MPAH
case study series
MAPUTALAND–PONDOLAND–ALBANY HOTSPOT

Case Study: Nature Reserve

Botanical Society Nature Reserves

Botanical diversity has seldom been considered when creating existing protected areas, and for this reason, many important plant species are often found outside of the protected area network. The Botanical Society decided to use biodiversity stewardship as a way of protecting important populations of rare and threatened plants that are found on private land. This is an example of Nature Reserves, the highest level of biodiversity stewardship that carries title deed restrictions and holds the equivalent legal status to state owned protected area. The project is targeting eight botanically important sites in KwaZulu-Natal that total more than 15 000 hectares.

Background

The Maputaland–Pondoland–Albany Hotspot is a centre of floristic diversity and endemism. A unique landscape of diverse and threatened flora reside in each of the three centres of endemism that give the hotspot its name. Many of the unique plant species of conservation concern in the area are threatened by high rates of land transformation and degradation. Approximately half of these threatened plant taxa are KwaZulu-Natal endemics. Plants have historically been neglected during protected areas planning and declaration, which tends to focus on large mammal species or birds as primary conservation targets.

The Custodians of Rare and Endangered Wildflowers (CREW) Programme has been involved in monitoring rare and threatened plant species in KwaZulu-Natal since 2007. The programme is a partnership between the Botanical Society (BotSoc), the South African National Biodiversity Institute (SANBI) and, in KwaZulu-Natal, Ezemvelo KZN Wildlife. The CREW Programme involves civil society volunteers, who are often members of BotSoc, in the monitoring and conservation of South Africa's plants. Through the CREW Programme, a number of areas of high botanical diversity in KwaZulu-Natal have been identified.

Action

A CEPF-funded project was instigated that would target eight botanically important sites in KwaZulu-Natal, totalling over 15 000 hectares, that form part of the priority areas identified in the Maputaland–Pondoland–Albany Hotspot. These sites are owned by private individuals, communities or municipalities. Conserving intact vegetation and endemic plant species will also conserve many other species.

The identification of priority sites for biodiversity stewardship as well as the drafting and implementation of the management plans for each site require expert understanding of biodiversity and particularly plant diversity and ecology. BotSoc, with assistance from CREW and other partners, provided the expertise to carry out the botanical and vegetation surveys on the properties. In addition, they engaged with landowners to alert them to the uniqueness and significance of the plant species. BotSoc also implemented the biodiversity stewardship process at these sites, drafting management plans, which include the specific requirements for management of threatened plant species, and ensuring that legal requirement were met.

Nature reserves are declared on properties with high biodiversity importance and have long-term title deed restrictions, which mean that even if the land changes hands, its status as a protected area remains in place. The sites selected by BotSoc were chosen for their botanical significance. As these sites are of particularly high biodiversity priority, nature reserves were the most appropriate type of biodiversity stewardship.

Achievements

All of the eight sites have been approved as nature reserves by Ezemvelo KZN Wildlife following on-site assessments. Detailed rangeland assessments to determine sustainable carrying capacities have been carried out, and management recommendations given at those sites where livestock and game are farmed.

Progress has been made on declaring the eight sites targeted:

Site	Size (ha)	Biodiversity value
Red Desert	209	Critically Endangered Coastal Grassland rich in Pondoland endemic and threatened plant species.
Nomalanga	2 749	Midlands Mistbelt Grassland (Endangered) containing a number of threatened species including Hilton daisies, wattled cranes and a large oribi population.
Bosch Berg (Boston View)	351	Midlands Mistbelt Grassland with high numbers of threatened plant species and wattled cranes.
Umgano Nature Reserve	1 500	Drakensberg Moist Foothill Grassland which contains many Drakensberg endemic plant species including cycad and protea populations.
Ingwehumbe	899	Critically Endangered KwaZulu-Natal Sourveld Sandstone Grasslands and Eastern Scarp forests with over 600 plant species recorded.
Hlomo Hlomo	1 050	This site has a Critically Endangered plant and many other endemic plant species.
Emcakwini (Babanango)	13 000	Unique vegetation including the Vulnerable *Aloe gerstneri*.
Highover	823	Endangered Midlands Mistbelt Grassland, endemic and threatened plant species and blue swallows.

Hilton daisy

The Hilton daisy, *Gerbera aurantiaca*, is endemic to the KwaZulu-Natal mistbelt grasslands. It is classified as Endangered, since only 15 viable populations remain. Historical protected areas conserved populations of the Hilton Daisy at only two sites. Since biodiversity stewardship became an option, with the potential for protecting populations that occur on private land, the number of populations which will be formally protected has risen to seven. These seven sites are situated along the entire longitudinal distribution of mistbelt grasslands, preserving the full genetic distribution of the species, both the largest population and a population of a rare entirely yellow-flowered form. Hilton daisies have been reintroduced to the Hilton College Nature Reserve grasslands. Its brilliant red flowers and association with the village of Hilton and Hilton College inspire enthusiasm from private landowners. Once landowners were made aware of the populations on their land, they became very involved and protective of the plants. The Hilton daisy is a valuable flagship species, and protecting its threatened mistbelt grassland habitat will help to protect other important mistbelt species.

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