

EXOTIC SCOLYTIDS IN NORTH AMERICA: WHO'S HERE AND WHAT ARE THE IMPACTS

Robert J. Rabaglia

Forest Pest Management, Maryland Department of Agriculture, 50 Harry S. Truman Parkway, Annapolis MD 21401

Abstract

There are currently 50 exotic species of Scolytidae recorded from North America. The first exotic species reported from North America was *Xyleborus dispar* in 1817. Between 1817 and 1980, there were 25 species of exotic scolytids reported in the U.S. and Canada; however, since 1980 there have been an additional 25 species reported. Most of the species reported pre-1980 were true bark beetles from Europe. Since 1980, the majority of species established in North America are ambrosia beetles native to Asia. In the ambrosia beetle tribe Xyleborini, more than 50% of the species currently in North America are non-natives. Beetles in this tribe are easily transported to new areas and readily established because of their broad host range, skewed sex-ratio, and extreme inbred sib-mating system. Like many ambrosia beetles they are well adapted to warm-humid climates, as in the southeastern U.S. In fact, the majority of exotic scolytids, especially ambrosia beetles, in North America are found in the Southeast. A recent survey of 10 southeastern states found 66% of specimens collected were non-native species.

A recent U.S. Forest Service pilot project for the rapid detection of exotic scolytids was initiated in 2001.

Objectives of this project are to: identify potential exotic invasive species and provide guidance for their detection, detect and monitor populations of newly introduced species, provide APHIS and the Forest Service with current distribution information, and identify gaps in detection protocols and taxonomic skills. As protocols have developed, trapping is now concentrated in the urban forest/wildland-urban interface. During the 3 years trapping has taken place, four species of scolytids new to North America were identified: *Hylurgops palliatus*, *Xyleborus similis*, *Xyleborus glabratus* and *Scolytus schevyrewi*.

The USDA APHIS Pest Information Network (PIN) database has records of more than 600,000 pest interceptions at U.S. ports between 1985-2000. Scolytidae is the most commonly intercepted beetle family, with more than 68,000 records in 49 genera. Despite many of these records being aggressive species in the genera *Ips*, *Pityogenes*, *Tomicus* and *Hylurgus*, very few of these species have become established. Most of the established species are those associated with fungi, either as ambrosial associates or as a species vectored by the beetle, such as the *Scolytus* species.