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PITCH MASS BORER, A NEW CLEARWING MOTH RECORD FOR OHIO  
(LEPIDOPTERA: SESIIDAE)Foster Forbes Purrington<sup>1</sup> and David J. Horn<sup>1</sup>

## ABSTRACT

We report the Pitch Mass Borer clearwing moth, *Synanthedon pini*, from Vinton Furnace Experimental Forest, Dundas, Vinton County, Ohio, the first record for this state. A mature larva and two pupae were excised from resin masses of Scrub Pine, *Pinus virginiana*, a new host record, in early May 1999.

Approximately 30 species of clearwing moths (Lepidoptera: Sesiidae) were listed from Ohio in 1987 by Purrington and Metzler (1987), based primarily on voucher specimens kept in two research collections housed at the Museum of Biological Diversity of The Ohio State University, namely The O.S.U. Collection of Insects and Spiders, and the moth and butterfly collection of the Ohio Lepidopterists. Recently we recorded the capture of *Synanthedon arkansasensis* Duckworth & Eichlin for the first time in Ohio (Purrington and Horn 1996). Here we newly report the presence of the Pitch Mass Borer, *S. pini* (Kellcott) in this state, and we record it in a new host, scrub pine, *Pinus virginiana* Mill.

According to Engelhardt (1946), *S. pini* is distributed from eastern Canada and New England along the Atlantic coast, in the Appalachian region of New York and Pennsylvania and in the Midwest. Taft et al. (1991) illustrate a male *S. pini* taken in Newaygo County, Michigan in 1987. They cite no collection data, but Eichlin and Duckworth (1988) show a photograph of the same specimen with its provenance. Engelhardt (1946) states that adults "seem to elude capture," and they apparently remain scarce in collections despite strong response by males to a synthetic sex attractant (Taft et al. 1991). [Optimum formulation of this binary attractant is an 8:2 ratio of Z,Z 3,13-octadecadien-1-ol alcohol and its corresponding E,Z alcohol stereoisomer (W.H. Taft, personal communication)].

The life cycle of the eastern pitch mass borer is apparently two years, like that of its two western congeners, *S. novaroensis* (Hy. Edwards) and *S. sequotiae* (Hy. Edwards) (Eichlin and Duckworth 1988). Hosts are all Pinaceae, especially white pine, *Pinus strobus* and Norway spruce, *Picea abies*. Several other pines and spruces have been reported as hosts.

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### RESULTS AND DISCUSSION

On 5 May 1999 we extracted a mature larva and two teneral *S. pini* pupae from resinous masses on boles of Scrub Pine, *Pinus virginiana*. Host trees were ca. 35 cm DBH, and part of a local concentration of this pine that is otherwise widely and thinly scattered in an upland mixed-oak forest comprising the Vinton Furnace Experimental Forest near Dundas, Vinton County, in southeastern Ohio. This forest is ca. 60 years old, and co-managed by Mead Paper Co. and the USDA Forest Service.

Braun (1961) notes native scrub pine is widespread in Ohio, especially on non-calcareous soils of disturbed areas. It is the most common of native pines in southeastern Ohio (Dean et al. 1946).

All three immature *S. pini* remained alive for at least ten days. By 17 May the larva and one pupa had died. The remaining pupa was darkening, with blue-black scales visible on the abdominal terga contrasting vividly with the orange tergum of abdominal segment four, by which both sexes of *S. pini* can be diagnosed. However, this second pupa also failed to eclose. All three specimens are retained as vouchers in the Departmental collections.

### ACKNOWLEDGMENTS

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