

*Parthenium hysterophorus*  [简体中文](#)

**System:** Terrestrial

[正體中文](#)

| Kingdom | Phylum        | Class         | Order     | Family     |
|---------|---------------|---------------|-----------|------------|
| Plantae | Magnoliophyta | Magnoliopsida | Asterales | Asteraceae |

**Common name** *fausse camomille* (French, New Caledonia), whitetop weed (English), congress grass (English), Santa Maria feverfew (English), Karottenkraut (German), ragweed parthenium (English), parthenium weed (English)

**Synonym** *Parthenium lobatum*, Buckl.

**Similar species**

**Summary** *Parthenium hysterophorus* is an annual herb that aggressively colonises disturbed sites. Native to Mexico, Central and South America, *Parthenium hysterophorus* was accidentally introduced into several countries including Australia, India, Taiwan and Ethiopia. In some areas it has become an extremely serious agricultural and rangeland weed. *Parthenium hysterophorus* is also known to be allergenic to some people and consumption by livestock can taint meat.



[view this species on IUCN Red List](#)

## Species Description

An erect ephemeral herb known for its vigorous growth. It is light green with branching stems, finely lobed leaves and grows up to 1.5 metres, occasionally reaching 2m in deep rich soils. Young plants form a basal rosette of strongly dissected leaves that are up to 30cm in length. Once stem elongation is initiated, smaller leaves are produced and the plant becomes much-branched in its extremities.

## Lifecycle Stages

Germination temperatures for *Parthenium* occur across the 8 to 30° C range with the optimum germination temperature being 22 to 25° C. Persistence tests demonstrated that more than 70% of parthenium seeds buried at 5cm below the soil surface survived for at least 2 years whereas surface-lying seeds survived for no longer than 6 months. Parthenium weed seeds were found to be very persistent in the soil and there was relatively little change in their abundance over an 18 month period. The germination rate of parthenium weed seeds was also significantly faster than that of all other species present (Sheldon Navie, 2003).

## Reproduction

Sexual reproduction.

Highly prolific. An average plant can produce 15,000 seeds and large plants are known to produce 100,000 seeds.

## General Impacts

Infestations of parthenium weed can degrade natural ecosystems. The plant can produce serious allergic reactions in humans. Parthenium aggressively colonises disturbed sites and has major impacts on pasture and cropping industries, spreading to and impacting on new areas. Outcompetes native species, in part due to allelopathy.



# GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Parthenium hysterophorus*

## Management Info

Control of parthenium weed can be managed using a combination of methods depending on the site, including biological control agents, pasture management, cultivation and chemicals.

**Preventative measures:** Emphasis must be laid on establishing detection/monitoring procedures and stopping the spread of parthenium weed via vehicles and as a contaminant. [A Risk assessment of \*Parthenium hysterophorus\*](#) 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 18 and a recommendation of: reject the plant for import (Australia) or species likely to be a pest (Pacific).

The [Parthenium weed management book](#) provides information on management and control aspects including spread minimization, pasture management, herbicide use, biological control and health aspects. It also describes the parthenium weed and provides basic information about its ecology and biology, reproduction and spread, current distribution, and potential threat. The [Weed Control Methods Handbook](#) provides you with detailed information about the tools and techniques available for controlling invasive plants, or weeds, in natural areas. This Handbook is divided into eight chapters, covering a range of different control methods: manual, mechanical, promoting competition from native plants, grazing, biocontrol, herbicides, prescribed fire, solarization, flooding, and other, more novel, techniques. Each control method has advantages and disadvantages in terms of its effects against the target weed(s), impacts to untargeted plants and animals, risks to human health and safety, and costs.

**Biological:** Biological control using insects and fungi is being pursued in Australia and in India.

## Pathway

Thought to have been introduced into Ethiopia and India with contaminated cereal grain. Thought to have been introduced into Australia in contaminated pasture seed from the USA.

## Principal source:

**Compiler:** IUCN SSC Invasive Species Specialist Group

Updates with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment

**Review:** Dr. Rachael MacFadyen, Queensland Department of Natural Resources, Australia. William Overholt, International Centre of Insect Physiology and Ecology, Nairobi, Kenya.

**Publication date:** 2010-10-04

## ALIEN RANGE

[1] ATLANTIC - WESTERN CENTRAL  
[1] BERMUDA  
[1] FRENCH POLYNESIA  
[1] MADAGASCAR  
[1] NEW CALEDONIA  
[1] REUNION  
[1] SWAZILAND  
[1] UNITED STATES

[1] AUSTRALIA  
[1] ETHIOPIA  
[1] INDIA  
[1] MAYOTTE  
[1] PAPUA NEW GUINEA  
[1] SOUTH AFRICA  
[1] TAIWAN

## BIBLIOGRAPHY

16 references found for *Parthenium hysterophorus*

### Management information

[Australian Department of the Environment and Heritage, 2003. Parthenium weed \(\*Parthenium hysterophorus\*\). Weeds of National Significance: Weed Management Guide Department of the Environment and Heritage and the CRC for Australian Weed Management, 2003.](#)

**Summary:** Available from: <http://www.weeds.gov.au/publications/guidelines/wons/p-hysterophorus.html> [Accessed 23 October 2008]

[Department of Natural Resources, Mines and Energy, Queensland Government, 2004. Parthenium weed management: Challenges, opportunities and strategies. This manual is sponsored by the National Weeds Program \(Natural Heritage Trust\), Department of Natural Resources, Mines and Energy and Department of Primary Industries and Fisheries](#)

**Summary:** Available from: [http://www.weeds.org.au/docs/Parthenium\\_Mgmt.pdf](http://www.weeds.org.au/docs/Parthenium_Mgmt.pdf) [Accessed 26 July 2010]

[IUCN/SSC Invasive Species Specialist Group \(ISSG\), 2010. A Compilation of Information Sources for Conservation Managers.](#)

**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.

[Navie, Sheldon, n.d. Biology of the Weed \*Parthenium hysterophorus\* L. Australian Biotypes. Tropical & Subtropical Weeds Research Unit, University of Queensland, St Lucia QLD 4072, AUSTRALIA](#)

**Summary:** Information on parthenium infestation in Queensland.

Available from: [http://www.iprng.org/IPRNG-parthenium\\_a&w14.htm](http://www.iprng.org/IPRNG-parthenium_a&w14.htm) [Accessed: 8 March, 2004].

O Donnell, C and Adkins, S. W. Management of parthenium weed through competitive displacement with beneficial plants. Weed Biology and Management Vol. 5 Issue 2 Page 77 June 2005

Swaziland s Alien Plants Database., Undated. *Parthenium hysterophorus*

**Summary:** A database of Swaziland s alien plant species.

[Varnham, K. 2006. Non-native species in UK Overseas Territories: a review. JNCC Report 372. Peterborough: United Kingdom.](#)

**Summary:** This database compiles information on alien species from British Overseas Territories.

Available from: <http://www.jncc.gov.uk/page-3660> [Accessed 10 November 2009]

## General information

[Centre des ressources biologiques. Plantes tropicales. INRA-CIRAD. 2007.](#)

**Summary:** Available from: <http://collections.antilles.inra.fr/> [Accessed 31 March 2008]

[Conservatoire Botanique National De Mascarin \(BOULLET V. coord.\) 2007. - \*Parthenium hysterophorus\* Index de la flore vasculaire de la Réunion \(Trachophytes\) : statuts, menaces et protections. - Version 2007.1](#)

**Summary:** Base de données sur la flore de la Réunion. De nombreuses informations très utiles.

Available from: <http://flore.cbnm.org/index2.php?page=taxon&num=c831e9b5f6c9bab6b23c26c2dab2a29c> [Accessed 9 April 2008]

[Florence J., Chevillotte H., Ollier C. & Meyer J.-Y. 2007. \*Parthenium hysterophorus\* Base de données botaniques Nadeaud de l'Herbier de la Polynésie française \(PAP\).](#)

**Summary:** Available from: [http://www.herbier-tahiti.pf/Selection\\_Taxonomie.php?id\\_tax=670](http://www.herbier-tahiti.pf/Selection_Taxonomie.php?id_tax=670) [Accessed 9 April 2008]

Fournet, J. 2002. Flore illustrée des phanogames de guadeloupe et de Martinique. CIRAD-Gondwana éditions.

[Gargominy, O., Bouchet, P., Pascal, M., Jaffre, T. and Tourneau, J. C. 1996. Consequences des introductions d'espèces animales et végétales sur la biodiversité en Nouvelle-Calédonie. Rev. Ecol. \(Terre Vie\) 51: 375-401.](#)

**Summary:** Consequences to the biodiversity of New Caledonia of the introduction of plant and animal species.

[Global Compendium of Weeds \(GCW\), 2007. \*Parthenium hysterophorus\* \(Asteraceae\)](#)

**Summary:** Available from: [http://www.hear.org/gcw/species/parthenium\\_hysterophorus/](http://www.hear.org/gcw/species/parthenium_hysterophorus/) [Accessed 24 September 2004]

[ITIS \(Integrated Taxonomic Information System\), 2005. Online Database \*Parthenium hysterophorus\*](#)

**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.

Available from:

[http://www.cbif.gc.ca/pls/itisca/taxastep?king=every&p\\_action=containing&taxa=Parthenium+hysterophorus&p\\_format=&p\\_ifx=plgt&p\\_lanng=](http://www.cbif.gc.ca/pls/itisca/taxastep?king=every&p_action=containing&taxa=Parthenium+hysterophorus&p_format=&p_ifx=plgt&p_lanng=) [Accessed March 2005]

Mackee, H.S. 1994. Catalogue des plantes introduites et cultivées en Nouvelle-Calédonie, 2nd edn. MNHN, Paris.

**Summary:** Cet ouvrage liste 1412 taxons (espèces, sous espèces et variétés) introduits en Nouvelle-Calédonie. L'auteur précise dans la majorité des cas si l'espèce est cultivée ou naturalisée.

Meyer, Jean-Yves & Loope, Lloyd & Sheppard, A. & Munzinger, Jérôme & Jaffré, Tanguy. (2006). Les plantes envahissantes et potentiellement envahissantes dans l'archipel néo-calédonien : première évaluation et recommandations de gestion.