Fruit Flies In-silico
Prevention & Management

FF•IPM

In-silico boosted pest prevention
off-season focused IPM
against new + emerging fruit flies

TRAINING MATERIAL

Horizon 2020
European Union Funding
for Research & Innovation

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ENTITY

Interception

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INTERCEPTION

Molecular identification tools

AUTHOR(S)

Pablo Deschepper,
Sam Vanbergen,
Marc De Meyer,
Massi Virgilio

PARTNER(S)

Royal Museum for Central Africa

MODULE 5

Key Aspects

Molecular ID tools

Unit 1 (genetic tools) / KEY ASPECT 1 (DNA barcoding)
Discussion Question #1: How does it work?
Discussion Question #2: What are the limits?
Discussion Question #3: What are the advantages?
Unit 2 (genetic tools) / KEY ASPECT 2 (LAMP)
Discussion Question #4: How does it work?
Discussion Question #5: What are the limits?
Discussion Question #6: What are the advantages?
Unit 3 (genomic tools) / KEY ASPECT 3 (Genomic ID of species and population structures)
Discussion Question #7: how does it work? what are the advantages?
Discussion Question #8: What are the limits?
Unit 4 (genomic tools) / KEY ASPECT 3 (diagnostic SNPs and origin tracing)
Discussion Question #10: What are they and what are the applications in invasive species?
Discussion Question #11: What are the limits?
Discussion Question #12: What are the advantages?
Unit 5 (Additional information) / KEY ASPECT 3 (references and hyperlinks)
Discussion Question #13 Where can I find additional information on genetic tools?
Discussion Question #14 Where can I find additional information on genomic tools?

Learning outcomes

Molecular ID tools

This module deals with the DNA-based identification of fruit flies of economic significance to EU. It provides an overview of the main genetic and genomic tools available for species and population ID and of interest for tracing fruit fly origins, to model and predict their distributions. The module provides general descriptions and compares costs and benefits of the different approaches. It also provides references and links to additional and more specific information and to lab and bioinformatic pipelines implemented in each approach.