GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Spermacoce verticillata***

Spermacoce verticillata 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Rubiales	Rubiaceae

Common name shrubby false buttonwood (English), shrubby false buttonweed (English), poaia (English), vassourinha (English), cardio de frade (English), borrerie verticillée (English), éribun (English), Botón blanco (Spanish, Puerto Rico)

Synonym
Borreria verticillata , (L.) G. Mey.
Bigelovia verticillata , (Linnaeus) Sprengel, Syst. Veg. 1: 404. 1824.
Borreria podocephala , de Candolle, Prodr. 4: 452. 1830.
Borreria podocephala , de Candolle, var. *pumila* Chapman, Fl. South U.S. 175. 1860.
Borreria verticillata , (Linnaeus) G. Meyer, Prim. Fl. Esseq. 83. 1818.
Spermacoce podocephala , (de Candolle) A. Gray, Syn. Fl. N. Amer. 1(2): 34. 1884.
Borreria stricta , DC.

Similar species

Summary *Spermacoce verticillata* is described as a \"plant threat to Pacific ecosystems\".

view this species on IUCN Red List

Species Description
Spermacoce verticillata is a fine-stemmed scrambling shrub that may reach a few meters of lateral extension and 1.2 m in height as a free-standing plant. The square stems are herbaceous to semiwoody in their first year, becoming woody and more rounded in the following year. The brown stems reach a maximum diameter of about 8 mm, have a solid pith, and lack visible annual rings. Botón blanco produces a weak taproot, many important laterals that are pale yellow and flexible, and a moderate amount of fine roots. Branching is bifurcate or ternate. The leaves are opposite but appearing with two or a cluster of smaller leaves in whorls at the nodes. The leaves are sessile or nearly so, linear or linear-lanceolate, 2 to 6 cm long, and pointed at both ends. The tiny white flowers grow in heads or glomerules in terminal or lateral positions. The terminals continue to grow through the center of the inflorescence so that the fruits develop at nodes in mid-stem. The capsules are oblong or subglobose with two carpels, each with one seed. The seeds are ellipsoidal, brown, and about 1 mm long (Correll & Johnston 1970, Howard 1989, Liogier 1997, in Francis, undated).

Notes
The accepted name for this plant is *Spermacoce verticillata*. Please note that *Borreria verticillata* is frequently used to refer to this species in the literature.

Uses
Spermacoce verticillata has a number of uses in herbal medicine, most frequently for skin conditions. In Africa, leaf extracts are used to treat leprous conditions, furuncles, ulcers, and gonorrheal sores (Burkill 2000, Environnement et Développement du Tiersmonde, 2002, in Francis, undated). A lotion is prepared to relieve skin itches (Liogier 1990, in *Spermacoce verticillata* Undated). Other preparations are used internally to treat diarrhea, as a diuretic in the treatment of schistosomiasis, and as an abortive. An essential oil extracted from the leaves has been shown to inhibit *Escherichia coli* and *Staphylococcus aureus* (Burkill 2000, in Francis, undated).

Habitat Description
Spermacoce verticillata grows on moist soils, both acid and alkaline, of all textures derived from nearly all types of rocks. The species grows in areas that receive from about 750 to 3000 mm of annual rainfall from near sea level to 600 m or more in elevation in Puerto Rico. It grows on sand and caliche in prairies and openings in Texas (Jones 1975, in Francis, undated). In Puerto Rico, it grows on roadsides, construction sites, old fields, and pastures. It is one of the major invaders of abandoned pastures and slash-and-burn fields (Ministério de Ciencia e Tecnología. 2002, in Francis, undated). The species requires disturbance to establish itself and must have full or good partial sunlight to survive. It competes well with disbursed grass and weeds, but is overcome by dense, tall grass, brush, and trees. Because of grazing, mowing, and cultivation, most plants do not progress beyond the herbaceous stage. If allowed to grow, they will form dense clumps and mats.

Reproduction
In Brazil *Spermacoce verticillata* blooms from February through August (Instituto Botánico Darwin. 2002, in Francis, undated). In Texas, it flowers from March through May (Correll and Johnston 1970, in Francis, undated). Flowering is almost continuous in moist portions of Puerto Rico. Plants begin blooming in the nursery at about 9 months. The flowers are pollinated by several species of bees (Instituto Botánico Darwin. 2002, in Francis, undated). Seeds collected in Puerto Rico averaged 0.00016 g each or 6,250,000 seeds/kg. Sown on peat without pretreatment, these seeds germinated at 49 percent beginning in 13 days and ending at 74 days. The seeds are disbursed by grazing animals and farm equipment. Established plants root readily at the nodes when covered by soil or rotting plant material.

General Impacts
Spermacoce verticillata competes with cultivated crops and plantations in Brazil and Africa (Holm *et al*. 1997, in Francis, undated).

Management Info
Spermacoce verticillata seedlings grow slowly at first but begin rapid growth after about 6 months. Twenty-three 9- month-old nursery plants averaged 64 cm in height with a maximum of 109 cm. *S. verticillata* shrubs appears to live at least 4 years and probably much longer in Puerto Rico. It is controlled in crops and pasture by cultivation, mowing, and\nspraying with broadleaf herbicides. The importance value of *S. verticillata* in a Colombian pasture was reduced by 39 percent by simply fertilizing with potassium and sulfur to increase the vigor of the pasture grasses (Tejos 1981, in Francis, undated).

Pathway
Spermacoce verticillata may have been introduced unintentionally along with deliberately imported species.

Principal source:

Compiler: IUCN SSC Invasive Species Specialist Group (ISSG) with support from the EU-funded South Atlantic Invasive Species project, coordinated by the Royal Society for the Protection of Birds (RSPB)

Review:

Pubblication date: 2009-03-23

ALIEN RANGE

[1] NIUE
[1] SAINT HELENA
[1] UNITED STATES

Red List assessed species 1: CR = 1;

Pteris adscensionis **CR**

BIBLIOGRAPHY

9 references found for **Spermacoce verticillata**

Managment information

Francis, John K., undated. *Spermacoce verticillata* L. Rubiaceae. Research Forester, U.S. Department of Agriculture, Forest Service, International Institute of Tropical Forestry, Jard�n Bot�nico Sur, 1201 Calle Ceiba, San Juan PR 00926-1119, in cooperation with the University of Puerto Rico, R�o Piedras, PR 00936-4984
Summary: Available from: http://www.fs.fed.us/global/iitf/pdf/shrubs/Spermacoce%20verticillata.pdf [Accessed 25 October 2009]

General information

Duffey, Eric. 1964. The terrestrial ecology of Ascention Island, The Journel of Applied Ecology 1 (2)
Summary: Available from: http://www.seaturtle.org/PDF/Duffey_1964_JAppEcol.pdf [Accessed 25 October 2009]

Gray, Alan, Tara Pelembe and Stedson Stroud. 2005. The conservation of the endemic vascular flora of Ascension Island and threats from alien species, Oryx 39 (4)
Summary: Available from: http://journals.cambridge.org/download.php?file=%2FORX%2FORX39_04%2FS0030605305001092a.pdf&code=a496b9c9fa1ba28f5d1724b76fbc7feb [Accessed 10 December 2008]

ITIS (Integrated Taxonomic Information System), 2009. Online Database *Spermacoce verticillata* L.
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.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=505317 [Accessed 25 October 2008]

Pacific Island Ecosystems at Risk (PIER). 2006. *Borreria verticillata* (L.) G. Mey., Rubiaceae
Summary: Available from: http://www.hear.org/pier/species/borreria_verticillata.htm [Accessed 25 October 2009]

Pires, Maria Joaquina. 1992. A Checklist on the Invasive Species of Forestry plantations in Lower Amazon, NW *Acta Amazonica 22*(1): 3-15.
Summary: Available from: http://acta.inpa.gov.br/fasciculos/22-1/PDF/v22n1a01.pdf [Accessed 25 October 2009]

United States Department of Agriculture - Agricultural Research Service (USDA-ARS). 2008. Taxon: *Spermacoce verticillata* 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/tax_search.pl?Borreria%20verticillata [Accessed 25 October 2009]

United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS). 2008 *Spermacoce verticillata* L. shrubby false buttonweed. The PLANTS Database (http://plants.usda.gov, 30 January 2009). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
Summary: Available from: http://plants.usda.gov/java/profile?symbol=SPVE2 [Accessed 25 October 2009]

Wunderlin, R. P. and B. F. Hansen. 2008. Atlas of Florida Vascular Plants (http://www.plantatlas.usf.edu/). [S. M. Landry and K. N. Campbell (application development), Florida Center for Community Design and Research.] Institute for Systematic Botany, University of South Florida, Tampa.
Summary: Available from: http://florida.plantatlas.usf.edu/Plant.aspx?id=1530 [Accessed 25 October 2008]