

IDENTIFICATION OF PREDATORY INSECTS AND SPIDERS IN *SASAJISCYMNUS TSUGAE* REARING BOXES

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During 2004, Clemson University initiated mass rearing of the biological control agent *Sasajiscymnus tsugae* Sasaji and McClure (Coleoptera: Coccinellidae) for release against the hemlock woolly adelgid (HWA) *Adelges tsugae* Annand (Homoptera: Adelgidae). Several species of predatory insects and spiders were found on eastern hemlock (*Tsuga canadensis* (L.) Carriere) and Carolina hemlock (*Tsuga caroliniana* Englemann) branches infested with HWA in the rearing boxes that were brought in from the field. HWA poses a serious threat to the health and sustainability of the eastern hemlock forests. Native predatory insects and spiders may have an impact on HWA and can cause problems in the mass rearing of *S. tsugae*.

Samples of predatory insects and spiders were collected from rearing boxes and the breakdown of those boxes during the 2004 rearing season. Predatory insects were collected and identified to order, family, genus, and species depending on the taxa. Spiders were identified to order and family.

Predatory insects and spiders from mass rearing boxes of *Sasajiscymnus tsugae* fed with infested branches may or may not be predacious on HWA; however after examination under the microscope, punctures to the eggs of *S. tsugae* were found. Though the specific impact of these predatory insects and spiders have on HWA is uncertain, they can disrupt the life cycle of *S. tsugae* under laboratory conditions and most likely in nature.