

Aims of the project

Develop a decision support model to assist with the spatial and temporal allocation of resources for clearing invasive alien plants which maximises the impact of these resources, and takes into account (1) current levels of infestation, (2) spread and densification of key invasive species in various invaded environments, and (3) conservation, safety and economic priorities. This model should also provide a visual resource for evaluating the likely consequences of particular IAP control strategies, both as a tool for managers and as a resource for motivating for appropriate funding.

Methodological approach

INPUT: SCENARIOS:

MANAGEMENT SCENARIOS

- Budget
- Planning unit size
- Species prioritization
- Area prioritization
- Patch density
- Techniques to use
- Time framework

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OTHER SCENARIOS

- Climate change
- Landscape changes



SPREAD MODELS

SUITABILITY MODELS

- ▶ Climate
- ▶ Topography
- ▶ Soil

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Potential distribution



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Elements enhancing invasion



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Elements reducing invasion



OUTPUT: IMPACTS

Which are the consequences of different management strategies in the CFR?

Biodiversity

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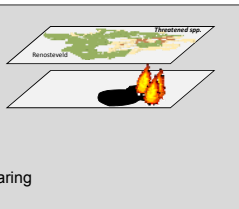
Fire occurrence

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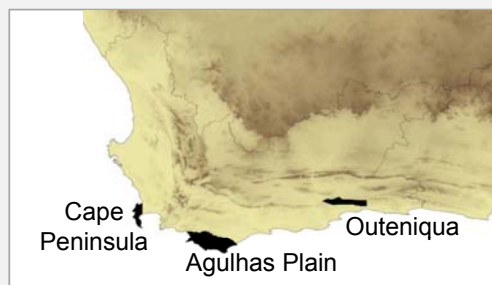
Water reduction

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Costs of alien clearing



Study areas



Species of study



Pinus



Hakea



Acacia

Photos: John R. Wilson

Expected results

In addition to the decision support model in itself, the study will provide the means to:

- Test and identify the consequences of different clearing strategies on the spread of alien species, biodiversity, fire, water production from catchments, etc.
- Prioritize, spatially and temporally, the control operations in the three study areas, taking into account the current budget.
- Provide guidelines of best management practices for alien species in the CFR.