



EASTERN CAPE
PARKS

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POLICY

LARGE MAMMAL MANAGEMENT

Policy	Large Mammal Management
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Contact Person	Head: Scientific Services
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Legal Framework	NEMA 107 of 1998 National Environmental Management: Biodiversity Act 10 of 2004 Provincial Parks Board Act 12 of 2003 Nature and Environmental Conservation Ordinance 19 of 1974 Transkei Environmental Conservation Decree 9 of 1992 Ciskei Nature Conservation Act 10 of 1987

Policy: Large Mammal Management: May 2009

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Definitions

Alien species – a species that is not indigenous to a specified area.

Biodiversity – The definition established by Noss (1990) is followed in this document and it covers compositional, structural and functional aspects.

Indigenous species – means a species that occurs, or historically occurred, naturally in a specified area.

Ecotypes – A genetically unique population with distinct physiological or morphological characteristics.

Adaptive management – this is understood as described in (DuToit, Rogers & Biggs 2003).

1. Overview

A primary task of the Eastern Cape Parks Board is to ensure the protection and conservation of biodiversity within the Provincial Parks of the Eastern Cape. Best practice current conservation management implies that the Provincial Parks are thus managed as representatives of the biodiversity of the region within which they are based.

Thus the task of the ECParks encompasses not only the conservation of the diversity of landscapes, ecosystems, habitats, communities, populations, species and genes that occur in the relevant regions of the province but also the processes which maintain this diversity.

Past management, as well as the current management of many adjacent lands, actively encourages the use of alien species of large mammals. Thus in meeting our mandate there is a strong component of rehabilitation as well as conventional management of natural systems. In addition information on the historical distribution is imperfect and thus decision on what is indigenous or not need to be based on a balanced assessment of available information.

Most of the ECParks reserves are small (< 15 000 ha) and thus the management to area effort is likely to be high.

2. Principles

This policy is based on the following key principles:

- Our knowledge of biological systems is imperfect.
- Biological systems are in a constant state of flux or change.
- Biological systems are complex and for this reason it is not possible to accurately predict change or the result of management interventions.
- In natural systems large mammal populations are part of and are regulated by a range of ecological processes (e.g. competition, predation, disease *etc.*).

- Certain large mammal populations may be slow to respond to changes in the availability of resources and this can have significant (although not always immediately obvious) impacts on biodiversity.
- The primary tools available for managing large mammal populations are fencing, water distribution, removal (culling or hunting) and the use of fire. Of these fencing and water distribution are often inadvertent interventions but they have significant impacts which need to be recognised.
- Not all species have the same impact on the ecosystems within which they live (e.g. keystone species & ecosystem engineers).
- Alien species unnaturally alter the local ecology and thus biodiversity of an area.
- Large mammal populations function as part of an assemblage and if there are components of that assemblage missing (e.g. a species) there will be biodiversity consequences.
- In natural systems there is an ongoing interaction between developing and maintain the advantage of local genetic adaptation and the benefits of out-breeding.
- Small isolated populations of large mammals can result in inbreeding and loss of genetic diversity.
- Climate change may alter the ecological circumstances for large mammal species and thus their future distribution patterns may differ from the current ones.

3. Policy statement(s)

- Management of large mammal populations will take place within the context of an Adaptive Management Framework and will incorporate natural change. In this context the precautionary principle is not useful for decision making as it can result in equivocal perspectives on the same issue.
- Management interventions must be based on sound ecological or genetic reasoning and this reasoning must be documented.

Introductions

- Management will strive to restore the natural diversity (of landscapes, communities, species, subspecies, genetic, ecological processes *etc.*) in all reserves.
- The best current knowledge will be used as a guide to what is indigenous to each reserve.

Removal from reserves

- The removal of animals from reserves will be done by the most appropriate method applicable.

- Game removals will strive to achieve normal age and sex structures in reserve large mammal populations.
- ECParks will not dispose (by sale or donation) of large mammals to properties where the species is not, indigenous.

Species of Special Concern

- Ecosystems will not be specifically managed to benefit a species even if it is threatened.
- Threatened species may be managed to benefit their own population growth but not to the detriment of the ecosystem.
- ECParks will actively engage in appropriate regional and national initiatives which aim to further the conservation of threatened species.

Genetic Diversity

- Where hybridization between species (e.g. Cape Mountain and Plains Zebra) or sub-species (e.g. black rhino *Diceros bicornis minor* and *D. b. bicornis*) is known to occur they shall not be released onto the same reserve.
- Where known genetic adaptations exist (e.g. heart water resistant springbok) management will act to conserve these local genetic adaptations.
- All decisions on large mammal populations and their movement shall explicitly consider the balance between the need for conserving local genetic adaptation (ecotypes) and the benefits of out-breeding (e.g. meta-population management).
- All populations that may have hybridized with closely related species, sub-species or ecotypes should be destroyed unless they have been individually tested and shown to be pure.

Alien Species

- Alien species (including sub-species) will be removed from reserves. Where complete removal is not practically possible (i.e. warthog, nyala etc.) these populations will be kept below ecologically significant levels. [Note: The black rhino (subspecies *D. b. minor*) population at Great Fish River Nature Reserve is now considered to be alien to the region (see Black Rhino Management Policy). However in the interests of the conservation of a critically endangered species it will continue to be managed as an out-population in line with the national black rhino management strategy until such time as this decision should be revised].

- Perimeter fences must be properly maintained on all reserves to prevent the influx of alien species from neighbouring properties.

Diseases

- Indigenous parasites and diseases (e.g. mange) are recognised as important components of biodiversity and management should not attempt to control or eradicate them from the reserves.
- Management will strive to prevent the introduction and/or spread of alien diseases (e.g. Bovine TB).

Containment

- ECP will ensure that legislated fencing and fencing management requirements are met as a minimum, but may elect to strengthen fencing where it is deemed necessary.

4. Associated implementation guidelines

The following implementation guidelines have been developed:

- Annual game counting strategy
- Procedures and deadlines for the submission and approval of the annual game off-take recommendations

The following implementation guidelines need to be developed and adopted:

- Guidelines for dealing with breakouts

5. References consulted

Boshoff AF, Wilson SL & Skead CJ. 2004. *Medium to large-sized mammalian herbivores in Provincial Nature reserves in the Eastern Cape Province: Broad habitat types, potential species, inappropriate species and selected management recommendations*. Unpublished Report prepared for the Eastern Cape Department of Economic Affairs, Environment and Tourism. 102 pp.

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