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First record of the camphor shot borer,
Cnestus mutilatus (Blandford) (Coleoptera: Curculionidae:
Scolytinae), in Massachusetts

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First record of the camphor shot borer, *Cnestus mutilatus* (Blandford) (Coleoptera: Curculionidae: Scolytinae), in Massachusetts

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Abstract. *Cnestus mutilatus* (Blandford) (Coleoptera: Curculionidae: Scolytinae) is reported from Massachusetts for the first time. Brief trapping information is provided.

Key words. Ambrosia beetle, new records.

ZooBank registration. urn:lsid:zoobank.org:pub:48D75CE5-1194-4349-A1D3-94722783FCFE

Introduction

The camphor shot borer, *Cnestus mutilatus* (Blandford) (Coleoptera: Curculionidae: Scolytinae) is an adventive species of ambrosia beetle native to Asia (Wood and Bright 1992). Since its initial capture in Mississippi in 1999 (Schiefer and Bright 2004), this species has spread steadily across the eastern United States and its distribution now extends from Texas and Florida north to Illinois and Pennsylvania (Gandhi et al. 2009; Leavengood 2013; Barringer 2016; Gomez et al. 2018). This pestiferous species can damage weak and stressed trees, and understanding its distribution is important for management and control.

Materials and Methods

Traps were placed across Massachusetts by the United States Department of Agriculture's Animal and Plant Health Inspection Service (USDA APHIS) Forest Pest Methods Laboratory as part of a series of studies evaluating lure efficacy in 2023. This work used black flight intercept traps using a six-component lure for Coleoptera: Cerambycidae (syn-2,3-hexanediol, 3-hydroxy-2-hexanone, fuscumol acetate, geranyl acetol, 2-(undecyloxy)-ethanol, and ethanol). A total of 790 samples were collected and sent to the Pennsylvania Department of Agriculture Entomology Program as part of a cooperative agreement. A single specimen of *Cnestus mutilatus* was collected in Freetown-Fall River State Forest, Bristol County, Massachusetts (41.776583 °N, -71.055988 °W) on August 1, 2023 by Everett Booth and Sarah Devine.

The specimen was identified by the author and sent to the USDA Systematic Entomology Laboratory for confirmation. The specimen is retained in the Pennsylvania Department of Agriculture's collection (PADA).

Results

The detection of *Cnestus mutilatus* in a trap baited with ethanol as part of a larger suite of chemicals follows previous reports of its attraction to various ethanol sources (Carlton and Bayless 2011). This specimen represents a state record for Massachusetts, adding to its distribution in the northeast. Despite the single detection it is probable this species is established. The trap site was located on state forest property approximately 1–2 km from urban environs. While it is possible that it arrived via natural spread, it is likely to have been transported in plant or shipping material in a long-distance anthropomorphic dispersal event. This is supported by the lack of known populations in adjacent states. Additionally, the detection of a single individual has precedence: the initial introduction in Mississippi showed low trapping numbers for three years before ballooning to thousands per year in traps (Schiefer and Bright 2004).



Figure 1. Lateral habitus of specimen, *Cnestus mutilatus*.

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