

Invasive Species

**Preliminary Findings Regarding the Detection and Rearing of a Potential New Parasitoid (Hymenoptera: Pteromalidae) of Spotted Wing Drosophila, *Drosophila suzukii***

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*Abstract:* Fruit was collected from native, wild, and cultivated plants to expand the knowledge of *D. suzukii* hosts and to rear out potential parasitoids of *D. suzukii*. Fruit from 20 species of host plants were collected in the fall, 2010 and nine of these had fruit infested with *D. suzukii*. The highest infestation rates were in blackberries and cherries, which had 61% and 26% *D. suzukii* infested fruit, respectively. Parasitoids of *D. suzukii* were only reared from infested cherries. The parasitoids, a Pteromalidae, were placed into arenas with a food source (honey), *D. suzukii* larvae and drosophila diet. Parasitoid oviposition was observed on *D. suzukii* pupae. Rearing techniques resulted in 2<sup>nd</sup> generation parasitoids. Parasitoids emerged from 79% of *D. suzukii* pupae exposed to parasitoids in preliminary tests. Adult *D. suzukii* emerged from 11% of pupae exposed to parasitoids compared with 85% adult *D. suzukii* emergence from pupae not exposed to parasitoids. This parasitoid is active against *D. suzukii*, however additional research is needed to determine it's effectiveness and potential importance.