

GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: Robinia pseudoacacia



System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Fabales	Fabaceae

Common name robinia akacjowa (Polish), yellow locust (English), false acacia (English), black

locust (English), Post locust (English), robinier faux-acacia (French, France)

Synonym Robinia pseudoacacia , var. rectissima (L.) Raber

Similar species Gleditsia triacanthos, Sophora japonica

Summary Robinia pseudoacacia is a leguminous deciduous tree native to the

> southeastern United States that has been widely introduced to other parts of North America. It is commonly found in disturbed areas such as old fields, degraded woods, forest edges, and roadsides, but it poses the greatest threat to dry and sand prairies and oak savannas. R. pseudoacacia has been planted on reclaimed land to control erosion and has been used for ornamental purposes. It reproduces vigorously by root suckering and stump sprouting to

form groves of trees interconnected by a common root system.



view this species on IUCN Red List

Species Description

R. pseudoacacia is described as a leguminous deciduous tree that grows from 30 to 80 feet tall. Young saplings have smooth, green bark; older trees have deep, furrowed, shaggy, dark bark with flat-topped ridges. Leaves are alternate and pinnately compound with 7 to 21 leaflets. Leaflets are thin, elliptical, dark green above, and pale beneath. Flowers are pea-like, fragrant, white to yellow, and born in large, drooping racemes. Seed pods are shiny, smooth, narrow, flat, 5cms to 10cms long, and contain 4 to 8 seeds (DNR, 2003). Smaller branches are armed with a pair of setaceous stipules, or stipular spines, that occur at the base of each petiole. These stipular spines are very pronounced on resprouts, and make working among these plants somewhat hazardous (Gover, pers. comm., 2004).

Lifecycle Stages

According to Converse (1984), R. pseudoacacia is a good seed producer, with heavy seed crops at 1- or 2- year intervals and light crops in the intervening years. Best seed crops occur when the trees are between 15 and 40 years of age, but some trees will bear at 6 years and some as late as 60 years.

Uses

DNR (2003) states that the wood of R. pseudoacacia is valued for its durability and high fuel value, and the tree also provides good forage for bees. R. pseudoacacia is planted on reclaimed land to control erosion and has been used for ornamental purposes.

Habitat Description

R. pseudoacacia is an early successional plant, preferring full sun, well drained soils, and little competition. It invades dry and sand prairies, oak savannas, and upland forest edges. R. pseudoacacia is commonly found in disturbed areas such as old fields, degraded woods, and roadsides (Weiseler, 1998).



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Reproduction

Wieseler (1998) states that *R. pseudoacacia* reproduces vigorously by root suckering and stump sprouting to form groves (or clones) of trees interconnected by a common fibrous root system.

General Impacts

Once introduced, *R. pseudoacacia* expands readily into areas where their shade reduces competition from other (sun-loving) plants. Dense clones of *R. pseudoacacia* create shaded islands with little ground vegetation. Lack of ground fuel limits the use of fire in natural disturbance regimes. The large, fragrant blossoms of *R. pseudoacacia* compete with native plants for pollinating bees.

Management Info

R. pseudoacacia produces shoots from its root system, so any control effort should be targeted against the roots (Art Gover Aliens-L., 2002).

For details on management of this species, please see <u>management information</u>

Pathway

According to OPLIN (2001), *R. pseudoacacia* is planted on reclaimed land and to control erosion. According to OPLIN (2001), *R. pseudoacacia* has been used for ornamental purposes.

Principal source: Black Locust (Wieseler, 1998)

Compiler: National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

Review: Art Gover, PENNDOT Roadside Vegetation Management Project. Department of Horticulture, The Pennsylvania State University USA

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ALIEN RANGE

[4] CANADA

[1] CZECH REPUBLIC

[1] FRANCE

[1] GIBRALTAR

[2] ITALY

[1] POLAND

[1] ROMANIA

[1] SWAZILAND

[1] TURKEY

[32] UNITED STATES

[1] CYPRUS

[1] EUROPE

[1] GERMANY

[1] HUNGARY

[1] KOREA, REPUBLIC OF

[1] REUNION

[1] SPAIN

[1] SWITZERLAND

[1] UNITED KINGDOM

Red List assessed species 1: LC = 1;

Pulsatilla grandis LC

BIBLIOGRAPHY

25 references found for Robinia pseudoacacia

Managment information

Alien Species in Poland 2006 Robinia pseudoacacia

Summary: Available from: http://www.iop.krakow.pl/ias/Gatunek.aspx?spID=146 [Accessed 18 March 2010]
AME, 2004 Agence M�diterran�enne de I Environnement. Plantes Envahissantes de la Region Mediterraneenne. *Robinia pseudoacacia*Gover, et al. 1993. Brush control provided by fall broadcast applications of combinations of Krenite or Accord with Arsenal.

Summary: Available from: http://rvm.cas.psu.edu/1993/AR1993.html [Accessed October 19, 2004]

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Gover, et al. 2002a. The effect of basal bark application timing on ailanthus and black locust resprouting.

Summary: Available from: http://rvm.cas.psu.edu/2003/AR2003.html [Accessed October 19, 2004]

Gover, et al. 2002b. The effect of application timing of cut surface treatments on resprouting of black locust.

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Hadjikyriakou, G. and Hadjisterkotis, E. 2002. The adventive plants of Cyprus with new records of invasive species. *Zeitschrift Fuer Jagdwissenschaft*. 48: 59-71.

Hong, S-K., Song, I-J., Kim, H-O. and Lee, E-K. 2003. Landscape pattern and its effect on ecosystem functions in Seoul Metropolitan area: Urban ecology on distribution of the naturalized plant species. *Journal of Environmental Sciences*. 15(2): 199-204.

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Kodoi, F., Lee, H-S., Uechi, N., and Yukawa, J. 2003. Occurrence of *Obolodiplosis robiniae* (Diptera: Cecidomyiidae) in Japan and South Korea. Laiolo, P., Caprio, E. and Rolando, A. 2003. Effects of logging and non-native tree proliferation on the birds overwintering in the upland forests of north-western Italy. *Forest Ecology and Management*. 179(1-3): 441-454.

Lee, C-S., Cho, H-J., and Yi, Hoonbok. 2004. Stand dynamics of introduced black locust (*Robinia pseudoacacia* L.) plantation under different disturbance regimes in Korea.

Parolo, G. 2000. Dynamics of Robinia pseudoacacia L. communities in Valtellina. Archivio Geobotanico. 6(2): 133-154.

Reme, V. 2003. Effects of exotic habitat on nesting success, territory density, and settlement patterns in the Blackcap (*Sylvia atricapilla*). *Conservation Biology*. 17(4): 1127-1133.

Sabo, A. 2000. *Robinia pseudoacacia* Invasions and Control in North America and Europe in Restoration and Reclamation Review (A Student

Sabo, A. 2000. Robinia pseudoacacia Invasions and Control in North America and Europe in Restoration and Reclamation Review (A Student On-Line Journal).

Summary: Good general information about impacts and effects of the plant on some ecosystems, includes management information.

Swaziland s Alien Plants Database., Undated. Robinia pseudoacacia

Summary: A database of Swaziland s alien plant species.

Varnham, K. 2006. Non-native species in UK Overseas Territories: a review. JNCC Report 372. Peterborough: United Kingdom.

Summary: This database compiles information on alien species from British Overseas Territories.

Available from: http://www.jncc.gov.uk/page-3660 [Accessed 10 November 2009]

Wieseler, S. 1998. Black Locust. Plant Conservation Alliance.

Summary: Available from: http://www.nps.gov/plants/alien/fact/rops1.htm [Accessed 30 July 2003]

Yun, C.W., Oh, S, Lee, Y-G., Hong, S.C., and Kim, J.H. 2001. The study on the invasion of *Robinia pseudoacacia* into adjacent forest stand according to forest types, stand structures and vegetation units. *Journal of Korean Forestry Society*. 90 (3): 227-235.

General information

Conservatoire Botanique National De Mascarin (BOULLET V. coord.) 2007. - Robinia pseudoacacia Index de la flore vasculaire de la Rêunion (Trachêophytes): statuts, menaces et protections. - Version 2007.1

Summary: Base de donn�es sur la flore de La R�union. De nombreuses informations tr�s utiles.

Available from: http://flore.cbnm.org/index2.php?page=taxon&num=569ff987c643b4bedf504efda8f786c2 [Accessed 9 April 2008] Converse, C. 1984. Robinia pseudoacacia. The Nature Conservancy.

Summary: A detailed report on all aspects of *R. pseudoacacia*.

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DNR (Department of Natural Resources). 2003. Robinia pseudoacacia. Wisconsin Department of Natural Resources.

Summary: A report on the biology and ecology of R. pseudoacacia.

Available from: http://www.dnr.state.wi.us/org/land/er/invasive/factsheets/locust.htm [Accessed 3 August 2003]

IPANE (Invasive Plant Atlas of New England). 2001. Robinia pseudoacacia. University of Connecticut.

Summary: A report that provides information on similar species to R. pseudoacacia.

Available from: http://webapps.lib.uconn.edu/ipane/browsing.cfm?descriptionid=102 [Accessed 4 July 2003]

ITIS (Integrated Taxonomic Information System), 2005. Online Database Robinia pseudoacacia

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:

 $\label{lem:http://www.cbif.gc.ca/pls/itisca/taxastep?king=every&p_action=containing\&taxa=Robinia+pseudoacacia&p_format=&p_ifx=plglt&p_lang=[Accessed March 2005]$

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Summary: A short summary of the uses of *R. pseudoacacia*.

<u>USDA-NRCS (United States Department of Agriculture). 2002. Robinia pseudoacacia. The PLANTS Database. Natural Resource Conservation Service.</u>

Summary: A database that provides links and information on *R. pseudoacacia*.

Available from: http://plants.usda.gov/java/profile?symbol=ROPS [Accessed 1 August 2003]