



Available instruments to monitor the establishment and spread of invasive species

David Cary, Executive Director, IBMA, June 2015



What is IBMA?

- Industry trade association
- Established in 1995
- Over 235 members
- Global European focused association
- Diverse membership
 - SME's to multinationals
 - Organic & biocontrol only to IPM & conventional
 - Principally involved in agriculture & horticulture
 - Growing animal, home and garden and public health markets



Current tool categories available from the Biocontrol industry



Microbials

Viruses, Bacteria
& Fungal
Pathogens



Macrobials

Predatory mites
& insects,
nematodes



Semiochemicals

Pheromones,
Plant volatiles



Natural and
Biochemical
Products

Plant extracts,
Seaweed
products & Basic
substances

Invasive Pests and monitoring

- Threats why are they important?
 - Climate Change
 - Global travel
- What form are they in?
 - Plants
 - Animals including insects
 - Pathogens



Flora pests = Weed pests

- What are they?
 - Weeds can be invasive weeds from other regions
 - Weeds can be desirable plants brought in for a perceived benefit
- What monitoring is being done, by who and how?
- EPPO <http://www.eppo.int/>
 - Invasive Alien Plant Panel
http://www.eppo.int/INVASIVE_PLANTS/ias_plants.htm



Fauna Pests

- Examples
- Agriculture
 - *Tuta absoluta* in tomatoes
 - *Drosophila suzuki* in fruits
- Public Areas
 - *Cameraria ohridella*
 - *Thaumetopoea processionea*
 - Zebra Mussel
- Public Health
 - Vectors
 - Limes Disease



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Pathogen Pests

- Examples
- Agriculture
 - Late Blight
 - Fireblight
- Trees
 - Dutch Elm Disease



Monitoring systems

- Comprehensive systems toolkit on monitoring invasive pests
- USA: NISC est. 1999 <http://www.doi.gov//invasivespecies/index.cfm>
- Europe: EASIN est. 2012 <http://easin.jrc.ec.europa.eu/about>
- CABI 2001: INVASIVE ALIEN SPECIES: A Toolkit of Best Prevention and Management Practices Edited by Rüdiger Wittenberg and Matthew J.W. Cock



Monitoring and Control Tools

- Observation / Surveys
 - Organised
 - Adhoc
- Monitoring tools
 - Traps
 - Attractants
 - Semiochemicals, Basic substances
 - Prediction models
 - Smart traps
- Control
 - Mass trapping / Mass monitoring??
 - Physical / Cultural
 - Biocontrol



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PERCEPTION

Keep telling yourself that it's just a dolphin

DIY.DESPAIR.COM



Use of traps as a monitoring tool & control

- Time to develop controls for an invasive pest
- Readymade solution
- Known attractiveness for pest
- Quickly scaled up and implemented





Thank you for your
attention

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