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FruitFlyNet

A Location-aware System for Fruit Fly Monitoring and Pest Management Control

Un sistema georeferenziato per il monitoraggio e la lotta ai Ditteri Tefritidi



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Universitat de les Illes Balears





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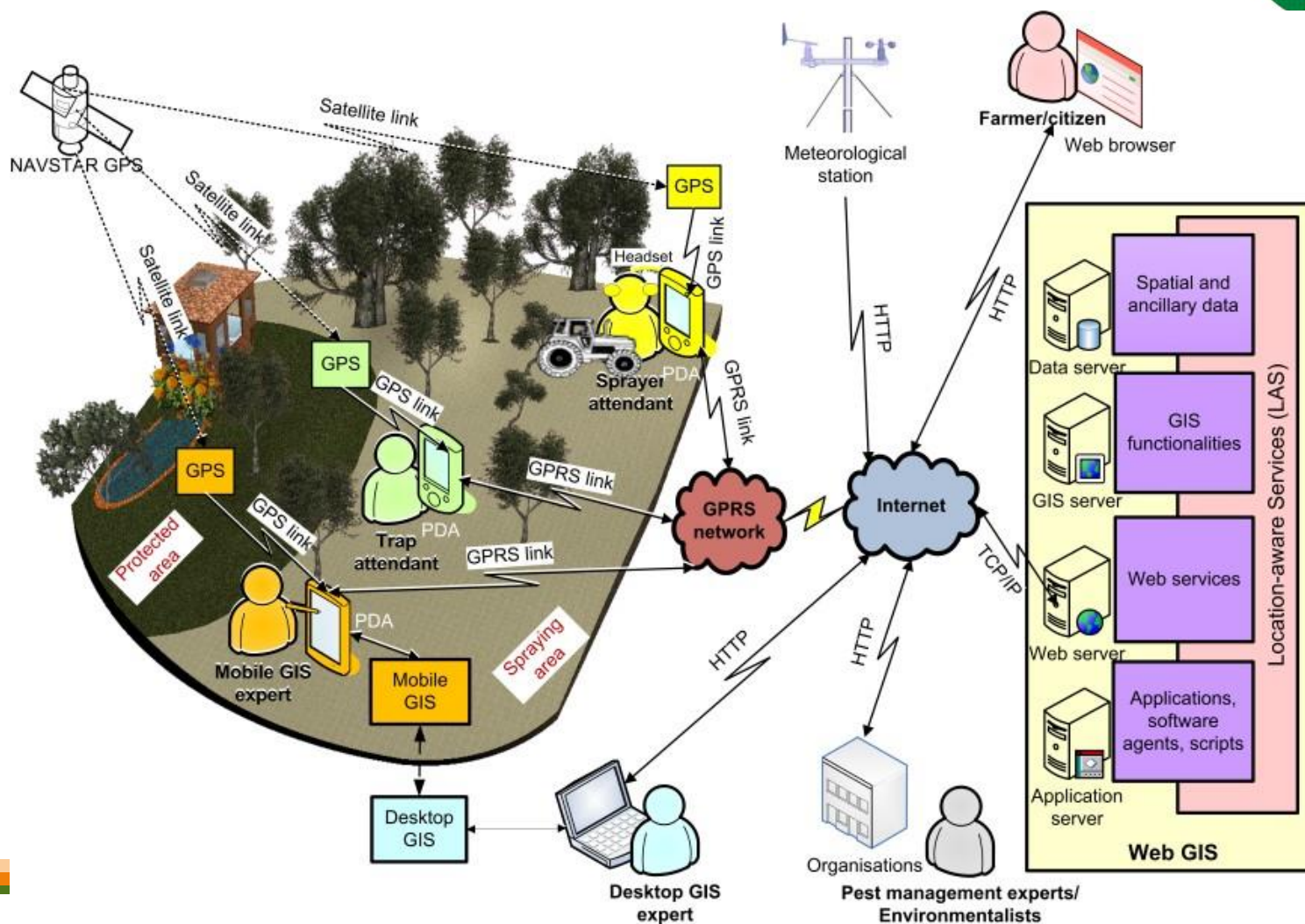
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The 2007-2013 ENPI CBC Mediterranean Sea Basin Programme is a multilateral Cross-Border Cooperation initiative funded by the European Neighbourhood and Partnership Instrument (ENPI). The Programme objective is to promote the sustainable and harmonious cooperation process at the Mediterranean Basin level by dealing with the common challenges and enhancing its endogenous potential. It finances cooperation projects as a contribution to the economic, social, environmental and cultural development of the Mediterranean region. The following 14 countries participate in the Programme: Cyprus, Egypt, France, Greece, Israel, Italy, Jordan, Lebanon, Malta, Palestine, Portugal, Spain, Syria (participation currently suspended), Tunisia. The Joint Managing Authority (JMA) is the Autonomous Region of Sardinia (Italy). Official Programme languages are Arabic, English and French (www.enpicbmed.eu).

The European Union is made up of 28 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders.

The project FruitFlyNet total budget is 1.662.872,32€ and it is financed, on an amount of 1.496.585,09€ (90 %), by the European Union (ENPI CBC Mediterranean Sea Basin Programme) through the European Neighbourhood and Partnership Instrument.

Sistemi integrati GPS, GIS, GPRS, internet, DSS



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FruitFlyNet Project



- **Titolo:** A Location–aware System for Fruit Fly Monitoring and Pest Management Control
- **Coordinator:** prof. Theodore Tsiligridis, Agricultural University of Athens
- **Programma UE ENPI CBC Med**

Obiettivo del progetto: sviluppare, implementare e testare un sistema integrato per il monitoraggio e la gestione delle infestazioni da Ditteri Tefritidi, attraverso lo sviluppo di prototipi in 5 siti pilota.

Pilot Prototype	Pest	Country Eligible area	Implementing Partner
OliveFlyNet	<i>Bactrocera oleae</i>	Spain (Islas - Baleares)	PP4 (BIU)
		Jordan (Al-Balqa)	PP2 (NCARE)
		Greece (Attiki)	A (AUA)
CherryFlyNet	<i>Rhagoletis cerasi</i>	Greece (Thessaly)	PP5 (UTH)
MedFlyNet	<i>Ceratitis capitata</i>	Italy (Lazio)	PP3 (CRA – FRU)
InvasiveFlyNet	<i>Bactrocera zonata</i> <i>Dacus ciliatus</i>	Israel (Arava)	PP1 (ARO)

• **Website:** fruitflynet.aua.gr



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FruitFlyNet Project: sistema di allerta per specie invasive

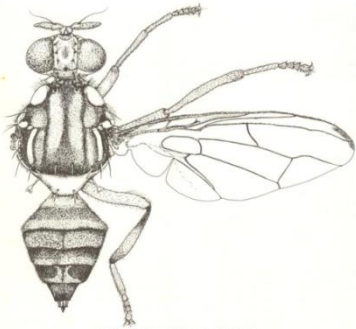


Fig. 136. *Bactrocera* (*B.*) *zonata*, adult female.

Bactrocera zonata

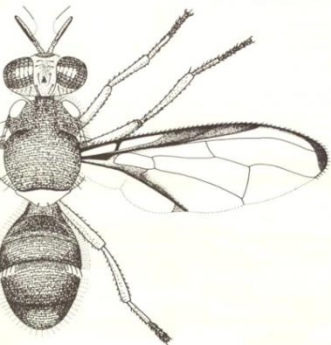
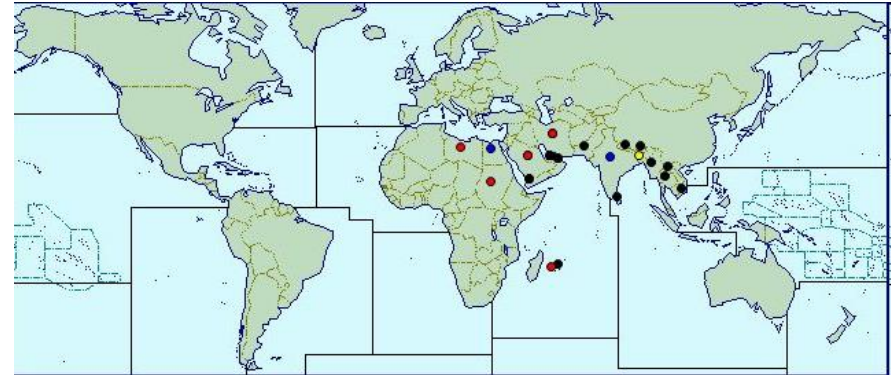
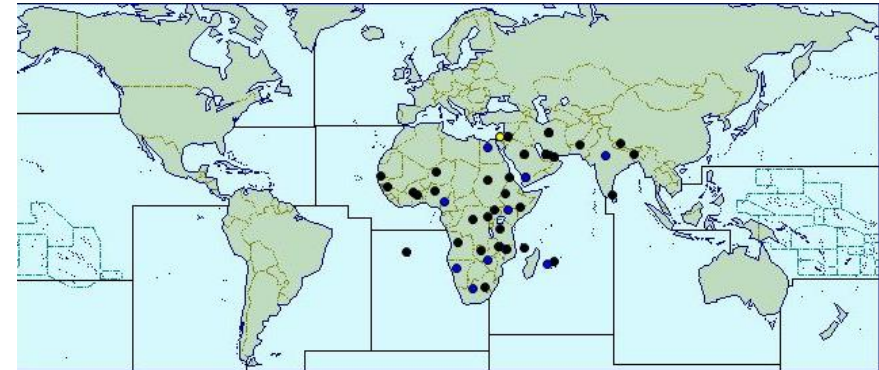


Fig. 27. *Dacus* (*Dacus*) *ciliatus*, adult male.

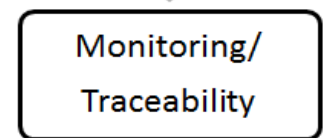
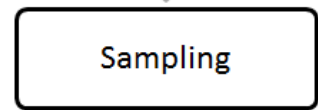
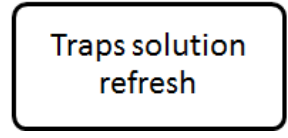
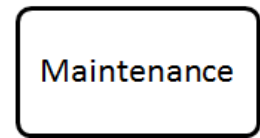
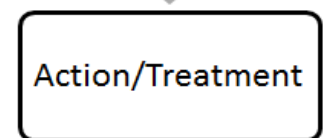
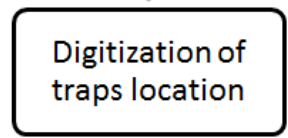
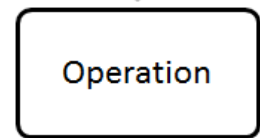
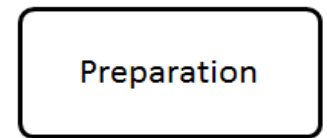
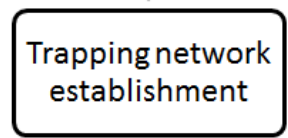
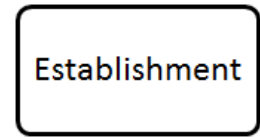
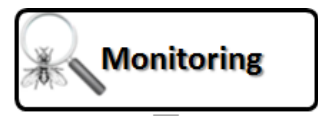
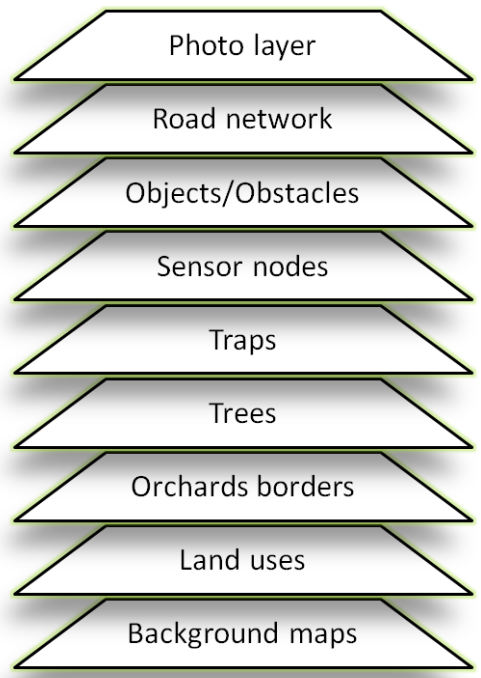
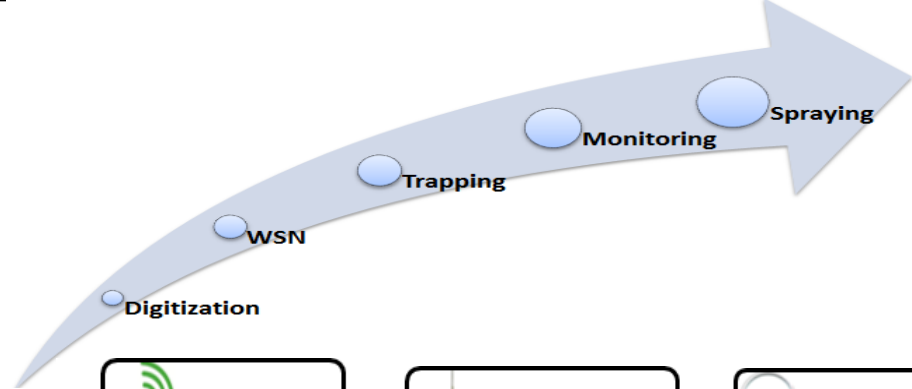
Dacus ciliatus



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CROSS-BORDER COOPERATION
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Creazione database geografico

Rete di sensori wireless

Rete di trappole automatiche

Sistema di supporto alle decisioni

Treatments mirati

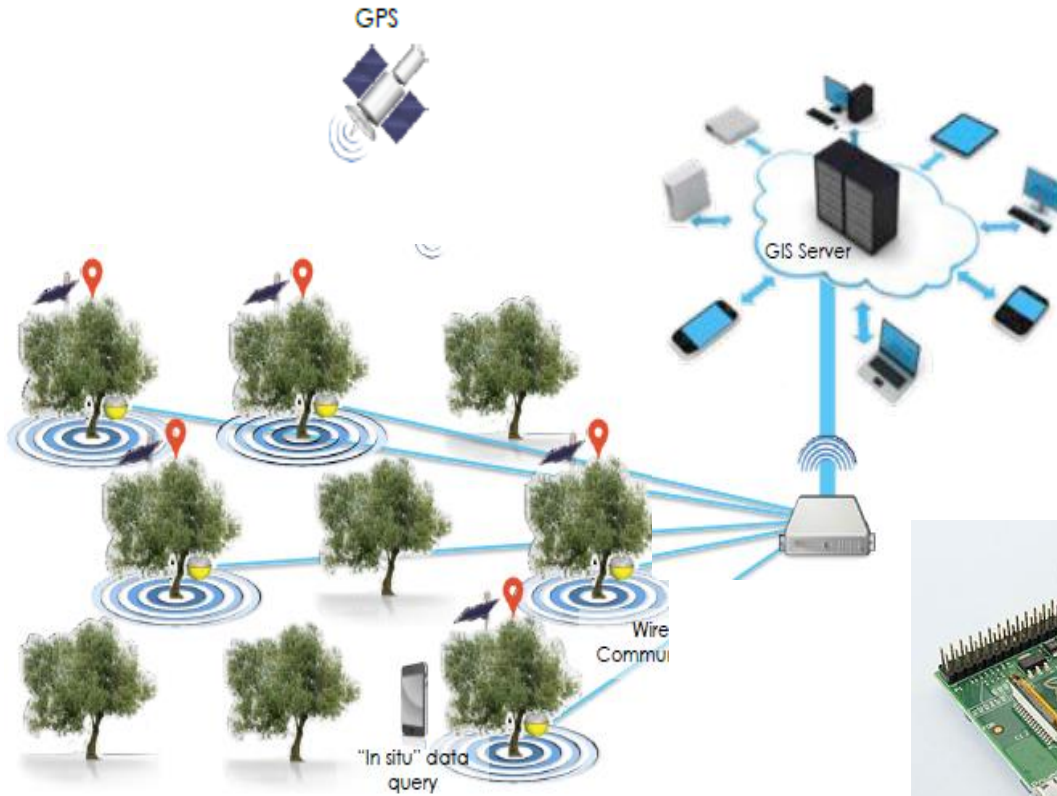


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Rete di sensori wireless

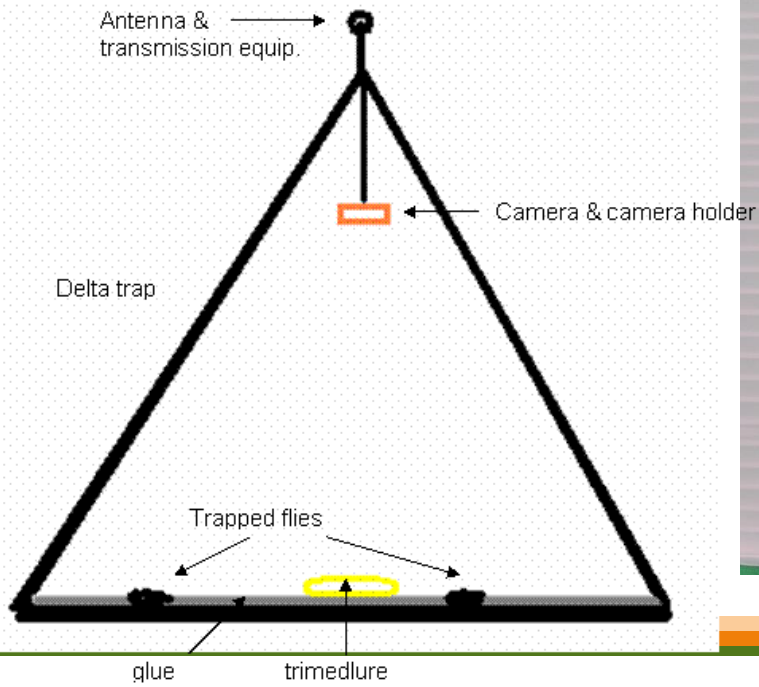
- Sensori ambientali
- Sensori di immagine
- Antenna Wifi
- Single board computer
- Batteria con pannello solare



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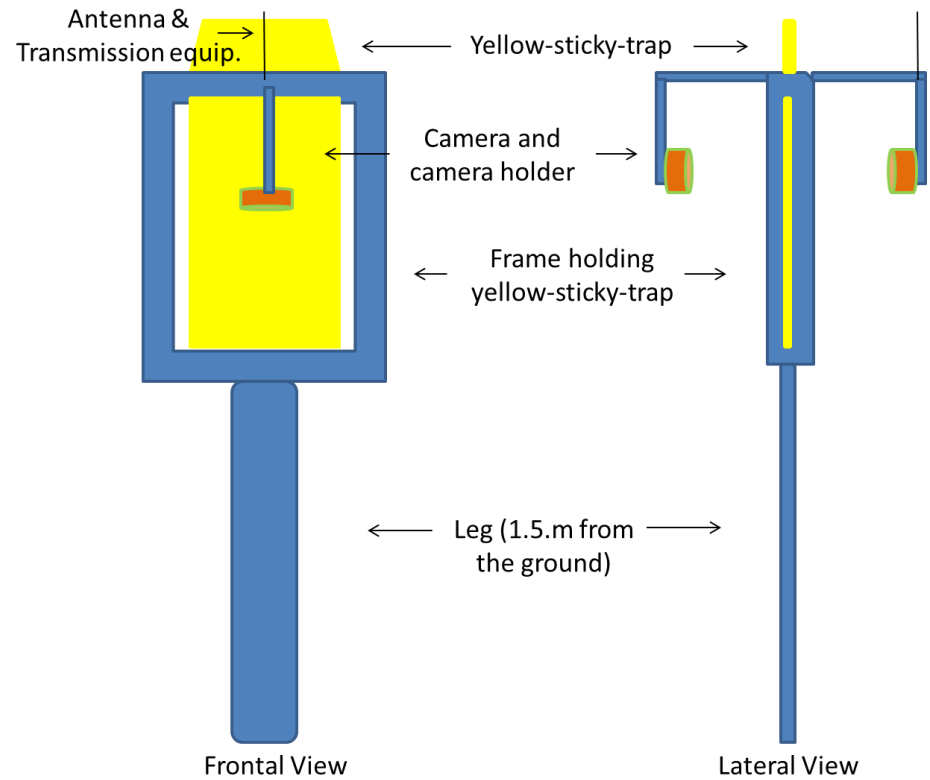
Trappola semi-automatica: *Ceratitis capitata*



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Trappola automatica: *Dacus ciliatus*



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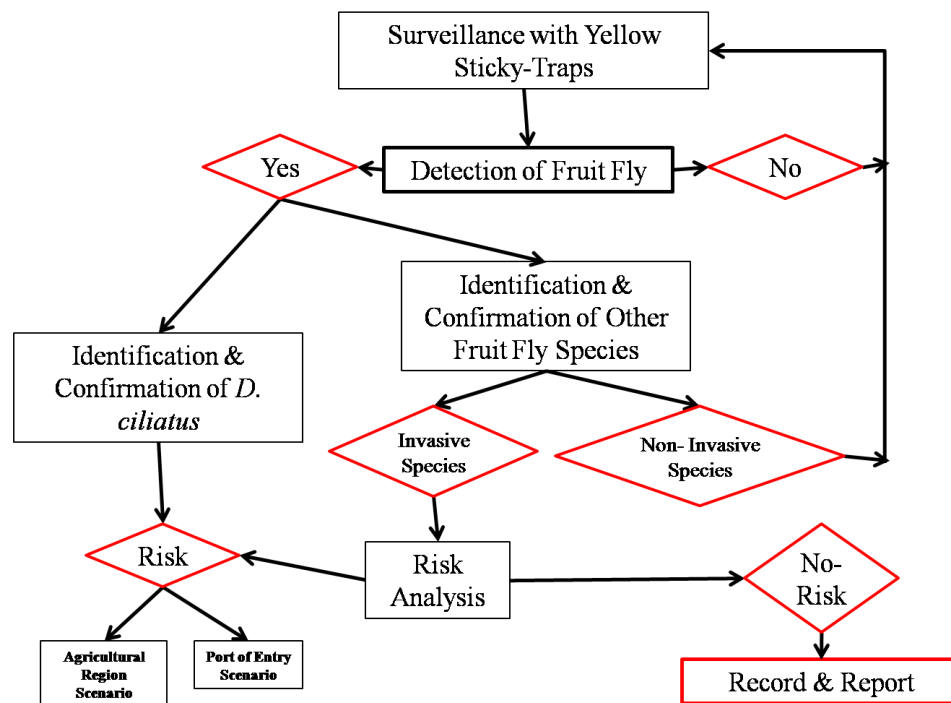
Specie invasive

Diagramma di flusso e analisi dei rischi



I

Decision Making Flow Chart for Invasive Fruit Flies: *D. Ciliatus* Scenarios: Cucurbits Agricultural Area, Port of Entry



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Trattamenti mirati

INPUT

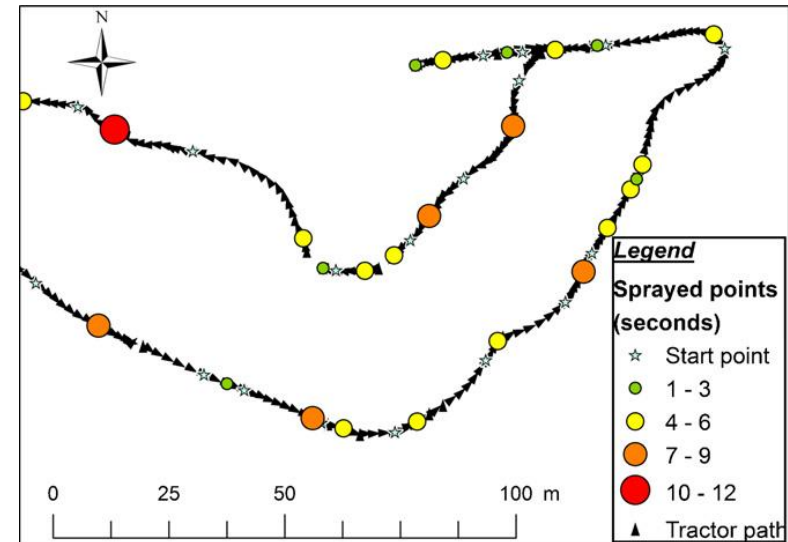
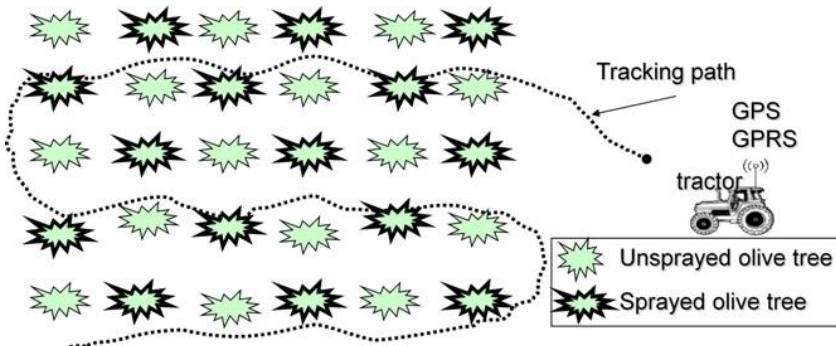
- Livelli di rischio (DSS)
- Condizioni meteorologiche

AZIONE

- Trattare SI/NO
- Copertura per plot
- Intensità del trattamento
- Motivazione

STIMA

- Percorso
- Durata
- Volume di prodotto applicato





Thank you!!!



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