GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: ***Vespula vulgaris***

Vespula vulgaris 简体中文 正體中文

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Hymenoptera	Vespidae

Common name common wasp (English), Gemeine Wespe (German), common yellowjacket (English, USA)

Synonym *Paravespula vulgaris*

Similar species

Summary Vespula vulgaris (the common wasp) nest underground and in the cavities of trees and buildings. In addition to causing painful stings to humans, they compete with other insects and birds for insect prey and sugar sources. They will also eat fruit crops and scavenge around rubbish bins and picnic sites.

view this species on IUCN Red List

Species Description
Distinguishing marks on workers include a black mark behind the eye on the side of the head; an anchor-shaped or dagger-shaped mark on the \"face\"; yellow pronotal bands which are almost parallel; black dots and rings on the abdomen, which are usually fused. Males can only be reliably distinguished by examining the aedeagus (part of the genitals) under a microscope.
Please see PaDIL (Pests and Diseases Image Library) Species Content Page Wasps: English wasp \r\n*Vespula vulgaris* (Linnaeus) for high quality diagnostic and overview images

Lifecycle Stages
Annual colonies initiated in spring by one queen. Colony expands through season and then produces sexual stages in autumn, before colony breaks down. In each cell of a new nest, the queen lays a single egg, which hatches into a larvae in 5 to 8 days. After five moults over about 90 days (the length of time spent in each stage is determined by environmental conditions), each larva spins a silken cap over the cell and pupates. After about 80 days an adult worker wasp emerges.

Reproduction
Sexual. Males and queens produced in late autumn. Fertilised queens overwinter, and then start a new colony in early spring. The queen produces sterile females, called workers, throughout the season.
c. 1000-2000 queens are produced per colony in autumn. Average colony density in New Zealand beech forest c. 12 per ha.

Nutrition
Common wasps collect protein and carbohydrate food. Honeydew and nectar are important food sources. They have a broad invertebrate diet with an emphasis on Diptera, Lepidoptera and Araneae. Notorious for their scavenging. *Vespula* wasps are also attracted to dead bait, such as chicken or fish meat (Toft and Harris 2004).

General Impacts
Wasps impact a range of human activities and values, from conservation, forestry, beekeeping and horticulture sectors to human-health. Wasp stings are painful, but can also be life-threatening. A small proportion of the population will have a severe allergic reaction (called anaphylactic shock), which can be fatal unless treated promptly (Landcare Research 2007).\r\n
In forests, wasps may eat huge numbers of native insects and consume large quantities of sugary honeydew. By eating so much, wasps take potential food sources away from native species and disrupt the natural food chain and ecosystem cycling of the forest (Landcare Research 2007). To elaborate, in temperate beech forests in the South Island of New Zealand honeydew drops produced by beech scale insects (*Ultracoelostoma assimile*) feeding on beech trees (*Nothofagus*) are collected by introduced wasp species: the German wasp (*Vespula germanica*) and the common wasp (*V. vulgaris*). Moller and colleagues found that in relation to cropping by native honeyeater birds and native insects, cropping by German wasps and particularly by common wasps, significantly reduces the number, size and sugar concentration of honeydew drops (by up to 99.1%) in the summer and autumn months. Removal of the honeydew by the introduced social wasps threatens the existence of some New Zealand native animals (Moller *et al*. 1991).\r\n

Wasps bring with them a financial burden. They are economic pests of primary industries such as beekeeping, forestry and horticulture (Beggs 2000). Wasps totally destroy or seriously affect 10% of beehives, which translates to a significant financial loss (Clapperton *et al*. 1989). Beehives are often placed near honeydew forests or other unique sources of nectar to produce strong-flavoured honey. However, wasps can reduce honey production by reducing nectar and honeydew supplies and cause honeybees to stay in the hive to conserve energy and protect the hive from raiding wasps (Landcare Research 2007).

Management Info
Please follow this link for detailed information on the control and management of *Vespula vulgaris*

Pathway
Queen wasps stowaway in human goods and accidentally transported.

Principal source:

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ALIEN RANGE

[2] AUSTRALIA
[1] NEW ZEALAND
[1] UNITED STATES
[1] ICELAND
[1] SAINT HELENA

Red List assessed species 1: EN = 1;

Nestor meridionalis **EN**

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The aim of the project is: 1) Production of high quality images showing primarily exotic targeted organisms of plant health concern to Australia. 2)Assist with plant health diagnostics in all areas, from initial to high level. 3) Capacity building for diagnostics in plant health, including linkage developments between training and research organisations. 4)Create and use educational tools for training undergraduates/postgraduates. 5) Engender public awareness about plant health concerns in Australia. PaDIL is available from : http://www.padil.gov.au/aboutOverview.aspx, this page is available from: http://www.padil.gov.au/viewPestDiagnosticImages.aspx?id=795 [Accessed 10 November 2007]

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