Prosopis glandulosa

System: Terrestrial

<table>
<thead>
<tr>
<th>Kingdom</th>
<th>Phylum</th>
<th>Class</th>
<th>Order</th>
<th>Family</th>
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<tbody>
<tr>
<td>Plantae</td>
<td>Magnoliophyta</td>
<td>Magnoliopsida</td>
<td>Fabales</td>
<td>Fabaceae</td>
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</tbody>
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Common name: mesquite (English), honey mesquite (English), Texas mesquite (English), Mesquite-Busch (German)

Synonym

Similar species

Summary: Prosopis glandulosa (mesquite) is a perennial, woody, deciduous shrub or small tree. It forms impenetrable thickets that compete strongly with native species for available soil water, suppress grass growth and may reduce understory species diversity.

Species Description:
Multi-stemmed shrub, branches with zigzag shape. Bipinnate leaves generally dark green but can be bluish green, leaflets 5-15 times as long as broad (20mm long). Flowers are yellow and grouped in dense drooping "lamb's tail" spikes. Seed pods bean-like (10-20cm long) with slight constrictions. Spines above axillary bud.

Notes:
Occurs over climatically diverse regions, grows well on all soil types. Thrives in high temps >38°C. Moderate frost tolerance. Moderate salt tolerance. Pods high in sugar (16%) and protein (12%) and so are sought by animals.

Lifecycle Stages:
Seeds viable 2-50 years. Maturity 2-5 years. Flowering commences in summer. Seeds mature 35-40 days after flowering. Plants may be deciduous. Seeds germinate after warm temperatures and rain, these conditions may occur only sporadically. Spread facilitated by grazing animals.

Habitat Description:
Occurs over climatically diverse regions, grows well on all soil types. Thrives in high temps >38°C. Moderate frost tolerance. Moderate salt tolerance. Pods high in sugar (16%) and protein (12%) and so are sought by animals.
Reproduction
Seed production and suckering (dormant buds below the ground, stimulated by disturbance). 10's of thousands of seeds per square metre per year, seedling mortality high less than 800 seedlings per hectare after one year.

Nutrition
No significance nutrient requirements.

General Impacts
Rapidly outcompetes understorey plants resulting in complete loss of grass cover. Erosion is exacerbated by allelopathic affects of ground litter.

Management Info
Preventative measures: A Risk assessment of Prosopis spp. for Australia was prepared by Pacific Island Ecosystems at Risk (PIER) using the Australian risk assessment system (Pheloung, 1995). The result is a score of 20 and a recommendation of: reject the plant for import (Australia) or species likely to be a pest (Pacific).

The Best Practice Manual Mesquite Control and management options for mesquite (Prosopis spp.) in Australia aims to provide the most current information on mesquite in Australia. The control and management options presented in this manual are the combined results of years of trials carried out by many dedicated researchers, landholders, herbicide companies, government officers, landcare groups and others. As mesquite species respond differently to control methods, the most effective method or combination of methods will vary depending on the size, density and species of mesquite present. The manual includes a ‘mesquite control tool box’. Included also are a number of case studies to demonstrate best practice.

Principal source:
Compiler: IUCN/SSC Invasive Species Specialist Group (ISSG)
Updates with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment

Review: Craig Walton, Senior Policy Officer (Ecologist), Land Protection, Department of Natural Resources and Mines, Queensland, Australia.

Publication date: 2010-04-13

ALIEN RANGE
[1] AUSTRALIA

Red List assessed species 1: VU = 1;
Parus nuchalis VU

BIBLIOGRAPHY
9 references found for Prosopis glandulosa
Management information


Summary: This site provides information on the strategy for the management of Mesquite (Prosopis). Documents available for download include the strategy, Mesquite control manual, brochures, posters and current and potential distribution maps.


Cooperative Research Centre (CRC) for Australian Weed Management, 2003. Weed Management Guide: Mesquite Prosopis species. CRC for Australian Weed Management the Commonwealth Department of the Environment and Heritage and the Queensland Department of Natural Resources and Mines


Summary: This compilation of information sources can be sorted on keywords for example: Baits & Lures, Non Target Species, Eradication, Monitoring, Risk Assessment, Weeds, Herbicides etc. This compilation is at present in Excel format, this will be web-enabled as a searchable database shortly. This version of the database has been developed by the IUCN SSC ISSG as part of an Overseas Territories Environmental Programme funded project XOT603 in partnership with the Cayman Islands Government - Department of Environment. The compilation is a work under progress, the ISSG will manage, maintain and enhance the database with current and newly published information, reports, journal articles etc.


Summary: Global concern about deforestation caused by fuelwood shortages prompted the introduction of Prosopis juliflora to many tropical areas in the 1970s and 1980s. P. juliflora is a hardy nitrogen-fixing tree that is now recognised as one of the world s most invasive alien species. The introduction and subsequent invasion of P. juliflora in the Lake Baringo area of Kenya has attracted national media attention and contradictory responses from responsible agencies. This paper presents an assessment of the livelihood effects, costs of control and local perceptions on P. juliflora of rural residents in the Lake Baringo area. Unlike some other parts of the world where it had been introduced, few of the potential benefits of P. juliflora have been captured and very few people realise the net benefits in places where the invasion is most advanced. Strong local support for eradication and replacement appears to be well justified. Sustainable utilisation will require considerable investment and institutional innovation.


Summary: Also available from: http://www.worldagroforestry.org/downloads/publications/PDFs/wp03mwangi.pdf [Accessed 12 November 2009]

Osmond, Rachelle, 2003. Best Practice Manual Mesquite Control and management options for mesquite (Prosopis spp.) in Australia. This manual is sponsored by the National Weeds Program (Natural Heritage Trust) and the Queensland Department of Natural Resources and Mines.


World Agroforestry Centre, 2005, Environmental Services. Prosopis juliflora as a pest or resource?the role of institutions, markets and livelihood strategies (Eastern Africa and India)


General information

ITIS (Integrated Taxonomic Information System), 2005. Online Database Prosopis glandulosa

Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.