

Trifolium dubium

System: Terrestrial

| Kingdom | Phylum | Class | Order | Family |
|---------|---------------|---------------|---------|----------|
| Plantae | Magnoliophyta | Magnoliopsida | Fabales | Fabaceae |

Common name smallhop clover (English), lesser trefoil (English), hop clover (English), suckling clover (English), yellow clover (English), low hop clover (English), shamrock (English)

Synonym *Chrysaspis dubia* , (Sibth.) Desv.
Trifolium filiforme , var. *dubium* (Sibth.) Fiori
Trifolium parviflorum , Bunge ex Nyman
Trifolium minus , Sm.

Similar species

Summary *Trifolium dubium* is an annual legume that naturally occurs over most of Europe. *T. dubium* prefers higher altitude biomes, such as the areas it is found in both Australia and New Zealand. It has been introduced world-wide as a soil improver and forage crop.



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

Species Description

Trifolium dubium has been described as having 5-15 flowered heads, leaflets that are 0.5cm long, and marginally hairy stipules (Swenson *et al*, 1997). This description was made in its occurrence on the Juan Fernandez Islands, so may not hold true elsewhere. In Taiwan *T. dubium* is described as reaching heights of 0.3m, having 1 seed per pod, and was introduced as a forage species (Wu *et al*, 2003).

Lifecycle Stages

Trifolium dubium is an annual legume (Caradus, 1994).

Uses

Trifolium dubium has been reported as being used as a bee crop, a revegetator, and soil improver and a forage species (USDA-ARS, 2010).

Habitat Description

In Australia *Trifolium dubium* is found in only small quantities in the sub-alpine and montane regions of Kosciuszko National Park in the Snowy Mountains where it is described as "widespread but rarely common" (MacDougall *et al*, 2005). This habitat preference is also reflected in its abundance in New Zealand, where it occurs in high-altitude swards in the South Island (Caradus, 1994). Caradus further described *T. dubium* as preferring "dry, infertile regions". *T. dubium* has also been found to occur though in the coastal regions near Wanganui (Champion & Reeves, 2009). In the Falkland Islands *T. dubium* occurs in built up areas and gardens, improved grassland and dwarf shrub heath (Broughton & McAdam, 2002). *T. dubium* was found to be one of the most frost tolerant *Trifolium* species in a study by Caradus (1994), shown to have a frost-tolerance down to -13.8 degrees Celcius. *T. dubium* dominate the deep-soil seed bank and can increase threefold following disturbance (MacDougall *et al*, 2006).



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Trifolium dubium*

Management Info

Preventative Measures: *Trifolium dubium* is listed as an agricultural weed in Japan (Miyawaki & Washitani, 2004).

Principal source:

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:

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ALIEN RANGE

[1] ARGENTINA

[1] CANADA

[1] FALKLAND ISLANDS (MALVINAS)

[1] JAPAN

[1] TAIWAN

[2] AUSTRALIA

[3] CHILE

[1] FRENCH SOUTHERN TERRITORIES

[1] NEW ZEALAND

[1] UNITED STATES

BIBLIOGRAPHY

18 references found for *Trifolium dubium*

Management information

[Auld, Bruce; Hirohiko Morita; Tomoko Nishida; Misako Ito and Peter Michael, 2003. Shared exotica: Plant invasions of Japan and south eastern Australia. *Cunninghamia* \(2003\) 8\(1\): 147-152](#)

Summary: Available from: http://www.rbgsyd.nsw.gov.au/_data/assets/pdf_file/0008/58904/Cun8Aul147.pdf [Accessed 28 June 2010]
[Champion, P. D. and P. N. Reeves, 2009. Factors causing dune ephemeral wetlands to be vulnerable to weed invasion. *DOC Research & Development Series* 310](#)

Summary: Available from: <http://conservation.govt.nz/upload/documents/science-and-technical/drds310entire.pdf> [Accessed 28 June 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.

[Mito, Toshikazu and Tetsuro Uesugi, 2004. Invasive Alien Species in Japan: The Status Quo and the New Regulation for Prevention of their Adverse Effects. *Global Environmental Research* 8\(2\)/2004: 171-191](#)

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General information

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[Bear, Roxana; Hill, Wendy; Pickering, Catherine M., 2007. Distribution and diversity of exotic plant species in montane to alpine areas of Kosciuszko National Park. *Cunninghamia*. 9\(4\). 2006. 559-570.](#)

Summary: Available from: http://www98.griffith.edu.au/dspace/bitstream/10072/14448/1/39639_1.pdf [Accessed 28 June 2010]

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[Integrated Taxonomic Information System \(ITIS\), 2010. *Trifolium dubium* Sibthorp](#)

Summary: Available from: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=26205 [Accessed 28 June 2010]

[Johnston FM, Pickering CM. 2001. Exotic plants in the Australian Alps. *Mountain Research and Development* 21:284-291.](#)

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GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Trifolium dubium*

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- MacDougall, Keith L.; John W. Morgan; Neville G. Walsh; Richard J. Williams, 2005. Plant invasions in treeless vegetation of the Australian Alps. *Perspectives in Plant Ecology, Evolution and Systematics* 7 (2005) 159-171
- [Miyawaki, Shigenari and Izumi Washitani, 2003. Invasive Alien Plant Species in Riparian Areas of Japan: The Contribution of Agricultural Weeds, Revegetation Species and Aquacultural Species. *Global Environmental Research* 8\(1\)/2004: 89-101](#)
- Summary:** Available from: <http://ns.airies.or.jp/publication/ger/pdf/08-01-09.pdf> [Accessed 28 June 2010]
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- [USDA-ARS, 2010. Taxon: *Trifolium dubium* Sibth. National Genetic Resources Program. Germplasm Resources Information Network - \(GRIN\) \[Online Database\]. National Germplasm Resources Laboratory, Beltsville, Maryland.](#)
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