

## Magaliesberg Biosphere Reserve, South Africa

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### Key Messages/Lessons learnt

- Preservation of keystone species (such as the leopard) can be instrumental in catalyzing immediate and sustained multidisciplinary actions resulting in long-term benefits and sustainability to many other species within the biosphere
- It is clear that it is the actions of the local community and interested parties that are key to achieving the goals of the biosphere

### Biosphere Reserve description

The Magaliesberg region is virtually without equal in the world. The region is characterised by unique geology, topography, habitats and heritage. Despite being hundreds of kilometres inland, straddling two landlocked provinces - Gauteng and North West - the rocks of the Magaliesberg bear the ripples of tides which lapped the shore more than 2 000 million years ago. The ocean then met a land surface devoid of life and an atmosphere that was unbreathable.

The region is unparalleled in its richness of history and biodiversity and reflects many aspects of South African geology, biodiversity, human evolution and history. It lies at the interface of two great African biomes – the central grassland plateaux and the sub-Saharan savannah – with remnants of a third, Afro-montane forest. The landscape accommodates species from each of these biomes and the result is an exceptionally diverse fauna and flora that has drawn naturalists and explorers to the region for the past two centuries.

The biodiversity is matched by its unique human history encompassing a million-year time line from early hominids through Stone and Iron Age cultures, pre-colonial Tswana tradition and the South African Wars. In short, it is a priceless encapsulation of South African heritage and landscape and serves as a focal point for national unity and pride.

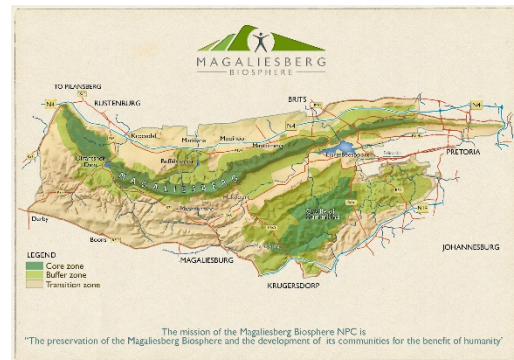


Figure 1: Map of the Magaliesberg Biosphere Reserve, South Africa



Photo 1: Magaliesberg mountain range

### Biosphere status

In June 2015 UNESCO declared the greater Magaliesberg region, including the Cradle of Humankind, a globally recognised biosphere reserve. This followed nearly a decade of lobbying by environmentalists. The project was driven by a committee

comprising members of the North West Department of Rural, Environment and Agricultural Development (READ), the Gauteng Department of Agriculture and Rural development (GDARD) and the Magaliesberg Biosphere Initiative Group (MBIG) and had financial assistance from the Provincial government through the department of READ, and the Finnish Environment Institute (also known as SYKE).

### BR challenges

The pressure of development, the consumption of open natural spaces by so-called eco-estates or country living estates and man's insatiable need to conquer ever more land, push at the boundaries of the protected environment. Areas adjoining the main range, some of matchless beauty and value, suffer continual encroachment and are in jeopardy of being spoiled forever. Increasing pressure in natural and human resources is leading to uncoordinated, fragmented and inappropriate development. Adding to the problem is a loss of biodiversity, the disappearance of heritage resources, decreased air quality and increased pollution.

A more immediate threat is the destruction of wildlife species by poachers using cable snares. Mining to the north of the Magaliesberg mountain range is a possible source of discarded cables used by some to snare animals, such as antelope, warthogs and bush pigs, for own use and the bush-meat trade. The bush-meat trade is a serious threat to the survival of both prey-species and predators of the Magaliesberg Biosphere Reserve and requires immediate and sustained human intervention.



Photo 2: Leopard removed from a snare



Photo 3: Cable snare set in game path

### Initiatives/Actions on SDG

An operation to save a leopard snared in the biosphere led to the discovery of large-scale poaching of animals using cable snares. Staff and students of the Department of Nature Conservation, Tshwane University of Technology, members and volunteers of the Wildlife Society (WESSA), Magaliesberg Biosphere Board members and staff of the North West Provincial Government, Biodiversity Conservation, initiated the Save Magaliesberg Species (SMS) program.

The SMS program undertakes a number of activities, including regular snare removal operations through identifying and sweeping snare 'hot-spots', conducting community socio-economic research to identify some of the issues contributing to wildlife poaching and the establishment of a veterinary conservation standby team to take care of leopards and other wildlife species requiring

medical attention when injured as a result of human interference.

### Practical Outcomes/Achievements

The SMS program has identified and cleared a number of snare 'hotspots' within the biosphere. The program is meeting the objective of making snaring un-sustainable for the poachers. This has been achieved by using volunteers and eco-tourists to sweep snare hot-spots.

Socio-economic research has thrown light on the scope and involvement of local communities in the local bush-meat trade.

The veterinary conservation emergency team has been instrumental in dart-immobilizing, treating and translocating eight leopards within the biosphere and bordering areas over the last two years. Over 400 cable snares have been removed from the biosphere during the same period.

Re-visited snare 'hot-spots' have indicated a drastic decrease in the deployment of snares.



Photo 4: Collaring a Leopard for translocation to the biosphere

Although only recently established, the Biosphere Board members have dealt with numerous issues impacting the biosphere and have initiated a number of programs

that are aimed at securing the future of the Magaliesberg biosphere to the benefit of society.

### References

Carruthers Vincent; book; The Magaliesberg – Biosphere Edition

### Acknowledgements

1. Magaliesberg Biosphere Reserve Board members
2. Magaliesberg Biosphere Initiative Group (MBIG) members – the NGO team that led the background work necessary to get the Biosphere application to UNESCO
3. Vincent Curruthers – the man behind the idea of getting the Magaliesberg declared a biosphere and a member of the MBIG team

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