

# Европейская и Средиземноморская организация по карантину и защите растений

## Обновление информации о деятельности ЕОКЗР

Событие: Региональный семинар МККЗР  
Быково, Москва

Дата: 2018-09-3/6

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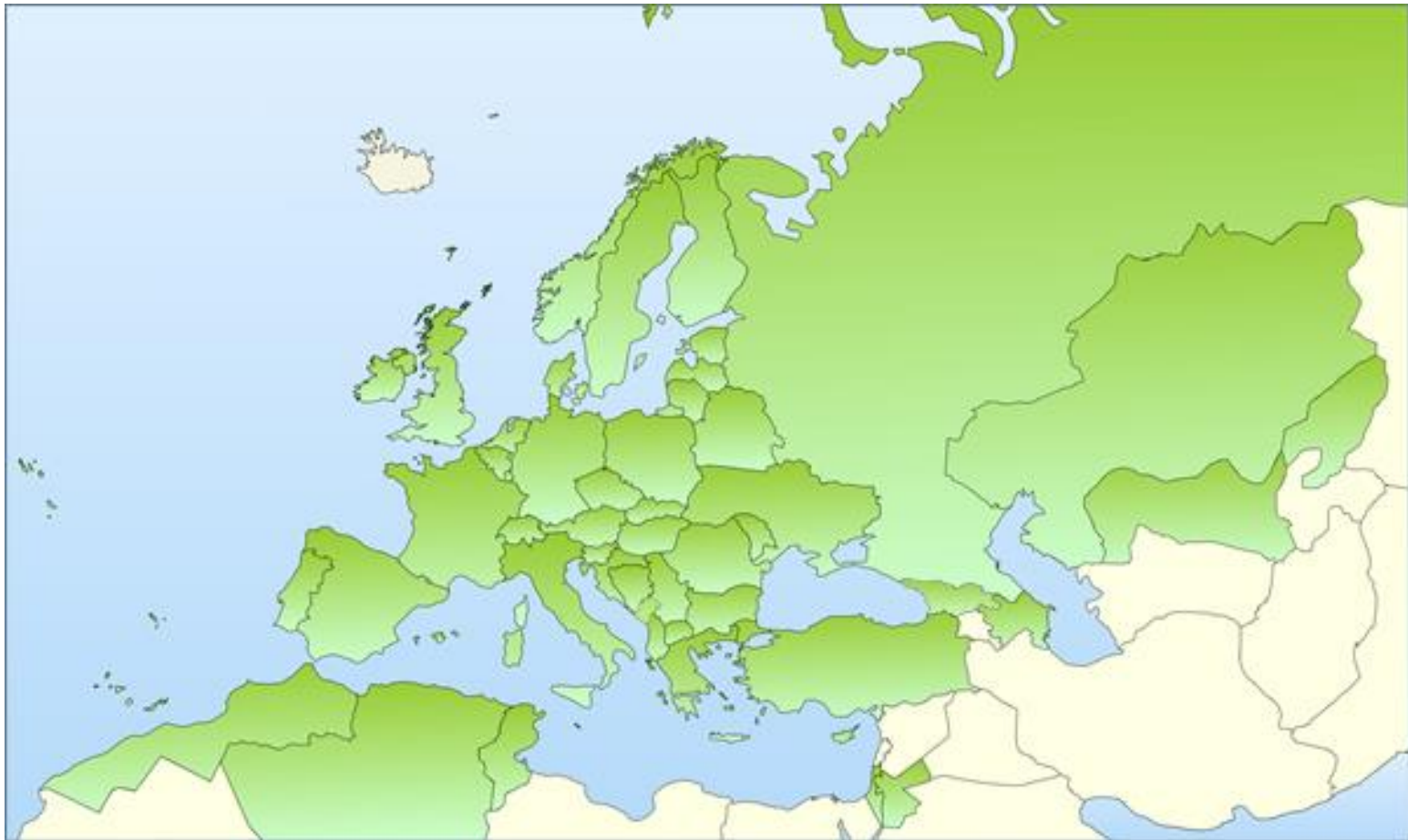


**Конвенция ЕОКЗР 1951 года – 15 стран**

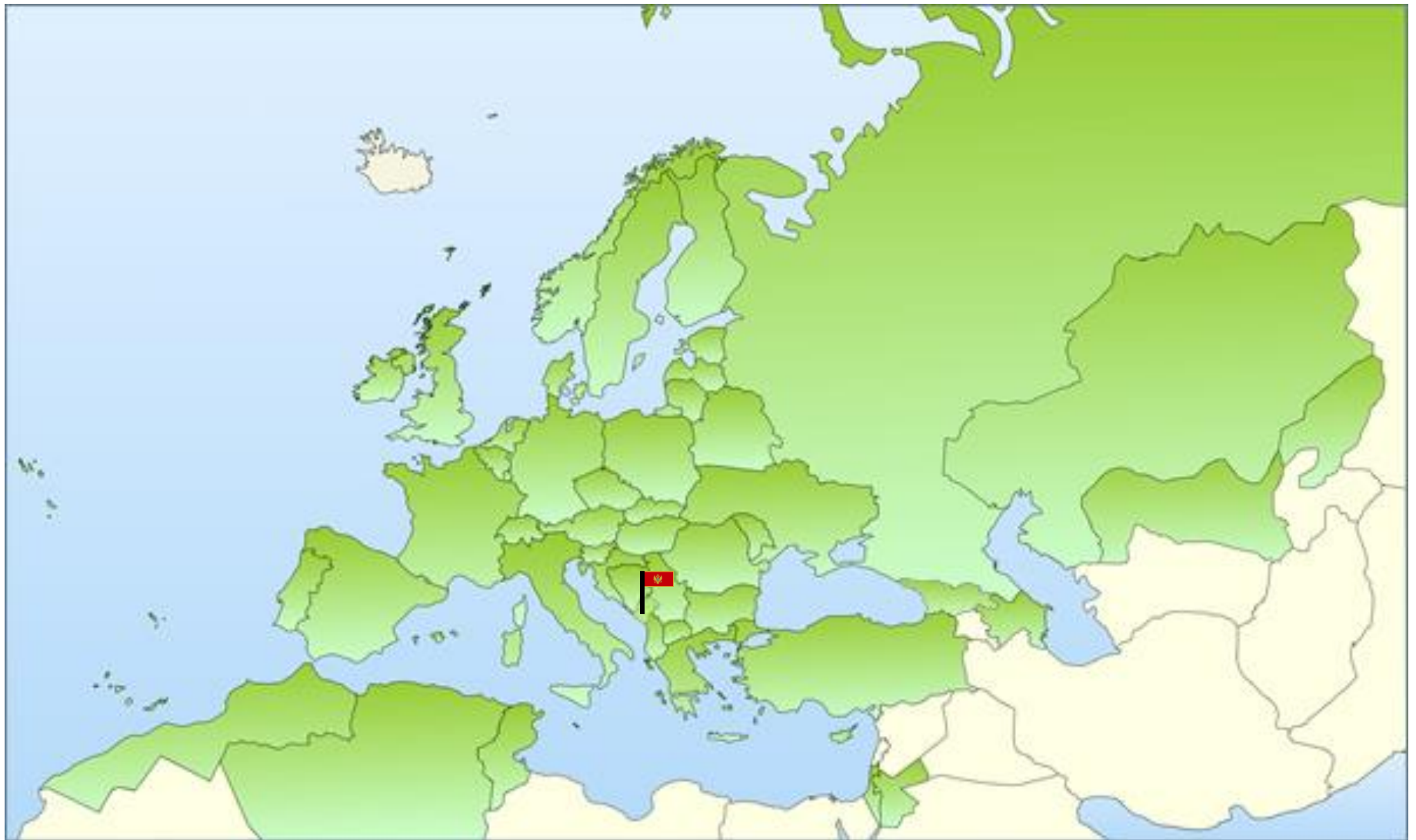
**Сейчас - 52 страны**

**Два постоянных наблюдателя (ЕЭК и ЕС)**

**Одна из 10 РОКЗР, признанных в рамках МККЗР**



# 2018 - Добро пожаловать, Черногория!



# Сфера полномочий

- Карантин растений
- Фитосанитарная сертификация и регулируемые некарантинных вредные организмы
- Инвазивные чужеродные растения
- Агенты биологической борьбы
- Эффективность препаратов для защиты растений

## Путём:

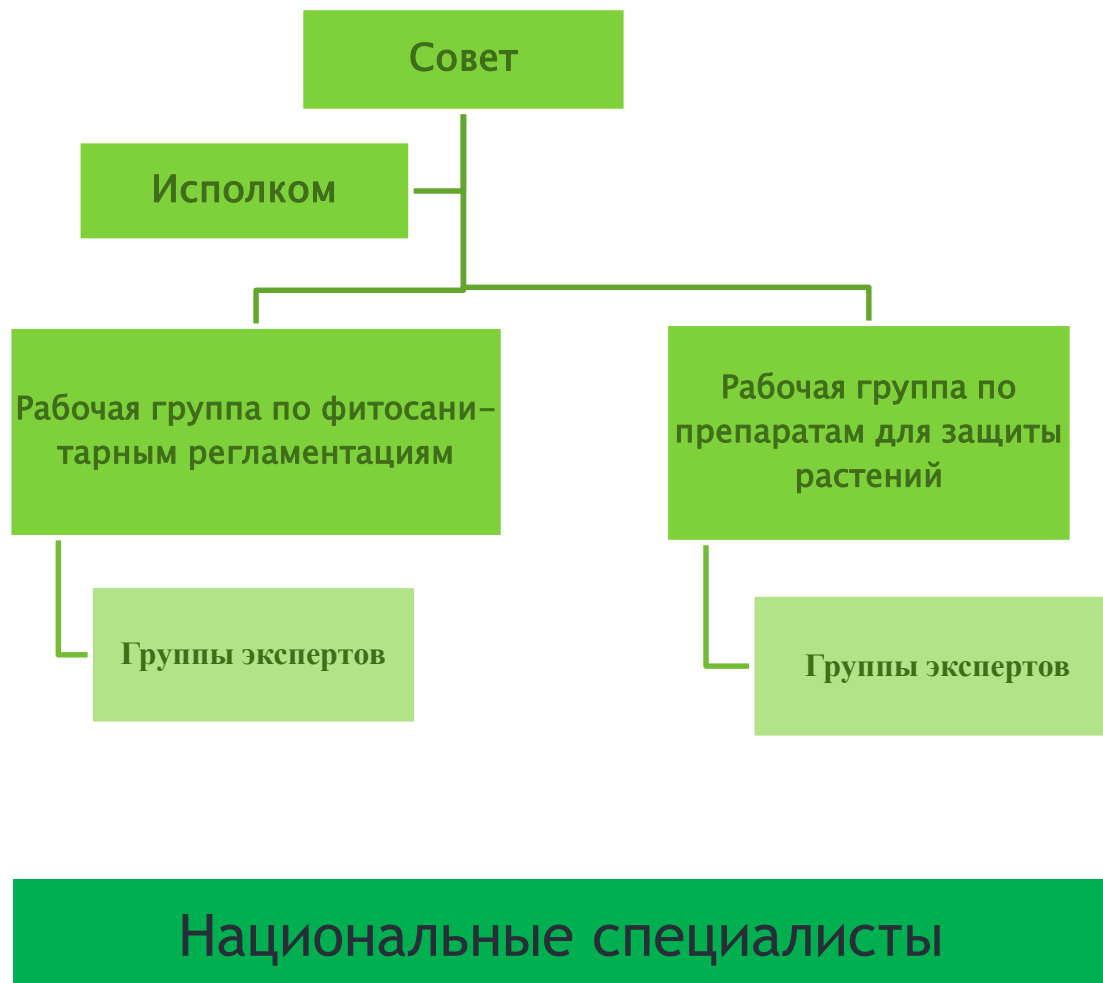
- Разработки и принятия региональных технических стандартов
- Вклада в разработку международных стандартов
- Обмена знаниями и опытом через информационные сети

В ЕОКЗР размещаются сеть Euphresco и координирующий орган по маломасштабным использованиям пестицидов, имеющие собственное финансирование и управление

# Структура

Секретариат ЕОКЗР

Национальные организации по карантину  
и защите растений (НОКЗР)





# Действующие группы экспертов

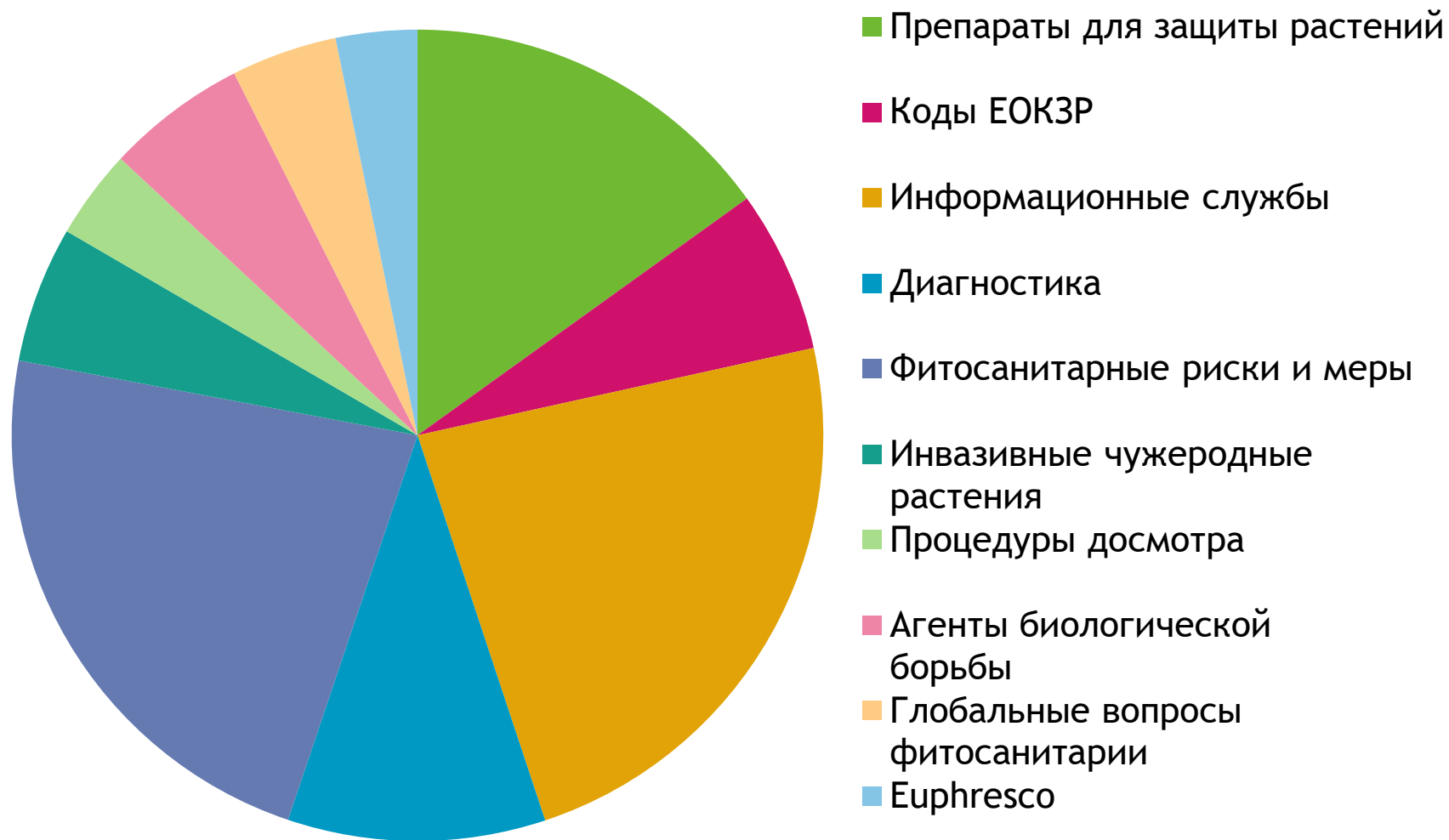
## Препараты для защиты растений

- Общие стандарты
- Гербициды
- Инсектициды и фунгициды
- Устойчивость
- Гармонизация и требования к информации

## Фитосанитарные регламентации

- Глобальные фитосанитарные проблемы
- Фитосанитарные меры
- Лесные проблемы
- Картофель
- Процедуры досмотра
- Информация
- Диагностика (общая) +
  - Энтомология
  - Нематоды
  - Бактерии
  - Грибы
  - Вирология
- Инвазивные чужеродные растения
- Агенты биологической борьбы

# Расход ресурсов по основным видам деятельности



# Ресурсы, финансирование и программа работы

- 19 сотрудников (14 научных, 5 административных/IT)
- Две трети задействованы в основной программе, финансируемой странами
  - Ежегодная программа работы и бюджет, утверждённые Советом
- Одна треть задействованы в проектах, финансируемых (полностью или частично) другими
  - Сеть Эуфреско для лиц, финансирующих исследования и управляющих ими
  - Координирующий орган ЕС по маломасштабным использованиям пестицидов
  - Проект по Регулируемым некарантинным вредным организмам
  - Риски, связанные с инвазивными чужеродными растениями
  - Исследовательские проекты (EMPHASIS, XFactors, Valitest)



# Текущая деятельность

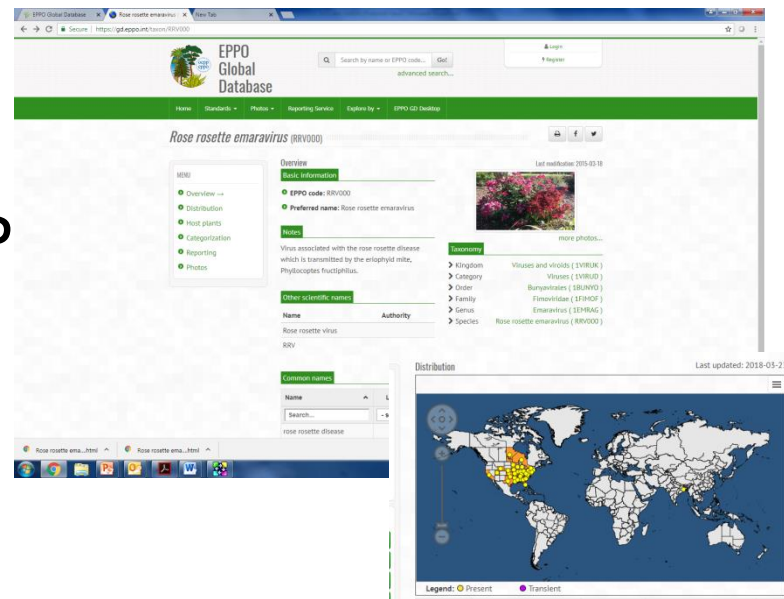
- Глобальная база данных ЕОКЗР

- Коды ЕОКЗР

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

- Служба оповещения ЕОКЗР

- Сигнальный перечень ЕОКЗР

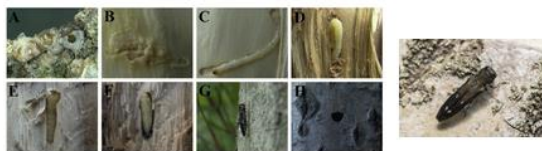


## 2018/138 First report of *Anoplophora chinensis* in France

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.**

## *Agrilus fleischeri* (Coleoptera: Buprestidae) 2018-03

Asian wood borer of poplars (*Populus* spp.) proposed by the UK NPPO. Emerging pest in parts of China. Tree mortality has been reported. Lombardy poplar (*P. nigra* var. *italica*) is a susceptible host. Data lacking on willows (*Salix* spp.) Could be moved on wood packaging material (e.g. pallets)



## *Neonectria neomacrospora*

2017-06

Emerging canker disease of *Abies* in Northwestern Europe

Main host: *Abies* spp. Also found on *Picea*, *Pseudotsuga* and *Tsuga*. Outbreaks in Denmark and Norway. Also found in BE and GB.



# Обязательства по оповещению

Конвенция ЕОКЗР Статья VI. Обязательства.

а. Государства-члены предоставляют Организации, по мере возможностей, всю информацию, которую она на разумной основе может запрашивать для осуществления своих функций, в частности, данные, указанные в статьях V.f1 и V.f2 [присутствие вредных организмов и законодательство].

б. Государства-члены должны стремиться следовать рекомендациям, принятым Советом Организации, в особенности включающим региональные стандарты.

**ЕОКЗР может делиться таким количеством информации, только потому, что мы получаем ее от стран! Продолжайте предоставлять нам обновления о вредных организмах и очагах.**

# Стандарты ЕОКЗР

- РМ3 Фитосанитарные процедуры
- РМ5 Анализ фитосанитарного риска
- РМ6 Руководства по агентам биологической борьбы
- РМ7 Диагностические протоколы
- РМ9 Национальные системы фитосанитарного контроля
- РР1 Оценка эффективности препаратов для защиты растений



**Два вида деятельности, осуществляемые  
в ЕОКЗР с их собственным  
финансированием и управлением**

# Эуфреско (Координация исследований в области карантина растений)

- Сеть партнеров, которые являются спонсорами и руководителями в области исследований по карантину растений
- Ежегодный запрос тем для межнациональных научно-исследовательских проектов
- 2016 год - 20 проектов, общий бюджет 2.5M €
- 2017 год - 8 проектов, общий бюджет 1.3M €
- Как правило небольшие и (относительно) краткосрочные проекты
- Все страны ЕОКЗР являются членами Эуфреско
- Дополнительные участники из региона ЕОКЗР и из-за его пределов



**Euphresco**

Network for phytosanitary research coordination and funding



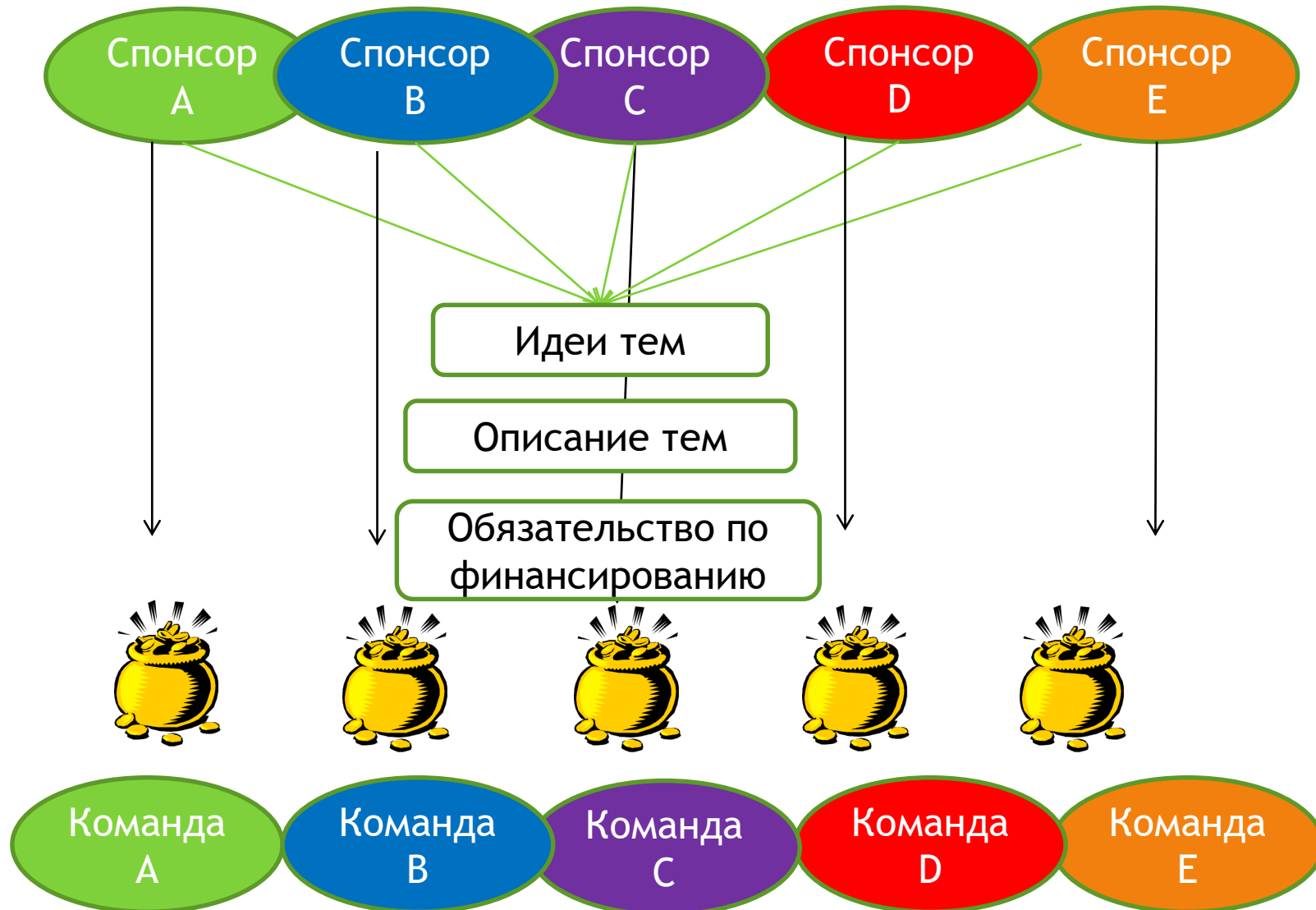


# Финансирование проектов Эуфреско - настоящий конкурсный фонд





# Финансирование проектов Эуфреско – виртуальный внеконкурсный фонд



# Координирующий орган по маломасштабным использованиям пестицидов

- Маломасштабные использования пестицидов «... на растениях ... которые не широко выращиваются в государстве-члене, или ... для удовлетворения особенной потребности в защите растений»
- Финансирование в 2015-2017 гг. от ЕС, Франции, Германии и Нидерландов
- Финансирование ЕС в настоящее время прекратилось, но некоторые страны выделили средства для поддержания работы
- База данных EUMUDA
  - потребности в области маломасштабных использований пестицидов
  - проекты для поиска решений



# Информационные службы ЕОКЗР

- Продолжение кампании “не рискуй”, предназначенной для пассажиров
- «Инструменты» по вредным организмам для стран, которые могут использоваться в информационных кампаниях - три примера:
  - *Popillia japonica*
  - *Agrilus planipennis*
  - Citrus greening (Huanglongbing)
- Новый веб-сайт ЕОКЗР - обновления стали проще
- Дополнительные коды ЕОКЗР для поддержки э-Фито
- Проект ЕОКЗР для пересмотра сводок данных и ссылок на базы данных
- Разработка стандарта для повышения осведомленности общественности

# Не рискуй



Portuguese



Polish



Romanian



# Шаблоны плакатов

## HELP US STOP THIS PEST!

### Emerald ash borer

A threat to ash trees



**What is it?**  
The emerald ash borer (*Pristiphora jeffersonii*) is a highly invasive species. It was first found in the United States in the mid-2000s, and it has since spread to other parts of the world (e.g., Canada and China) where it has killed millions of ash trees. In the mid-2000s, it was discovered in the European part of Russia near Moscow. As it spread to surrounding ash trees in our forests and urban environments, it is important to detect it as early as possible.

**Damage**



**Contact us!**  
Your contact details, logos, links, QR codes ...

Learn more about the emerald ash borer: [www.your.website](http://www.your.website)

This poster has been prepared in collaboration with EPPO (www.eppo.org)

## CAN YOU HELP US?

### Popillia japonica

A threat to lawns, woods and crops



**What is it?**  
*Popillia japonica* is a beetle (Coleoptera: Rutelidae) originating from Japan which has been inadvertently introduced into other parts of the world (e.g., Korea, Canada and China). In summer 2014, it was found for the first time in continental Europe, near Bologna in Italy. *Popillia japonica* attacks many plants (around 400 species). Its larvae feed on plant roots and are particularly damaging in lawns and meadows. Adult beetles are voracious leaf feeders.

**How to recognise it?**



Adult beetles are 30-50 mm long with iridescent copper coloured elytra and metallic green thorax and head. They can be identified by the presence of 12 tufts of white hair on their body (5 along each side of the abdomen and 7 larger ones near the bottom end). Other life stages (eggs, larvae, pupae) live in the soil and are difficult to see.

**Contact us!**  
Your contact details, logos, links, QR codes ...

Learn more about *Popillia japonica*: [www.your.website](http://www.your.website)

This poster has been prepared in collaboration with EPPO (www.eppo.org)

## BE AWARE!

### Huanglongbing

A threat to citrus



**What is it?**  
Huanglongbing (also called greening) is a severe bacterial disease of citrus (associated with *Candidatus Liberibacter spp.*). Affected trees are stunted, with sparse yellow foliage, and fruit fall prematurely. As these symptoms can be confused with other diseases or nutrient deficiencies, laboratory analysis might be required for confirm diagnosis. Bacteria associated with Huanglongbing do not affect humans but cause serious losses to citrus production. Two insect species are known to transmit Huanglongbing to citrus plants: *Diuraphis citri* and *Toxoptera citridula*.

**Disease vectors**



Adult and eggs of *Diuraphis citri*.  
These aphids transmit the disease and also cause red galls on the leaves when feeding.

**Contact us!**  
Your contact details, logos, links, QR codes ...

Learn more about Huanglongbing: [www.your.website](http://www.your.website)

This poster has been prepared in collaboration with EPPO (www.eppo.org)



## Как их узнать?

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.



## Пожалуйста, помогите нам!

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

# ВЫ МОЖЕТЕ НАМ ПОМОЧЬ?

## *Popillia japonica*

Вредное насекомое, повреждающее лужайки, древесину и культуры



Логотип и название организации



Prepared in collaboration  
with EPPO – [www.eppo.int](http://www.eppo.int)





*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.



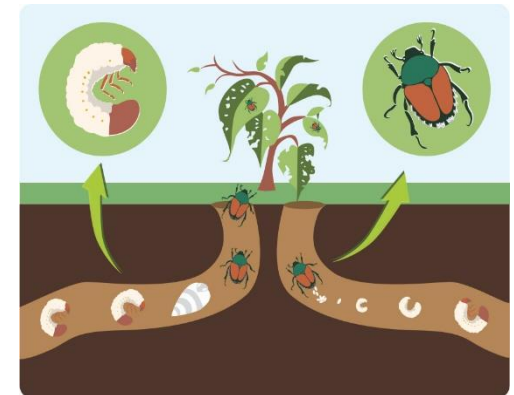
Larvae consume plant roots and are particularly damaging in lawns and meadows. Adult beetles are voracious feeders and can attack many different plant species (approximately 300 wild and cultivated plant species). Among the most vulnerable plants the following can be mentioned: apple, bramble, grasses, 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.



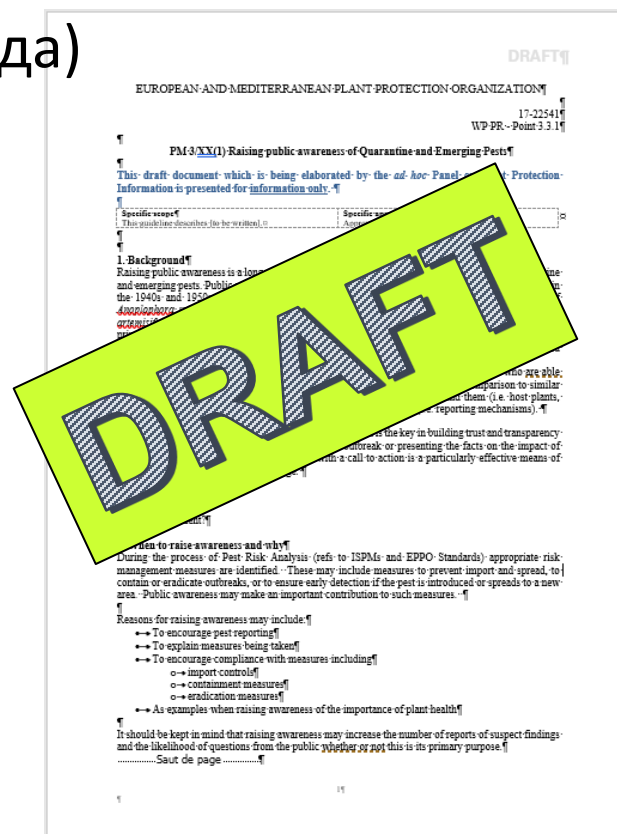
*Popillia japonica* (Coleoptera: Rutelidae) usually produces one generation per year but under cold climates, the life cycle can be extended to two years. Adult beetles usually emerge from the soil in May/June and mate. Females lay eggs in the soil. After hatching, larvae (white grubs) develop in the 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.

### Цикл развития



# ПРОЕКТ Стандарта РМ 3 – Информирование общественности

Работа, продолжается в рамках Группы экспертов по информации (следующее совещание в октябре 2018 года)



# Причины для информирования общественности:

- Стимулировать оповещение о вредных организмах
- Объяснить принимаемые меры
- Содействовать соблюдению мер, включая:
  - контроль импорта
  - меры по локализации
  - меры по ликвидации
- Примеры информирования общественности о важности карантина растений



# Ключевые факторы

- Характер риска
- Вероятные места очагов
- Простота выявления
- Простота отличия от других организмов
- Вероятные затраты и преимущества информационной кампании



# Рекламная кампания - да или нет?

DRAFT

За	Против
В основном это касается общественности (например, риски для садов, уличных деревьев, окружающей среды или культовых видов)	В основном это касается производителей
Раннее выявление может привести к успешной ликвидации	Низкая вероятность ликвидации даже при раннем обнаружении
Повышение осведомленности может способствовать соблюдению мер	Небольшая роль общественности в соблюдении мер
Вредные организмы или их симптомы ясны и отчетливы	Вредные организмы и симптомы трудно обнаружить или легко спутать
Очаги могут быть сначала обнаружены в парках, садах или в широкой среде, к которой имеет доступ общественность	Вспышки будут вероятно сначала замечены коммерческих культурах
	Высокий риск для торговли, если сообщения запутаны или неясны
	Высокий риск от действий, предпринимаемых случайно против редких, но важных “двойников”

# Риски и меры

- 5 вредных организмов и 10 чужеродных инвазивных растений, рекомендованны Совету в 2018 году для включения в перечень
- Приоритеты для АФР в 2018-2019 гг.:
  - *Agrilus fleischeri*
  - *Naupactus xanthographus*
  - вирусы на селекционном материале виноградной лозы
- Стандарт, разрабатываемый по «индикаторным растениям»
- Пересмотр процесса ЕОКЗР по АФР завершён
- Платформа для обмена информацией о национальных АФР
- Разрабатывается руководство по созданию буферных зон для карантинных вредных организмов



# Вопросы в отношении анализа фитосанитарного риска

- Можем ли мы проводить АФР достаточно рано?
- Можем ли мы проводить их в достаточном количестве?
- Дает ли анализ ответы на правильные вопросы?
- Может ли одна процедура правильно определить статус вредного организма
  - Карантинный вредный организм
  - Регулируемый некарантинный вредный организм
  - Сигнальный перечень
  - Новый вредный организм
  - Другие
- Как можно оценивать количественно?
- Какова роль фитосанитарных служб в случае с вредными организмами, которые считаются «новыми», но не подходят для регулирования?

# Диагностика

- В настоящее время более 130 вредных организмов охвачены диагностическими протоколами ЕОКЗР
- Новый раздел Стандарта РМ 7/76 для утверждения на Совете, касающийся коммуникации между специалистами по диагностике и специалистами по управлению рисками, а также выражения неопределённости диагноза
- Пересмотр стандарта РМ 7/84 Основные требования к управлению качеством в лабораториях по диагностике вредных организмов
- Продолжается работа по привлечению высокопроизводительного секвенирования

# Процедуры досмотра

- Два стандарта для утверждения на Совете
  - досмотр виноградников
  - досмотр на *Phytoplasma pyri*
- Пересмотр Стандарта РМ 9 по *Bursaphelenchus xylophilus* для утверждения
- Стандарт РМ 9 по Huanglongbing (*Liberibacter asiaticus*) находится в разработке
- Семинар по действиям в непредвиденных обстоятельствах при возникновении очагов лесных вредных организмов - Златибор, Сербия 27-29 ноября 2018 года - ещё есть места!

# Агенты биологической борьбы

- Схема поддержки принятия решений о выпуске агентов биологической борьбы (АББ) будет предложена для утверждения Советом
  - схема рассматривает риски и выгоды от выпусков
- Формализованная процедура добавления в список «широко используемых АББ» (стандарт ЕОКЗР РМ 6/3)
- Опрос о том, как страны регулируют агентов биологической борьбы - 24 ответа на данный момент
- Эта деятельность по-прежнему нуждается в большей гармонизации

# Глобальные фитосанитарные проблемы

- Группа экспертов собирается трижды в год
- Координирует позицию региона ЕОКЗР
- Одобрят кандидатуры от европейского региона ФАО
- Улучшение координации во время КФМ 13
- Проводит встречи с другими РОКЗР (NAPPO, COSAVE)
- Ежегодная «Техническая консультация» между РОКЗР
  - Париж, 2017 год
  - Лима, 2018 год
- Вклад ЕОКЗР, например, по:
  - стандартам по товарам
  - новым вредным организмам
- Потребность в европейских экспертах в органах МККЗР
- Серьёзная вовлеченность (экспертов и стран)

# Совет ЕОКЗР

- 25-26 сентября, Париж
- Приглашены представители всех стран-членов
- Синхронный английский-французский-русский перевод
- Получает отчёты, утверждает стандарты, устанавливает приоритеты
- Выборы Исполнительного комитета и Генерального директора
- Параллельное собрание по приоритетам для переводов на русский язык
- Руководящая группа сети Эуфреско во второй половине дня 26 сентября
- Научный коллоквиум 27 сентября:
  - «Перспективы использования дистанционного зондирования в карантине растений»

С нетерпением ждем встречи с представителями ваших стран





**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**

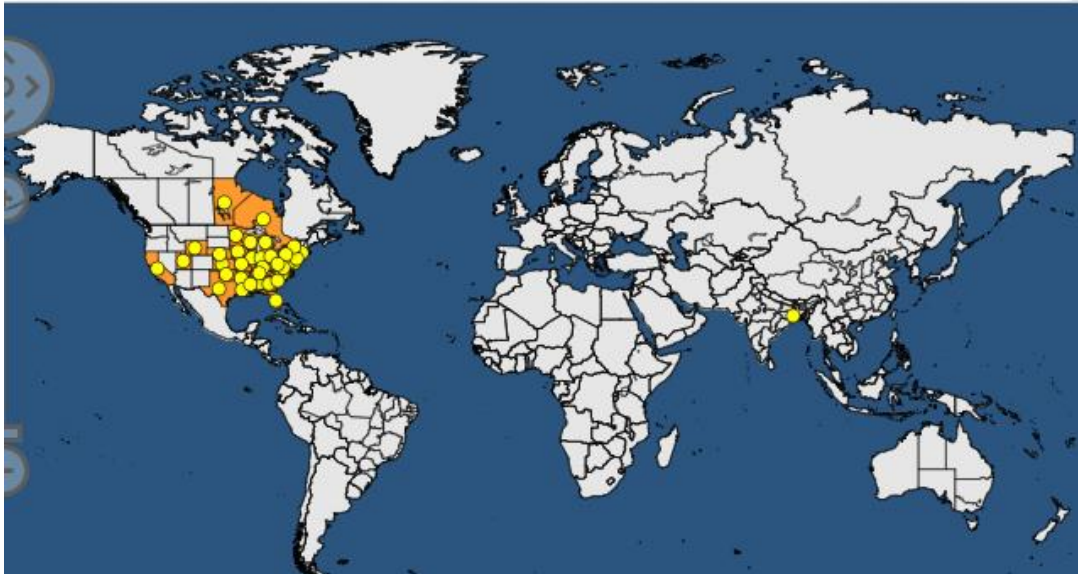


# ***Rose rosette virus and its vector***

## ***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.

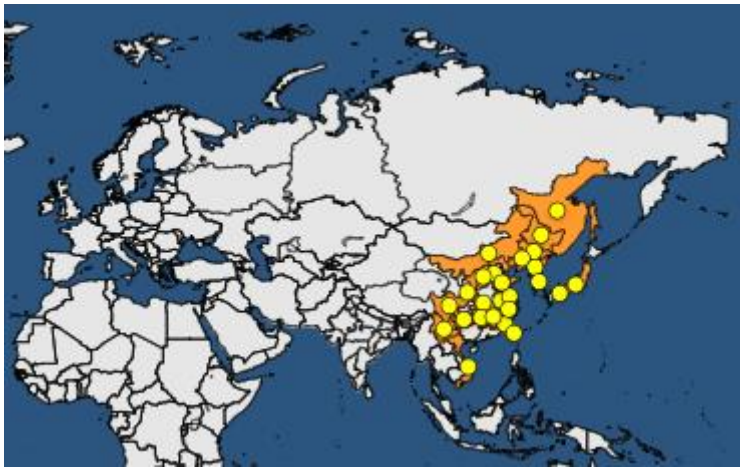
# Conclusions *Rose rosette* A1

- **Endangered area:** whole EPPPO 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 EPP0 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 (+packaging);
    - Pre or post entry quarantine (**bilateral agreement**)
  - Wood of *Castanea*, *Quercus* and *Castanopsis* (including firewood): PFA;
    - Heat treatment;
    - Irradiation;
    - Fumigation



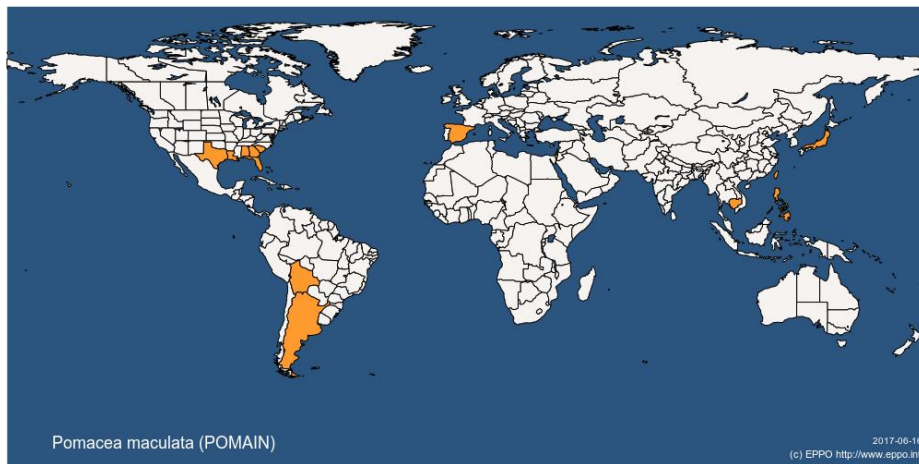
# Conclusions *Massicus raddei* → A1

- 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



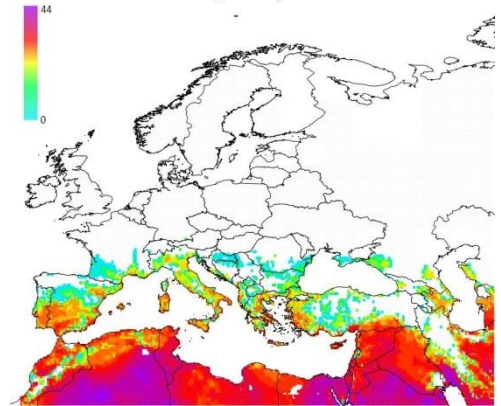
# *Pomacea maculata* and *P. canaliculata*

- 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



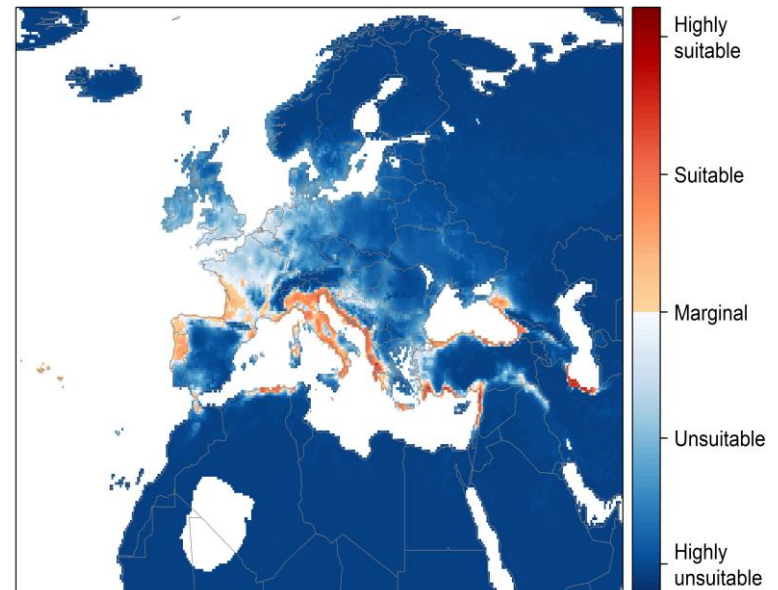
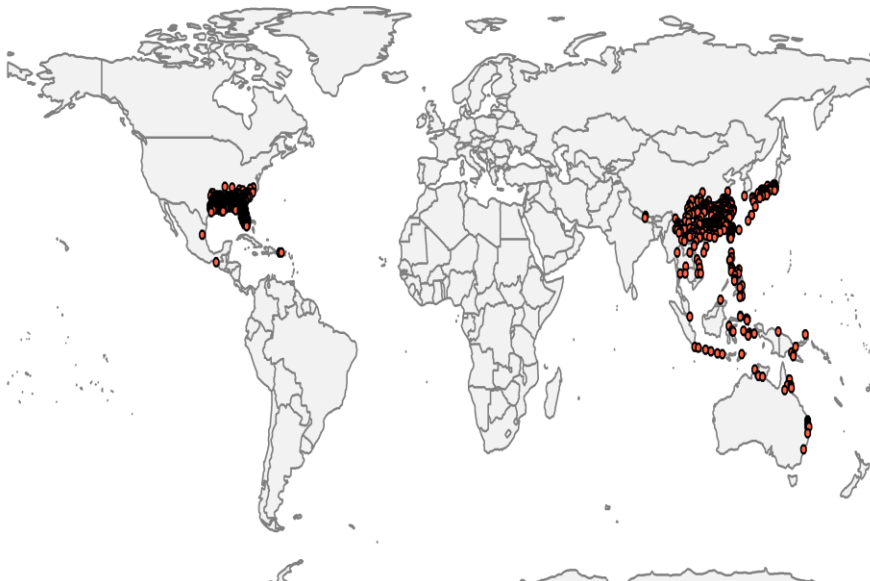
# Conclusions *apple snail*

- 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,



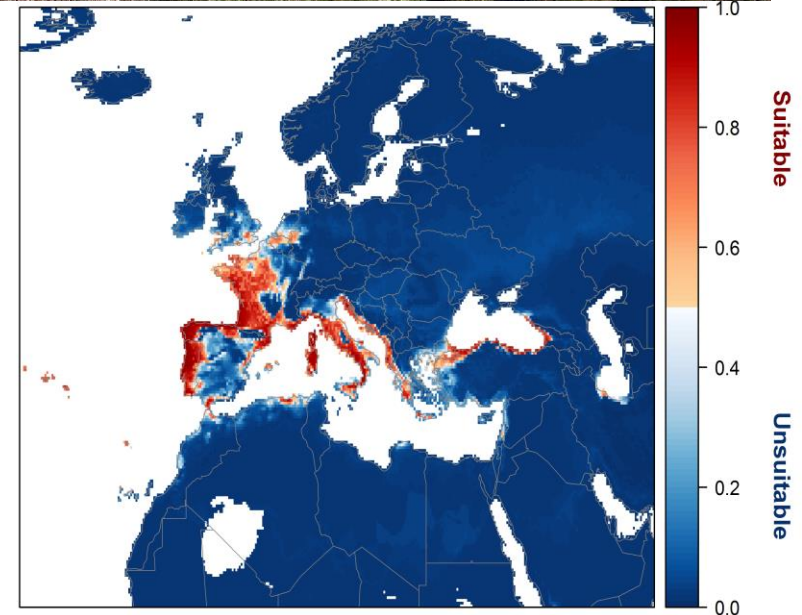


# ***Conclusions: Lygodium japonicum***

- 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,



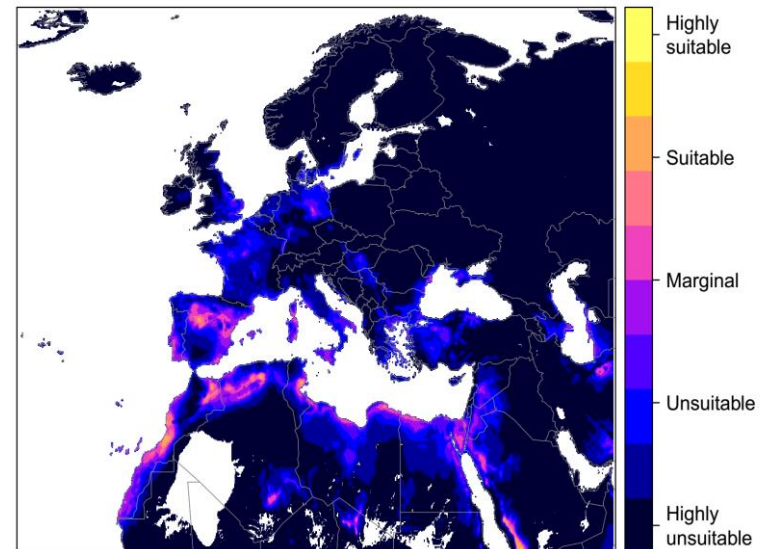
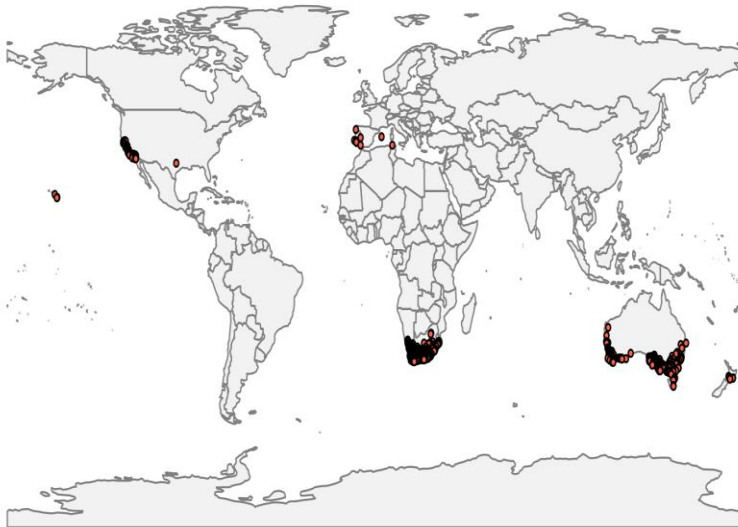


# ***Conclusions: Hakea sericea***

- **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,



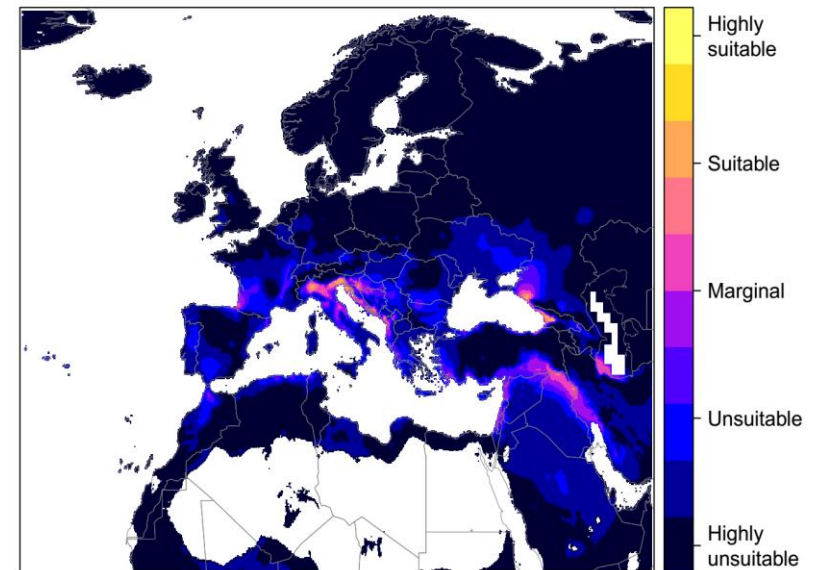
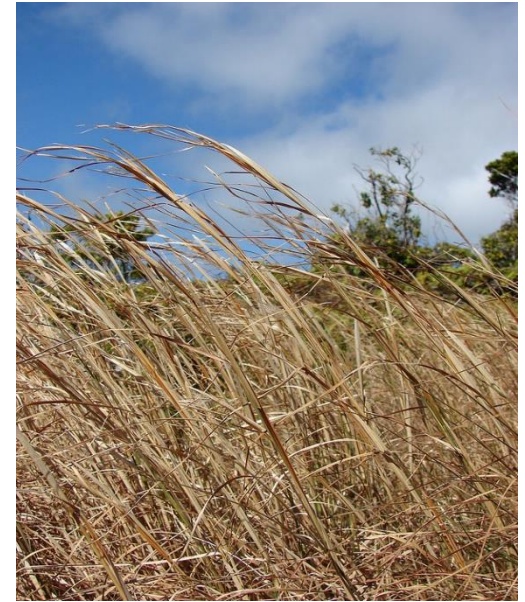
# ***Conclusions: Ehrharta calycina***

- **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 Mediterranean. 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,

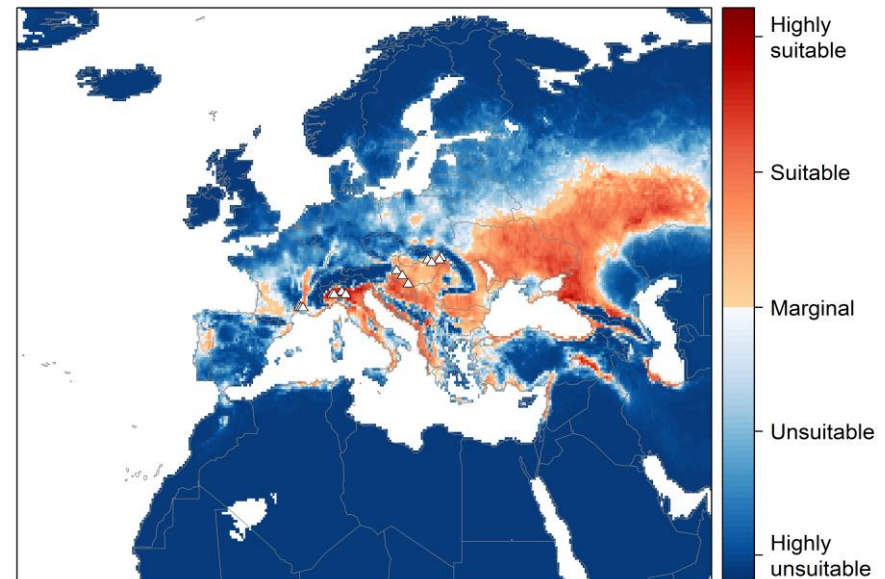
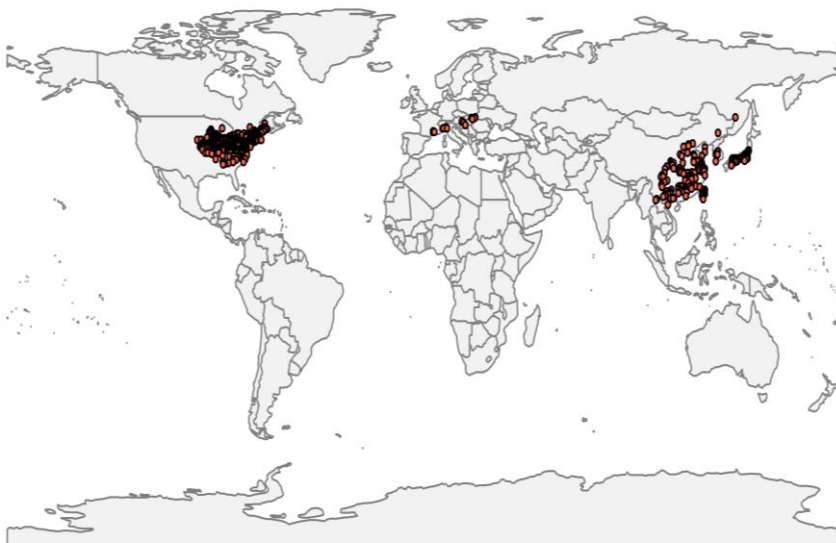


# ***Conclusions: Andropogon virginicus***

- **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***

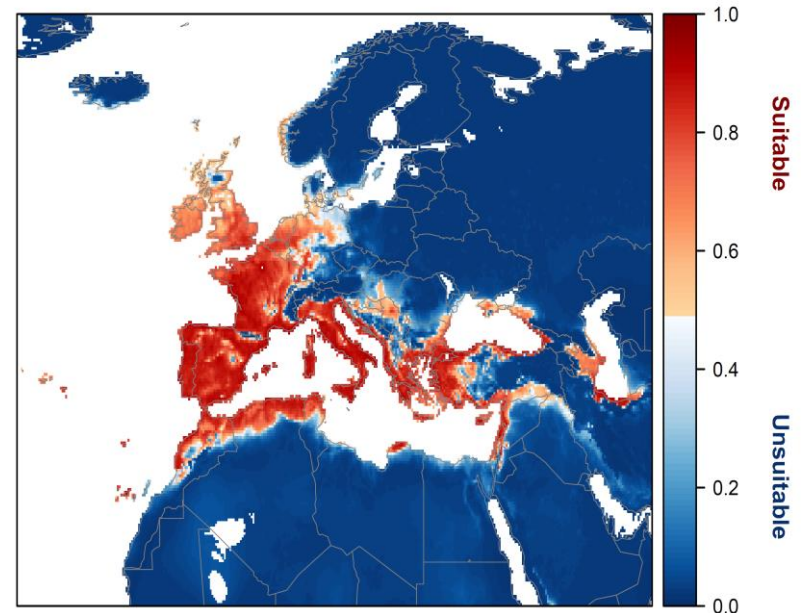
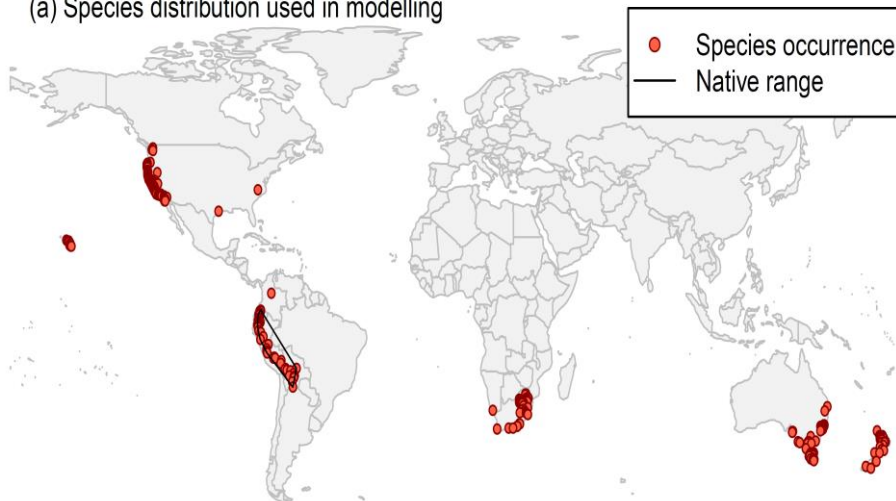
- **Endangered area:** The endangered area is predicted to be the biogeographic regions: Pannonian, Steppic and Continental, with parts of the Mediterranean and Black Sea regions. Including France, Italy, Germany, Austria, Poland, Hungary, Slovakia, Slovenia, Croatia, Greece, Bulgaria, and in the wider 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,



(a) Species distribution used in modelling



# ***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.

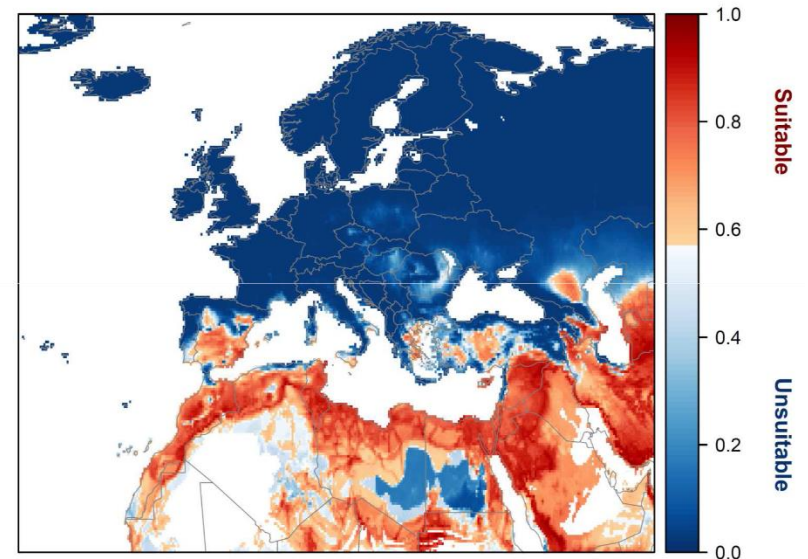
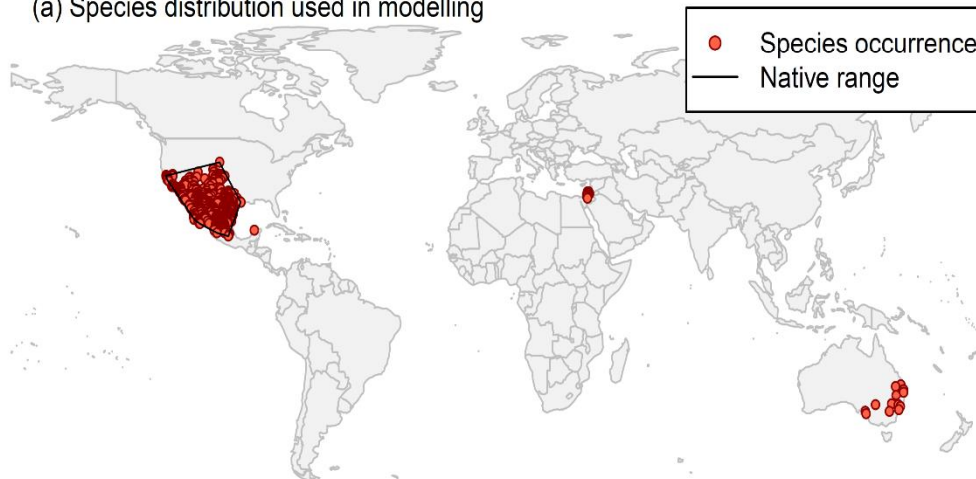


# *Ambrosia confertiflora* DC.

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



(a) Species distribution used in modelling



# ***Conclusions: Ambrosia confertiflora***

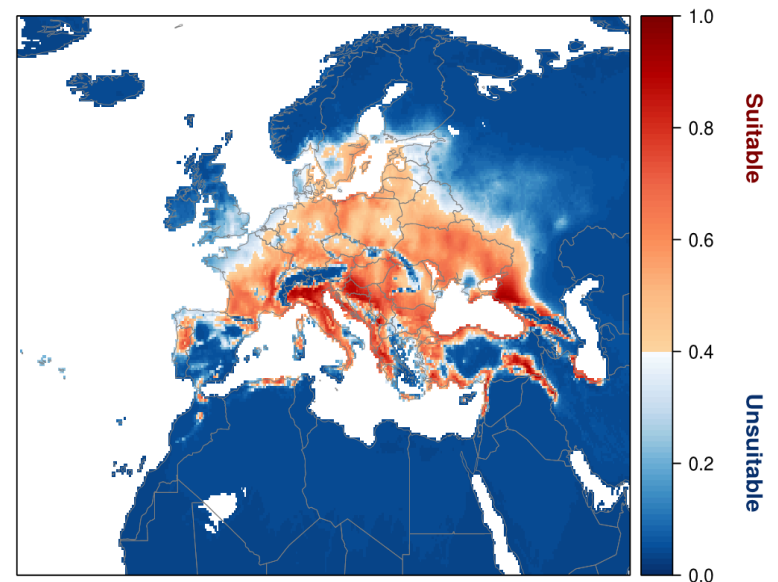
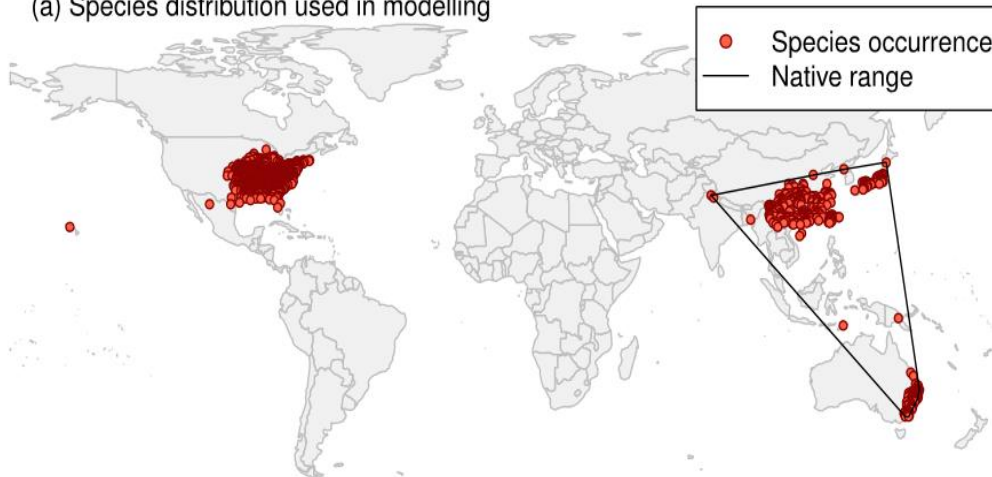
- **Endangered area:** the endangered area is the EU countries: Spain, Southern Sardinia, Sicily, Greece, and the wider EPPO region: Turkey, Israel, Jordan, Morocco, Algeria and Tunisia.
- **Phytosanitary risk: High with high uncertainty**
- **Measures to reduce probability of entry:**
  - *Ambrosia 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



(a) Species distribution used in modelling



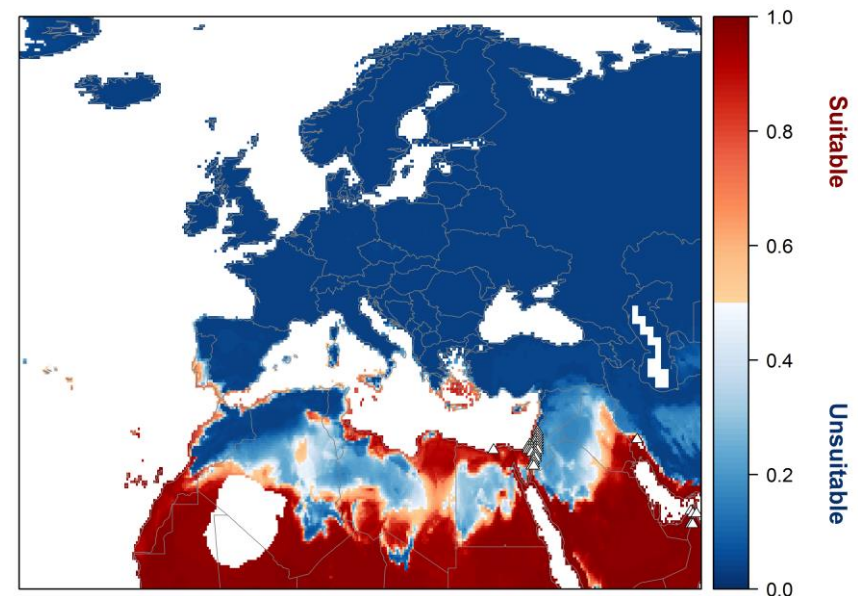
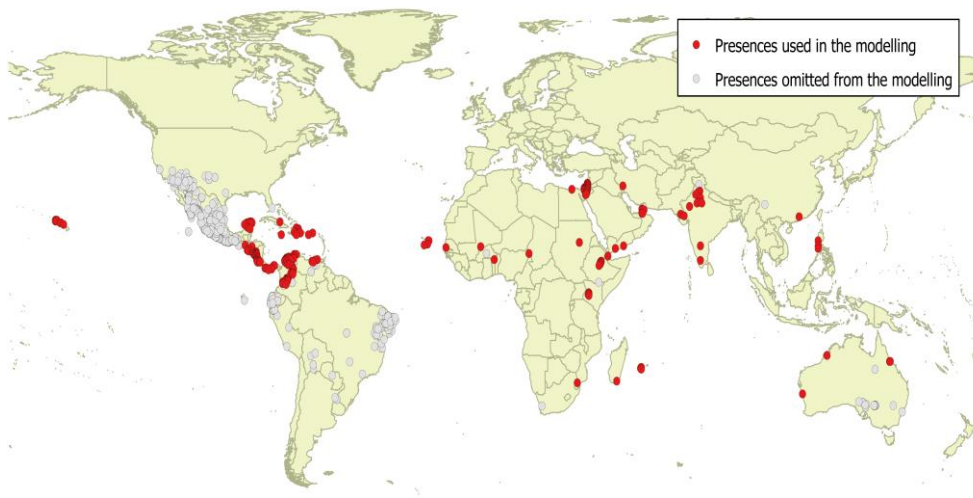


# ***Conclusions: Lespedeza cuneata***

- **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*.

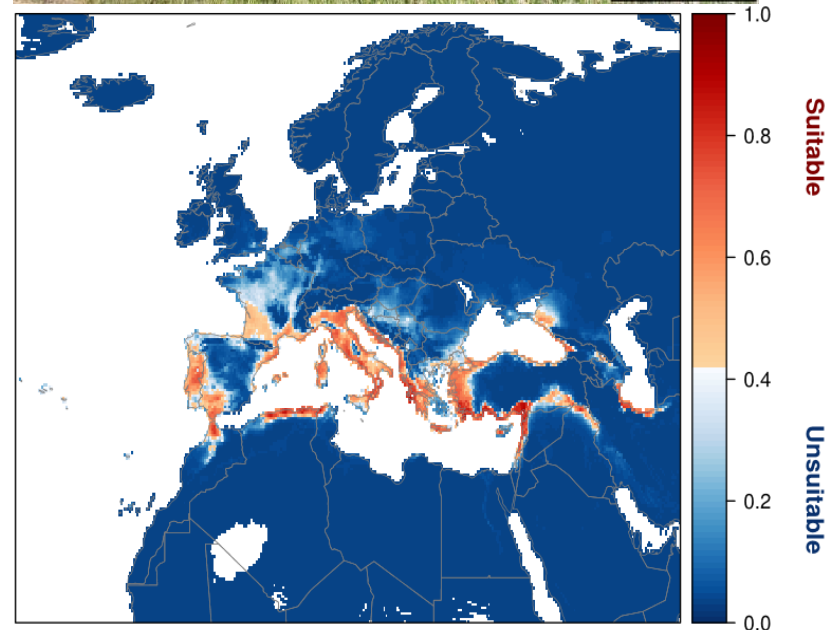
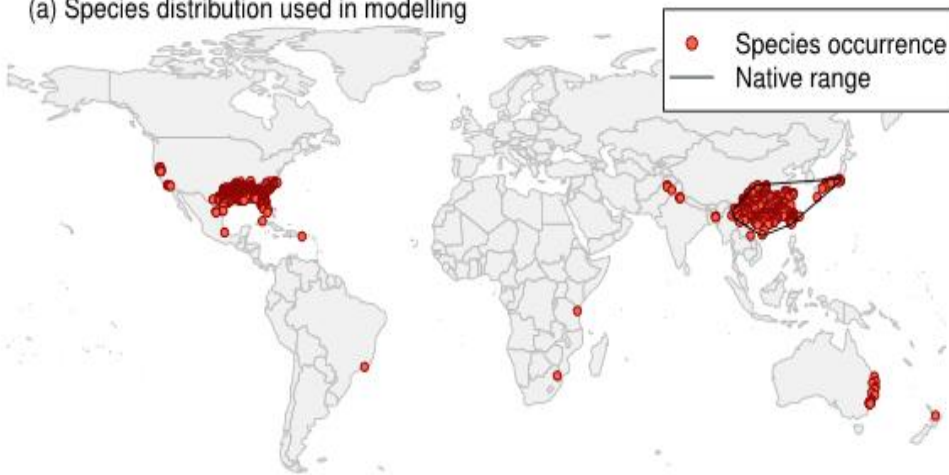


# *Triadica sebifera* (L.) Small

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



(a) Species distribution used in modelling



# ***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.

