Tamarixia radiata parasitism on *Diaphorina citri* nymphs in nine citrus and *Murraya* sp.

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Abstract. The success of the parasitoid *Tamarixia radiata* (Waterston) on biological control programs of *Diaphorina citri* (Kuwayama) in backyards and orchards depends on the parasitoids capacity to detect and parasitize the psyllid. In Yucatán, most of the orchards and backyards have a varied number of citrus species and frequently *Murraya* sp., so the environment in which *T. radiata* has to search and find its host is highly heterogeneous. The objective of the study was to know if *T. radiata* was able to find and parasitize *D. citri* nymphs on nine citrus and *Murraya* sp. In a greenhouse, ten plants of nine citrus species and ten *Murraya* sp. plants were placed in a random arrangement. All plants were treated to produce sprouts at the same time to be available for infestation by *D. citri*. Once the 3rd and 4th instar nymphs were detected, 800 parasitoids were released and monitored after ten days, and again after 20 days. This procedure was repeated three times. To evaluate the parasitism of *T. radiata*, one sprout was cut and all 3rd to 5th instar nymphs were counted and examined to detect the presence of *T. radiata* eggs. There was found that *T. radiata* was able to parasitize all the evaluated citrus and although there was high variability between sampling dates, there were differences among parasitism in different citrus and *Murraya* sp. The sour orange was the most parasitized of all (51.46% parasitism), while the less parasitized was the Star Ruby grapefruit (22.09% parasitism). These results indicate that *T. radiata* is able to locate and parasitize *D. citri* nymphs in a variety of citrus species and successfully decrease the host population.