GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Cenchrus polystachios***

Cenchrus polystachios 简体中文 正體中文 **System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Liliopsida	Cyperales	Poaceae

Common name

pwokso (Pohnpeian), missiongrass (English), o tamata (English, Fiji), mechen katu (Chuuk), West Indian pennisetum (English), feathery pennisetum (English), thin napier grass (English), queue de chat (French), dipw rais (Pohnpeian)

Synonym

Cenchrus setosus , Sw. 1788
Pennisetum setosum , (Sw.) L. Rich.
Gymnotrix geniculata , Schult. 1824
Panicum barbatum , Roxb. 1820
Panicum cauda-ratti , Schumach. 1827
Panicum cenchroides , Rich. 1792
Panicum densispicum , Poir. 1816
Panicum erubescens , Willd. 1809
Panicum polystachion , L. 1759
Panicum subangustum , Schumach.
Panicum triticoides , Poir. 1816
Pennisetum alopecuroides , Desv. ex Ham. 1825
Pennisetum atrichum , Stapf & C.E.Hubb. 1933
Pennisetum borbonicum , Kunth 1830
Pennisetum cauda-ratti , (Schumach.) Franch. 1895
Pennisetum elegans , Nees ex Steud. 1854
Pennisetum erubescens , (Willd.) Link 1827
Pennisetum flavescens , J.Presl 1830
Pennisetum gabonense , Franch. 1895
Pennisetum gracile , Benth. 1849
Pennisetum hamiltonii , Steud. 1841
Pennisetum hirsutum , Nees 1829
Pennisetum indicum , Murray var. *purpurascens* (Kunth) Kuntze 1891
Pennisetum nicaraguense , E.Fourn. 1880
Pennisetum pallidum , Nees 1829
Pennisetum polystachion ,(L.) Schult. subsp. *setosum* (Sw.) Brunken 1979
Pennisetum polystachion , (L.) Schult. subsp. *atrichum* (Stapf & C.E.Hubb.) Brunken 1979
Pennisetum purpurascens , Kunth 1816
Pennisetum reversum , Hack. ex Buettner var. *gymnochaetium* Hack. 1901
Pennisetum reversum , Hack. ex Buettner 1890
Pennisetum richardii , Kunth 1829
Pennisetum setosum , (Sw.) Rich. 1805
Pennisetum sieberi , Kunth 1829
Pennisetum stenostachyum , Peter 1930
Pennisetum subangustum , (Schumach.) Stapf & C.E.Hubb. 1933
Pennisetum tenuispiculatum , Steud. 1854
Pennisetum uniflorum , Kunth 1816
Setaria cenchroides , (Rich.) Roem. & Schult. 1817
Setaria erubescens , (Willd.) P.Beauv. 1812

Similar species

Pennisetum purpureum, Pennisetum pedicellatum

Summary

Cenchrus polystachios (*Pennisetum polystachion*) is a large grass species originating from Africa and India. It has spread to many Pacific islands and thrives in tropical climates. *C. polystachios* causes major problems in the Northern Territory of Australia, where it has greatly increased the amount of flammable material in the wooded savanna ecosystem, leading to greater devastation from bushfires.

view this species on IUCN Red List

Species Description
Tufted annual or perennial **grass**; **culms** slender to moderately stout, up to 2m tall, usually 1-2m, simple or few-branched; **blades** 5-40cm long, 5-18mm wide, glabrous or pubescent; **spike** dense, yellow brown, 5-25cm long, 13-26mm wide; **spikelets** purple tinge, yellow-brown, surrounded by bristles, these densely hairy at base, unequal, one longer than the others but not greatly exceeding the next one or two shorter ones, 12-25mm long; spikelets 2-flowered c. 5mm long, upper floret perfect.
Judziewicz (1990) states that *C. polystachios* is perennial in the new world but annual in the old world.

Notes
Cenchrus polystachios is also referred to as *Pennisetum polystachion*

Uses
Originally introduced to many areas as a pasture or fodder grass for livestock.

Habitat Description
Disturbed, mostly dry, lowland areas and cultivated fields up to 2100m elevation. Dominates dry hillsides in Guam and Fiji. Rarely extend beyond latitudes 23°N and 23°S.

Reproduction
Seeds dispersed by wind, flowing water, or sticking to clothing. Can also reproduce through cuttings.

General Impacts
Can act as a host for maize streak virus. Competes with native plant species. Alters the fire regime in areas of northern Australia, increasing the effect of bushfires. Has the potential to be a seed contaminant.

Management Info
Preventative measures: A Risk assessment of *Cenchrus polystachios* (*Pennisetum polystachion*) 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 11 and a recommendation of: reject the plant for import (Australia) or species likely to be a pest (Pacific).
\r\nChemical: Herbicides such as ametryn, paraquat, glufosinate ammonium, imazapyr and glyphosate isopropylamine have proved effective at preventing seed germination. Trials have shown that spraying with glyphosate and wetting agents during the plant's maximum growth phase is effective.

Pathway
Introduced as a pasture grass for cattle.Seeds have been found transported on cars.

Principal source: Pacific Island Ecosystems at Risk (PIER)

Compiler: IUCN/SSC Invasive Species Specialist Group (ISSG)

Review: Colin G. Wilson\ Wildlife Management Officer\ Department of Infrastructure, Planning and Environment\ Parks & Wildlife Service\ Australia.

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ALIEN RANGE

[3] AUSTRALIA
[1] FIJI
[1] FRENCH POLYNESIA
[1] GUYANA
[1] KIRIBATI
[1] MAYOTTE
[1] NORTHERN MARIANA ISLANDS
[1] PALAU
[1] SOLOMON ISLANDS
[6] UNITED STATES
[1] CHINA
[1] FRENCH GUIANA
[1] GUAM
[1] INDONESIA
[1] MARSHALL ISLANDS
[3] MICRONESIA, FEDERATED STATES OF
[1] OUTER CAROLINE ISLANDS
[1] PHILIPPINES
[1] THAILAND
[1] VANUATU

BIBLIOGRAPHY

15 references found for **Cenchrus polystachios**

Managment information

Effects of herbicides on seed germination and control of *P. polystachion*. Malaysian Rubber Board 2002.
Summary: The abstract of a paper investigating herbicides for use in controlling *P. polystachion*.
Available from: http://www.lgm.gov.my/journals/Abstracts/1999/aj299_5.html [Accessed 30 January 2003]

National Pest Plant Accord, 2001. Biosecurity New Zealand.
Summary: The National Pest Plant Accord is a cooperative agreement between regional councils and government departments with biosecurity responsibilities. Under the accord, regional councils will undertake surveillance to prevent the commercial sale and/or distribution of an agreed list of pest plants.
Available from: http://www.biosecurity.govt.nz/pests-diseases/plants/accord.htm [Accessed 11 August 2005]

Northern Territory Fire and Rescue service. Mission and Gamba Grass. Northern Territory Police, Fire and Emergency Services, © copyright 1999.
Summary: Information on the threat that *P. polystachion* and another species of invasive grass have on the fire regime in the Northern Territory. Contains some management information.
Available from: http://www.nt.gov.au/pfes/fire/Mission_Gamba_Grass.html [Accessed 30 January 2003]

PIER (Pacific Island Ecosystems at Risk), 2003. *Pennisetum polystachion*
Summary: Ecology, synonyms, common names, distributions (Pacific as well as global), management and impact information.
Available from: http://www.hear.org/pier/species/pennisetum_polystachion.htm [Accessed 30 January 2003]

General information

Agricultural Clearance Manual: List of Federal Noxious Weeds and Parasitic Plants. United States Department of Agriculture.
Summary: Some foreign plants that cause large losses in agricultural production. Also included are prohibited parasitic plants.
Available from: http://www.aphis.usda.gov/ppq/manuals/pdf_files/CB%20in%20PDF/appendixF.pdf [Accessed 30 January 2003].

Atlas of Florida Vascular Plants, 2003. Institute for Systematic Botany.
Summary: synonyms and some distribution.
Available from: http://www.plantatlas.usf.edu/main.asp?plantID=162 [Accessed 30 January 2003].

Barthelat, F., pers. comm., 2007. Fabien Barthelat, Office National des For©ts, ONF Jardin d essais 97139 Abymes, Guadelopue.

Biological Diversity of the Guianas. Web Listing of Plants of the Guianas: Poaceae - Zygophyllaceae. National Museum of Natural history.
Summary: Web Listing of Plants of the Guianas.
Available from: http://www.mnh.si.edu/biodiversity/bdg/planthtml/Poa-Z.html [Accessed 30 January 2003].

Botany department. *Pennisetum polystachion*. College of Micronesia-FSM: Federated States of Micronesia.
Summary: Good pictures, little information.
Available from: http://www.comfsm.fm/~dleeling/botany/1998/vhp/naimpenn.html [Accessed on 30 January 2003].

CONABIO. 2008. Sistema de informaci&#65533;n sobre especies invasoras en M&#65533;xico. Especies invasoras - Plantas. Comisi&#65533;n Nacional para el Conocimiento y Uso de la Biodiversidad. Fecha de acceso.
Summary: English:
The species list sheet for the Mexican information system on invasive species currently provides information related to Scientific names, family, group and common names, as well as habitat, status of invasion in Mexico, pathways of introduction and links to other specialised websites. Some of the higher risk species already have a direct link to the alert page. It is important to notice that these lists are constantly being updated, please refer to the main page (http://www.conabio.gob.mx/invasoras/index.php/Portada), under the section Novedades for information on updates.
Invasive species - Plants is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Plantas [Accessed 30 July 2008]
Spanish:
La lista de especies del Sistema de informaci&#65533;n sobre especies invasoras de m&#65533;xico cuenta actualmente con informaci&#65533;n aceca de nombre cient&#65533;fico, familia, grupo y nombre com&#65533;n, as&#65533; como h&#65533;bitat, estado de la invasi&#65533;n en M&#65533;xico, rutas de introducci&#65533;n y ligas a otros sitios especializados. Algunas de las especies de mayor riesgo ya tienen una liga directa a la p&#65533;gina de alertas. Es importante resaltar que estas listas se encuentran en constante proceso de actualizaci&#65533;n, por favor consulte la portada (http://www.conabio.gob.mx/invasoras/index.php/Portada), en la secci&#65533;n novedades, para conocer los cambios.
Especies invasoras - Plantas is available from: http://www.conabio.gob.mx/invasoras/index.php/Especies_invasoras_-_Plantas [Accessed 30 July 2008]
Department of Business, Industry and Resource Development (Australia), April 1998. Agnote 453 No. F38, Mission Grass. Northern Territory Government of Australia. Found at: http://www.nt.gov.au/dbird/dpif/pubcat/agnotes/weeds/453.pdf [Accessed 30 January 2003]
Summary: Minimal information. Mentions a little about the distribution in Australia s Northern Territory.
Gramineae *Pennisetum polystachion* f. *viviparum* F.R.Fosberg & M.-H.Sachet in Micronesica, 18(2): 86 (1982 publ. 1984)&#65533;. 1984.
Summary: Minimal distribution information.
Available from: http://www.ipni.org/ipni/IpniServlet?query_type=by_id&id=918566-1 [Accessed 30 January 2003]
Holm, L. G., Plucknett, D. L., Pancho, J. V., Herberger, J. P. 1977. The World s Worst Weeds: distribution and biology. University Press of Hawaii, Honolulu. 609 pp.
Summary: Very good plant description, as well as excellent coverage of biology and agricultural importance. Has useful line drawings too.
Invaders Database System. DIVISION OF BIOLOGICAL SCIENCES: UNIVERSITY OF MONTANA.
Summary: Holds locations in the US and Canada where *P. polystachion* is listed as a weed.
Available from:
http://invader.dbs.umt.edu/scripts/esrimap.dll?name=Noxious_map&Plant_Name=Pennisetum+polystachion&submit1=Submit&Choice=1&CMD=Map [Accessed 30 January 2003]
Judziewicz, E.,1990. Flora of the Guianas.