REARING *SIREX NOCTILIO* FROM RED PINE IN CENTRAL NEW YORK

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ABSTRACT

Six red pines (*Pinus resinosa* Soland) from central New York State containing *Sirex noctilio* F. were felled and cut into ~50-cm sections. Siricids and their parasitoids were reared from the wood. More than 90.0 percent of *S. noctilio* emerged from wood ranging from 4.5 to18.0 cm in diameter and from 4.8 to16.2 m in height. *S. noctilio* accounted for 94.3 percent of the siricid specimens collected, totaling 1,313 specimens from six trees, with a maximum of 495 *S. noctilio* from one tree; 22.0 ± 5.2 percent (range: 0-34%) of the *S. noctilio* emerging were female. *Sirex noctilio* was recovered from all six trees, but two native siricid species, *S. nigricornis* F. and *S. edwardsii* Bruule, also emerged from three of the same trees as *S. noctilio*. (Note: Species identifications are based on the 2006 guide to North American siricids by Schiff et al.) Three species of siricid parasitoids emerged from rearings: *Ibalia leucospoides* (Hochenwarth), *Rhyssa lineolata* Kirby, *Megarhyssa atrata* (F.). *Ibalia leucospoides* (Family Ibaliidae; Superfamily Cynipoidea) was by far the most abundant (19.9% parasitism, with a total of 286 specimens emerging from one tree).

Within the diameters of wood we evaluated, no strong trend in total *S. noctilio* by tree diameter was found. However, the percentage of females emerging was positively associated with wood diameter: 89.3 percent of female *S. noctilio* emerged from wood between 9.2 and 18.0 cm in diameter and between 3.1 and 9.0 m in height. Percent parasitism was negatively associated with wood diameter.

The principal purpose of this study was to rear S. noctilio to isolate its symbiotic fungus *Amylostereum areolatum*. This fungus is most easily isolated from living females. For this purpose, we needed to learn how to maintain adults in the laboratory after their emergence from wood. We found that adult females tended to survive longer than males and could be maintained at 10 °C for up to 69 days.