Two new species of *Selitrichodes* (Hymenoptera: Eulophidae: Tetrastichinae) inducing galls on *Casuarina* (Casuarinaceae)

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Abstract

Two new species of gall-inducing wasps, *Selitrichodes casuarinae* Fisher & La Salle sp. n. and *Selitrichodes utilis* Fisher & La Salle sp. n., are described from Micronesia (Guam, Rota and Palau Islands) and Australia respectively. These species induce galls on *Casuarina* and can cause extensive damage to the trees. Their status as pest or beneficial species is discussed.

Key words: gall induction, invasive species, Micronesia, Guam, Rota, Palau, sheoak

Introduction

*Casuarina* (Casuarinaceae) is native to Australasia, southeastern Asia, South America and the islands of the western Pacific Ocean. Casuarinas (commonly known as sheoak, ironwood, or beefwood) are commonly grown in tropical and subtropical areas throughout the world. The plants are very tolerant of windswept locations, and are widely planted as windbreaks, although usually not in agricultural situations.

In January 2009, a new species of gall-inducing wasp, described here as *Selitrichodes casuarinae* Fisher & La Salle, was discovered inducing galls on *Casuarina equisetifolia* in Guam. In March and April 2009, a second species, described here as *Selitrichodes utilis* Fisher & La Salle, was found in Australia inducing galls on *Casuarina glauca*.

Pest/invasive or Beneficial?

*Casuarina* wood has many uses, including fuelwood, poles, posts, beams, oxcart tongues, shingles, panelling, fence rails, furniture, marine pilings, tool handles, and cabinets (Morton 1980). Species such as *Casuarina equisetifolia*, *Casuarina cunninghamiana* and *Casuarina glauca* occur extensively throughout the South Pacific, where they are generally considered to be beneficial and have a variety of uses (Whistler & Elevitch 2006). On Guam, *C. equisetifolia* is widely planted as an agricultural windbreak, as a shade tree in parks, and for erosion control on beaches. These trees are currently in general decline and dying throughout Guam. *Selitrichodes casuarinae* was discovered during surveys aimed at finding the causes of this decline (Schlub et al. 2011; Schlub 2013).
occasionally a third seta may be present. Dorsellum rounded posteriorly and very slightly overhanging propodeum. Propodeum with median carina, medially shorter than dorsellum in dorsal view. Propodeal spiracle with entire rim exposed and separated from anterior margin of propodeum by less than half its longest diameter, with shallow groove descending from spiracle to posterior margin of propodeum. Paraspiracular carina absent. Propodeal callus with 2 setae.

Metasoma. Gaster equal in length to mesosoma. Hypopygium reaching nearly two-thirds the length of gaster. Cercus with 3 setae, 2 longest subequal in length and slightly curved. Ovipositor sheaths slightly protruding beyond apex of gaster.

Male. Unknown.

Type material. Holotype ♀: AUSTRALIA: Qld, 5.3km SSW Brisbane, Long Pocket Labs., 27°30.70’S 152°59.81’E, 2 Nov. 2010, B.Brown, em. tip of Casuarina glauca ABCL 2009071.V076-100, Database no. 32-059016 (ANIC).


Distribution. Australia: Queensland (Brisbane) and New South Wales (Byron Bay).

Etymology. The Latin word *utilis* indicates the useful or beneficial nature of this species, which is being investigated as a biological control agent against invasive *Casuarina* species in North America.

Acknowledgments

Robert Schlob, Zelalem Mersha, and Roger Brown at the University of Guam are credited with making the initial discovery of *S. casuarinae* on Guam during their investigation of *Casuarina* decline. Thanks to Bob Bourgeois, University of Guam, for processing branch samples during the damage survey. Kumaran Nagalingam, CSIRO Ecosystem Sciences, assisted with field collection and rearing of *S. utilis*. We would also like to thank the USDA ARS Invasive Plant Research Laboratory and the Florida Fish and Wildlife Conservation Commission for their scientific and financial support.

References


