

Orthezia insignis

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Hemiptera	Ortheziidae

Common name

cochinilla blanca menor de los citricos (Spanish, Colombia), Lantana bug (English), Orthezia scale (English), jacaranda bug (English), greenhouse Orthezia (English), escama blanca del croto (Spanish, Spain), chinche harinosa del croto (Spanish, Spain), Lantana blight (English, East Africa), Gewaechshaus-Roehrschildlaus (German, Germany), marsupial coccid (English, California), Croton bug (English, England and Wales), glasshouse Orthezia (English, England and Wales), Kew bug (English, England and Wales), Maui blight (English, Hawaii)

Synonym

Similar species

Summary

The scale insect *Orthezia insignis* damages the host plant by feeding on its phloem and excreting nutrients which promote the growth of sooty mold. Biocontrol using the coccinellid predator *Hyperaspis pantherina* has proven to be successful in controlling the scale insect on Saint Helena (in the South Atlantic Ocean).



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

Uses

Orthezia insignis may have uses for biocontrol of the invasive shrub lantana (Broughton 2000).

Reproduction

Orthezia insignis is a mobile scale insect, which as an adult female has a large wax ovisac. The species is parthenogenetic. The eggs hatch inside the ovisac and the 1st instar nymphs then move out to feed (Fowler 2005).

Nutrition

Orthezia insignis is highly polyphagous (CBD 2001).

General Impacts

The scale insect *Orthezia insignis* damages the host plant by feeding on its phloem and excreting nutrients which promote the growth of sooty mold. It may threaten indigenous plants.

Management Info

Biological: *Orthezia insignis* has a history of successful biological control in Hawaii, and several African countries, through the introduction between 1908 and 1959 of the predatory South American coccinellid beetle, *Hyperaspis pantherina* (Fowler 2005). Successful biological control and protection of indigenous flora from the scale insect has also been achieved by *H. pantherina* on the island of Saint Helena in the South Atlantic Ocean; the action was successful in saving a field population of an 'Endangered (ER)' endemic gumwood species (see [Commidendrum robustum in IUCN Red List of Threatened Species](#)) from extinction (Fowler 2004; 2005).

For more information on the rearing and transport of *H. pantherina* for use in biocontrol of *O. insignis* please see: [Fowler, S.V. 2005. The successful control of *Orthezia insignis* on St. Helena saved natural populations of endemic gumwood trees *Commidendrum robustum*.](#)

Pathway

Orthezia insignis has been accidentally introduced into many tropical countries on imported plants.

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:

Publication date: 2009-04-28

ALIEN RANGE

[1] AFRICA

[1] INDIA

[1] MALAWI

[1] TANZANIA, UNITED REPUBLIC OF

[1] UNITED STATES

[1] BERMUDA

[1] KENYA

[2] SAINT HELENA

[1] UGANDA

Red List assessed species 1: EN = 1;

[Commidendrum robustum](#) EN

BIBLIOGRAPHY

8 references found for *Orthezia insignis*

Managment information

Booth, R.G., Cross, A.E., Fowler, S.V. and Shaw, R.H. 1995. The biology and taxonomy of *Hyperaspis pantherina* (Coleoptera: Coccinellidae) and the classical biological control of its prey, *Orthezia insignis* (Homoptera: Ortheziidae). Bulletin of Entomological Research 85:307-314.

Summary: Abstract: Between 1908 and 1959, the predatory coccinellid, *Hyperaspis pantherina* Fuersch, was released for the biological control of the ensign scale *Orthezia insignis* Browne in Hawaii, four African countries and Peru. Substantial control was reported after all the releases, although the outcome was disputed in Malawi. Other coccinellid species and predatory Diptera were released against *Orthezia* spp. in various programmes from 1952 to 1977. In most cases these agents failed to establish, and there were no reported effects on the target *Orthezia* spp. In 1993, *H. pantherina* was released in St Helena for the control of *O. insignis* on the endemic gumwood tree, *Commidendrum robustum* (Compositae). Preparatory investigations for this release revealed that the taxonomy and biology of this biocontrol agent were poorly known. *Hyperaspis pantherina* is redescribed and shown to be the correct name for the species previously known incorrectly as *H. jocosus* (Mulsant). *Hyperaspis laeta* Gorham and *H. levrati* (Mulsant) are transferred to the genus *Cyra* Mulsant (comb. n.). *Hyperaspis metator* (Casey) (stat. rev.) is resurrected from synonymy with *H. levrati* auctt. Studies of the life history revealed that *H. pantherina* normally lays its eggs directly onto the adult female *O. insignis* and that the first two instars of the larvae are frequently passed inside the ovisac of the female host, after which the host itself is often consumed. The information on the biology and taxonomy of *H. pantherina*, together with details of culturing methods, should facilitate the further use of this agent for the classical biological control of *O. insignis*, a pantropical pest.

Broughton, Sonya. 2000. Commentary: Review and Evaluation of *Lantana* Biocontrol Programs, Biological Control 17 (3): 272-286.

[CABI Crop Protection Compendium. 2007. *Orthezia insignis* Browne](#)

Summary: Available from: <http://www.cabicompendium.org/NamesLists/CPC/Full/ORTHIN.htm> [Accessed 10 February 2009]

Cairns-Wicks, R. 2003. *Commidendrum robustum*. In: IUCN 2008. 2008 IUCN Red List of Threatened Species. . Downloaded on 06 November 2008

Summary: Available from: <http://www.iucnredlist.org/details/43984> [Accessed 10 February 2009]

Convention on Biological Diversity (CBD). 2001. [Assessment and management of alien species that threaten ecosystems, habitats and species. Abstracts of keynote addresses and posters presented at the sixth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, held in Montreal, Canada, from 12 to 16 March 2001. Montreal, SCBD, 123p. \(CBD Technical Paper no. 1\).](#)

Summary: Available from: <http://www.cbd.int/doc/publications/cbd-ts-01.pdf> [Accessed 10 February 2009]

Fowler, S.V. 2004. Biological control of an exotic scale, *Orthezia insignis* Browne (Homoptera: Ortheziidae), saves the endemic gumwood tree, *Commidendrum robustum* (Roxb.) DC. (Asteraceae) on the island of St. Helena, *Biol. Control* 29: 367-374.

Fowler, S.V. 2005. [The successful control of *Orthezia insignis* on St. Helena saves natural populations of endemic gumwood trees *Commidendrum robustum*. Second International Symposium on Biological Control of Arthropods \[Davos, Switzerland - September 12-16, 2005\]](#)

Summary: Available from: <http://www.bugwood.org/arthropod2005/vol1/2b.pdf> [Accessed 10 February 2009]

General information

ITIS (Integrated Taxonomic Information System), 2009. [Online Database *Orthezia insignis* Browne, 1887](#)

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=200703 [Accessed 10 February 2009]