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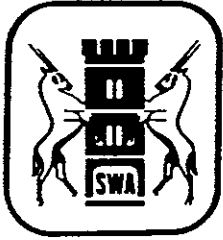
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Invasive alien organisms in South West Africa/Namibia

Edited by C J Brown, I A W Macdonald and S E Brown

This report results from a workshop organized by the Directorate of Nature Conservation and Recreation Resorts in Windhoek, and is produced in conjunction with the Council for Scientific and Industrial Research

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SOUTH AFRICAN NATIONAL SCIENTIFIC PROGRAMMES REPORT NO

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CHAPTER 7 A STRATEGY FOR THE CONTROL OF ALIEN PLANTS IN SOUTH WEST AFRICA/NAMIBIA

L Scheepers

INTRODUCTION

This chapter is intended to provide an overview of the situation regarding alien plants in SWA/Namibia as a whole. It is based on a discussion involving all the participants in each workshop group, and encompasses all the areas discussed in the preceding six chapters.

A PRIORITY LISTING OF ALIEN PLANT SPECIES

Arising from the group discussion, a table has been drawn up in which invasive species of alien plants have been arranged in a priority list according to each species' importance (Table 7.1). Possible control measures are recommended.

TABLE 7.1. IDENTIFICATION OF THE MOST IMPORTANT INVASIVE SPECIES AND PROPOSED CONTROL MEASURES

Species	Mechanical	Chemical	Biological	Combined
1. <u>Salvinia molesta</u>	0	2	3	-
2. <u>Prosopis spp</u>	1	3	0	-
3. <u>Nicotiana glauca</u>	1	3	0	-
4. <u>Datura innoxia</u>	2	3	?	-
5. <u>Opuntia ficus-indica</u>	0	2	3	3
6. <u>Melia azedarach</u>	0	3	0	-
7. <u>Lantana camara</u>	1	3	3	3
8. <u>Ricinus communis</u>	1	2	?	-
9. <u>Argemone ochroleuca</u>	1	2	?	-
10. <u>Dodonea viscosa</u>	1	3	?	-

KEY: 0 = no known control measures available - > 3 = excellent control measures available.

DISCUSSION

In accordance with the basic principles of nature conservation, preference should always be given to biological control methods over chemical methods, providing these have been thoroughly tested to ensure that they are specific to the alien plants involved and will not affect the indigenous flora or fauna. Satisfactory methods of biological control are not always available, however. Integrated mechanical or biological and chemical methods of control can sometimes be used effectively. In these cases mature plants should first be controlled by chemical methods and regrowth then controlled mechanically or biologically.

Legislation concerning the import and control of potentially invasive plant species is considered to be inadequate at present. SWA/Namibia has no customs system with South Africa and consequently there is no restriction on the movement of plants and plant products over this border. As a result of this lack of customs control we are 'obliged' to maintain the same standards as South Africa as regards control over plant products. Current legislation in South Africa is in itself considered inadequate to effect the necessary control, and as a result of a shortage of personnel enforcing the existing legislation at control points such as airports, harbours and border posts, existing legislation cannot be effectively applied. Nevertheless some laws regarding plants which are effective in South Africa are not at present applicable to SWA/Namibia and adoption of these is discussed under 'recommendations' below.

It is generally considered that the public of SWA/Namibia is unaware of the dangers of declared weeds and of invasive aliens in general. In addition few people are conscious of the potential ecological disasters which can be initiated by the misuse of herbicides. It is also worth noting that many of the invader plants discussed above are not yet mentioned on the labels of chemical weed killers.

POLICY RECOMMENDATIONS

In the light of the information presented above, the following recommendations are made:

- (1) The Department of Agriculture and Nature Conservation should investigate control measures for invasive alien plants on an experimental basis. The degree of infestation of agricultural land should also be monitored by this Department.
- (2) The following South African legislation should be made applicable in SWA/Namibia:
 - law on the conservation of agricultural resources (weeds) (Act 43 of 1983).
 - law on agricultural pests (Act 36 of 1983).
 - plant improvement law (conditions pertaining to import and export of plants and plant products, nursery registration, etc) (Act 53 of 1976).

Authorization should be given to current law enforcement personnel of the Directorate of Nature Conservation to ensure this legislation is obeyed.

- (3) A campaign should be launched through the media, to inform the public as to the potential damage to ecosystems that could be caused by invasive alien plants, and to set out the correct methods of control of these plants. Advantages and limitations or disadvantages of each method should be very clearly emphasised and the need for care in the use of herbicides should be stressed.
- (4) Wherever infestations of water-dispersed alien plant species are to be controlled the possibility of reinfestation from headwater regions must be considered. In some cases reinfestation is such an important consideration that control operations should only be initiated where the upper reaches of the catchments can be included in the control programme. The cooperation of all the landuse authorities involved in a catchment is thus essential to the success of such a programme. The Department of Agriculture and Nature Conservation should define a priority catchment and/or an invasive alien plant problem and attempt to solve it with the cooperation of all the relevant authorities and landowners.

PRACTICAL RECOMMENDATIONS

In addition the following steps should be taken:

- (1) Nurseries should be provided with a list of plants which may not be propagated or sold.
- (2) Horticultural sections of all government departments and municipalities should be fully informed of invasive aliens, and should be provided with a list of 'safe' flowers, shrubs and trees. They should be encouraged to plant indigenous species, and to avoid and to actively remove species proven to be invasive.
- (3) Plants planted in the public areas of nature conservation rest camps should be limited to indigenous species. Plants grown in the gardens of resident staff in these camps should be carefully screened for invasive potential.
- (4) A section regarding invasive aliens should be included in the master management plan of each nature conservation area, and a policy of active removal of all invasive aliens in these areas should be undertaken wherever feasible. In cases where the control of an alien species is at present impossible, research should be undertaken to seek a solution.

Implementation of these recommendations will provide a sound foundation on which control programmes can be based.