institution to the time they were actually processed and reached the researcher's accounts took at least 2 months, resulting in severe pressure on project finances and delays in project tasks. These funding delays resulted concomitantly on increased pressure on the personal finances of the researcher as all research expenses had to then come out of minimal living expenses money till the research funding came through.

6. Describe any follow-up activities related to this project.

This project was actually done in conjunction with a larger CEPF project- the SKEP Porcupine Project – and its results will thus be disseminated further as part of the Porcupine Project's awareness raising campaign.
The database will also be added to as new research arises.

7. Please provide any additional information to assist CEPF in understanding any other aspects of your completed project.

A scientific paper will be written on the results, including the researcher's previous studies, before the end of 2010.

IV. ADDITIONAL FUNDING

Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.

Donor	Type of Funding*	Amount	Notes
		$	
		$	
		$	

Additional funding should be reported using the following categories:

- ***A*** *Project co-financing (Other donors contribute to the direct costs of this CEPF project)*
- ***B*** *Complementary funding (Other donors contribute to partner organizations that are working on a project linked with this CEPF project*
- ***C*** *Grantee and Partner leveraging (Other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF project.)*
- ***D*** *Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)*

V. ADDITIONAL COMMENTS AND RECOMMENDATIONS

Boekenhoutskloof Wine Estate helped sponsorship of research expenses to the amount of $1000 – this was independent funding to help with the preparation of presentations, papers, telecommunication costs, etc (part of a larger sponsorship that part-funded the Porcupine Project that was done in conjunction with this project).

The recommendations of this project are that further funding should be found to support botanical and ecological work on the geophyte flora in the region of Nieuwoudtville. This area is known to have the richest diversity of geophyte species in the world, with a profusion of endemic and endangered species, yet there has been minimal ecological or conservation science conducted here to support or add information to geophyte conservation strategies or to provide a biological understanding on how to mitigate climate change impacts on susceptible geophyte flora. There are big gaps in our knowledge which threaten our ability to effectively conserve these taxa in an ever changing human-dominated environment.

VI. INFORMATION SHARING

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. One way we do this is by making programmatic project documents available on our Web site, www.cepf.net, and by marketing these in our newsletter and other communications.

These documents are accessed frequently by other CEPF grantees, potential partners, and the wider conservation community.

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