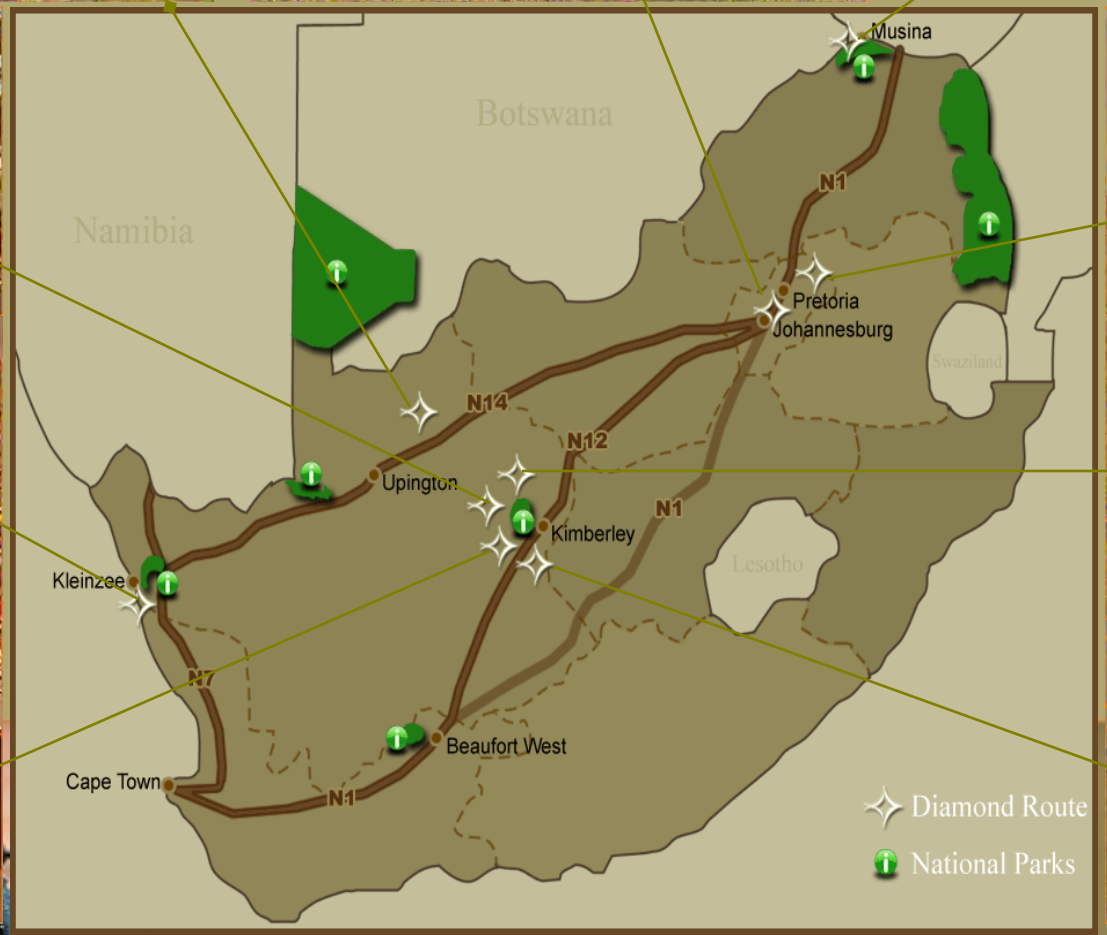
THE DIAMOND
ROUTE

Future Research Possibilities
10th November 2010

The Diamond Route Sites



- Research Activity:

- Presently 31 MSc students & 22 PhD students successfully completed on DR.
- Focus always on published research findings:
- 63 papers published on Mammals (elephant through to rodents)
- 28 papers published on Birds (sociable weavers to effects of climate change)
- 15 papers published on insect biology
- 7 papers on reptiles and amphibians (tortoises to Namaqua dwarf adder)
- 13 papers on plant species distribution & conservation
- 35 papers on understanding the Ecology of DR properties
- 18 papers on archaeological sites



Research Partnerships:

- DR partnered with 29 different research orientated institutions established (Cambridge and Oxford through to MRI at University of Pretoria and Percy Fitzpatrick Institute at UCT)
- Papers on DR research presented numerous National & International Conferences
- SANBI Atlassing Projects (reptiles, spiders, butterflies)
- Through our research work partnered with a number NGO's (BirdLife, CI, EWT & WESSA as well as WWF Lonmin Award).
- DR funded Key Positions (Fellow of Conservation/Memorial Award)
- Further development of partnerships through annual Research Networking Conference to facilitate knowledge sharing (9th -11th November 2010)
- Establishment of Research Centres on three DR reserves



Future Research Possibilities

Namaqualand:

1. Researching the return of insects and other invertebrates, etc. to the restored mining areas; (a Bryan Maritz initiative);

2. Research on the Cape Fur Seal colony, collection and analysis of scats to determine eating patterns and amongst others, the effect on hake populations;

3. Project to determine the impact of high numbers of pied crows on the tortoise and chameleon populations in the Namaqualand Diamond Coast area.



Future Research Possibilities

Dronfield & Benfontein:

- The influence of climate change on the vegetation dynamics & succession of the areas?

- Taxonomic work on vertebrates/invertebrates?

- Single and multi species ecological and population dynamics orientated research?

- Instigation of the impacts on alien plant species and invaders in
- term of biological losses?



Future Research Possibilities

Rooipoort Nature Reserve:

- Mapping and assessment of Vegetation communities, carry capacity, and health;

-Ecology of reptiles and amphibians;

-Monitoring of the Vaal River System, including fish and aquatic Insects;

-Building up a Biodiversity Index of all life forms.



Future Research Possibilities

Brenthurst Gardens:

-Investigations of re-colonisation of different taxa with an organic gardening;

-Investigation of invertebrate-habitat selection;

-The effect of urban raptors on small seed eaters.



Future Research Possibilities

Tswalu Kalahari:

-Influence of predators on the ecology of a Kalahari System;

-Ecology and social dynamics of small mammal i.e. ground squirrels;

-Building up a Biodiversity Index of all life forms;

-Understand large raptor ecology, home range & breeding;

- Research into sandgrouse ecology and population dynamics.



Future Research Possibilities

Ezemvelo Nature Reserve & Telperion:

-Investigation of herbivore feeding strategies in the Bankenveld grasslands;

-Building up a Biodiversity Index of all life forms on Ezemvelo/Telperion esp. Invertebrates;

-Assessment of water qualities and aquatic life inventories;

-Investigation of the role of invertebrates in various habitats.



Future Research Possibilities

Venetia Limpopo Nature Reserve:

-Research in a better understanding of ecology of riparian zones;

-Mapping & and understanding of key resource areas and indicators species;

-Archaeological and rock art interpretation and management;

-Understanding the long-term effect of large herbivores on sensitive vegetation communities.



NB: Important that research is meaningful and contributes to conservation, management and the protection of species and ecosystems.