Multitrophic Interactions in the Soil

How to control bio-aggressors in soil using the indigenous biota ?

Convenor : Christian Steinberg - Dijon, France

Two meetings

- June 2007 : Dijon, France

  85 participants

  16 countries (cz no at be lv al it se mo il nl de es ch uk fr)

  40 oral presentations, 13 posters

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pdf version was sent to respective authors

- June 2009 : Uppsala, Sweden

  65 participants

  16 countries (at es no be fi de ru usa gr it dk nl il uk fr se)

  23 oral presentations, 1 round-table, 24 posters

IOBC/wprs Bulletin : Manuscripts are under evaluation

June 2007:

⇨ Focussed on Soil Ecology to control plant bioaggressors.

Some specific points were underlined :

⇨the soil modulates and in turn is altered by the soil biotia ⇨new tools

⇨protists have an important role in the functioning of the multitrophic network

⇨agricultural practices can impact positively or negatively the multitrophic interactions in the soil, including the biocontrol of bioaggressors

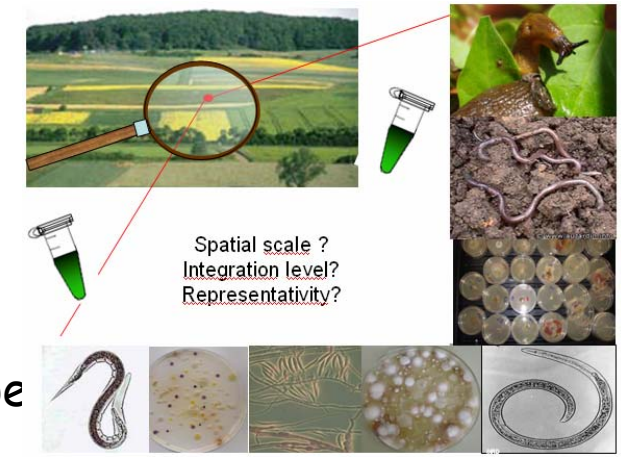
⇨ systemic approach

⇨ soil health-plant health indicators

⇨ mathematical models

June 2009

focussed on 2 main axes :



⇨ Systemic approach

⇨Integration level

⇨ Geographic scale : cm3, plot, landscape

⇨ Farm scale : present crop, crop system ?

⇨ Interactions scale : binary or multiple interactions ?

⇨Appropriate tools

⇨ Registration, legal aspects, commercial applications

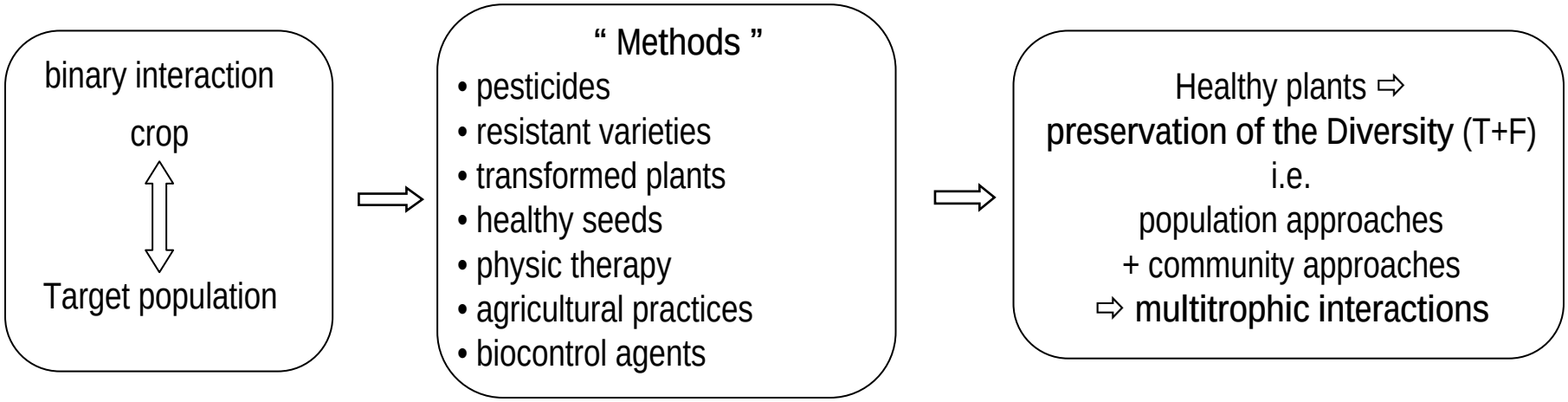
⇨ Reviews on the regulation assessments of microbial and invertebrate biocontrol agents

⇨ Examples of efficient biocontrol agents toward pathogenic fungi and nematodes associated to the troubles to succeed in their registration.

⇨Round table : How the previous points can be used to improve the sanitary status of the soil

Conclusion

From binary to multitrophic interactions



Call for … predictive ecology:

Nematodes are not just plant-parasitic organisms : ecological role ?

What about protists ?

Need for mathematical models

adapted from T. Mateille – IRD Montpellier, France

VI Meeting of the Working Group
Multitrophic Interactions in Soil

B. Landa : Instituto de Agricultura Sostenible (Córdoba-Spain)

June 2011