The relevance of ecosystems to ecotourism in the Waterberg Biosphere Reserve

by

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Philosophiae Doctor

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Department of Botany

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Promotor: Prof. Dr. G. J. Bredenkamp

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ABSTRACT

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The Waterberg area, Limpopo Province, South Africa, is still one of the unexplored areas of South Africa. It holds great potential as an ecotourist destination, especially considering the many nature reserves and game farms within the area. The promotion of these ecotourist destinations within the area can therefore not be underestimated. The newly declared Waterberg Biosphere Reserve (previously known as the Waterberg Nature Conservancy) stretches over an area of 150 000 hectares and have many conservation areas preserving a high diversity of natural resources. The Biosphere Reserve plays an important role in conservation and sustainable development and currently, other research projects are undertaken involving these aspects. This study was performed to identify different aspects of ecosystems (e. g. physical conditions, plant communities, landscapes, mammal and bird habitats) which can enhance the potential of ecotourism within the relatively unknown area.

Twelve major plant communities were identified within the Biosphere Reserve. The data, from which the analysis was done, were obtained from previous phytosociological studies and additional field surveys were performed in unexplored areas. The major plant communities formed the basis from which other analyses were performed, emphasizing the value of vegetation science in environmental planning and analysis. Tree and shrub species were analyzed as ecotourist attractions within the plant communities according to specific attributes they possess (e. g. medicinal properties, flowers, food source). Six ecozones were identified as a mosaic of

different plant communities within a homogenous landscape, and it is suggested that they should be incorporated as ecological management units as part of an ecological management plan of the Biosphere Reserve. These ecozones each include specific mammal (5 types) or bird (7 types) habitat types, providing the living conditions preferred by the specific species. The major plant communities provided the basis for the identification of these habitat types. The importance to conserve these habitats, especially of species on the red data listed, threatened species, and the importance of monitoring projects are emphasized in the study.

The plant communities were also identified for their specific value to the ecotourism industry. The vegetation structure and species composition of plant communities will often determine which mammal or bird species can be viewed by tourists while participating in activities such as game drives in the habitat types.

A tourism booklet providing tourists with information on the tourist attractions and ecotourist destinations within the Biosphere Reserve is planned, to promote the area as a tourist destination in the future. The study also provides the basis for many possible research projects in the ecological and ecotourism fields in the future.

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