A SURVEY OF PARASITOIDS OF *DROSOPHILA SUZUKII* FOR BIOLOGICAL CONTROL IN ITALY

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Drosophila suzukii (Matsumura) (Diptera: Drosophilidae), is an invasive species native of Eastern and Southeastern Asia. Since its introduction in USA and Europe in 2008, this pest caused hundred thousand dollars worth of damage to small and stone fruits business. These severe damages were mainly due to the absence of specialized natural enemies, able to control the population outbreaks of the introduced species in the invaded regions. In order to evaluate the presence and the effectiveness of native generalist enemies, a survey for parasitoids of *D. suzukii* was set up. Petri dishes containing either standard medium diet for drosophilids, or banana slices or blueberries were previously exposed to mated *D. suzukii* and *Drosophila melanogaster* females in order to be infested with eggs and used as attractant for parasitoids in traps. Traps baited with both *D. suzukii*- and *D. melanogaster*–infested substrates were deployed in three locations in Trento province: a forest environment (600 m a.s.l.), an organic blueberry orchard (900 m a.s.l.) and a vineyard (200 m a.s.l.). The experiment started at the end of July 2012 and traps were controlled and changed weekly until the end of October 2012. A generalist pupal parasitoid, *Pachycrepoideus vindemmiae* (Rondani) (Hymenoptera: Pteromalidae), was found to be able to attack both the fly species. After rearing it under controlled conditions, it was able to develop a second generation on *D. suzukii*. A more extensive sampling is planned for 2013. Long-range attraction of Drosophila parasitoids is commonly mediated by the same olfactory cues to which their hosts are attracted. Therefore, an additional faunistic survey was carried out using *D. suzukii* monitoring traps baited with apple vinegar. The traps were located both in Trento and Bari provinces to provide a comparison of the presence of potential natural *D. suzukii* enemies between North and South Italy, with Alpine and Mediterranean climates respectively. The species were identified and a check-lists is presented, by locations and by crops.