GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Sagina procumbens***

Sagina procumbens 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Caryophyllales	Caryophyllaceae

Common name

Synonym

Similar species *Sagina nodosa*

Summary Sagina procumbens is a herb native to Eurasia and North Africa. It has become naturalised in temperate regions and is invasive in some sub-Antarctic islands. It forms dense mats, threatening the integrity of terrestrial ecosystems. Once it becomes established it can be difficult to eradicate due to its persistence in the seed bank.

view this species on IUCN Red List

Species Description
Sagina procumbens is a mat-forming plant with narrow leaves, ending in a bristle-like point, and tiny flowers which usually have no petals, or occasionally have 4 minute green petals (National Museums and Galleries of Northern Ireland and Environment and Heritage Service, 2008). It often forms a rosette of leaves, from which one or more stems develop. These stems are bright green, glabrous, and tend to sprawl across other stems or the ground. Pairs of opposite leaves occur at intervals along the stems. Each pair of leaves merge together and wrap around the stem, which is slightly swollen where each pair of leaves occurs. Each leaf is about ½\" long and bright green like the stems. It is linear, glabrous, and smooth along the margins. The stems often terminate in either individual flowers or small cymes of flowers. Each flower is up to ¼\" across when fully open, consisting of 4 green sepals, 0-4 white petals, 4 stamens with white anthers, 4 white styles, and a green ovary that contains the developing seeds. The sepals are oblong-ovate and persistent. The petals are usually shorter and more narrow than the sepals; they are often missing or poorly developed in individual flowers. The blooming period occurs from mid- to late spring and lasts about 1 month for a colony of plants. There is no noticeable floral scent. The ovary of each flower develops into an ovoid seed capsule that is white and membranous; there are 4 blunt teeth along its upper rim. Each capsule contains several dark tiny seeds that can be blown about by the wind. The surface of each seed is minutely pebbly. The root system consists of a slender taproot that is shallow and divides frequently into secondary roots. This plant spreads by reseeding itself and it often forms small colonies of plants with a mossy appearance. (Hilty, 2006).

Habitat Description
Sagina procumbens grows on sandy ridges, in open woodlands, rocky open ground, and cracks between bricks and patio blocks. It can be found in either natural or disturbed areas where there is scant vegetation on the ground (Hilty, 2006). In it's native range, it is found to grow in a variety of situations, such as on lawns, flower beds, pathways, walls, along streams, in ditches and in short grass. It has been recorded at an altitudinal range of 420m (National Museums and Galleries of Northern Ireland and Environment and Heritage Service, 2008); depending on climate, it may well occur much higher elsewhere (or not reach that altitude at all) (Niek Gremmen., pers.comm., July 2008).\r\n .

Reproduction
Perennial plant (USDA, NRCS, 2008).

General Impacts
Once established, *Sagina procumbens* can form large, dense mats. It is a serious threat to native vegetation and soil fauna communities on the cold, oceanic islands where it has been introduced. It takes only a few months for *Sagina procumbens* seedlings to reach maturity and produce a large number of small, easily dispersed seeds, and seeds can persist in the soil for a long time (Gremmen *et al*. 2001).

Management Info
Chemical: Paraquat and Diquat will kill seedlings on contact, but more mature plants will require a systemic like Glyphosate. It will probably take more than one application due to the presence of seed. On lawns, a selective herbicide (singular, or a weed-and-feed type) will require a few applications due to persistence of seed in the soil bank (DGS, 2008).
Integrated management: The eradication of *Sagina procumbens* from Gough Island was carried out in the following stages:
Containment: This was carried out on Gough Island by removing all plants seen, and storing them in strong plastic bags for later removal from the island.
Removal: Every plant was then removed, plus the soil around it to a depth of 15 cm. The remaining soil was treated with boiling water, to reduce the number of viable seeds in the seedbank. Herbicides were used to kill those plants that were growing in inaccessible places.
Ongoing removal and preventative measures: The final stage involved removing all plants that germinated from the small number of remaining seeds. This stage is considered essential to ensure the eradication is successful, as are strict quarantine measures (Gremmen *et al*. 2001).

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: Niek Gremmen Data-Analyse Ecologie, Diever The Netherlands

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ALIEN RANGE

[3] AUSTRALIA
[1] FALKLAND ISLANDS (MALVINAS)
[1] JAPAN
[1] SAINT HELENA
[2] SOUTH AFRICA

[23] UNITED STATES

[1] CHILE
[15] FRENCH SOUTHERN TERRITORIES
[43] NEW ZEALAND
[1] SOLOMON ISLANDS
[1] SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS

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