

Mt. Thomas, a previously pristine part of the Amatola mountains, has an exceptionally rich biodiversity. Photo: C. McMaster.



## Conserving the mountain grasslands of the Amatolas

The long-term economic value of the mountains as a water resource, a tourist attraction and a repository of biodiversity by far outweigh any short-term economic benefit derived from forestry or grazing.

by **J Cameron McMaster**

The small areas of montane grassland still preserved in the Amatola region of the Eastern Cape are vestigial relics of a unique ecosystem that is under severe threat. While the vegetation is predominantly afro-montane with the Amatola mountains forming the southern extremity of this flora, it is unique because it lies within a region of convergence with other major African phytochoria – the Indian Ocean Coastal Belt, African-Namib Region and the Cape Fynbos. Consequently the flora is influenced by elements of each region, giving rise to very high biodiversity and a number of endemic species. Extensive afforestation in the last century, coupled with severe overgrazing by domestic livestock in the commercial farming and former tribal areas of the Amatola mountains have led to the destruction of all but a fraction of the original montane grassland. The few areas that are still pristine are those that fell within the State Forest Reserves of the former Department of Forestry.



ABOVE: A view of Mt. Kubusie from Mt. Thomas showing a stretch of mountain grassland that up till 1994 was conserved by the then Department of Forestry but which is now severely overgrazed by cattle from the nearby Keiskamma Hoek villages. Photo: C. McMaster.

### **Three reasons why it is vital to preserve the remaining grassland**

Firstly, the mountains act as a sponge to absorb the summer rainfall and mists and release water gradually into the streams and rivers that have their source here. The vast plantations of exotic trees and constantly spreading alien invaders have depleted the water retention capacity of the mountains. It is essential for the well-being and the economy of the communities below that this water resource be maintained at an optimum level. Reservoirs such as Wiggleswade, Gubu and the Kat River dams, the rural and urban populations and the industry and agriculture that they sustain, are dependent on this resource. Grassland in good condition is the most efficient vegetation type for a permanent natural water supply. The importance of this water source was highlighted in a recent report by University of Cape Town scientists entitled *Impacts of climate change on plant diversity in South Africa*. They predict that by the year 2050, global warming will have reduced the rainfall in the southern and eastern Cape by 25%. Unless our mountain catchment areas are preserved in the best possible condition, the consequences will be dire.

Secondly, the mountains are the last remaining repository of the biodiversity of the Eastern Cape, which has largely been destroyed in areas that have been utilized for forestry and farming. The incredible variety and beauty of the flora is a heritage that we are obliged to preserve for posterity. We identified 462 species of flowering herbs and geophytes during a recent survey, excluding trees and grasses. Many species are already extremely rare and under threat of extinction. In this context, we should not lose sight of the importance of these areas as a source of traditional healing plants. Mt. Thomas, according to local folklore, has almost the status of a shrine. Legend has it that it was the domain of healers who used to ascend its slopes to gather muthi to strengthen and protect the warriors of the tribe. The local inhabitants sometimes refer to the mountain as Intabeni uGqirha, the mountain of the healer.

Thirdly, the mountains are important as a tourist attraction, and will become increasingly so in future. There is a vast potential for job and wealth creation in the tourism industry in the Eastern Cape. This will only happen, however, if the mountains are preserved in a pristine and beautiful condition.

Tourists are not attracted to degraded and neglected areas.

### **Major threats**

The major threats to the grassland are overgrazing by domestic livestock and the encroachment of alien plant invaders of which the Australian species, wattle, blackwood and gum are the most pernicious. The latter constitute a short-term threat for which solutions can be found. Volunteer pines are also very invasive in areas adjacent to plantations, and pose a long-term threat which, if not addressed in a systematic and continuing programme, could eventually result in the permanent destruction of the natural vegetation with all the negative consequences this will have on our region. Sadly large areas of the mountain grassland and many streams are already irrevocably infested with aliens.

Overgrazing by domestic livestock fortunately only became a problem after 1994 and the damage is not yet irreparable. On neighbouring private farmland and former tribal areas which have been subjected to grazing by domestic animals over a long period, many species have disappeared altogether. In the areas

**Grassland in good condition is the most efficient vegetation type for a permanent natural water supply.**



that were formerly preserved within State Forest Reserves and that are now under threat from thousands of cattle belonging to residents of the former Ciskei homeland, the full spectrum of biodiversity is largely still intact. However, continuous grazing, which leads to constant defoliation and inhibits seed production, will certainly result in the demise of many sensitive species.

Of direct economic importance however, is the negative effect of continued denudation on the water absorption and retention capacity of the grassland. Continuous overgrazing on some mountain slopes has caused degradation of the grassland, trampling and erosion. Most of the slopes are too steep to sustain any cattle grazing whatsoever, and are very prone to erosion. Unless a healthy sward is maintained, the value of the mountains as a vital water resource will be severely impaired. The areas most severely affected are the slopes of Mt. Kubusie, Mt. Thomas, the Hogsback area and the slopes above the Keiskamma and Kat River basins.

#### Needed: a conservation strategy

The long-term economic value of the mountains as a water resource, a tourist attraction and a repository of biodiversity for the East Cape community as a whole, by far outweigh the short-term economic benefit derived by a small number of individuals from their cattle. So important do other provinces and countries regard their mountain catchment areas that they are totally preserved and protected as wilderness areas and are utilized exclusively as National Parks for the protection of flora and fauna, for recreation and primarily as water resources. In this way the benefits will ultimately be for the community as a whole. Examples are the KwaZulu-Natal Drakensberg and the mountains of the Western Cape in South Africa, and the Rocky Mountains in Canada and the USA.

It is gratifying that at least in the area under the supervision of the Kubusie Forest Station near Stutterheim, a major effort is being made to arrest and control the spread of aliens. A dedicated team has been appointed to clear exotic vegetation and to carry out routine follow-up control of seedlings and re-growth.

As far as the cattle problem is concerned, the prognosis is less encouraging. Despite exhaustive

OPPOSITE: Prior to 1994 the slopes of Mt. Thomas were covered in healthy stands of wildflowers as these fields of *Protea simplex* illustrate.

RIGHT: Many of the fields of *Protea simplex* now look like this as they are constantly defoliated by grazing cattle.

BELOW: Since the fences were cut after 1994 and cattle from adjacent communal land have moved in, the grassland has been severely degraded, and many rare plants are unable to reproduce because of constant defoliation. The function of the grassland as a sponge and water resource for communities that rely on the streams and rivers that originate in the mountains, is being severely impaired. Photos: C. McMaster.



attempts over the past five years to address the problem, little progress has been made. It is a sensitive political issue - the cattle owners having a powerful lobby in local and provincial political circles. Attempts in the past to remove the cattle have led to retaliation - sometimes even arson - a situation the Forest Company can ill afford. Since the recent privatisation of SAFCOL and the leasing by the State of the forests and plantations to the Amatola Forest Company, they have insisted that they get full and exclusive use of the land in return for the rent they pay. This places the onus squarely on the shoulders of the Eastern Cape Government and in particular the Department of Water

Affairs and Forestry to have the cattle removed.

This will then enable Amatola Forests to apply appropriate management and conservation principles and so begin the process of rejuvenating the mountain grassland.

It is imperative that the responsible authorities in the Eastern Cape now acknowledge the importance of this priceless, vulnerable and irreplaceable natural heritage and take steps to preserve and maintain it for the benefit of not only the present generation, but for all those in the future who will depend on it, and who have the right to observe, enjoy and appreciate our mountain splendour. 🌿