

Cinara pinivora

Order and Family: Hemiptera: Aphididae

Common names: giant conifer aphid

Cinara pinivora Wilson, 1919 is sap-sucking aphid native to North America that has been introduced into Africa, Asia and the Pacific and Latin America and the Caribbean. A major pest of *Pinus* species, this aphid poses a significant threat to planted pine forests worldwide.



Cinara pinivora

DISTRIBUTION

Native: North America

Introduced: Africa: Kenya, Malawi

Asia and the Pacific: Australia

Latin America and the Caribbean: Argentina, Brazil (1996), Uruguay

IDENTIFICATION

The adult body length is typically 3.3 to 4.2 mm. The wingless form (apterae) have a shiny dark brown head, lighter brown thorax and abdomen with dark dorsal sclerites and spots of grey wax, and black steep-sided siphuncular cones. Legs have pale yellow sections. They are found in dense colonies at tips of branches, or scattered along older sections of twigs (Blackman and Eastop, 1994).

HOSTS

Pinus spp., including *P. elliottii* and *P. taeda*

BIOLOGY

A sap-sucking aphid, *Cinara pinivora* has a very short life cycle and is capable of multiplying rapidly. Some forms reproduce asexually at times and can therefore quickly build up numbers. Populations are extremely reduced during periods of high temperatures (Lázzeri, Trentini and de Carvalho, 2004).

SYMPTOMS AND DAMAGE

Cinara pinivora forms dense colonies on all parts of host trees. It attacks young plantations of *Pinus* spp. infesting month old plants through to 3- to 4-year-old saplings and the tips of older plants. Damage starts as discolouration and premature needle fall with some branches turning brown. Inflammation of branches and mortality of plants has been observed in Brazil (Patti and Fox, 1981). The reduced photosynthetic surfaces results in stunting, affecting the form of host trees and reducing increments. A secondary problem caused by aphid feeding is the production of copious quantities of honeydew which encourages sooty mould growth.

DISPERSAL AND INTRODUCTION PATHWAYS

Winged adults are weak fliers, but are readily carried by wind over considerable distances. As adults or juveniles, they do not survive off host plant material for very long. Therefore, international transport of nursery stock is a significant pathway for the introduction of *C. pinivora*.

CONTROL MEASURES

According to Penteado (1995), biological control has been achieved in Brazil through the release of insect predators of the families Coccinellidae, Syrphidae, Chrysopidae, Staphilidae, Dermaptera and some Heteroptera.