

## *Cenchrus echinatus*

**System:** Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Liliopsida	Cyperales	Poaceae

### Common name

spiny sandbur (English), cadillo tigre (Spanish), cachorro (Spanish), cabeza de negro (Spanish), mozote (Spanish), mouku talatala (English, Tuvalu), hedgehog grass (English), cauit-cauitan (Filipino), mosie vihilango (English, Niue), motie vihilago (English, Niue), sandburr (English), cadillo (Spanish), se mbulabula (English), parango (Maori, Cook Islands), southern sandbur grass (English), southern sandbur (English), se mbulambula (Fijian), zacate banderilla (Spanish), quaramiyumut (English, Marshall Islands), te anti (English, Kiribati), te kateketeke (English, Kiribati), pega-pega (Spanish), sand burr (English), piri-piri (English, Tahiti), piripiri (Maori, Cook Islands), capim-carrapicho (Portuguese), sand bur (English), capim-timbete (Portuguese), capim-amoroso (Portuguese), roseta (Spanish), capim-roseta (Portuguese), burr grass (English), vao tui tui (English, Tokelau), puu ta'a ta'a (English, Marquesas), te uteute ae kateketeke (English, Kiribati), guizazo (Spanish), se bulabula (Fijian), vao tuitui (Samoan), vao papalagi (Samoan), golden grass (English), eakung (Nauruan), field sandbur (English), common sandbur (English), legalek (English, Marshall Islands), lellik (English, Marshall Islands), pua pipii (English, Marquesas), Mossman river grass (English), herbe e cateaeux (French, Mauritius), hefa (Tongan), burgrass (English), karumwii (English, Marshall Islands), iakung (English, Nauru), konpeito-gusa (English), bur grass (English), abrojo (Spanish), lek e lek (English, Marshall Islands), 'ume'alu (Hawaiian), cenchrus épineux (French), espolón (Spanish), caretón morado (Spanish), kǎlōklōk (English, Marshall Islands), mau'u kuku (English, Hawaii)

### Synonym

*Cenchrus echinatus*, var. *hillebrandianus* (A.S. Hitchc.) F. Br.

### Similar species

### Summary

*Cenchrus echinatus* is an annual grass that is a native of tropical America, but has now widely colonised tropical and temperate zones worldwide. Though it is typically associated with dry, sandy habitats it can also grow in moist areas, where it may be long-lived and reach a much larger size. It is recognisable by the burrs it produces, which readily attach themselves to animals and clothing, making *C. echinatus* easily dispersed. It is fairly easily managed by physical and chemical means, though the soil seed reservoir means followup treatments are necessary.



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

## Species Description

*Cenchrus echinatus* is an annual, branched and somewhat tufted grass that grows up to 1 m tall. It is erect at the base, with fibrous roots and has the ability to form mats. The blades are either smooth or slightly hairy on the upper surface, smooth on the lower surface and are up to 9 mm wide. The inflorescence are spike-like, up to 10 cm long and has up to 50 or more spiny burrs (5 - 7 mm long), which are well-spaced, subsessile with 2 - 4 spikelets. These burrs are easily detached. (PIER 2010).

## Notes

*Cenchrus echinatus* is declared as a species not wanted in southern Africa (GCW 2007).

## Habitat Description

*Cenchrus echinatus* can grow in a variety of conditions, and grows readily in tropical and temperate zones. Though it is often associated with dry, sandy soils, *C. echinatus* thrives in moist conditions where it is generally longer lived and can grow much larger. It readily colonises open ground and is known to invade agricultural areas, riparian zones, disturbed areas, sand dunes and other coastal areas, pasture, road sides, gardens and swamp margins. (PIER 2010).

## General Impacts

*Cenchrus echinatus* infests dry areas especially along leeward coastlines. Burs are a nuisance for people. They are reported as dangerous for hatchlings of seabirds on the Northwestern Islands. (Motooka *et al.* 2003). A prolific seeder, it forms mats and can displace native grasses (Flint & Rehkemper 2002).

## Management Info

**Preventative measures:** A [Risk Assessment of \*Cenchrus echinatus\*](#) for Australia. The result is a score of 11 and a recommendation of: "eject the plant for import (Australia) or species likely to be of high risk (Pacific)." *C. echinatus* is declared as an unwanted species in southern Africa (GCW 2007).

**Physical/Chemical:** Physical and chemical management techniques have been found to be effective against *Cenchrus echinatus*. Physical measures include hand-pulling individual plants, which can either be done on its own or following spray treatment with herbicide. Effective chemicals include glyphosate, chlorazifop, altrazine and benfluralin. Follow up procedures are necessary due to the seed reservoir of *C. echinatus*. It has been noted that preemergence herbicides could be useful. (Flint & Rehkemper 2002; Motooka *et al.* 2003; PIER 2010).

## Pathway

**Principal source:** [Pacific Island Ecosystems at Risk \(PIER\) 2010. \*Cenchrus echinatus\* L., Poaceae. Flint E., Rehkemper C. 2002. Control and eradication of the introduced grass, \*Cenchrus echinatus\*, at Laysan Island, Central Pacific Ocean.](#) In: C.R. Veitch, M.N. Clout (eds) Turning the Tide: The Eradication of Invasive Species. Proceedings of the International Conference on Eradication of Island Invasives. Pp 110.

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

## Review:

**Publication date:** 2010-06-08

## ALIEN RANGE

**[3]** AMERICAN SAMOA

**[3]** AUSTRALIA

**[2]** BRITISH INDIAN OCEAN TERRITORY

**[1]** CAMBODIA

[2] CHILE	[1] COLOMBIA
[13] COOK ISLANDS	[1] COSTA RICA
[4] ECUADOR	[1] EL SALVADOR
[7] FIJI	[1] FRANCE
[33] FRENCH POLYNESIA	[1] GUAM
[1] GUATEMALA	[1] HONDURAS
[2] JAPAN	[16] KIRIBATI
[17] MARSHALL ISLANDS	[2] MAURITIUS
[1] MEXICO	[10] MICRONESIA, FEDERATED STATES OF
[1] NAURU	[4] NEW CALEDONIA
[1] NEW ZEALAND	[1] NIUE
[6] NORTHERN MARIANA ISLANDS	[7] PALAU
[1] PANAMA	[1] PAPUA NEW GUINEA
[1] PERU	[1] PHILIPPINES
[1] REUNION	[2] SAMOA
[1] SEYCHELLES	[1] SOLOMON ISLANDS
[1] THAILAND	[1] TOKELAU
[8] TONGA	[1] TUVALU
[13] UNITED STATES	[6] UNITED STATES MINOR OUTLYING ISLANDS
[1] VANUATU	[1] VIET NAM
[2] WALLIS AND FUTUNA	

**Red List assessed species 2: CR = 1; VU = 1;**

[Anas laysanensis](#) **CR**

[Telespiza cantans](#) **VU**

## BIBLIOGRAPHY

11 references found for *Cenchrus echinatus*

### Management information

Flint E., Rehkemper C. 2002. Control and eradication of the introduced grass, *Cenchrus echinatus*, at Laysan Island, Central Pacific Ocean. In: C.R. Veitch, M.N. Clout (eds) Turning the Tide: The Eradication of Invasive Species. Proceedings of the International Conference on Eradication of Island Invasives. Pp 110.

**Summary:** Available from: [http://www.issg.org/pdf/publications/turning\\_the\\_tide.pdf](http://www.issg.org/pdf/publications/turning_the_tide.pdf) [Accessed 24 September 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.

Motooka P., Castro L., Nelson D., Nagai G., Ching L. 2003. *Cenchrus echinatus*. In: Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa.

**Summary:** Available from: [http://www.ctahr.hawaii.edu/invweed/WeedsHI/W\\_Cenchrus\\_echinatus.pdf](http://www.ctahr.hawaii.edu/invweed/WeedsHI/W_Cenchrus_echinatus.pdf) [Accessed 24 September 2010]

[Pacific Island Ecosystems at Risk \(PIER\), 2001. Risk Assessments: Cenchrus echinatus L., Poaceae](#)

**Summary:** Available from: <http://www.hear.org/pier/wra/australia/ceech-wra.htm> [Accessed 26 July 2010]

[Pacific Island Ecosystems at Risk \(PIER\) 2010. Cenchrus echinatus L., Poaceae.](#)

**Summary:** Available from: [http://www.hear.org/pier/species/cenchrus\\_echinatus.htm](http://www.hear.org/pier/species/cenchrus_echinatus.htm) [Accessed 23 September 2010]

Simberloff D. 2009. We can eliminate invasions or live with them. Successful management projects. In: D.W. Langor, J. Sweeney (eds) Ecological Impacts of Non-Native Invertebrates and Fungi on Terrestrial Ecosystems. Springer Science+Business Media B.V. Pp 149-15.

### General information

[Global Compendium of Weeds \(GCW\) 2007. Cenchrus echinatus \(Poaceae\).](#)

**Summary:** Available from: [http://www.hear.org/gcw/species/cenchrus\\_echinatus/](http://www.hear.org/gcw/species/cenchrus_echinatus/) [Accessed 24 September 2010]

[Integrated Taxonomic Information System \(ITIS\), 2010. Cenchrus echinatus L.](#)

**Summary:** Available from: [http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=TSN&search\\_value=40575](http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=40575) [Accessed 23 September 2010]

[JSTOR Plant Science, 2010. Cenchrus echinatus L. \[family POACEAE\]](#)

**Summary:** Available from: <http://plants.jstor.org/taxon/flora/Cenchrus.echinatus> [Accessed 26 July 2010]

[USDA-ARS, 2010. Taxon: Cenchrus echinatus L. National Genetic Resources Program. Germplasm Resources Information Network - \(GRIN\) \[Online Database\]. National Germplasm Resources Laboratory, Beltsville, Maryland.](#)

**Summary:** Available from: <http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?9795> [Accessed 26 July 2010]



# GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Cenchrus echinatus*

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USDA-NRCS, 2010. *Cenchrus echinatus* L. southern sandbur. The PLANTS Database (<http://plants.usda.gov>, 21 September 2010). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

**Summary:** Available from: <http://plants.usda.gov/java/profile?symbol=CEEC> [Accessed 26 July 2010]