



# *Drosophila suzukii* adult phenology and fruit infestation levels in coastal and mainland sweet cherry orchards of Greece

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## Introduction

*Drosophila suzukii* Matsumura (Diptera: Drosophilidae) is a native pest of Eastern Asia which, during the last decade, has invaded and established in Europe. Females infest a list of soft and stone fruits including sweet cherries. Up to date, little is known regarding its population dynamics in cherry producing areas of Mediterranean countries.

## Materials and Methods

We studied the adult phenology of *D. suzukii* in coastal and mainland (semi-highland) sweet-cherry orchards of Greece, from 2018 to 2020 (Fig.1). Traps baited with apple-cider vinegar (Fig.2) were placed in conventional and unmanaged cherry orchards, and in neighboring wild growing hosts. Sampling of sweet-cherry fruit to assess infestation levels was conducted from early and late-ripening sweet-cherry cultivars in both areas.

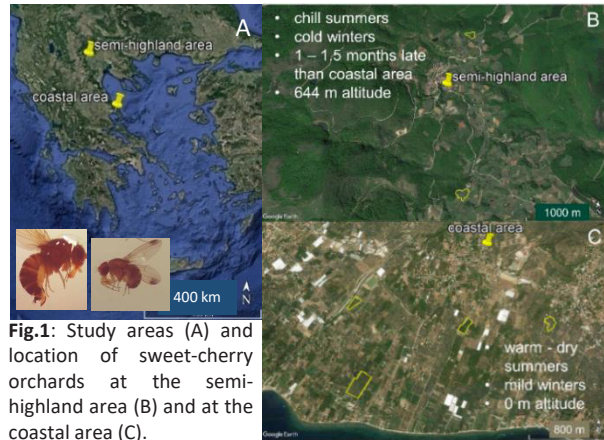
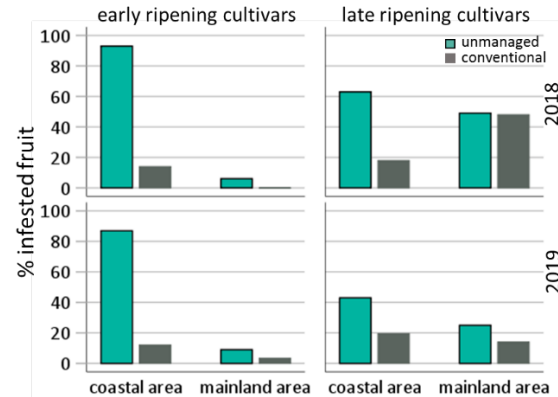
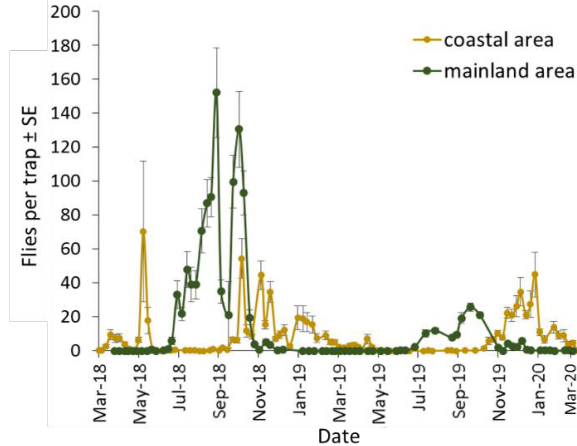


Fig.1: Study areas (A) and location of sweet-cherry orchards at the semi-highland area (B) and at the coastal area (C).



Fig.2: Apple-cider vinegar baited trap

## Results



### Population dynamics at the coastal area

- trap captures throughout the year
- two peaks (spring and autumn)
- zero captures during hot summer months

### Population dynamics at the mainland area

- trap captures from spring to autumn
- one peak in autumn
- zero captures during winter and spring

### Sweet-cherry infestation levels

- higher infestation at coastal than at mainland area
- higher infestation in unmanaged than in conventional orchards
- high susceptibility of both early and late-ripening cultivars at the coastal area
- higher susceptibility of late-ripening cultivars at the mainland area

## Conclusions

- *Drosophila suzukii* is well adapted to coastal and mainland areas of Greece where sweet cherries are cultivated
- Both early and late-ripening sweet-cherry cultivars are in high infestation risk at coastal areas but only late-ripening ones at mainland areas