The European and Mediterranean Plant Protection Organisation

An update on EPPO activities

Event: IPPC Regional Workshop
Bykovo, Moscow
Date: 2018-09-3/6

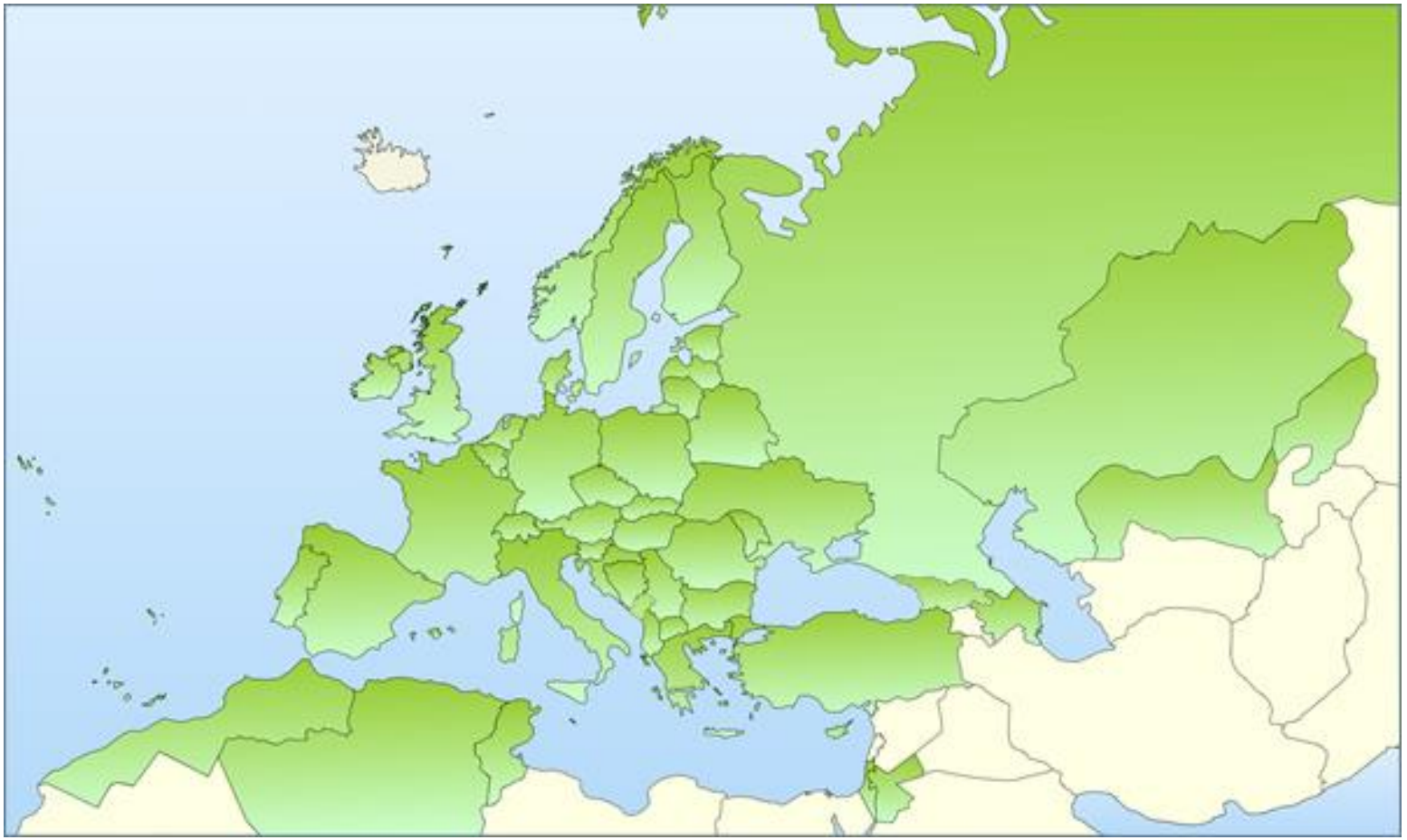
Martin Ward (Director General) - hq@eppo.int

1951 EPPO Convention – 15 countries

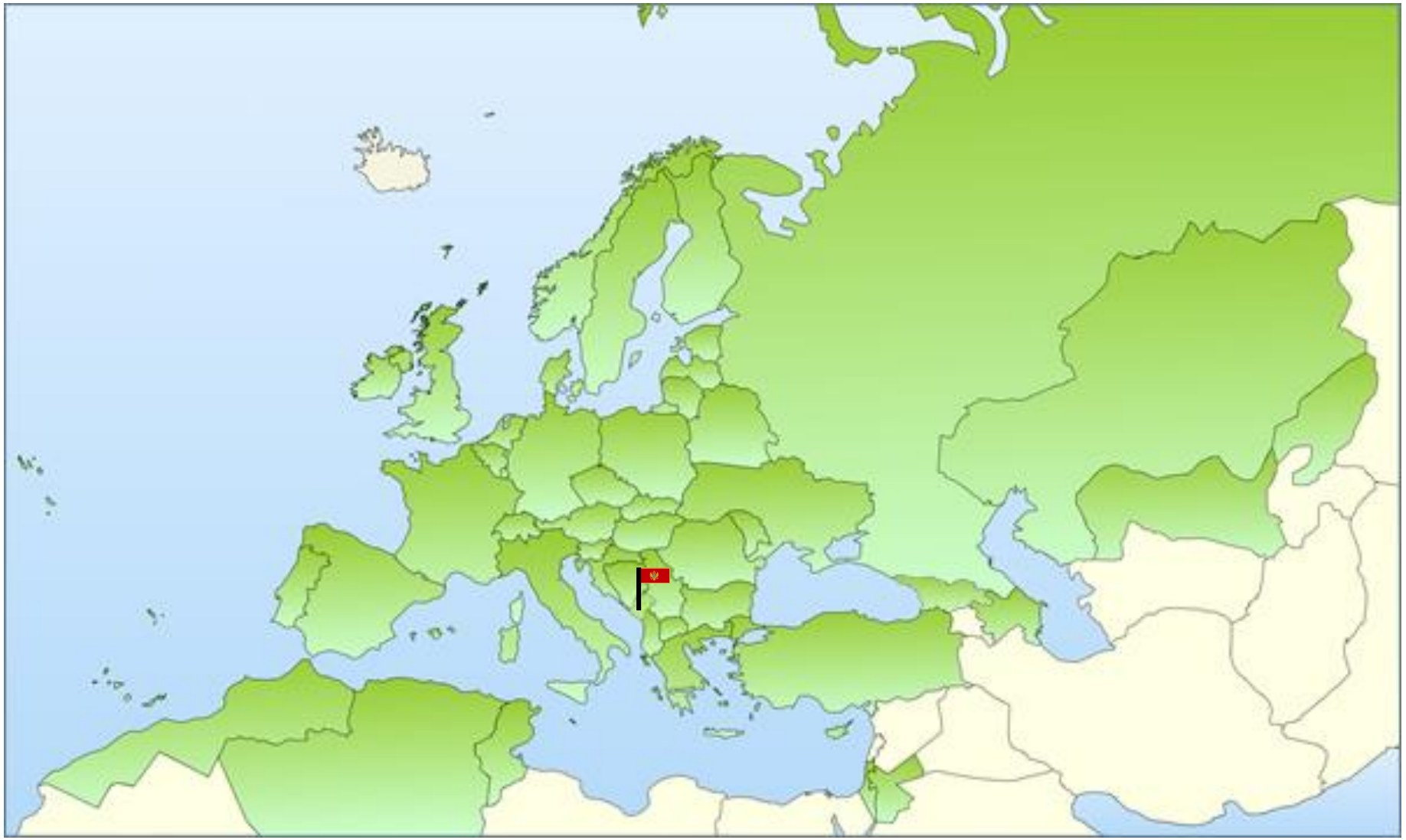
Now 52 member countries

Two Permanent Observers (EEC and EC)

One of 10 RPPOs recognised under IPPC



2018 - welcome to Montenegro!



Remit

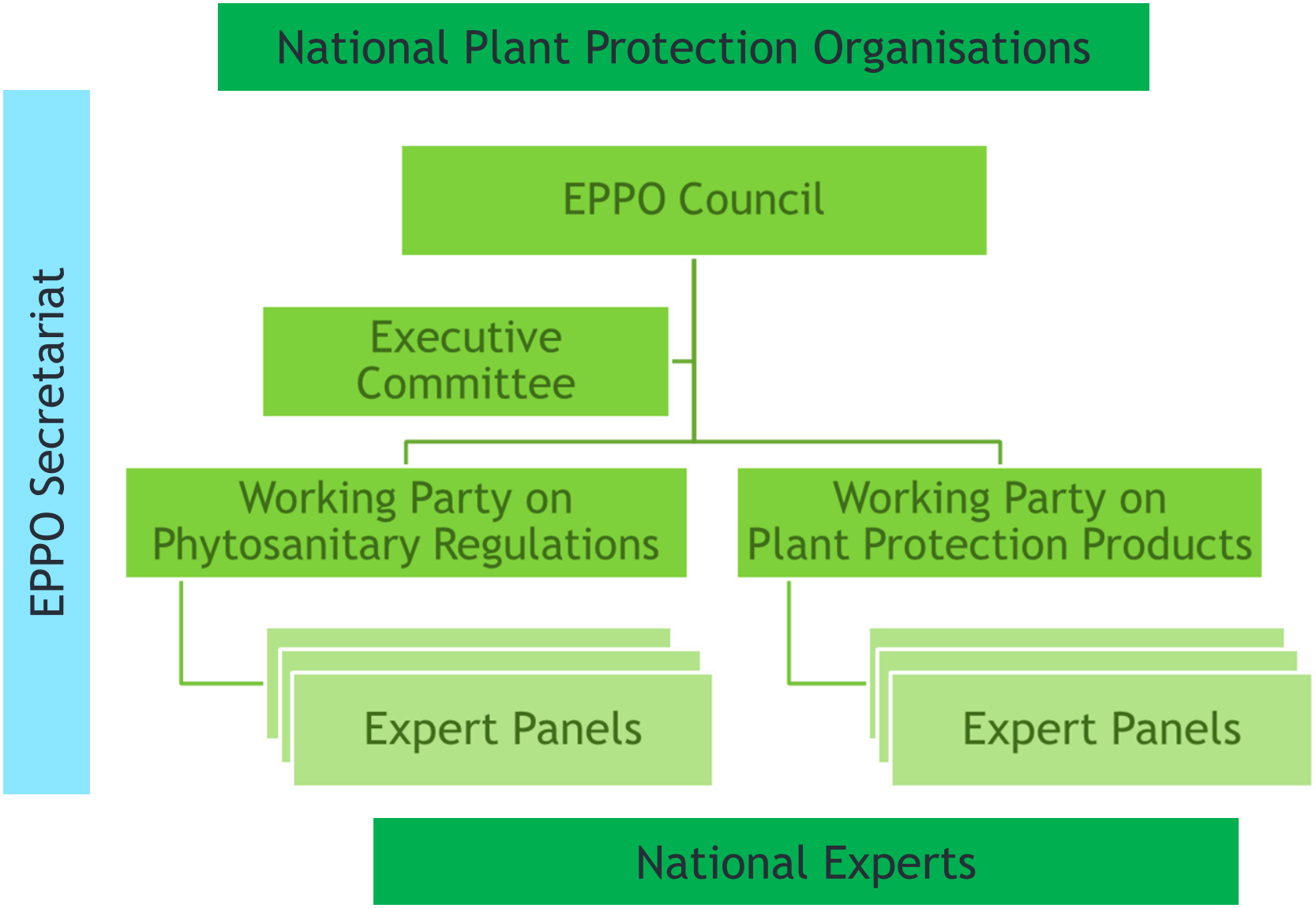
- Plant quarantine
- Plant certification and Regulated Non Quarantine Pests
- Invasive alien plants
- Biological control agents
- Efficacy of plant protection products

by:

- Drafting and adopting regional technical standards
- Input to development of international standards
- Sharing information and expertise through networks

EPPO hosts Euphresco and the EU Minor Uses Co-ordination Facility which have their own funding and governance

Organisation



Active Panels

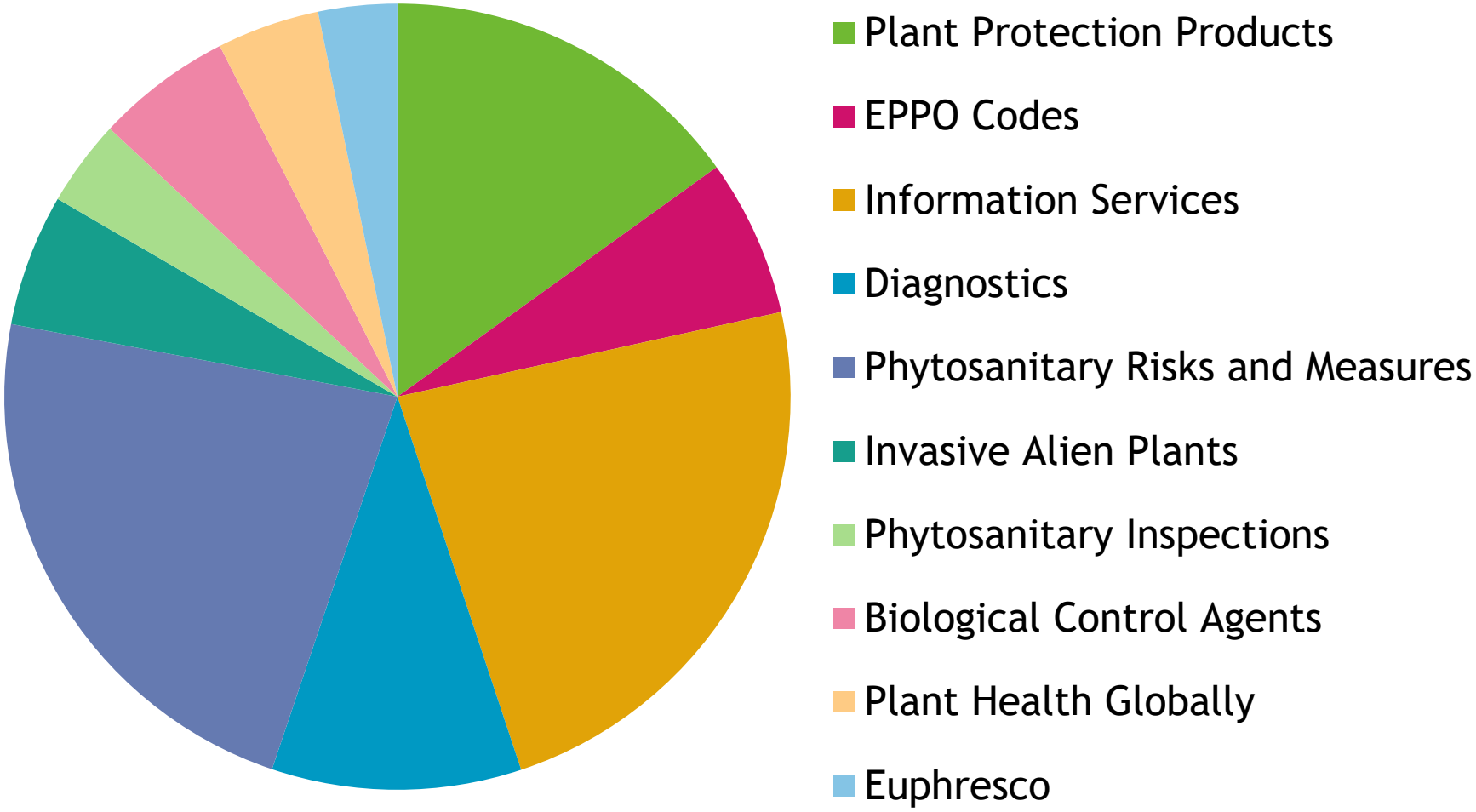
Plant Protection Products

- General Standards
- Herbicides
- Insecticides and Fungicides
- Resistance
- Harmonisation of Data Requirements

Phytosanitary Regulations

- Global Phytosanitary Affairs
- Phytosanitary Measures
- Forestry
- Potatoes
- Inspection Procedures
- Information
- Diagnostics (General) +
  - Entomology
  - Nematodes
  - Bacteria
  - Fungi
  - Virology
- Invasive Alien Plants
- Biological Control Agents

Core programme spend by activity

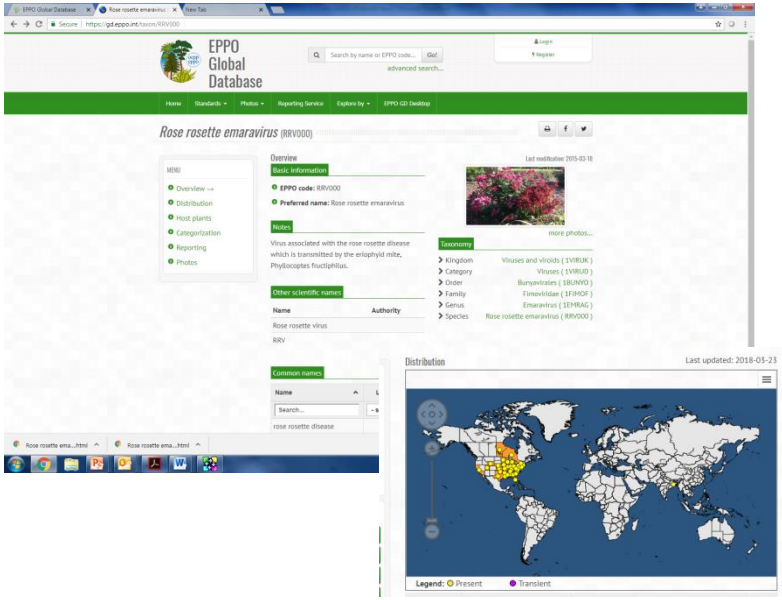


Resources, funding and work programme

- 19 staff (14 scientific, 5 admin/IT)
- Two thirds on core programme funded by countries
  - Annual work programme and budget agreed by Council
- One third on projects funded (or part funded) by others
  - Euphresco network of research funders and managers
  - EU Minor Uses Co-ordination Facility
  - Regulated Non-Quarantine Pests project
  - Invasive Alien Plants Risks
  - Research projects (EMPHASIS, XFactors, Valitest)

Ongoing activities

- EPPO Global Database



- EPPO Codes

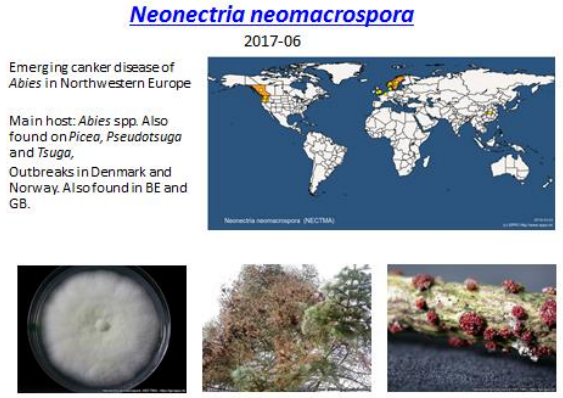
Kingdom	Animalia	1ANIMK
Phylum	Arthropoda	1ARTHP
Subphylum	Hexapoda	1HEXAQ
Class	Insecta	1INSEC
Order	Hemiptera	1HEMIO
Suborder	Sternorrhyncha	1STERR
Family	Aleyrodidae	1ALEYF
Genus	Bemisia	1BEMIG
Species	Bemisia tabaci	BEMITA

- EPPO Reporting Service

2018/138 First report of *Anoplophora chinensis* in France

The NPPO of France, recently informed the EPPO Secretariat of the first report of *Anoplophora chinensis* (Coleoptera: Cerambycidae – EPPO A2 List) on its territory. On 2018-07-04, adult specimens were caught on *Acer negundo* trees in a private garden in Royan (Charente-Maritime department). These trees were also showing signs of presence of the pest. The identity of the insect was confirmed by the Anses laboratory in 2018-07-06. All infested trees were destroyed on 2018-07-11. An infested zone (100 m radius) and a buffer zone (2 km radius) have been delimited around the finding site. Intensive surveys will be carried out to determine the extent of the outbreak and investigations will be made to identify the possible source of introduction of *A. chinensis*. An information leaflet has also been published to encourage members of the public to report the pest.
The pest status of *Anoplophora chinensis* in France is officially declared as: **Transient, actionable, under eradication.**

- EPPO Alert List



Reporting obligations

EPPO Convention Article VI. Obligations.

a. Member Governments shall furnish to the Organization so far as is practicable such information as the Organization may reasonably require in order to carry out its functions, including in particular the information referred to in Article V f1 and V f2 [pest occurrence and legislation].

b. Member Governments shall endeavour to implement the recommendations made by the Council of the Organization, including in particular the regional standards.

EPPO can share so much information only because we receive it from member countries! Please keep providing us with updates on pest findings and outbreaks.

EPPO Standards

- PM3 Phytosanitary Procedures
- PM5 Pest Risk Analysis

- PM6 Guidance on biological control agents

- PM7 Diagnostic protocols

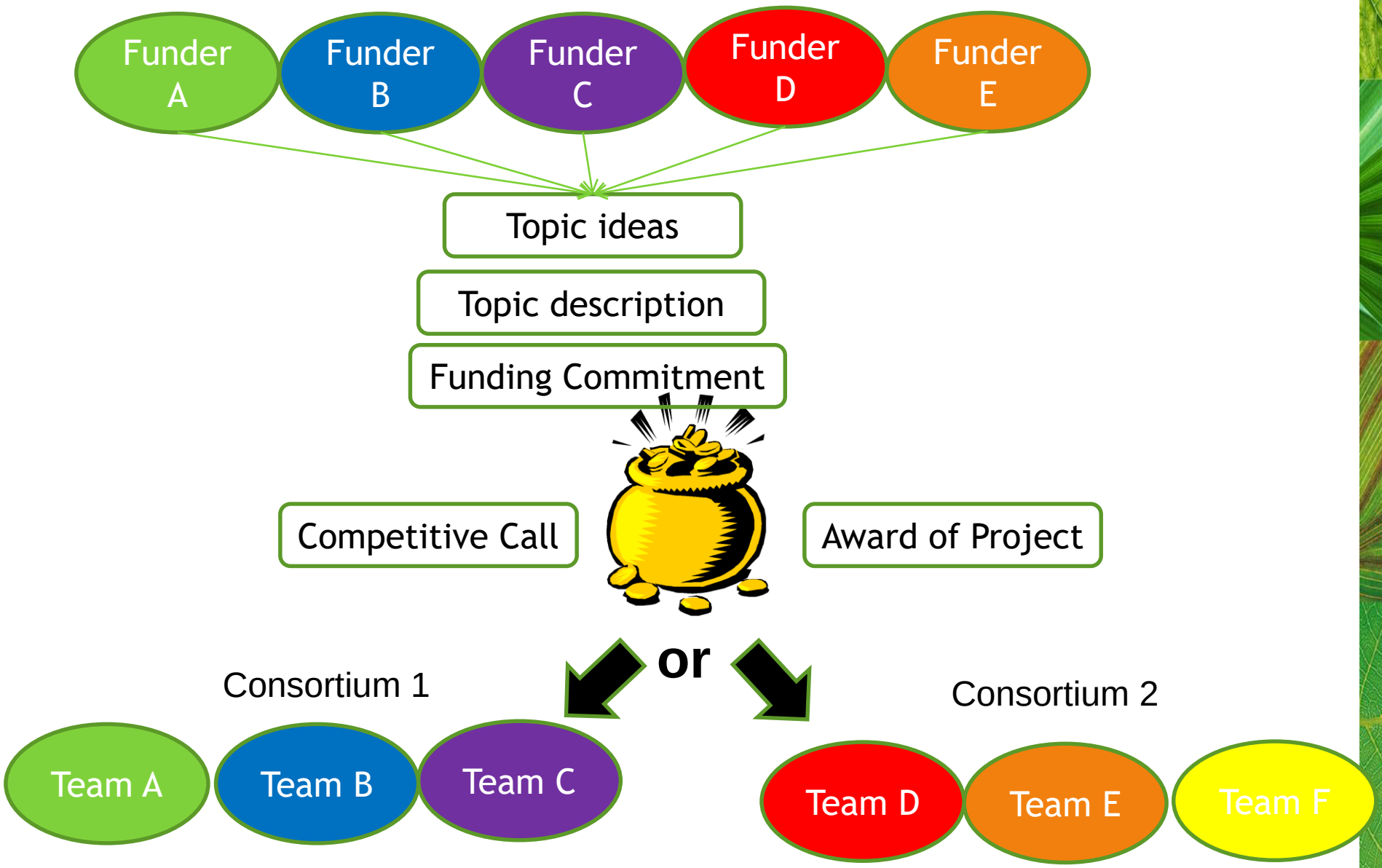
- PM9 Standards on regulatory controls
- PP1 Standards on efficacy of plant protection products

Two activities hosted by EPPO with their own funding and governance

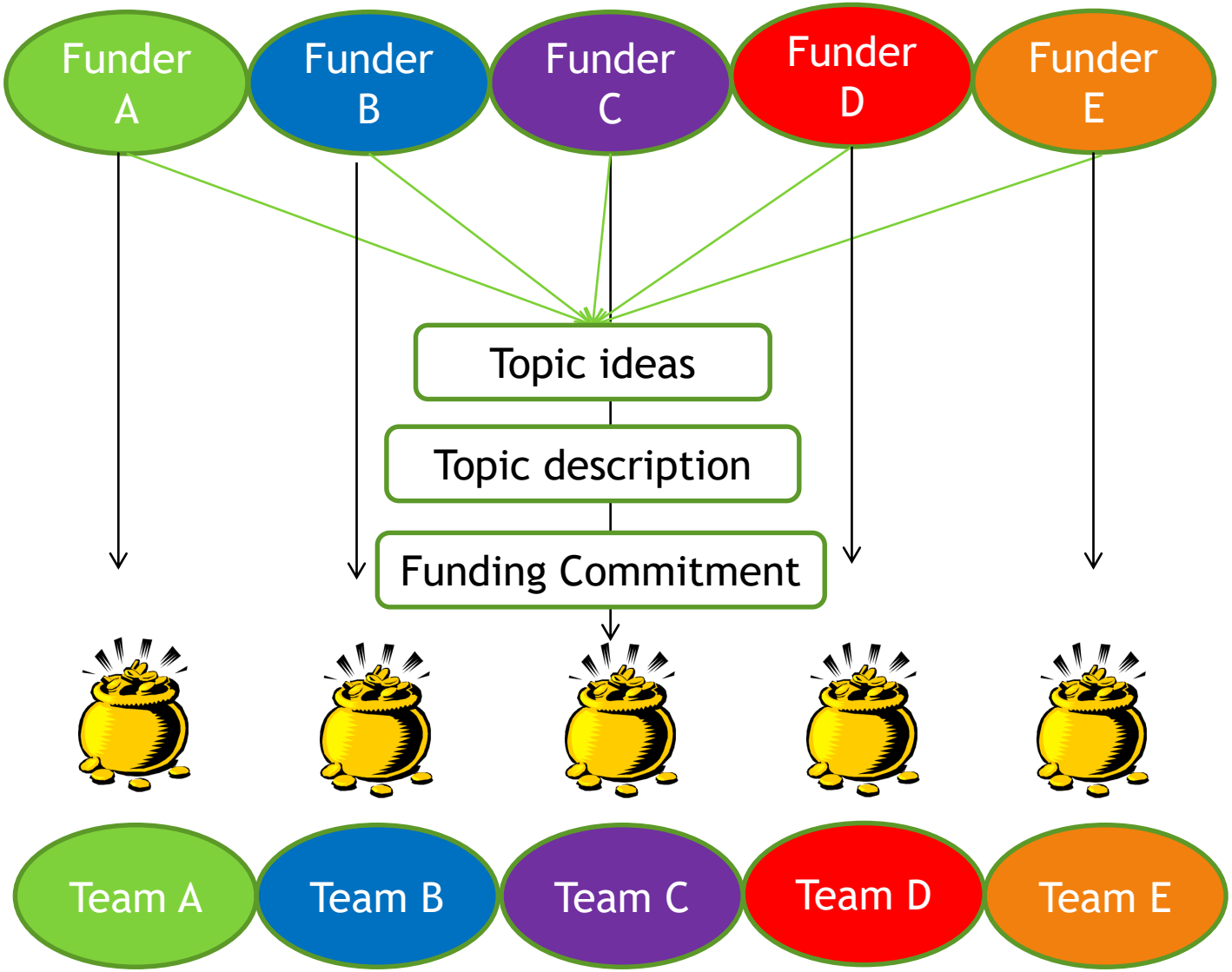
Euphresco (Plant Health Research Co-ordination)

- A network of partners who are funders and managers of plant health research
- Annual call for transnational research projects
- 2016 - 20 projects, total budget 2.5M€
- 2017 - 8 projects, total budget 1.3M€
- Projects typically small and short (relatively)
- All EPPO countries are now Euphresco members
- Additional members within EPPO region and beyond

Funding Euphresco projects - real pot, competitive



Funding Euphresco projects - non-competitive virtual pot



Minor Uses Co-ordination Facility

- Minor uses of pesticides "... on plants ... which are not widely grown in that Member State, or ... to meet an exceptional plant protection need"
- Funded 2015-2017 by EU, FR, DE and NL
- EU funding has now ended but some member countries have committed funds to maintain the work
- EUMUDA database of
  - minor use needs
  - projects to find solutions

MinorUses
EU Minor Uses Coordination Facility

Information services

- Continuing "don't risk it" campaign to passengers
- "Toolkits" on pests for countries to use in awareness campaigns - three examples:
  - *Popillia japonica*
  - *Agrilus planipennis*
  - Citrus greening (Huanglongbing)
- New EPPO website - easier to update
- More EPPO Codes to support e-Phyto
- EPPO Project to revise datasheets and link to databases
- Developing Standard on raising public awareness

Don’t Risk It

Portuguese

Polish

Romanian

Poster templates

How to recognize it?

Adult beetles are about 10-12 mm long with iridescent copper-coloured elytra and metallic green thorax and head. The presence of 12 tufts of white hair can be seen on their body (5 along each side of the abdomen and 2 larger ones near the bottom end). The presence of these white hair tufts is quite distinctive of *Popillia japonica*. Adults can be seen mainly during late spring and summer. Other stages of the insect (eggs, larvae and pupae) live in the soil and are therefore more difficult to see. In addition, their identification is more complex.

Please help us!

Because *Popillia japonica* can seriously damage many wild and cultivated plants, it is important to report any sightings to plant protection authorities. Early detection will allow a rapid implementation of appropriate measures against *Popillia japonica*.

If you see *Popillia japonica*:

- Check the presence of tufts of white hairs on both sides of the abdomen
- Whenever possible, take a picture of the insect, record exact location and the name of the host plants on which it was observed
- Contact us (see below)

Contact details

CAN YOU HELP US?

Popillia japonica

An insect pest threatening our lawns, wood and crops

Logo and name of authority

Prepared in collaboration with EPPO – www.eppo.int

What is *Popillia japonica*?

Popillia japonica is a beetle originating from Japan which has been inadvertently introduced into other parts of the world such as the Azores islands and the USA. These introductions most probably resulted from human-mediated activities (e.g. agricultural trade, transports). In summer 2014, *Popillia japonica* was found for the first time in continental Europe. It was discovered in several localities near Milano in Italy. *Popillia japonica* is considered to be a serious threat to cultivated and wild plants.

At present, *Popillia japonica* has not been detected in XXX. However, in the event of its introduction in XXX, its presence should be reported immediately to us.

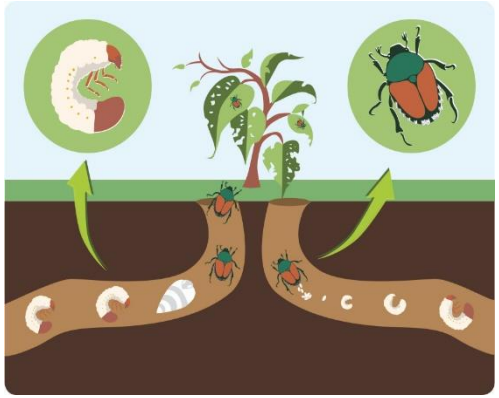
Damage

Larvae consume plant roots and are particularly damaging in lawns and meadows. Adult beetles are voracious feeders and can attack many different plant species (approximately 300 wild and cultivated plant species). Among the most vulnerable plants the following can be mentioned: apple, bramble, grasses, elm, grapevine, linden, maize, maple, rose, peach, soybean.
The adults skeletonize leaves by chewing out the tissue between the veins, thus leaving a vein skeleton. They can also feed on flowers and fruit. The adults are gregarious and many beetles group together on a single plant, so individual plants or trees may be completely defoliated.

Biology

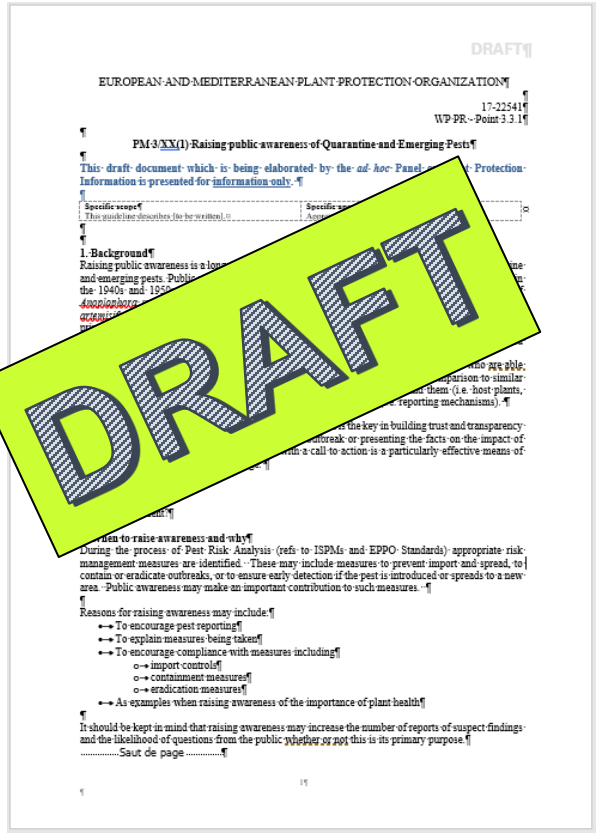
Popillia japonica (Coleoptera: Rutelidae) usually produces one generation per year but under cold climates, the life cycle can be extended to two years. Adult beetles usually emerge from the soil in May/June and mate. Females lay eggs in the soil. After hatching, larvae (white grubs) develop in the soil where they feed on roots of grasses. The insect overwinter in a larval stage in the soil. In spring, larvae resume feeding and become pupae (metamorphosis). After emergence, adult start feeding on the aerial parts of the plants and a new cycle begins again.

Life cycle



DRAFT PM 3 Standard - Raising public awareness

Work continuing with Information Panel
(next meeting in October 2018)



Reasons for raising awareness:

- To encourage pest reporting
- To explain measures being taken
- To encourage compliance with measures including:
  - import controls
  - containment measures
  - eradication measures
- As examples when raising awareness of the importance of plant health

Key factors

- Nature of the risk
- Likely location of outbreaks
- Ease of detection
- Ease of distinguishing from other organisms
- Likely costs and benefits of a campaign

Publicity campaign - Yes or No?

In favour	Against
Of concern to the public (e.g. risks to gardens, street trees, environment or iconic species)	Of concern mostly to growers
Early detection may lead to successful eradication	Low chance of eradication even with early detection
Increased awareness may encourage compliance with measures	Little public role in compliance with measures
Pest or symptoms are clear and distinct	Pest and symptoms are difficult to spot or easy to confuse
Outbreaks likely to be found first in parks, gardens, or the wider environment to which the public has access	Outbreaks likely to be seen first in commercial crops
	High risk to trade if messages are confused or unclear
	High risk of action being taken accidentally against rare, important “lookalikes”

Risks and Measures

- 5 pests and 10 alien invasive plants recommended to Council in 2018 for listing
- Priorities for PRA 2018/19:
  - *Agrilus fleischeri*
  - *Naupactus xanthographus*
  - viruses on grapevine breeding material
- Standard under development on "sentinel plants"
- Review of EPPO PRA process completed
- Platform to share information on national PRAs
- Guidance being developed on setting buffer zones for quarantine pests

Issues with Pest Risk Analyses

- Can we do them early enough?
- Can we do enough of them?
- Do the analyses answer the right questions?
- Can a single process identify the right status for a pest
  - Quarantine Pest
  - Regulated Non Quarantine Pest
  - Alert List
  - Emerging pest
  - Other
- How much can they be quantified?
- What is the phytosanitary services role in pests which are "emerging" but not appropriate to regulate?

Diagnostics

- Over 130 pests now covered by EPPO Diagnostic Protocols
- New section of Standard PM 7/76 for adoption at Council on communication between diagnosticians and risk managers and how to express uncertainty of a diagnosis
- Revision of Standard PM 7/84 Basic requirements for quality management in plant pest diagnosis laboratories
- Work continues on the implications of High Throughput Sequencing

Phytosanitary Inspections

- Two Standards for adoption at Council
  - inspection of vines
  - inspection for *Phytoplasma pyri*
- Revised PM9 Standard on *Bursaphelenchus xylophilus* for adoption
- PM9 Standard on Huanglongbing under development
- Contingency exercise workshop on a forest pest outbreak - Zlatibor, Serbia 27-29 November 2018 - places available!

Biological Control Agents

- Decision Support Scheme for release of Biological Control Agents for adoption at Council
  - considers risks and benefits of releases
- Formalised procedure for adding to the list of "widely used BCAs" (EPPO Standard PM6/3)
- Questionnaire on how member countries regulate biological control agents - 24 responses so far
- More harmonisation still needed in this area

Global Phytosanitary Affairs

- Panel meets three times per year
- Co-ordinates position for EPPO region
- Agrees nominations for FAO European Region
- Increased co-ordination at CPM13
- Meetings with other RPPOs (NAPPO, COSAVE)
- Annual "Technical Consultation" between RPPOs
  - Paris 2017
  - Lima 2018
- EPPO input on, for example,
  - commodity standards
  - emerging pests
- Need for European experts in IPPC bodies
- High commitment (from person and country)

EPPO Council

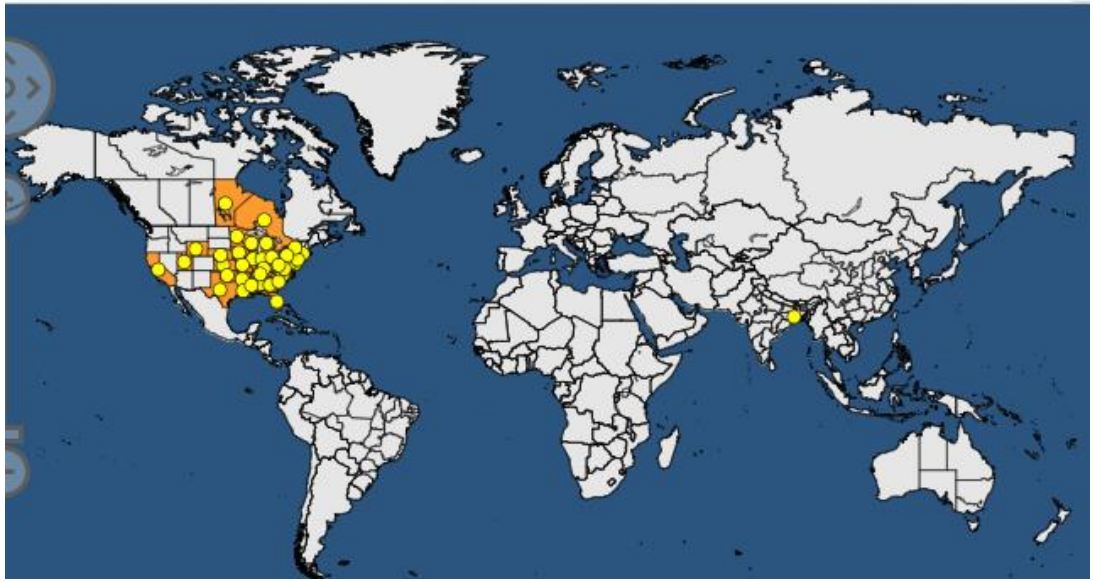
- 25th-26th September, Paris
- Representatives of all member countries invited
- Interpretation English-French-Russian
- Receives reports, adopts Standards, sets priorities
- Elects Executive Committee and Director-General
- Side meeting on priorities for Russian translations
- Euphresco Governing Board afternoon of 26th September
- Science Colloquium on 27th September
  - Remote sensing applications for plant health
- Look forward to seeing your countries represented

Slides from this point on are not translated, and will not be covered in detail at the RW

They can be used for a brief update on new EPPO recommendations on specific pests or to answer questions on these

Rose rosette virus and its vector *Phyllocoptes fructiphilus*

- Rose rosette disease since 1940s, RRV identified in 2011
- Systemic virus; transmitted by an eriophyoid mite (*Phyllocoptes fructiphilus)* and by grafting
- Host plant: *Rosa* spp.
- Damages: rapid shoot elongation, red shoots, witches' broom, excessive thorn production, reduced flowering, general decline leading to plant death in 1-5 years



The vector *Phyllocoptes fructiphilus*

- Vector considered to be a potential pest as well, as vector of RRV and possibly through direct feeding.

- If introduced will be very unlikely to be eradicated if found in wider environment.

Measures to prevent the introduction of *P. fructiphilus* should be considered.

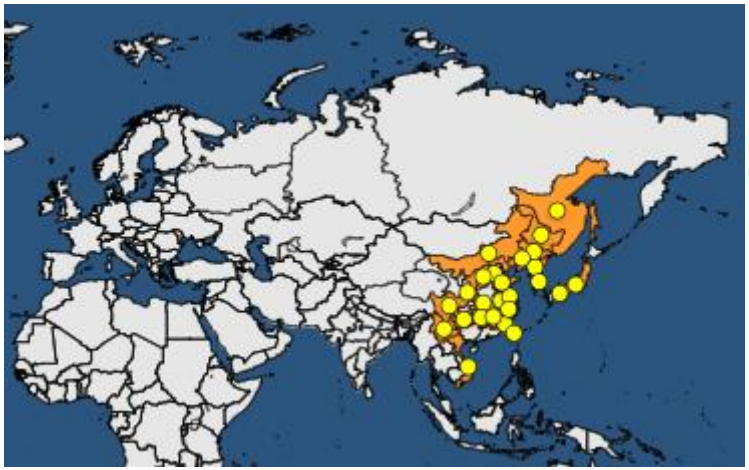
Conclusions *Rose rosette* → A1

- **Endangered area**: whole EPPO region where *Rosa* spp. are grown
- **Phytosanitary risk**: high with low uncertainty (Impact of rose production of plants for planting, cut flower, rose oil; environmental impact)
- **Measures to reduce probability of entry**:
  - Rosa plants for planting (except seeds and pollen):
    - PFA for RRV and *P. fructiphilus or*
    - Plants grown under isolation or
    - Pre-or Post entry quarantine with inspection and testing (bilateral agreement);
    - for tissue cultures only: produced from mother plants free from RRV and *P. fructiphilus*
  - Rosa cut flowers:
    - PFA for RRV and *P. fructiphilus;*
    - plants grown under isolation

  + plants for planting and cut flowers should be packed in conditions preventing infestation

Massicus raddei- oak longhorn beetle

- **Coleoptera: Cerambycidae**
- Wood borer, 1 generation in 3-4 years
- Host plants: Fagaceae (only Asian species): Castanea, Quercus
- Larvae bore into trees (not in roots), affect tree growth, reduce wood quality, may cause mortality



Conclusions *Massicus raddei* → A1

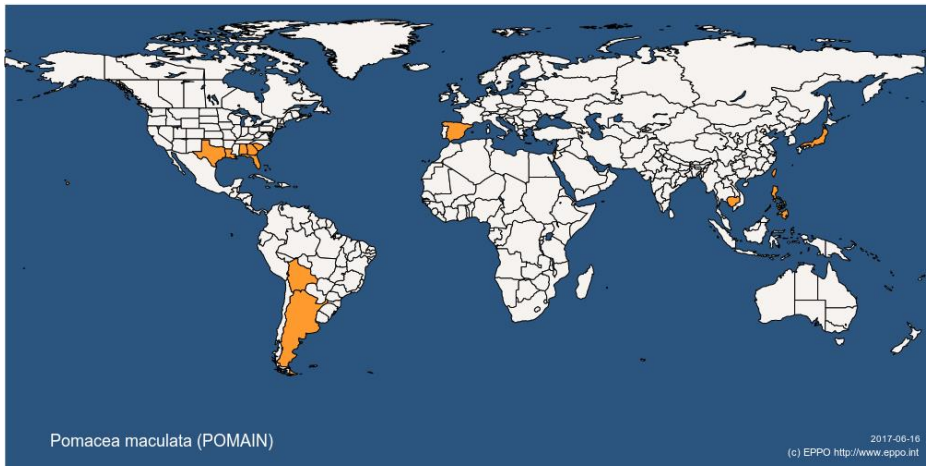
- **Endangered area**: whole EPPO region where where oak or chestnut are grown
- **Phytosanitary risk**: Low to moderate with high uncertainty (susceptibility European species? Impact in part of area of origin)
- **Measures to reduce probability of entry (part 1) :**
  - Host plants for planting:
    - Diameter less than 1 cm;
    - PFA (+packaging);
    - Grown under physical isolation (+pachaging);
    - Pre or post entry quarantine (bilateral agreement)
  - Wood of *Castanea*, *Quercus* and *Castanopsis* (including firewood): PFA;
    - Heat treatment;
    - Irradiation;
    - Fumigation

Conclusions *Massicus raddei* → A1

- **Measures to reduce probability of entry (part 2)**
  - Wood chips, hogwood, processing wood residues:
    - PFA;
    - heat treatment;
    - chipped to pieces less than 2.5 cm
  - Wood packaging material: ISPM 15
  - Furniture: made of pest-free wood

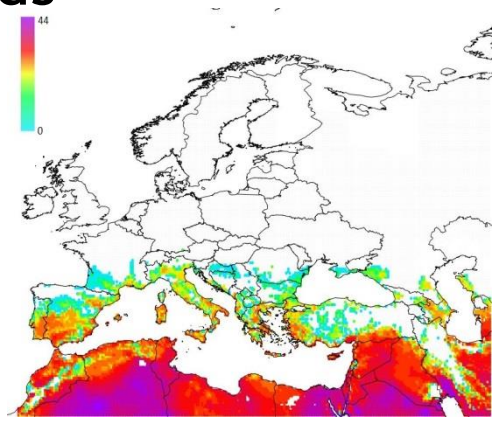
Pomacea maculata and P. canaliculata

- Apple snail
- Recommendations based on EFSA PRA
- Main hosts /habitats :
  - Rice (*Oryza sativa*) fields
  - Natural wetlands such as rivers, shallow lakes and ponds
- Impact on rice production, and ecosystem services in wetlands



Conclusions *apple snail*

- Endangered area: paddy rice and wetlands

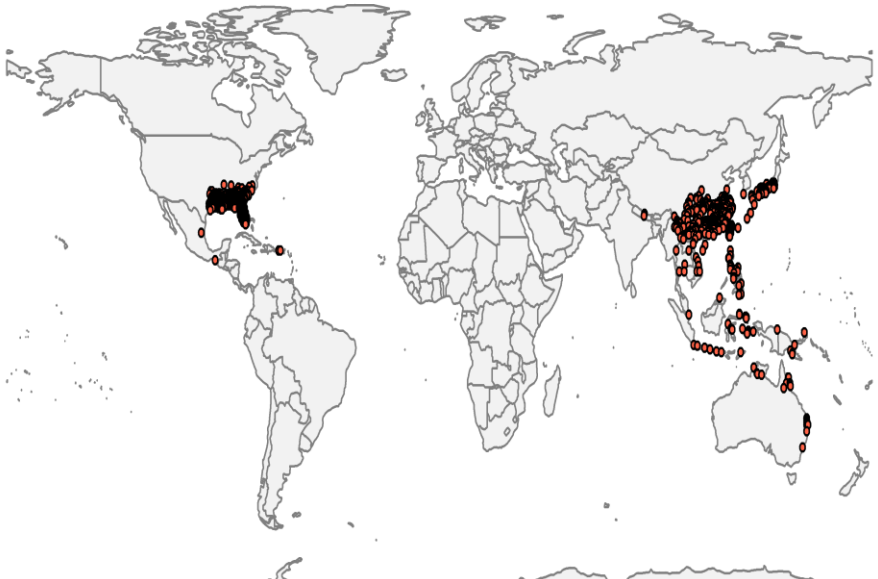


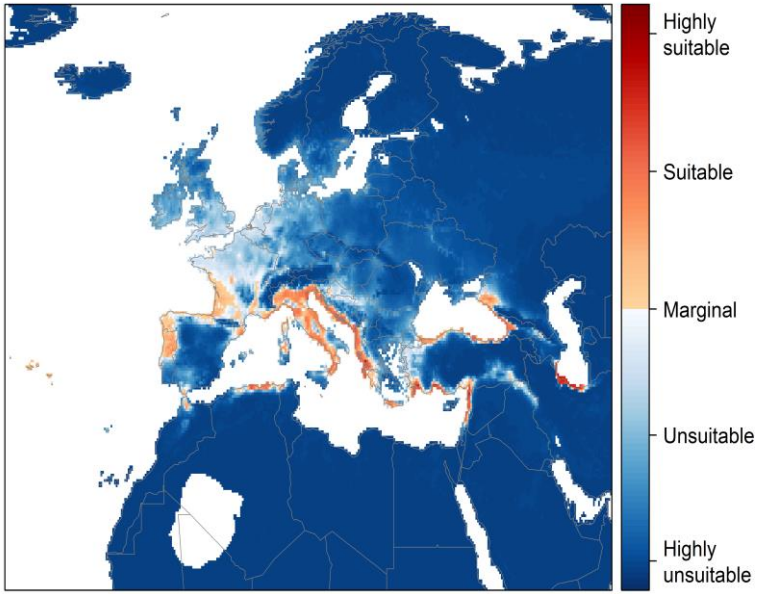
- Phytosanitary risk: high
  with low uncertainty

- Measures to reduce probability of entry:
  - Intentional import of *Pomacea* spp.
    - ban on importation into the PRA area of *Pomacea* spp. (full genus)
    - ban on breeding and trade within the PRA area of *Pomacea* spp.
  - Plants for planting (excluding seeds) that can grow in water or soil that is permanently saturated with water:
    - PFA or PFPS or Physical isolation

Lygodium japonicum (Thunb.) Sw.

- Native: Asia
- Introduced: Australia, North America (invasive south-eastern States).
- EPPO: Absent.
- Pathways: Plants for planting; contaminant of growing medium,
- Impacts: Reduce biodiversity, alters fire regime in managed plantations,



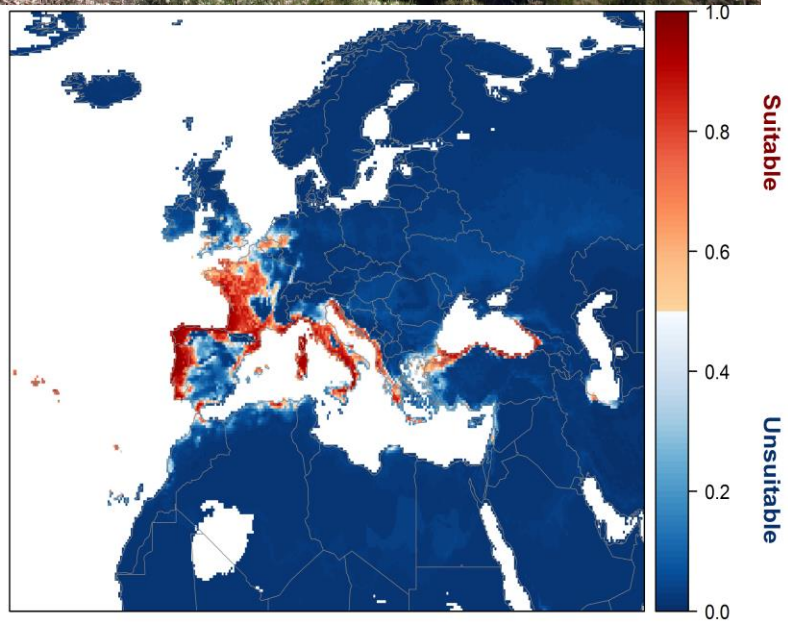


Conclusions: Lygodium japonicum

- Endangered area: Macaronesian biogeographical region (in particular the Azores), and Black Sea (eastern and southern areas) biogeographical region.
- **Phytosanitary risk: Moderate with high uncertainty**
- Measures to reduce probability of entry:
  - Prohibition of import into and movement within countries in the endangered area, of plants labeled or otherwise identified as *L. japonicum*,
  - Recommend that *L. japonicum* is banned from sale within the endangered area,
  - *L. japonicum* should be recommended as a quarantine pest within the endangered area.
- Recommendations:
  - Inform NPPOs that surveys should be conducted to monitor the endangered area for the presence of the species.
  - Encourage industry to assist with public education campaigns associated with the risk of non-native plants. Encourage industry to sell native species as alternatives to non-natives.
  - Studies on the thermal tolerance of the spores.

Hakea sericea Schrad. & J.C.Wendl.

- Native: Australia
- Introduced: South Africa
- EPPO: France, Portugal and Spain
- Pathways: Plants for planting
- Impacts: Reduce biodiversity, alters fire regime in managed plantations, negative impact on cultural ecosystem services,

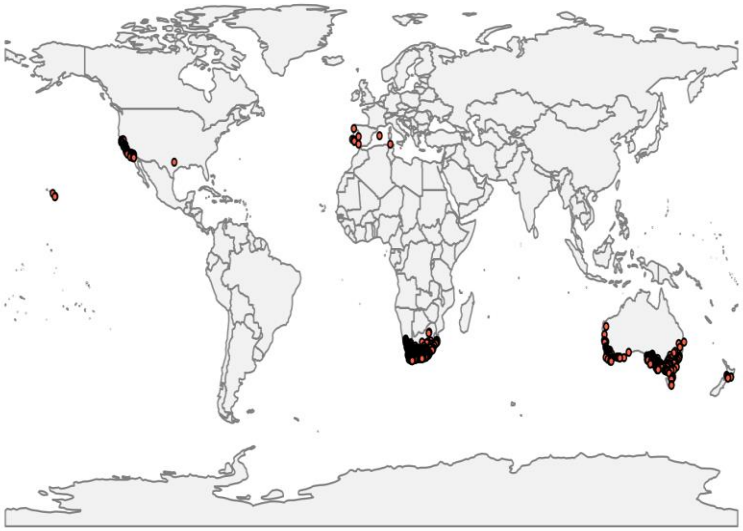


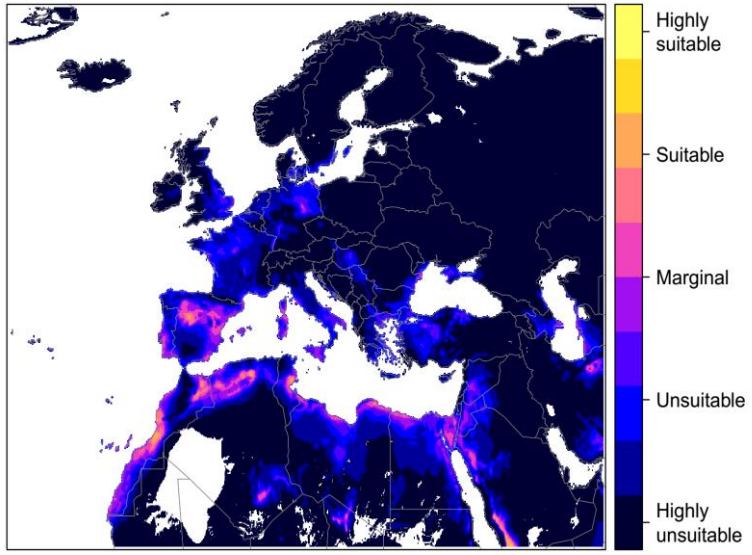
Conclusions: Hakea sericea

- Endangered area: The endangered area includes Portugal (including the Azores and Madeira), parts of France (including Corsica), Greece, Italy (including Sardinia), Spain (and the Balearic Islands), coastal areas of the Adriatic Sea (Albania, Croatia, Bosnia and Herzegovina, and Slovenia), and the Black Sea (Turkey and Georgia). In addition, coastal regions of western North Africa (Algeria and Morocco) are included in the endangered area. Areas with marginal suitability include the Netherlands, Belgium and Britain.
- **Phytosanitary risk: High with low uncertainty**
- Measures to reduce probability of entry:
  - Prohibition of import into and movement within countries in the endangered area, of plants labeled or otherwise identified as *H. sericea*,
  - Recommend that *H. sericea* is banned from sale within the endangered area,
  - *H. sericea* should be recommended as a quarantine pest within the endangered area.
- Recommendations:
  - Confirm the taxonomic status and occurrence of *Hakea* species in the EPPO region,
  - Further research on impacts of the species in the EPPO region.

Ehrharta calycina Sm.

- Native: Southern Africa
- Introduced: Australia, USA,
- EPPO: Portugal, Spain, Tunisia
- Pathways: Plants for planting,
- Impacts: Reduce biodiversity, transforms habitats,



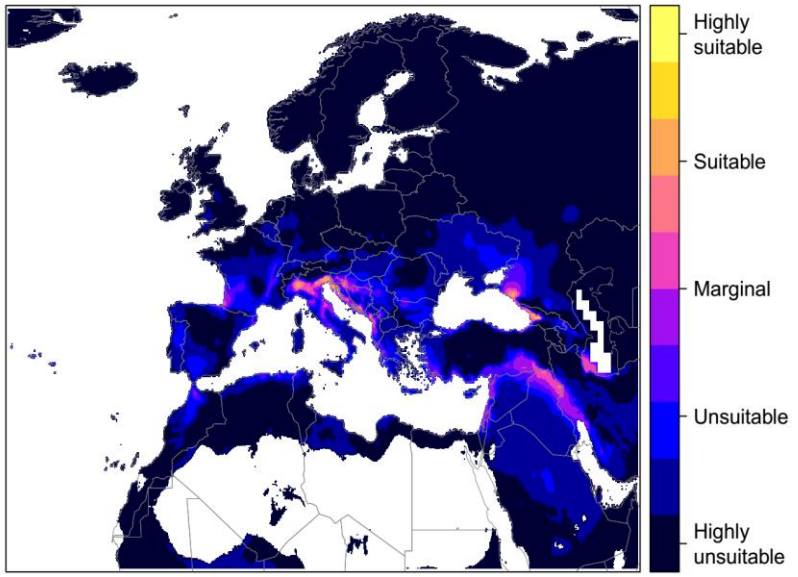


Conclusions: Ehrharta calycina

- Endangered area: the endangered area is the west and south of the PRA area, particularly in the Iberian Peninsula, north Africa, and limited areas of the Mediterranea. The highest potential for establishment is in North African countries (Algeria, Morocco, Tunisia), France (Corsica), Portugal, Italy (limited areas of Sardinia, Sicily) and Spain. Limited areas of Turkey are also highlighted
- **Phytosanitary risk: Moderate with moderate uncertainty**
- Measures to reduce probability of entry:
  - Prohibition of import into and movement within countries in the endangered area, of seed labeled or otherwise identified as *E. calycina*,
  - Recommend that *E. calycina* is banned from sale within the endangered area,
  - *E. calycina* should be recommended as a quarantine pest within the endangered area.
- Recommendations:
  - Surveys should be conducted to confirm the current distribution and status of the species within the endangered area.
  - Data sharing should be encouraged across the EPPO region.
  - Contact land-managers and local botanists, where the species occurs, to attain further information on the species.

Andropogon virginicus L.

- Native: USA
- Introduced: Asia, Australia, New Zealand
- EPPO: France, the Russian Federation and Georgia,
- Pathways: Plants for planting, contamination (machinery and recreation equipment).
- Impacts: Impact on native plants, increase fire regimes,



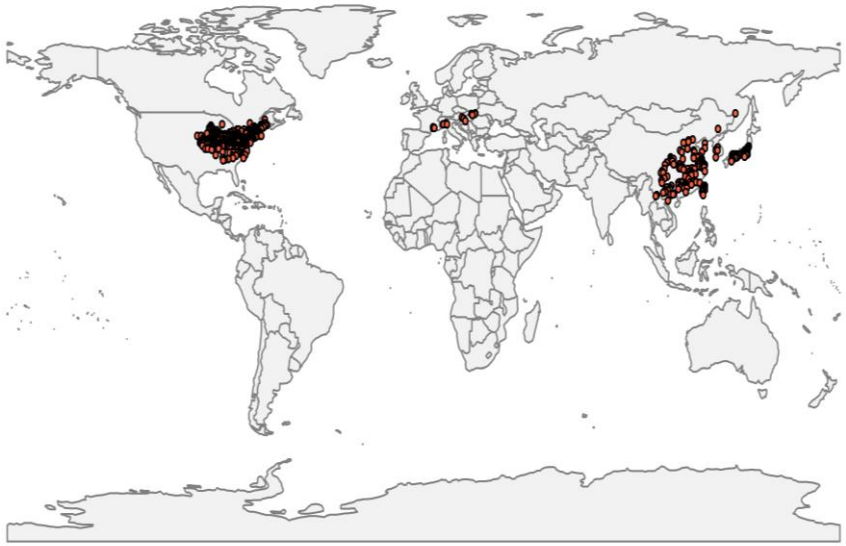
Conclusions: Andropogon virginicus

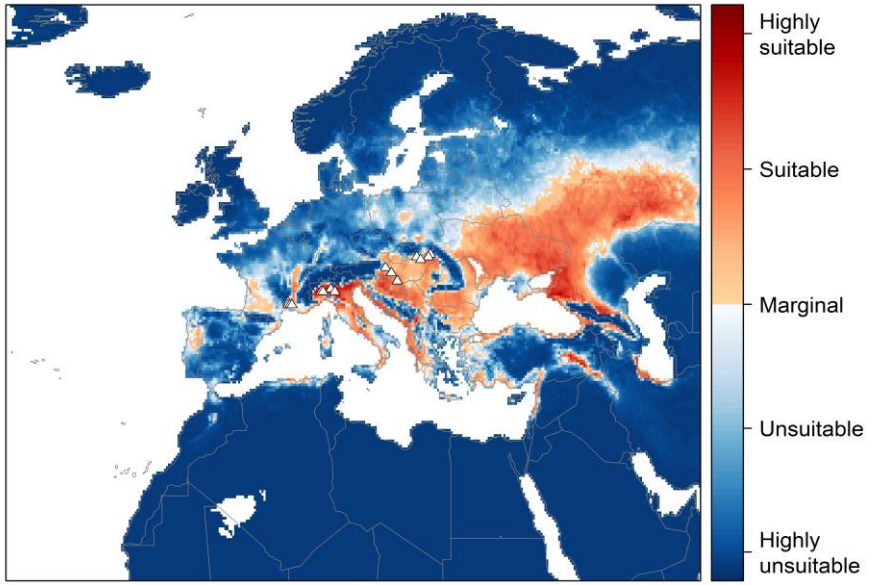
- Endangered area: The endangered area is mostly focused on the Atlantic (South west France) and the Black Sea biogeographical regions (including parts of Russia and Georgia).
- **Phytosanitary risk: High with moderate uncertainty**
- Measures to reduce probability of entry:
  - Prohibition of import into and movement within countries in the endangered area, of seed labeled or otherwise identified as *A. virginicus*,
  - Recommend that *A. virginicus* is banned from sale within the endangered area,
  - *A. virginicus* should be recommended as a quarantine pest within the endangered area.
- Recommendations:

- The Expert Working Group considers that it may be possible to eradicate the French population of the species and this should be attempted as soon as possible,
- Surveys should be conducted to confirm the current distribution and status of the species within the endangered area,
- Data sharing should be encouraged across the EPPO region,
- Contact land-managers and local botanists, where the species occurs, to attain further information on all aspects of the species biology,
- Voucher specimens from populations within the EPPO region should be lodged with herbaria.

Humulus scandens (Lour.) Merr.

- Native: Asia
- Introduced: North America
- EPPO: France, Hungary, Italy,
- Pathways: Plants for planting.
- Impacts: Reduce native biodiversity, transform habitats, restrict access for recreation,





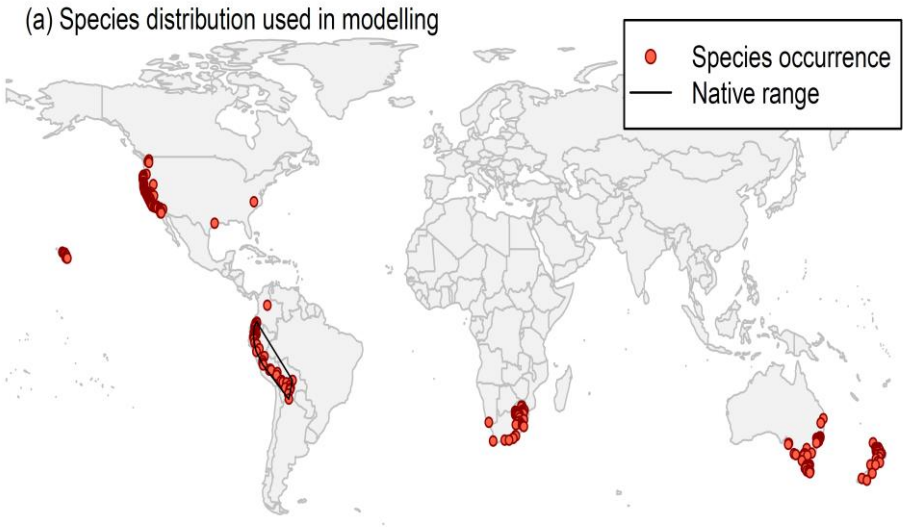
Conclusions: Humulus scandens

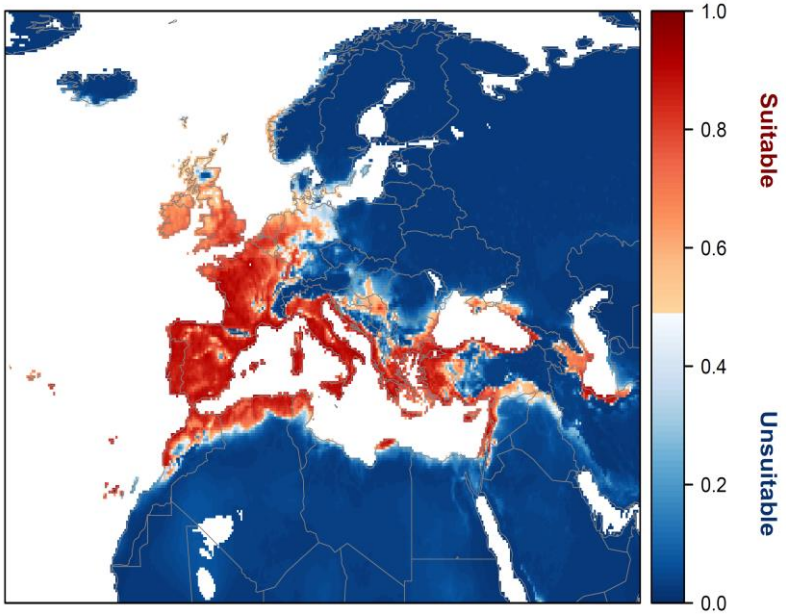
- Endangered area: The endangered area is predicted to be the biogeographic regions: Pannonian, Steppic and Continental, with parts of the Mediterranean and Black Sea regions. Including France, Italy, Germany, Austria, Poland, Hungary, Slovakia, Slovenia, Croatia, Greece, Bulgaria, and in the wider EPPO region: Bosnia-Herzegovina, Serbia, Montenegro, Macedonia, Albania, Turkey, Georgia, Russia, Ukraine.
- **Phytosanitary risk: High with low uncertainty**
- Measures to reduce probability of entry:
  - Prohibition of import into and movement within countries in the endangered area, of seed labeled or otherwise identified as *H. scandens,*
  - Recommend that *H. Scandens* is banned from sale within the endangered area,
  - *H. scandens* should be recommended as a quarantine pest within the endangered area.
- Recommendations:

- Inform NPPOs that surveys are needed to confirm the distribution of the plant, in the area where the plant is present; and on the priority to eradicate the species from the invaded area.
- Encourage industry to assist with public education campaigns associated with the risk of non-native plants. Encourage industry to sell native species as alternatives to non-natives (for example *Clematis* spp.).
- Studies should be conducted to evaluate the impact of the species on biodiversity and the impact of the pollen on human health.

Cortaderia jubata (Lemoine ex Carrière) Stapf

- Native: South America
- Introduced: Australia, New Zealand, North America, South Africa,
- EPPO: Introduced not established in wild
- Pathways: Plants for planting, plant for fodder.
- Impacts: Alters fire regime in managed plantations,



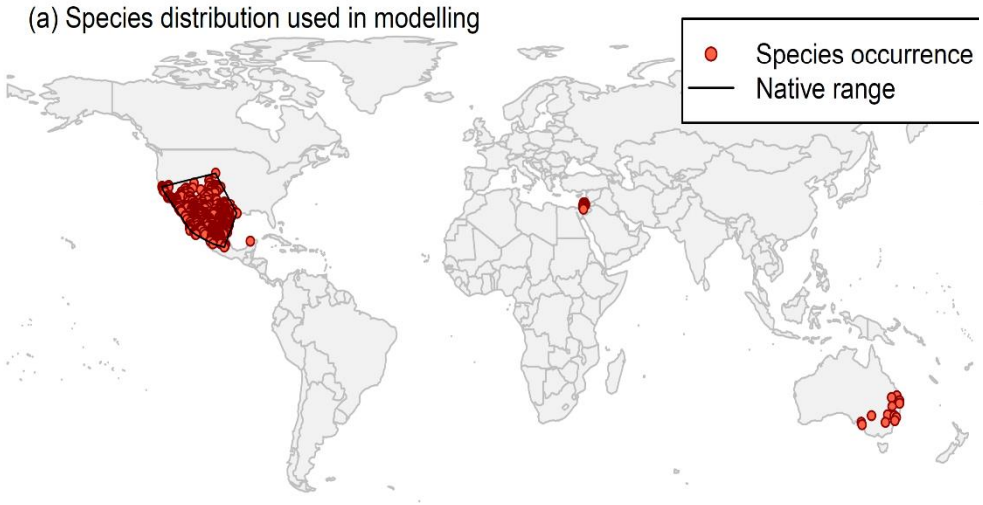


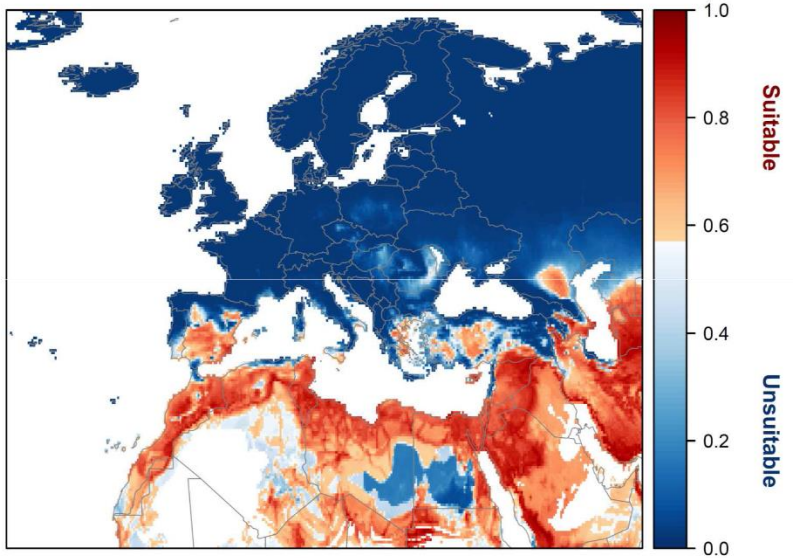
Conclusions: Cortaderia jubata

- Endangered area: Atlantic and Mediterranean biogeographical region, including the following countries in EU: Belgium, Bulgaria, Croatia, Cyprus, France, Germany, Greece, Hungary, Italy, Netherlands, Portugal, Romania, Slovenia, Spain, United Kingdom and in the wider EPPO area: Algeria, Georgia, Israel, Jordan, Morocco, Russia, Turkey
- **Phytosanitary risk: Moderate with moderate uncertainty**
- Measures to reduce probability of entry:
  - Prohibition of import into and movement within countries in the endangered area, of seed labeled or otherwise identified as *C. jubata*,
  - Recommend that *C. jubata* is banned from sale within the endangered area,
  - *C. jubata* should be recommended as a quarantine pest within the endangered area.
- Recommendations:
- Due to the difficulty of identifying *Cortaderia* species in trade, the EWG recommend identification tools (bar coding, macromorphology) are developed to support the recommendations of the PRA and any further listings.

Ambrosia confertiflora DC.

- Native: North America
- Introduced: Australia
- EPPO: Israel
- Pathways: Contaminant: livestock, animal feed mixture, machinery and equipment,
- Impacts: Reduces biodiversity, negative impact crop yields,



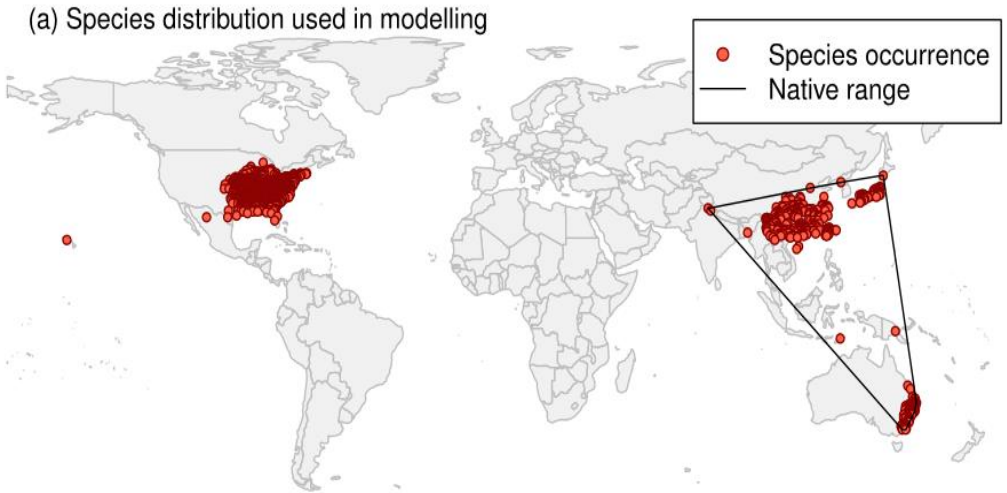


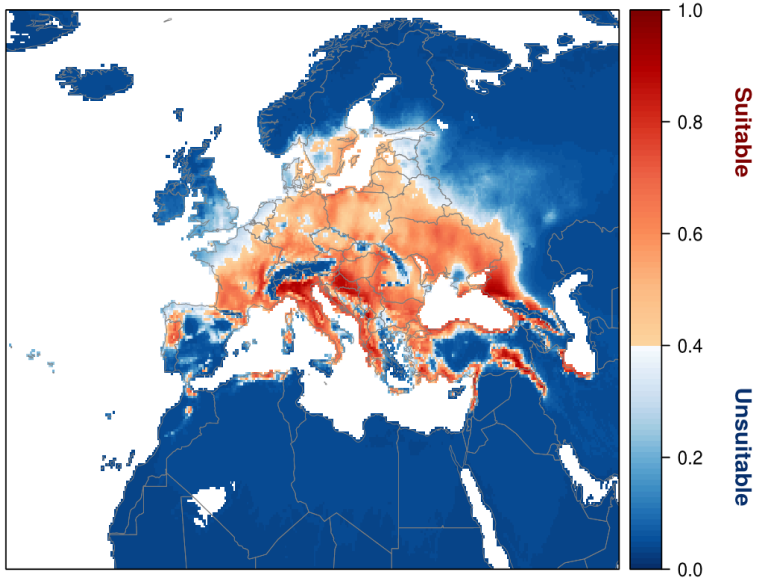
Conclusions: Ambrosia confertiflora

- Endangered area: the endangered area is the EU countries: Spain, Southern Sardinia, Sicily, Greece, and the wider EPPO region: Turkey, Israel, Jordan, Morocco, Algeria and Tunisia.
- **Phytosanitary risk: High with high uncertainty**
- Measures to reduce probability of entry:
- *Ambrosia confertiflora* should be recommended as a quarantine pest within the endangered area. With this, the import into and movement within countries in the endangered area, of plants labeled or otherwise identified as *Ambrosia confertiflora* should be prohibited. *Ambrosia confertiflora* should be banned from sale within the endangered area,
- Recommendations:
- Recommend that Israel control and contain *A. confertiflora* in consultation with surrounding countries.

Lespedeza cuneata (Dum.Cours.) G.Don

- Native: Asia and Australia
- Introduced: North America, South Africa,
- EPPO: Absent from natural environment.
- Pathways: Plants for planting.
- Impacts: Reduce native plant biodiversity, disrupt pollination network



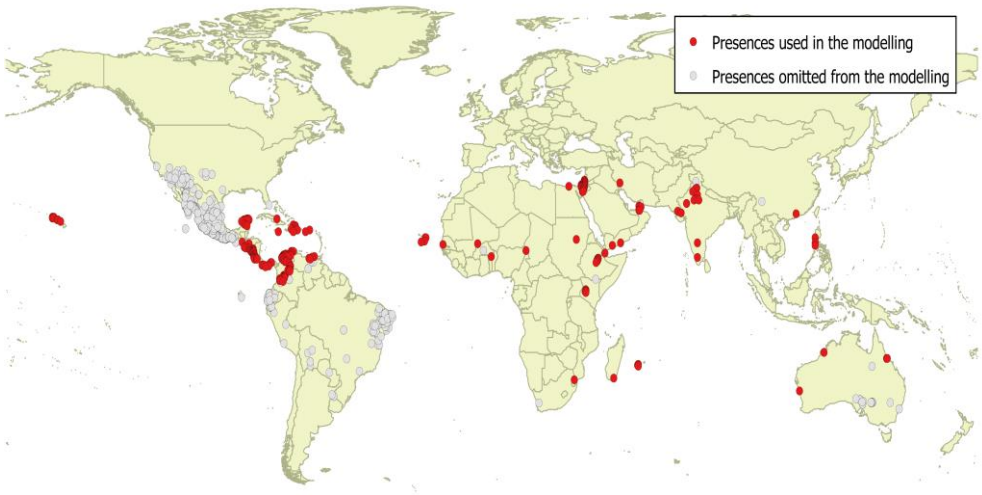


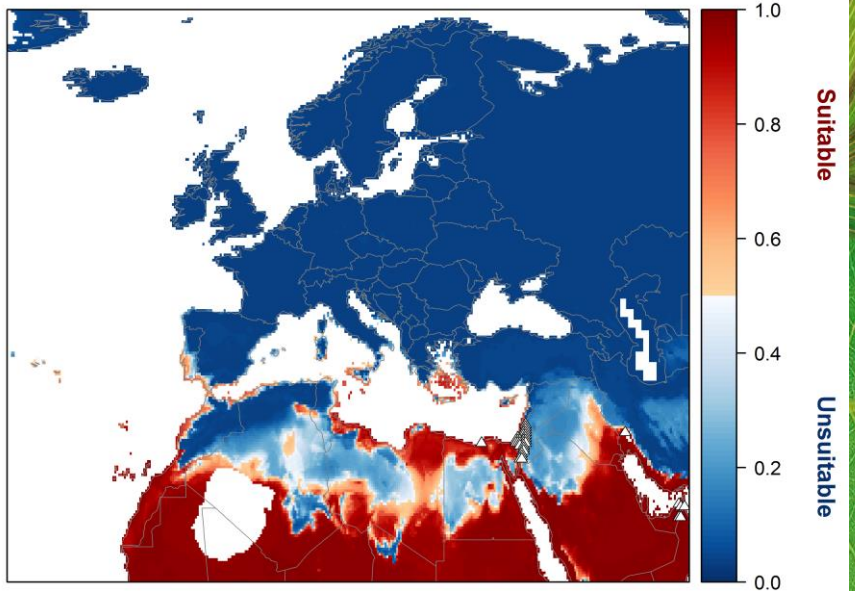
Conclusions: Lespedeza cuneata

- Endangered area: endangered area include (EU countries): Portugal, France, Germany, Poland, Lithuania, Greece, Croatia, Slovenia, Austria, Hungary and Italy and the wider EPPO region: Belarus, Ukraine, Georgia, Turkey, Albania, Bosnia and Herzegovina and the north coastline of Algeria.
- **Phytosanitary risk: Moderate with moderate uncertainty**
- Measures to reduce probability of entry:
- Prohibition of import into and movement within/among countries in the endangered area, of plants labeled or otherwise identified as *Lespedeza cuneata*,
- Recommend that *Lespedeza cuneata* is banned from sale within the endangered area,
- *Lespedeza cuneata* should be recommended as a quarantine pest within the endangered area
- Recommendations:
- NA

Prosopis juliflora (Sw.) DC.

- Native: Central America and the Caribbean,
- Introduced: Africa, Asia, Australia,
- EPPO: Spain (planted), Gran Canaria (Canary Islands, Spain)
- Pathways: Plants for planting (horticulture and forestry).
- Impacts: Impacts native biodiversity, degrades pasture lands



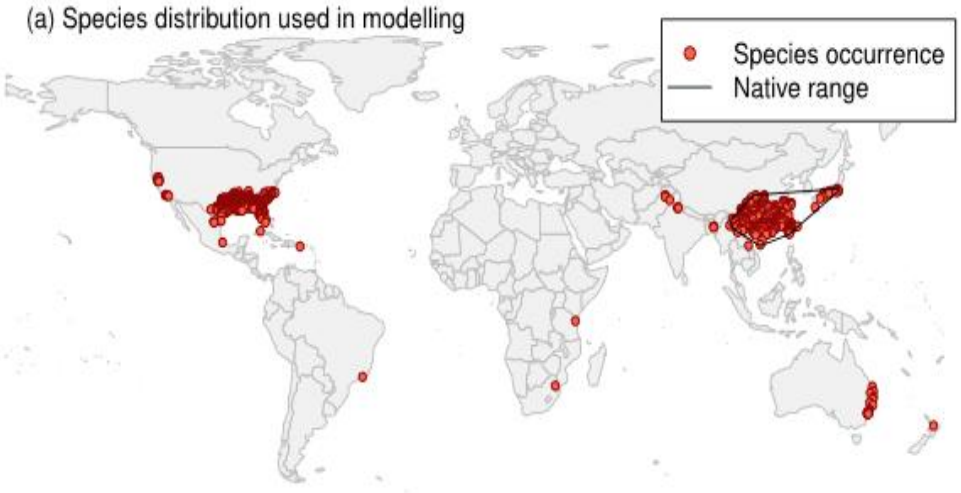


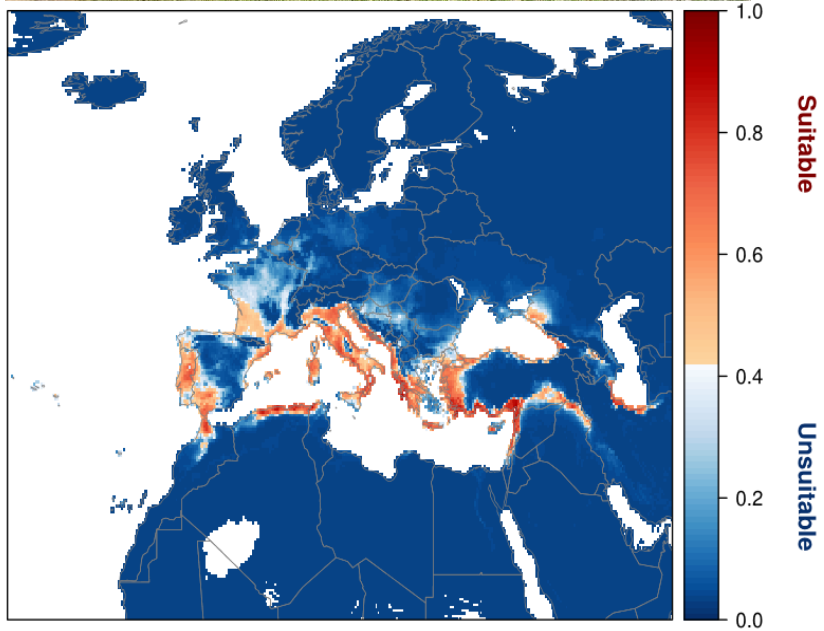
Conclusions: Prosopis juliflora

- Endangered area: Largely frost-free coastal and low-lying inland areas are suitable, including parts of Cyprus, Greece (and the islands), Italy (including Sardinia and Sicily), Malta, Portugal (including Madeira and the Azores), Spain (including Gran Canaria (Canary Islands)) and the wider EPPO region - Turkey, North African countries (Algeria, Morocco and Tunisia), and Israel, and Jordan.
- **Phytosanitary risk: Moderate with moderate uncertainty**
- Measures to reduce probability of entry:
- Prohibition of import into and movement within countries in the endangered area, of plants labeled or otherwise identified as *Prosopis juliflora*,
- Recommend that *Prosopis juliflora* is banned from sale within the endangered area,
- *Prosopis juliflora* should be recommended as a quarantine pest within the endangered area.
- Recommendations:
- Noting the taxonomic difficulties in distinguishing *P. juliflora* from all the other above mentioned species, the EWG recommend careful identification of any *Prosopis* taxa entering the region.
- Consider PRAs on *P. chilensis*, *P. velutina* and *P. glandulosa*.

Triadica sebifera (L.) Small

- Native: Asia
- Introduced: Africa, Australia, New Zealand, USA,
- EPPO: Absent natural environment.
- Pathways: Plants for planting.
- Impacts: Reduces native biodiversity, transforms habitats





Conclusions: Triadica sebifera

- Endangered area: Mediterranean and Black Sea biogeographic regions including the following countries: Portugal, Spain, southern coast of France, Italy, Croatia, Greece, Turkey and Israel
- **Phytosanitary risk: High with high uncertainty**
- Measures to reduce probability of entry:
- Prohibition of import into and movement within countries in the endangered area, of plants labeled or otherwise identified as *Triadica sebifera*,
- Recommend that *Triadica sebifera* is banned from sale within the endangered area,
- *Triadica sebifera* should be recommended as a quarantine pest within the endangered area.
- Recommendations:
- The EWG recommend that *Triadica sebifera* is not utilised as a bioenergy crop within the EPPO region.