

Development and implementation of early detection tools and effective management strategies for invasive non-European and other selected fruit fly species of economic importance



Ceratitis capitata (BESL) - https://doi.org/10.1007/978-94-007-5000-0_10



Bactrocera dorsalis (BACUDO) - https://doi.org/10.1007/978-94-007-5000-0_10

Funding

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Research consortium

BPI (GR), AGEs (AT), BFSa (BG), DAFM (IE)

Contact information

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Key outputs and results

- Overview of the geographical distribution of the fruit-fly species under study
- Development and implementation of tools for early and rapid detection of fruit flies in agricultural commodities
- Management strategies for selected fruit commodities applied at both the place of production and place of entry in order
- Status of specific fruit (e.g. kiwi fruit) as potential hosts of these pests
- Cold hardiness ability of these pests, which is essential for projecting the potential spread of those species and performing accurate PRAs

Goals

Diptera: Tephritidae exert a huge economic impact on fruit and vegetable production worldwide because of direct damage on fruit and vegetable commodities and quarantine regulations. The project is proposed to focus on species of tephritid fruit flies that are key pests to a large number of crops in the Mediterranean region, such as *Ceratitis capitata*, or are considered as important invasive species, such as *Bactrocera zonata*, *Bactrocera dorsalis* complex, and *Myiopardalis pardalina*. These species, which are already present in some parts of Europe, are a threat as they may become established in the Mediterranean basin, posing a risk to the horticultural crops and agriculture of Central and Southern Europe, and are considered quarantine pests for most European countries. The pests under study have substantial interceptions in EUROPHYT database each year. The project aims at (i) developing and implementing novel detection and interception tools and strategies for the above species, (ii) exploring their current geographical distribution in the countries involved in the proposed project as well as their potential range expansion to northern European countries by focusing on basic biological data, (iii) determining the host status of specific fruit of economic importance, and (iv) developing novel pest risk reduction options both at the place of production and at the entry points.