

The EPPO PRA Scheme

and its Adaptation to ISPM No. 11 (Rev. 1)



Gritta Schrader

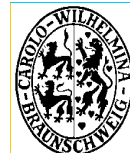
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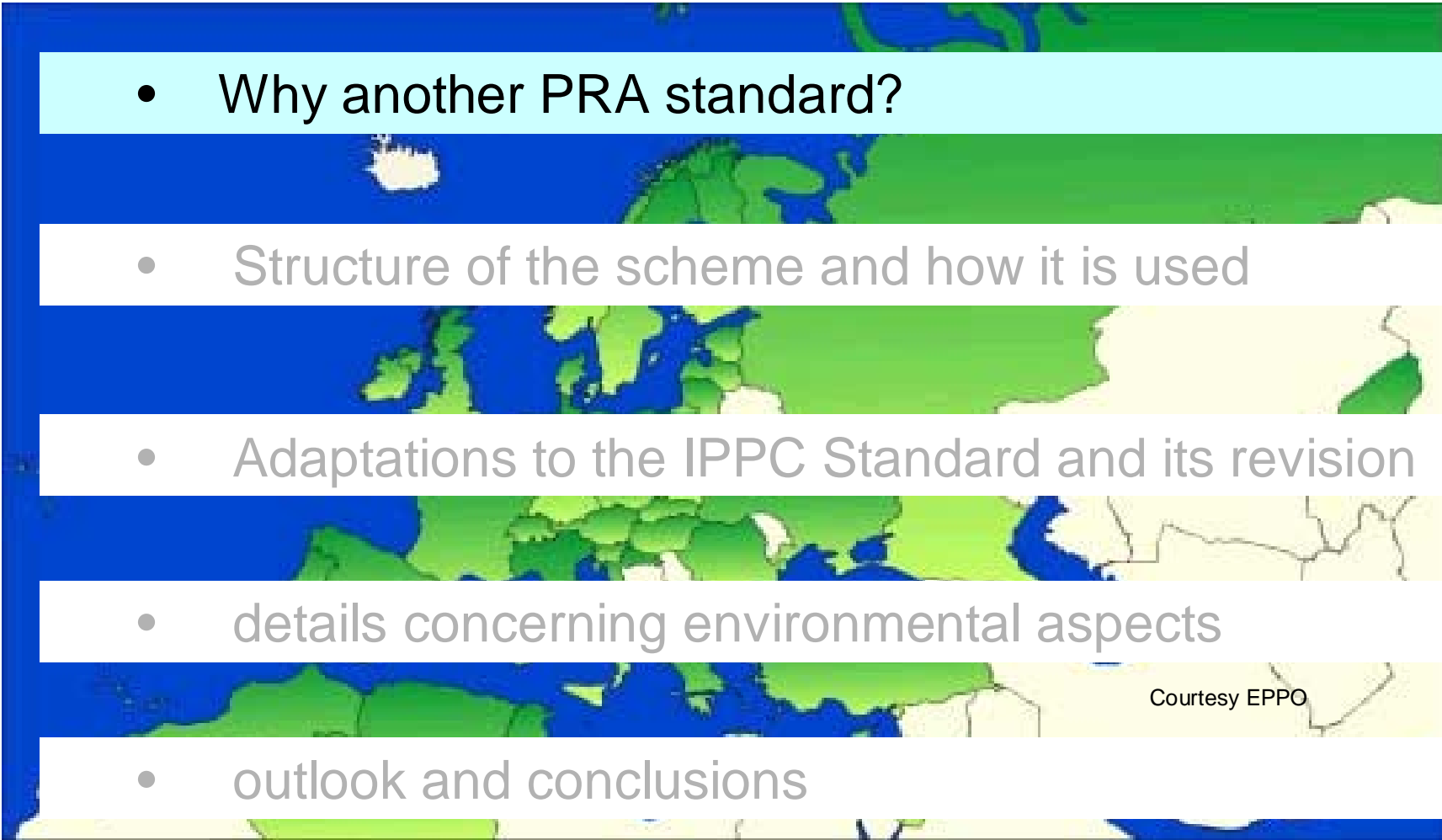


The Euro-Mediterranean Approach to IPPC-PRA

- Why another PRA standard?
- Structure of the scheme and how it is used
- Adaptations to the IPPC Standard and its revision
- details concerning environmental aspects
- outlook and conclusions

Courtesy EPPO



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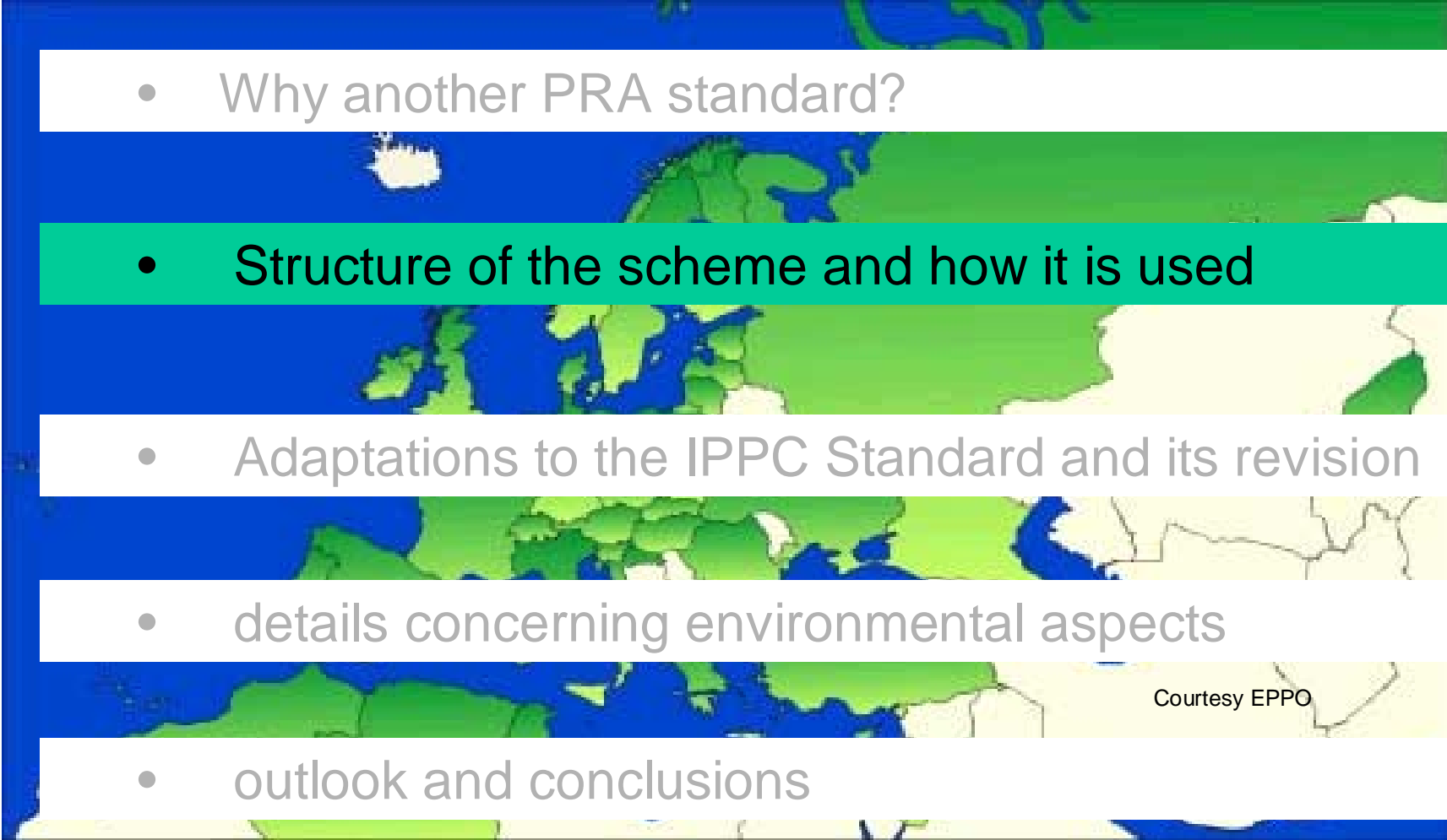
Why another PRA Standard?

to apply PRA in the framework of the IPPC for the EPPO region

to supply EPPO member countries with a user-friendly tool for the assessment of risks of organisms that are harmful to plants

to provide technical justification for the regulation of certain pests for the EPPO region (or parts of it) as PRA area in line with the IPPC standard, and thus, the WTO



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Structure of the scheme and how it is used

provides detailed instructions for the following stages of pest risk analysis for quarantine pests:

initiation,

pest categorization,

probability of introduction,

economic impact assessment.

simple, clearly arranged scheme with a sequence of questions for deciding whether an organism could present a pest risk

for pest risk management another scheme exists



Structure of the scheme and how it is used

starting with initiation stage:

WHY?	reasons for performing PRA
WHAT?	identity of organism
WHERE?	definition of PRA area

Section A:

IS THERE A RISK?	qualitative assessment if organism is a pest and presents risk to PRA area
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Section B:

HOW LARGE IS RISK?	quantitative assessment of the risk
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Final evaluation

expert judgement

QUARANTINE PEST?



Structure of the scheme and how it is used

Section A:

geographical and regulatory criteria

potential for establishment

potential for economic, environmental
and social importance

assessment can be terminated,
if the organism does not fulfil certain criteria



Structure of the scheme and how it is used

Section A:

binary decision tree

13. Does the pest occur in the PRA area?

if yes Go to 14

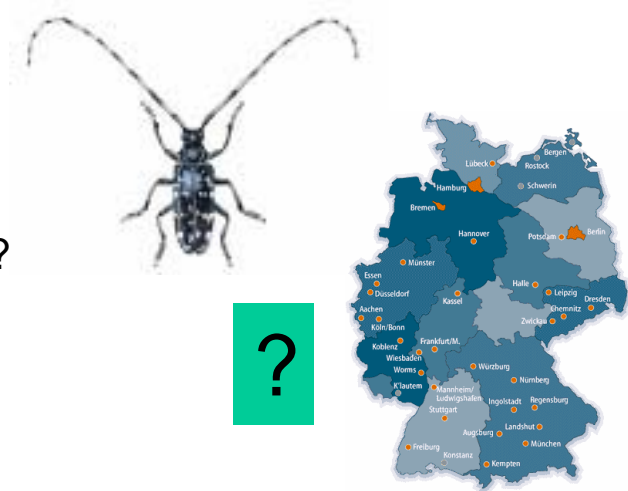
if no Go to 15

14. Is the pest present but not widely distributed in the PRA area?

if yes Go to 15

if no Go to 22

22. This pest does not qualify as a quarantine pest for the PRA area and the assessment can stop. [...]



Structure of the scheme and how it is used

21. This pest could present a risk to the PRA area

Go to section B

Section B:

series of questions. Replies expressed as scores (1 – 9)

preliminary consideration of questions: possibly quick decision?

if no quick decision possible: full assessment



Structure of the scheme and how it is used

Collection of relevant data (characteristics of pest, host, habitat, PRA area...) adequate information is essential! ➔ EPPO check-list!

Examples of questions in Section B

- **How many pathways (from different origin) could the pest be carried on?**
- **How likely is the pest to be able to transfer from the pathway to a suitable host?**
- **How extensive are the host plants (or suitable habitats) in the PRA area?**
- **How similar are the climatic conditions that would affect pest establishment in the PRA area and in the area of origin?**

Interpretation of information by the assessor



Structure of the scheme and how it is used

Final evaluation

Comment of assessor: uncertainties? Adequate information?

Level of risk

Scheme does not provide estimates of meaningful units, no procedure for calculation of units in scheme

expert judgement to estimate pest risk is essential

Documentation of PRA!

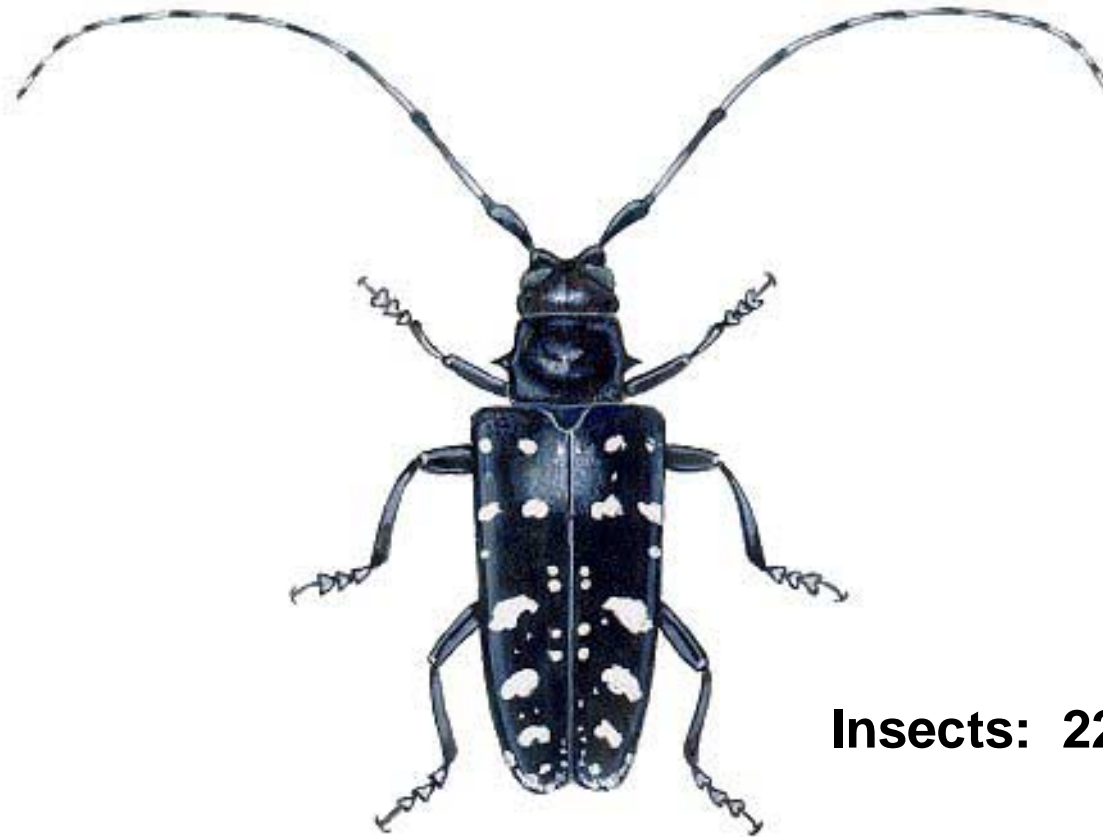


The daily use of the EPPO PRA scheme

Full PRAs done for the EPPO region basing on scheme



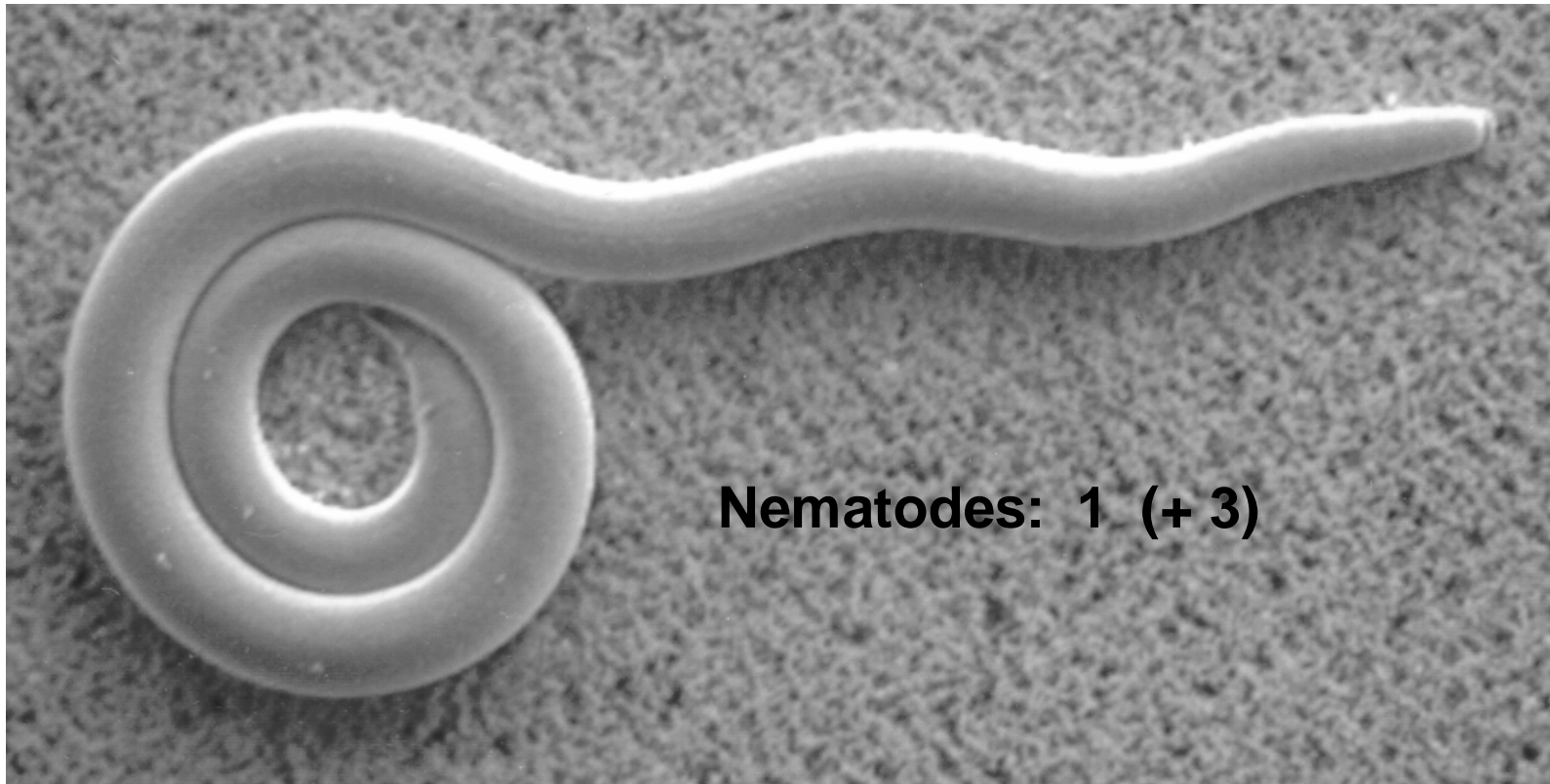
The daily use of the EPPO PRA scheme



Insects: 22 (+ 37)



The daily use of the EPPO PRA scheme

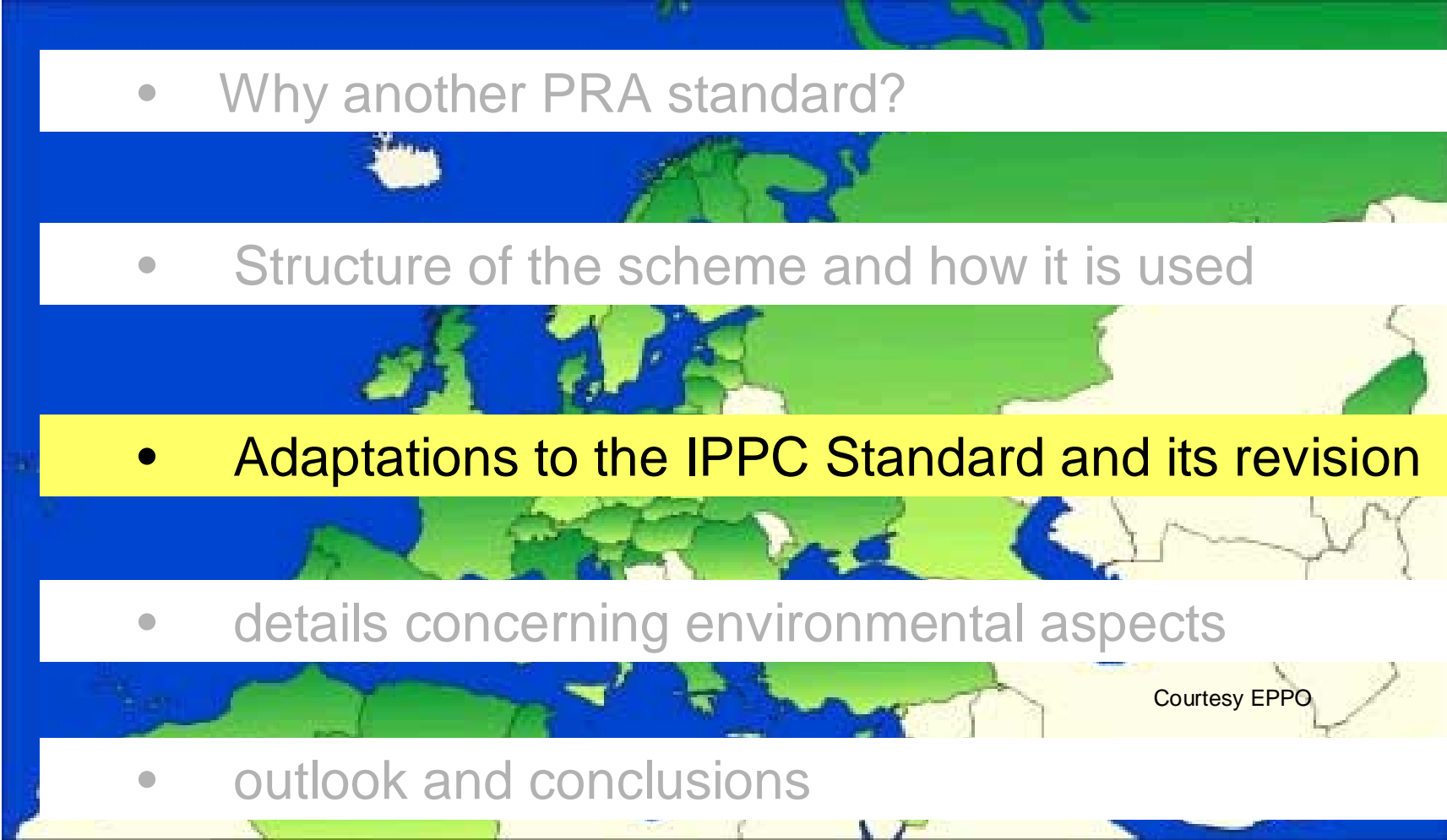


Nematodes: 1 (+ 3)



The daily use of the EPPO PRA scheme



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Adaptations to the IPPC Standard and its revision

Why?

Development of the IPPC standard on PRA for quarantine pests (ISPM No. 11) and its supplement on the analysis of environmental risks

new policy of EPPO, focussing now more detailed on risks of plant pests to biodiversity and human use

applicability to pest plants (invasive plants/weeds)

applicability to indirect plant pests

In line with ISPM No. 11



ISPM 11 Supplement: Analysis of Environmental Risks

Scope: prevention of introduction of invasive alien species harmful to plants or selection of adequate control strategies if introduction could not be prevented.

More detailed guidance for analysis of risks of plant pests to the environment and biological diversity

- Consequences on environment and biodiversity
- Assessment of intentionally imported plants
- Indirect effects on plants or on plant health in ecosystems or habitats
- Precautionary approach
- Differentiation intended / unintended habitat



ISPM 11 Supplement: Analysis of Environmental Risks

Examples of direct consequences of pest effects on plants include:

- reduction of keystone species,
- reduction of species that are major components of ecosystems (in terms of abundance or size),
- reduction of endangered species (including effects below species level where there is evidence of such effects being significant),
- significant reduction, displacement or elimination of other native species.

Estimation of the area potentially endangered should relate to these effects.



ISPM 11 Supplement: Analysis of Environmental Risks

Examples of indirect consequences of pest effects on plants include:

- indirect effects on plant communities (species richness, biodiversity),
- significant effects on designated environmentally sensitive areas,
- significant change in ecological processes and ecosystems (including further effects on plant species),
- effects on man's use (e.g. tourism, hunting, fishing),
- costs of environmental restoration,
- effects on human and animal health (e.g. toxicity, allergenicity),
- effects of eradication, control or other management measures.



Adaptations to the IPPC Standard and its revision

How?

Adjustment with the sections of ISPM No. 11

Questions of the scheme rearranged to follow it more closely

In section A (Pest categorisation): addition of questions to cover more precisely the cases of plants

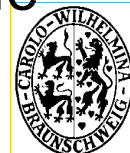
Does the plant have intrinsic attributes that indicate that it could cause significant harm to plants or plant communities?

In relation to the conditions in the PRA area, is the plant likely to cause other negative impacts (economic, environmental, social, loss of export markets)?

Still in process

Further discussion in panels

Workshop in October 2004 to finalize scheme



Adaptations to the IPPC Standard and its revision

Make it easy!


Simplification of questions of the scheme

Questions not relevant to plants are indicated

Scoring system: numbers will possibly be replaced by words
(e.g. very unlikely, unlikely, possible, likely, very likely etc. instead of 1 – 9)

If answer to an important question is indicating a high impact, pest may immediately declared a (potential) IAS or quarantine pest, following questions can then be left out
(e.g. How important is environmental damage to be in the PRA area?)



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Details concerning environmental aspects

Applicability of the scheme to pest plants is new

invasive plants have effects on the environment, impacts are generally described in qualitative rather than in economic terms

unintentional introduction: seeds or other propagules contaminating imported commodities

BUT ALSO: intentional import for agricultural or horticultural purposes





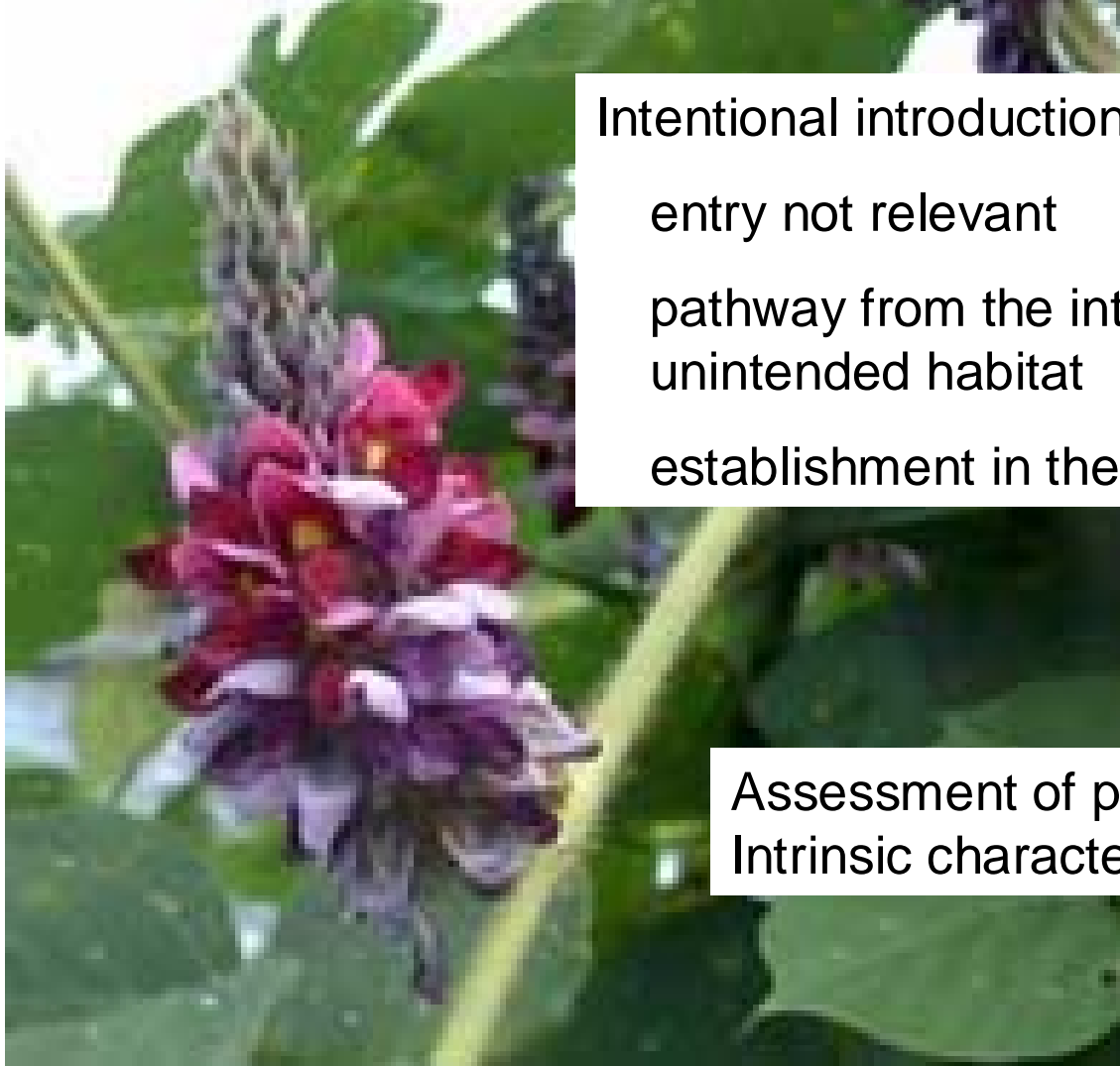
This is nice...



...but what about this?



Details concerning environmental aspects



Intentional introduction of plants

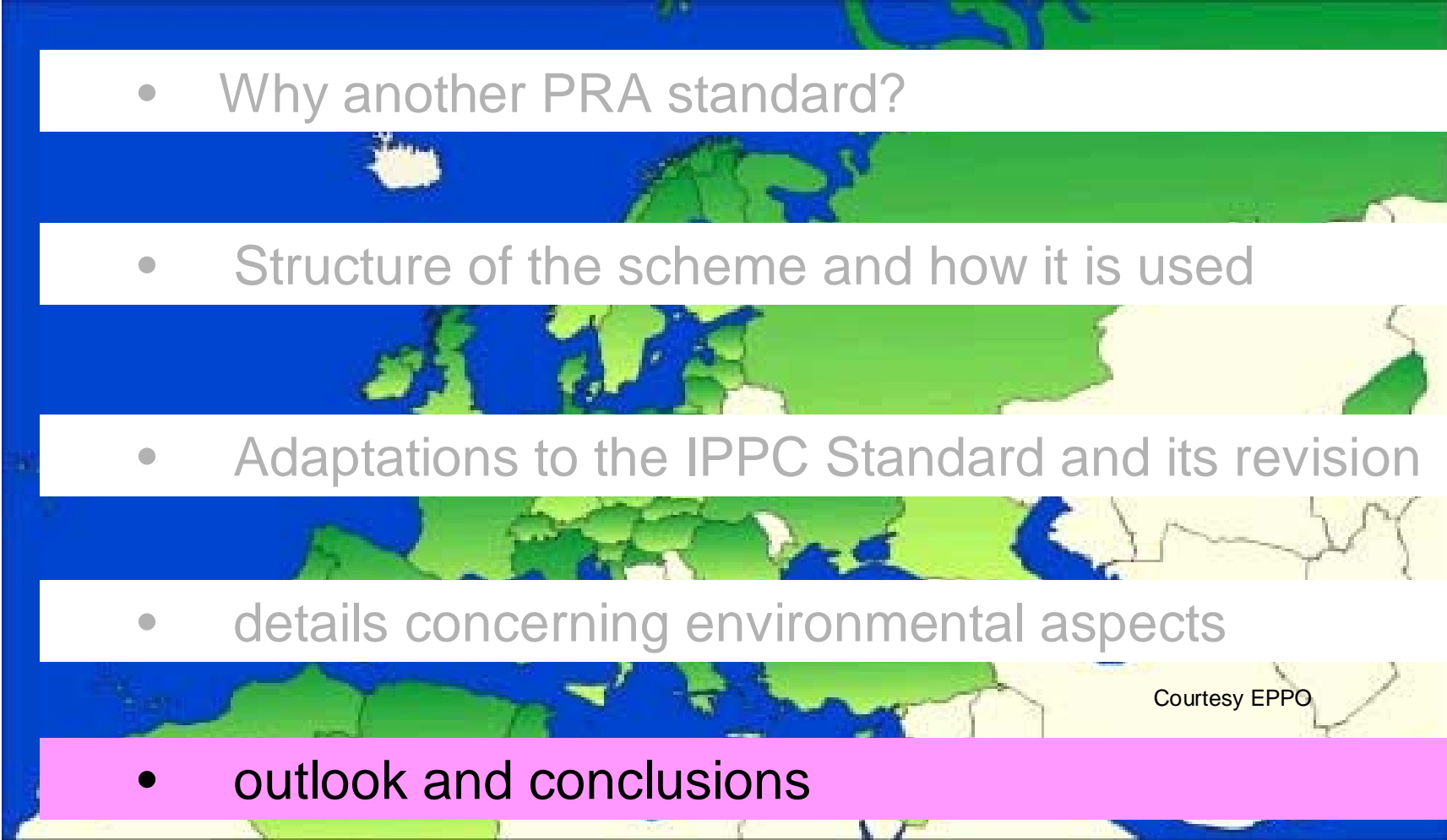
entry not relevant

pathway from the intended to the unintended habitat

establishment in the unintended habitat

Assessment of potential invasiveness
Intrinsic characteristics of invasiveness



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Outlook

Application:

Assessment of risks posed by the intentional introduction of ornamental plants

Justification for an authorisation procedure regarding the intentional introduction of organisms with potential impacts on plants

Assessment of risks posed by indirect pests and the resulting consequences

Technically:

A computerised system is envisaged to run the scheme and avoid to go through questions that are not relevant.



Conclusions

- ISPM No. 11 (rev. 1) is a useful general base to PRA. Its applicability can be enhanced when its content is transformed into a questionnaire
- Environmental risks of alien species in the plant sector can practically and effectively be analysed with the EPPO Pest Risk Assessment Scheme
- The application of the revised EPPO scheme will contribute to the implementation of the CBD Guiding Principles



Thanks to:



EPPO Panel on
Invasive Alien Species

EPPO Panel on
Pest Risk Analysis

