

*Grylloprociphilus imbricator* Fitch

(HOMOPTERA: APHIDIDAE)<sup>1</sup>

H. A. Denmark<sup>2</sup> and C. F. Smith<sup>3</sup>

**INTRODUCTION:** The late Dr. S. W. Frost took adult aphids in a blacklight trap from 1958-1964 at Lake Placid (Archbold Biological Station), Highlands County, Florida. These specimens were described by Smith and Pepper (1968) as *Grylloprociphilus frosti*. In May 1978, D. L. Culbert collected the apterous aphids on the roots of *Taxodium distichum* (L.) L. C. Rich at Gainesville, FL (fig. 1). The junior author identified them as *Grylloprociphilus* sp. Additional apterous aphids were collected in August, 1979 by C. C. Riherd from the same area on *T. distichum*. Riherd collected alates of this aphid in December and it was confirmed by the junior author to be *G. frosti*. Further study of these aphids and a comparison with *Grylloprociphilus frosti* Smith and Pepper showed these aphids to be the same species. This study also showed *Fagiphagus* Smith to be a synonym of *Grylloprociphilus* and that *frosti* Smith and Pepper is a synonym of *imbricator* Fitch, 1851. We also concluded that *T. distichum* is the secondary host for this beech aphid. The life history and synonymy of this aphid were presented by Smith and Denmark (1984). The ants *Pheidale moerens* Wheeler and *Solenopsis invicta* Buren were tending these aphids in a greenhouse.

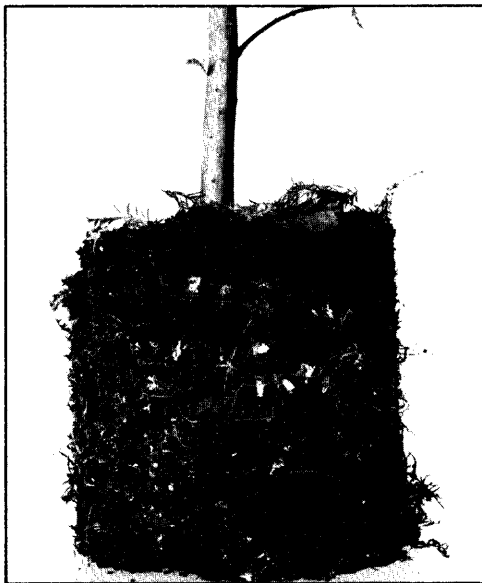


Fig. 1. *Grylloprociphilus imbricator* (Fitch) on bald cypress roots.

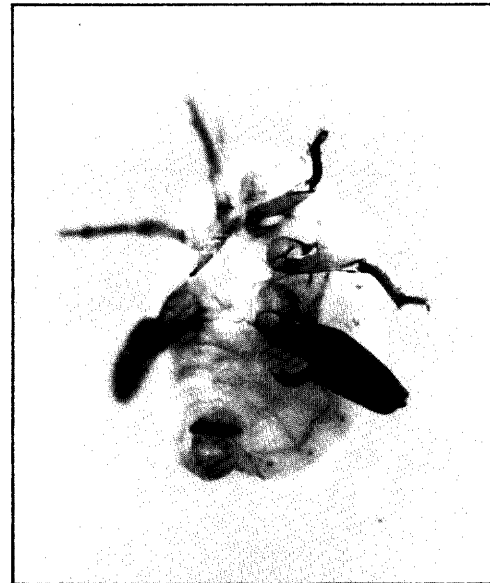


Fig. 2. Apterous form of *Grylloprociphilus imbricator*. Note enlarged metafemora and wax covered body.

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DISTRIBUTION: The type locality is New York. It has been collected in Arkansas, Connecticut, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Tennessee.

HOSTS: *Taxodium distichum* (L.) L. Rich. and *Fagus grandifolia* Ehrh. *Fagus grandifolia* is considered the primary host and *Taxodium distichum* the secondary host. However, it is known that this aphid can live continuously on *Taxodium* without returning to its primary host.

DESCRIPTION: Antennae 6-segmented in adults and 5-segmented in immatures, secondary sensoria oval, ciliated. Forewings with media simple. Cauda rounded, indistinct. Apterous viviperae of *Grylloprociphilus* differ from *Pemphigus* in having the metafemora enlarged. Alate sexuparae: head without wax plates; secondary sensoria distinctly ciliated and on distal half of III, IV, V. Wax plates on dorsum of thorax distinct, distance between plates being approximately equal to the longest diameter of plates. Apterous form with white wax covered body and brown legs (fig. 2).

SURVEY AND DETECTION: Look for cottony masses on the roots of bald cypress, *T. distichum*. The alate (winged sexuparae) forms occur in November through January in Florida.

CONTROLS: There has been no research on the control of these aphids, but Temik, Metasystox-R, and Dimethoate are recommended for mealybugs and root aphids as a soil treatment by the Department of Entomology and Nematology, University of Florida.

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