



## Screening Aids for Exotic Bark Beetles in the Northeastern United States

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### Introduction

The Cooperative Agricultural Pest Survey (CAPS) in the Northeastern Region (NER) targeted six exotic bark beetles (Coleoptera: Scolytidae) for survey beginning in 1994, as detailed in the CAPS Fiscal Year 1994 guidelines (USDA 1993). Weekly samples from lure traps<sup>1</sup> placed throughout the region will contain numbers of native bark beetles. The attached materials are provided to aid CAPS cooperators in the Northeastern Region in screening exotic target species from survey samples of bark beetles.

These screening aids were simplified by restricting the species treated to native bark beetles that are from a limited geographic area (i.e., the Northeastern Region) and are similar to the exotic target. The keys, in particular, may not be useful for screening survey samples from outside the northeastern U.S.

In developing the materials, we assumed that personnel have some experience in applied beetle identification. We made every effort to illustrate the more critical and difficult characters used in the keys and comparison. (Illustrations not referenced are by Joe Cavey.) For additional help, a condensed explanation of useful bark beetle morphology and terms may be found in Bright (1976:16-19).

This package contains screening aids for the exotic bark beetles listed below and a bibliography that applies to the entire package.

### Primary Survey Target Species

*Hylurgus ligniperda* (Fabricius) - Red-haired Pine Bark Beetle.

*Ips typographus* (Linnaeus) - Spruce Engraver Beetle.

### Secondary Survey Target Species.

*Hylurgops palliatus* (Gyllenhal)

*Ips sexdentatus* (Boerner) - Six-toothed Bark Beetle.

*Orthotomicus erosus* (Wollaston) - Mediterranean Pine Engraver Beetle.

*Pityogenes chalcographus* (Linnaeus) - Spruce Wood Engraver.

### Also:

*Tomicus piniperda* (Linnaeus)

For additional information on lure traps, contact authors.

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