To develop surveillance strategies for expanding populations of *Ceratitis capitata* to Central and Northern Europe the area of Imathia (Northern Greece) was selected. During the first two years of the project, the characterization of the pilot sites was conducted. Information on orography, land use has been collected. Additional information for the existence of open markets and packing houses in the area was gathered. Land use data were gathered by the Greek Payment Authority of Common Agricultural Policy (C.A.P.), (OPEKEPE). Information about the fruit packing houses in and around the pilot site has been collected. There are more than 1,000 packing houses in total for the three municipalities where the pilot site is located.

During 2020-2021, 25 pairs of conventional traps for *C. capitata* (25 McPhail with Biolure and 25 Jackson with Trimedlure) were deployed randomly in the region of Imathia (Northern Greece). A uniform grid of 10 X 10 km covering the region guided the deployment. Trapping records were collected on a weekly base. Some of the traps were moved and deployed to other trees, near the initial ones, around halfway the monitoring period to be placed to appropriate hosts based on seasonality but remained within the same initial grid. At the beginning, hosts included apples, nectarines and peaches and later lotus and quinces.

During 2022-2023 three guided detection trapping strategies incorporating e-traps: risk-guided, effort-guided and space-guided were tested separately in the pilot site, in order to contrast the ability of E-traps to provide early-warnings on the presence of *C. capitata.* The *Risk* tactic, which deploys traps in the landscape based on the determined level of risk in the region (from highest to lowest), aggregated most of the allotted-traps in the NW and S of the region. Under this tactic, no traps are deployed on the Centre and E of the polygon. The *Effort* tactic, which deploys traps based on the effort-possibilities of the stakeholder’s to service traps (i.e., economic viability), and establish traps following the pre-determined grid (1 trap per cell), resulted in a more uniform distribution of traps through the landscape. The *Space-Distance* tactic trap-deployment resulted in a more random distribution of traps in the landscape. This tactic determines trap-deployment based on risk in the landscape, but includes a minimal distance (in this case, 6 Km) between neighbouring-traps, resulting in a more random (and uniform) spread of traps, covering more areas in the landscape. Trap service was initiated each year at the end of May early June, and continued until no Medfly adults were captured any longer, which usually occurred around the end of December. Traps were serviced every week. Most of the traps were conventional Jackson traps lured with trimedlure for male attraction, and McPhail traps lured with Biolure for both females and males. In each sampling station, one Jackson and one McPhail trap was used. Inference and data presentation is per sampling station and total captures of flies (i.e., male and female Medflies) in the sampling station. During 2022, ninety-two traps we deployed in total, 83 traps whose locations derived during the organization of the tactics and 9 traps that were deployed in the grids where medfly captures were more frequently reported during the previous years (2020 and 2021) and considered as “control” traps. During 2023 35 extra sampling stations were added in the study region. While these extra sampling stations did not participate in the contrast between the three tactics, they served as a reference to the study. Their captures were contrasted with that of the three tactics.

Results:

During 2020: Regarding the captures, there were almost zero captures during the summer months (June, July, and August), the most captures were during September and October while there were minimal captures in November and December.

During 2021: In late July the first flies were captured. Τhe most captures were during September and October while there were minimal captures in November and December.

During 2022-2023: Captured levels were lower (approximately by 90 %) in 2022 than in 2023. In 2022, flies started to be captured in August. In 2022, October-November was the main period of Medfly captures. Captures start to drop by December, and no Medfly captures are seen after mid-December. In 2023, captures of Medflies were much higher than the previous year. Initial captures were registered during the end of July, peaking in October-November. First captures were observed in the *Space-Distance* and *Effort* tactic deployment scheme than in the *Risk*. In addition, numbers captured throughout the season were higher in the *Space-Distance* tactic deployment scheme than in the other two schemes.