

## Abundance and Diversity of Fruit Flies (Tephritidae: Diptera) In Citrus Orchards in Sindhuli, Nepal

**Authors :** Debraj Adhikari, Resham Bahadur Thapa, Samudra Lal Joshi, Jason Jinping Du, Sundar Tiwari

**Abstract :** The purpose of this study was to keep a record of fruit fly species (Tephritidae: Diptera) in the sweet orange orchards of Sindhuli district, Nepal. Male fruit fly species were trapped and collected fortnightly using para-pheromone lures (methyl eugenol and cue lure) in Steiner traps at 25 orchards starting in March 2019 and continuing until February 2021. During the monitoring period, there was a significant variation in the occurrence of the fruit fly species. Fruit flies were captured in greater numbers during warm and rainy months (June, July, August, September) than during dry and winter months (December, January, February). Higher numbers of fruit flies were trapped in methyl eugenol than cue lure traps. *Bactrocera dorsalis*, *B. zonata* were major fruit fly species trapped in the methyl eugenol trap. Whereas, *Zeugodacus tau*, *Z. cucurbitae*, *Z. scutellaris*, and *Dacus longicornis* were major fruit fly species trapped in the cue lure trap. The findings of this study could be used to develop a long-term pest management strategy for the agro-ecological system.

**Keywords :** *bactrocera*, cue lure, methyl eugenol, monitoring, *zeugodacus*

**Conference Title :** ICES 2022 : International Conference on Entomological Science

**Conference Location :** Bangkok, Thailand

**Conference Dates :** August 16-17, 2022