Mallee Hemichroa

Hemichroa diandra

Description and Distribution
Mallee Hemichroa (R. Br.) is a perennial spreading woody herb or low shrub measuring 30 cm tall by up to 100 cm wide, with many woody stem bases that branch at ground level. The small succulent leaves are pale green and pointed with the degree of succulence varying with the season. Flowers are usually pink and occur singly along the stems at the base of the leaves. Each flower possesses two stamens with the filaments distinctly coloured red. Seeds are small, smooth, brown and ovoid. The species occurs in all mainland states with the exception of Queensland (Willis 1972).

Conservation Status
Current Status
Gullan et al. (1990) Endangered

The Mallee Hemichroa has been listed as a threatened taxon on Schedule 2 of the Flora and Fauna Guarantee Act 1988.

Reasons for Conservation Status
The Scientific Advisory Committee (1991) has determined that the Mallee Hemichroa is:
- in a state of demonstrable decline which is likely to result in extinction;
- significantly prone to future threats which are likely to result in its extinction; and
- very rare in terms of abundance or distribution.
The existence of the plant on private land that is grazed, its failure to regenerate at the site, combined with past threats such as trailbike damage and activity within the area, serve to make Mallee Hemichroa a highly threatened species.

Major Conservation Objectives
- To protect the existing plant and encourage its regeneration.
- To enhance the habitat of the existing plant by excluding grazing.
- To successfully propagate the plant.
- To introduce and maintain 150 propagated plants of the Nowingi provenance to the Nowingi private land site.

Management Action

Previous Management Actions
- Numerous surveys for Mallee Hemichroa through suitable saline sites in north-western Victoria have been conducted by J.H. Browne in association with Dr R.F. Parsons of La Trobe University. All have been unsuccessful.
- Since 1981, the plant has been monitored by local botanist Mr J.H. Browne and DCE staff.
- A fence measuring 2 m x 2 m x 1.5 m high was placed around the plant by DCE staff in February 1991. The landholder has agreed to further measures to assist in re-establishing additional plants.

Intended Management Actions
- Erect three rabbit and stock proof enclosures of 10 x 10 m near the existing Nowingi site.
- Test a number of different strategies for propagating the plant (e.g. cuttings, seed).
- Reintroduce 50 propagated plants into each of the Nowingi enclosures.
- Monitor the populations for a period of five years.
- Erect an information board at the site explaining the project to visitors to the area.
- Consider the introduction of plants from nearby localities in other states to avoid inbreeding depression and improve the quality of genetic stock.

The latter action in particular would serve as a useful educational tool as the site exits along the Old Nowingi Railway Line and Road, a major entry point to the newly declared Murray-Sunset National Park.

Legislative Powers Operating Legislation

Licence/Permit Conditions
Permits for the collection of Mallee Hemichroa seeds or vegetative material will only be given for work which is in accordance with the conservation objectives and prescribed management actions.

Consultation and Community Participation
The landholder has been informed about the conservation significance of the plant and has agreed to cooperate with the intended management actions.

Implementation, Evaluation and Review
The Regional Manager, Mildura, will monitor the implementation of the action proposals and evaluate their effectiveness in achieving the conservation aims. Propagation results will be reviewed at the end of 12 months and replanting at the Nowingi site is scheduled for autumn 1993.
The replanting trials should be monitored annually. This Action Statement will be reviewed in 1997.

Contacts

Management
Flora and Fauna Guarantee Officer, Mildura Region.

Biology
Flora Branch, DCE, Cotham Road Kew.
Mr J.H. Browne, local botanist, Red Cliffs.
Botany Department, La Trobe University.
References