

Beneficial wasps against destructive flies



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An article appearing on the ScienceDaily website entitled “ Olives may be rescued by Helpful Wasp” reported the findings of the research headed by Victoria Yokoyama concerning the effects of releasing a small brown wasp known as *Psytalia* cf. *concolor* into olive fruit fly infested groves in California. California is the leading producer of the olive fruit but olive fruit flies prove to be a major problem with the potential to destroy annual olive crop. ScienceDaily (2009) reported that the olive fruit fly was first discovered in 1998 but has now come to infest the whole state especially where olives are grown.

P. cf. concolor would be able to help minimize the damage caused by the olive fruit fly by attacking its maggots thereby prohibiting their growth and decreasing their numbers. Olive fruit flies damage the production of olive fruits as its young feed voraciously on the fruit of the olive tree as it ripens. The *P. cf. concolor* would help to solve this damage caused by the olive fruit flies by laying its eggs inside the flies’ maggots. ScienceDaily (2009) reported that when the wasp’s eggs hatch, the young wasp would feed on the maggot “ from the inside out.

” However, ScienceDaily (2009) reported that “ scientists are continuing to carefully evaluate the wasp’s effectiveness in thwarting the olive fruit fly” but stated that “ the wasp is harmless to people, pets and plants. ” ScienceDaily (2009) also reported that the wasp is more effective than some of the parasitoids in combating the olive fruit fly. In 2008, Yokoyama et al. reported that the *P. cf. concolor* rate of parasitism to the olive fruit fly was at 24. 2 percent. The report by Yokoyama et al. (2008) also showed that the *P. cf.*

concolor would, given the choice, prefer to attack olive fruit flies than the walnut husk fly implying that the wasp would attack the olive fruit fly maggots more often when there was no other choice thereby increasing its effectiveness against the invasive pest. Yokoyama et al. (2008) reported that the *P. cf. concolor* was imported from Guatemala and were used in laboratory and field tests to determine its ability to control the olive fruit fly and was found to be highly adaptable under the same climate and weather conditions where its hosts thrive.

They also reported that the wasps did not attack the seedhead fly—a beneficial fruit fly. Furthermore, Yokoyama et al. (2008) held that *P. cf. concolor* “ shows great promise as a biological control agent for olive fruit fly and establishment of the parasitoid in olives will help protect the production of canned olives and olive oil in California that is valued at \$68 million annually. ” The ScienceDaily article presented two insects: a beneficial wasp and the destructive olive fruit fly.

While it reported that the olive fruit fly causes destruction, particularly on olive crops, it reported a more likely solution to the problem. The article did not present the olive fruit as overly dangerous, however damaging, yet presented the *P. cf. concolor* as beneficial, without any serious adverse effects to the environment and to human population. Furthermore, the article presented its report based on scientific research and based its conclusions on the report of the researchers concerning *P.*

cf. concolor as biological control for the olive fruit flies. Works Cited
ScienceDaily. “ Olives may be rescued by helpful wasp. ” 7 March 2009.
ScienceDaily. 23 March 2009. Yokoyama, Victoria, Rendon, Pedro A. , and
<https://assignbuster.com/beneficial-wasps-against-destructive-flies/>

Sivinski, John. " *Psytalia* cf. *concolor* (Hymenoptera: Braconidae) for biological control of olive fruit fly (Diptera: Tephritidae) in California. " *Environmental Entomology* Vol. 37, n