

WHAT IS THE RENOSTERVELD MANAGEMENT PROJECT?

This project focuses on Overberg Renosterveld and aims to determine how Renosterveld remnants should be managed so that their long-term viability as a functioning ecosystem can be ensured.

This knowledge will enable landowners to make better decisions about managing their Renosterveld, with benefits for both agriculture (grazing value, erosion control, water management) and conservation (biodiversity). The project comprises various parts, shared by two people: Odette Curtis and Clement Cupido.

Essentially, the work will involve surveying the vegetation in Renosterveld fragments and comparing these data with management strategies adopted by landowners (determined from interviews). In addition, long-term burning experiments have been set up on seven farms, where we will monitor the veld before and after burns planned for Autumn 2008.

WHY THE CONCERN OVER ITS CONSERVATION STATUS?

Because of the fertile nature of lowland Renosterveld, it has been exploited for agriculture – with the result that it is now a severely transformed and fragmented system (i.e. It has been ploughed and broken into lots of small, isolated pieces).

It is considered a Critically Endangered veld type, with <10% remaining throughout its original range. Almost all remaining Renosterveld is on private land – thus the future of Renosterveld lies in the hands of each individual landowner.

Renosterveld vegetation types and remaining fragments

- Overberg Renosterveld remnants
- Central Rûens Shale Renosterveld
- Western Rûens Shale Renosterveld
- Eastern Rûens Shale Renosterveld



REPORT ON THE GAMEBIRDS IN RENOSTERVELD PROJECT

The gamebird project was a pilot study which took place in 2007 and was funded by the Critical Ecosystem Partnership Fund. Below is a summary of the project – if you would like a copy of the full report, please contact Odette Curtis.



AIM

This project comprised two main components:
1) investigating the links between Cape Francolin (Spurfowl) and Greywing Francolin populations and Renosterveld management strategies (i.e. assessing the link between gamebirds and biodiversity);
2) investigating landowner attitudes towards gamebirds as incentives (commercial or aesthetic) for Renosterveld conservation.

METHODS

1) Twenty Renosterveld fragments were surveyed using bird-dogs to find and point the birds, so that they could be counted. Vegetation surveys (plant height, structure and diversity) were carried out in the same 20 fragments. Gamebird numbers were compared with the various vegetation parameters.
2) Twenty landowners were interviewed in order to assess their perceptions about gamebirds and Renosterveld.

PRELIMINARY RESULTS

1) Gamebird surveys: a) Greywing numbers increased with higher burning frequency and grass cover (i.e. more frequent burning (5-7 years) and a higher proportion of grass cover = more Greywing); b) Cape Francolin also increased with grass cover and particularly, with the proportion of Themeda (Rooigras) cover.
2) Landowners are concerned with the well-being of their gamebird populations and would be willing to alter their land management practices to favour the birds, should the information become available. This is not motivated by any potential economic benefits, but merely by the aesthetic value that the birds hold for farmers.

CONCLUSIONS:

Both species favoured grassier Renosterveld fragments. A higher proportion of grass in Renosterveld is generally the result of good grazing management, where livestock had access to the veld is strictly controlled and only permitted at the correct time of year (summer) for a short period.

However, an increase in grass cover can also be the result of frequent burning and we do not yet understand the impact this has on other biodiversity (e.g. plants), as we do not know how often Renosterveld needs to burn. Therefore, at this stage it is difficult to confirm whether or not gamebirds are in fact good indicators of Renosterveld condition – all we can say is that they indicate grassier systems (which could be the healthier ones).

Once we have improved our understanding of fire in Renosterveld and we are able to determine the recommended burning frequency, we will have a better understanding of the indicator-role that gamebirds may play. The Renosterveld Management Project (RMP) builds onto this work, by focusing on addressing particularly the burning issues. The gamebird project will continue to run, in parallel with the RMP, on a smaller subset of fragments over the next few years.



Renosterveld
MANAGEMENT
Conservation Project



WHAT IS LOWLAND RENOSTERVELD?

Lowland Renosterveld is the relatively fertile, clay-based veld type that occurs in the low-lying areas of the Western Cape. Renosterveld is part of the Fynbos Biome, although it is very distinct from Fynbos – the main difference being that it lacks the three distinctly fynbos elements: the proteas, ericas (heather) and restios (reeds).

It is one of the richest ecosystems in the world, due to its extraordinary bulb diversity. However, the Renosterveld we see today is very different from what it was >300 years ago: before the advent of large-scale commercial agriculture in the Western Cape, Renosterveld supported large numbers of big game (including Black Rhino, Eland and the now extinct Bluebuck) and was a far more grassy system (with some areas even having a very high Rooigras (Themeda triandra) component), with a much higher diversity of shrubs and bulbs. The combination of grazing

(grass-eating) and browsing (leaf-eating) game animals of varying sizes maintained the diversity and structure of this system. Sadly, the replacement of large game animals with small, selective feeders (livestock), combined with years of mis-management (i.e. over-grazing and too little or too much burning), has allowed this special veld to become severely degraded and dominated by ‘unwanted’ shrubs, such as renosterbos Elytropappus rhinocerotis.

Thus, the grey, ‘drab’ veld that we see today is merely the legacy of historic overgrazing and is NOT representative of real Renosterveld. Today, those areas that are well-managed retain the characteristics of true renosterveld and it is clear that this habitat supports a diversity of botanical gems, incomparable with any other system in the world.

SPECIAL PLANTS & RED DATA LISTS

Even within Renosterveld, the veld varies, depending on the soil type and rainfall pattern. In the Overberg, for example, three types of renosterveld dominate: Western-, Central- and Eastern-Rûens Shale Renosterveld.

There are many plants that only occur in Renosterveld and are therefore endemic to this veld type (i.e. they are found nowhere else in the world). Some species are so specialised that they are endemic to, for example, silcrete koppies in a certain type of Renosterveld, or they may be found only in a very unique and localised micro-habitat in a handful of localities.

Because they have lost so much habitat, many of these species are now on the Red Data List for plants (a list of all the threatened plants in SA categorized according to their threat status). We are working with fragile systems that need to be carefully managed and protected if future generations are to enjoy their hidden treasures.

The Red Data List categorises threatened species in the following order (most threatened to least threatened): **Extinct, Critically Endangered, Endangered, Vulnerable, Near-Threatened, Least Concern.**

Gladiolus liliaceus: Endemic to the Overberg.

Aspalathus rosea: Vulnerable.

Moraea elegans: Found on about 4 farms in the Overberg. Endangered.

Gibbaeum haaglenii: Only grows on quartz koppies in Renosterveld. Grazed by livestock, thus vulnerable to overgrazing. Endangered.

Long-tongued Fly: An important pollinator in Fynbos and Renosterveld.

Aristea teretifolia: Critically Endangered.

Polhillia pallens: Little is known about this group of beautiful legumes –there are only a handful of species in this genus and most are on the Red Data List. Due to being highly palatable, Polhillia disappears from Renosterveld fragments that are poorly managed.

Ornithogalum thyrsoides: A common plant in Renosterveld known as Chinchinchee, shown here with an important pollinator – the Monkey Beetle.

Cymbopappus: Endemic to the Overberg.

Bartholina bermaniana: the Spider Orchid, fairly widespread, but always spectacular.

Wurmbea sp.: This strange and beautiful bulb has foul-smelling flowers, to attract carrion flies, which are its main pollinators.

Massonia depressa: A very unusual plant, as it is the only bulb known to be pollinated by rodents.



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