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2021/146 New data on quarantine pests and pests of the EPPO Alert List

By searching through the literature, the EPPO Secretariat has extracted the following new data concerning quarantine pests and pests included (or formerly included) on the EPPO Alert List, and indicated in bold the situation of the pest concerned using the terms of ISPM no. 8.

- **New records**

In Brazil, *Leptoglossus occidentalis* (Hemiptera: Coreidae) was first observed in June 2017 in Mogi das Cruzes (São Paulo). In spring 2020, further specimens were found in several localities (Candiota, Esmeralda, Eldorado do Sul) in Rio Grande do Sul (van der Heyden and Faúndez, 2020).

In Côte d'Ivoire, *Xanthomonas oryzae* pv. *oryzicola* (EPPO A1 List) was detected for the first time during field surveys conducted in October 2018 in 15 sites, located between Korhogo (Northern Côte d'Ivoire) and Gagnoa (Southern Côte d'Ivoire). Symptoms of bacterial leaf streak of rice were observed in the area of Korhogo, and the identity of the bacterium was confirmed by molecular and pathogenicity tests. Further surveys will be conducted to assess the disease incidence and control strategies will be developed (Diallo *et al.*, 2021). **Present, not widely distributed.**

In South Africa, two adult specimens of *Leptoglossus occidentalis* (Hemiptera: Coreidae) were first observed in April 2020 in Cape Town (van der Heyden and Faúndez, 2020).

- **Detailed records**

Citrus canker caused by *Xanthomonas citri* pv. *citri* (EPPO A1 List) was reported in July 2021 in Alabama (US). The bacterium was detected in foliage and fruit samples collected during a routine survey of citrus trees in a residential area of Baldwin County. Delimiting surveys will be conducted to determine the extent of the outbreak (Alabama Department of Agriculture & Industries, 2021).

In the United Kingdom, two new breeding populations of *Ips typographus* (Coleoptera: Curculionidae: Scolytinae - EU Annexes) have been discovered in two woodlands in Kent. The pest had first been found in Kent in 2018. Phytosanitary measures are being implemented to limit the spread of *I. typographus* and members of the public are invited to report any sightings (GOV.UK, 2021).

- **Eradication**

In France, *Aleuroclava aucubae* (Hemiptera: Aleyrodidae) was first recorded in 2013 on citrus trees in a private garden in Corsica (EPPO RS 2013/110). The NPPO of France considered that this outbreak is now eradicated (NPPO of France, 2021-07).

In France, *Meloidogyne mali* (EPPO A2 List) was first detected in 2016 on *Ulmus chenmoui* trees planted in an experimental plot located in Ile-de-France region, as well as on *Rubus fruticosus* plants growing in their immediate vicinity (EPPO RS 2017/043). Eradication measures were taken, and the outbreak is now considered eradicated (NPPO of France, 2021).
The pest status of *Meloidogyne mali* in France is officially declared as: **Absent, pest eradicated**.

In Spain '*Candidatus* Liberibacter solanacearum' haplotype E had been recorded on potato in two warehouses belonging to family plots for self-consumption in December 2016 (EPPO RS 2017/134) and later in two other warehouses for direct marketing in the municipality of Valderredible, in the Autonomous Region of Cantabria. Eradication measures were taken. Recent surveys indicate that the pathogen is no longer present on potato in the area. It is considered eradicated in potato production (NPPO of Spain, 2021).
The pest status of '*Candidatus* Liberibacter solanacearum' in Spain is officially declared as: **Present: only in some parts of the Member State concerned on carrot and celery. Absent: pest found but eradicated on potato.**

In Bulgaria, tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO A2 List) was first detected in June 2021 (EPPO RS 2021/135). Infected plants were destroyed, and the machinery and equipment were disinfected (NPPO of Bulgaria, 2021).
The pest status of tomato brown rugose fruit virus in Bulgaria is officially declared as: **Absent, pest eradicated**.

- **Host plants**

In China (Hubei province), *Pseudomonas syringae* pv. *actinidiae* (EPPO A2 List) is reported to cause bacterial leaf spot disease on *Broussonetia papyrifera* (paper mulberry), a deciduous tree native to northeastern Asia. Typical symptoms on leaves included small, angular, brown spots surrounded by yellow haloes. These spots coalesced into necrotic areas. The disease incidence was around 30%, which threatened the survival of these trees and reduced the yield of paper mulberry (Li *et al.*, 2021).

Sources:
Alabama Department of Agriculture & Industries (2021-07-02) AG & Industries News. Citrus canker detected in Alabama. http://agi.alabama.gov/u/news/2021/07/02/citrus-canker-detected-in-alabama
Diallo A, Zougrana S, Sawadogo M, Kone D, Silué D, Szurek B, Wonni I, Hutin M (2021) First report of bacterial leaf streak disease of rice caused by *Xanthomonas oryzae* pv. *oryzicola* in Ivory Coast. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-04-21-0811-PDN
GOV.UK (2021-07-05) Forestry Commission acts on bark beetle tree pests. https://www.gov.uk/government/news/forestry-commission-acts-on-bark-beetle-tree-pest
Li L, Pan H, Deng L, Feng DD, Zhong CH (2021) First report of bacterial leaf spot disease of *Broussonetia papyrifera* caused by *Pseudomonas syringae* pv. *actinidiae* in China. *Plant Disease* **105**(3), 696. https://doi.org/10.1094/PDIS-07-20-1527-PDN
NPPO of Bulgaria (2021-07).
NPPO of France (2021-07).
NPPO of Spain (2021-04).
Van der Heyden T, Faúndez EI (2020) First records of *Leptoglossus occidentalis* Heidemann, 1910 (Hemiptera: Heteroptera: Coreidae) in Brazil and South Africa. *Boletin del Museo Nacional de Historia Natural del Paraguay* **24**(1), 28-30. http://www.mades.gov.py/wp-content/uploads/2020/06/24128-30_202062_vanderHeyden_occidentalis.pdf

Additional key words: absence, detailed record, eradication, new host plant, new record

Computer codes: IPSXTY, LEPLOC, LIBEPS, MELGMA, TETLAU, TOBRFV, XANTCI, XANTTO, BG, BR, CI, ES, FR, GB, US, ZA

2021/147 Closing of the International Year of Plant Health and situation of Beastie the Bug

Beastie the Bug was created as a communication campaign initiated by the EPPO Secretariat during the International Year of Plant Health 2020 (EPPO RS 2020/001) based on a mascot symbolising an invasive pest. Numerous specimens of this mascot were distributed across the EPPO region and participants were invited to post a picture of themselves with Beastie on the dedicated platform with a short personal message related to plant health before passing it to someone else. The International Year of Plant Health was extended until 1 July 2021 due to the postponement of some key initiatives caused by the COVID-19 pandemic. As a result Beastie carried on travelling up to 1 July 2021. Despite travelling restrictions associated with COVID-19, Beastie the Bug visited 40 countries and travelled more than 420 000 km across the globe. About 700 geolocalized pictures were posted on the dedicated website with an associated story (https://beastiebug.eppo.int/pictures) and many more on various social media sources of the participants. The Twitter account (@bug_beastie) reached 1 414 followers and posted more than 1 500 tweets raising awareness on a number of pests, research projects, official activities of NPPOs, etc. Short videos assembling pictures of the campaign are also available on EPPO YouTube channel: https://www.youtube.com/channel/UCrewrfHpP0FuJT1TO9u7WjQ

The EPPO Secretariat warmly thanks all the participants in this campaign. The specimens that travelled the most were the bugs initially sent to the NPPOs of Canada, the United Kingdom and Poland!

Source: EPPO Secretariat (2021-07). https://beastiebug.eppo.int/

Pictures: Beastie the Bug. https://gd.eppo.int/taxon/BEASTY/photos
https://beastiebug.eppo.int/pictures

Additional key words: communication **Computer codes:** BEASTY

2021/148 Recommendations from Euphresco projects

The following research project has recently been carried out in the framework of Euphresco (network for phytosanitary research coordination and funding - hosted by EPPO). A report presenting the main objectives and results of this project, as well as recommendations made can be viewed on the Euphresco website.

Set up of reliable detection protocols for the specific identification of '*Candidatus* Phytoplasma phoenicium' (DIPCAPP)

'*Candidatus* Phytoplasma phoenicium' strains are the etiological agents of a lethal disease named almond witches' broom. '*Ca.* P. phoenicium' is reported from Lebanon and Iran where it is widespread in areas where *Prunus* hosts are grown. Recently, '*Ca.* P. phoenicium' has also been detected on almond plants in Southeastern Italy. The DIPCAPP project contributed to the identification of the most suitable protocol for the detection of '*Ca.* P. phoenicium'. Six different tests, all based on the amplification of genomic fragments that are either shared by all phytoplasmas or specific to '*Ca.* P. phoenicium', were selected for a test performance study. Results showed that the conventional PCR from Jawhari, *et al.*, 2015 and the real-time PCR from Jawhari, *et al.*, 2015 are the best tests for the detection of the pathogen: (i) they are faster than other tests (e.g. nested-PCRs which require two consecutive PCR reactions), and (ii) they are easier to perform than other tests (e.g. restricted fragment length polymorphism analysis which requires specific skills for correct

interpretation). Among these methods conventional PCR is the most easily accessible to laboratories worldwide as it does not require expensive instruments.

Duration of the project: 2018-06-01 to 2020-05-31.

Authors: Bianco, Piero Attilio; Mehle, Natasa; Loiseau, Marianne; Ferretti, Luca; Jawdah, Yusuf Abou; Siampour, Majid; Shneyder, Yuri.

Link: https://zenodo.org/record/5075511#.YOgHbugzaUl

Source: Euphresco (2021-07). https://www.euphresco.net/projects/

Pictures: '*Candidatus* Phytoplasma phoenicium'. https://gd.eppo.int/taxon/PHYPPH/photos

Additional key words: research **Computer codes:** PHYPPH

2021/149 EPPO recruits an Administrative Officer and a Scientific Officer

EPPO is recruiting a full time Administrative Officer to work on financial and personnel administration.
Applications should be sent to the EPPO Secretariat before the 15th of September 2021.
For more information: https://jobs.eppo.int/gs7adm

EPPO is also recruiting a full time Scientific Officer to work on forestry pests and the relations with Russian-speaking country representatives and experts.
Applications should be sent to the EPPO Secretariat before the 30th of September 2021.
For more information: https://jobs.eppo.int/p2ruoff

Source: EPPO Secretariat (2021-07).

Additional key words: EPPO

2021/150 First report of *Ripersiella hibisci* in Slovenia

The NPPO of Slovenia recently informed the EPPO Secretariat of the first finding of the root mealybug *Ripersiella hibisci* (Hemiptera: Pseudococcidae – EPPO A1 List) on its territory. The trace forward surveys related to the outbreak in Italy (EPPO RS 2021/081) identified that a consignment of plants for planting (203 plants in total) of *Chamaerops humilis, Trachycarpus fortunei* and *Phoenix canariensis* had been imported into Slovenia (municipality of Ljubljana) from the infested nursery in Sicily. *R. hibisci* was detected in one plant of *C. humilis*. As some of the plants had already been distributed further to end consumers, they are being traced back. All plants from the consignment will be destroyed.

The pest status of *Ripersiella hibisci* in Slovenia is officially declared as **Transient, actionable, under eradication.**

Source: NPPO of Slovenia (2021-07).

Pictures: *Ripersiella hibisci*. https://gd.eppo.int/taxon/RHIOHI/photos

Additional key words: new record **Computer codes:** RHIOHI, SI

2021/151 First report and eradication of *Ripersiella hibisci* in Slovakia

The NPPO of Slovakia recently informed the EPPO Secretariat of the first finding of the root mealybug *Ripersiella hibisci* (Hemiptera: Pseudococcidae – EPPO A1 List) on its territory. The trace forward surveys related to the outbreak in Italy (EPPO RS 2021/081) identified that a consignment of plants for planting of *Rhapis excelsa* (12 plants in total) had been imported into Slovakia (municipality of Bratislava - mestská časť Ružinov) from an infested nursery. All plants were incinerated, and the pest is now considered eradicated.

The pest status of *Ripersiella hibisci* in Slovakia is officially declared as: **Absent, pest eradicated.**

Source: NPPO of Slovakia (2021-07).

Pictures: *Ripersiella hibisci*. https://gd.eppo.int/taxon/RHIOHI/photos

Additional key words: incursion, eradication **Computer codes:** RHIOHI, SK

2021/152 First report of *Lissorhoptrus oryzophilus* in Spain

Lissorhoptrus oryzophilus (Coleoptera: Curculionidae, rice water weevil – formerly EPPO Alert List) is first reported from Spain. In August 2018, weevil samples were collected from rice crops in the towns of L'Ampolla, Amposta and Sant Carles de la Ràpita during entomological field studies in the Ebro Delta in Catalonia (Northeastern Spain). In addition, the presence of *L. oryzophilus* was confirmed by DNA metabarcoding from bat faecal samples collected from the *Pipistrellus pygmaeus* bat roost in the Ebro Delta. The authors underline the potential of insectivorous bats as natural samplers to allow detection of (and possibly control) pest species in crops.

Source: Montauban C, Mas M, Wangensteen OS, Sarto i Monteys V, Fornós DG, Mola XF, López-Baucells A (2021) Bats as natural samplers: First record of the invasive pest

rice water weevil *Lissorhoptrus oryzophilus* in the Iberian Peninsula. *Crop Protection* **141**, 105427.

Pictures: *Lissorhoptrus oryzophilus*. https://gd.eppo.int/taxon/LISSOR/photos

Additional key words: new record **Computer codes:** LISSOR, ES

2021/153 Update of the situation of *Scirtothrips dorsalis* in Turkey

Scirtothrips dorsalis (Thysanoptera: Thripidae – EPPO A2 List) was reported for the first time in Turkey from *Vaccinium myrtillus* in 2020 in Adana province (EPPO RS 2021/131). The NPPO of Turkey recently provided more details on this record to the EPPO Secretariat. *S. dorsalis* was recorded in blueberry seedlings grown in a greenhouse for adaptation studies in October 2020. Insecticides were applied in the infested site and further inspections did not detect the pest. *S. dorsalis* is now considered eradicated from this site. Surveys were conducted in the area around this site from October 2020 to June 2021, both by the researcher who first identified the thrips and the regional plant protection service and no other *S. dorsalis* specimens were found. It is considered that the pest may have been introduced with imported plant material. There is no other blueberry production area in Adana Province.

The pest status of *Scirtothrips dorsalis* in Turkey is officially declared as: **Absent, pest eradicated.**

Source: NPPO of Turkey (2021-07).

Additional key words: incursion, absence **Computer codes:** SCITDO, TR

2021/154 *Agrilus planipennis* in Russia approaching the borders of the European Union and Kazakhstan

In European Russia, recent reports have shown that *Agrilus planipennis* (Coleoptera: Buprestidae – EPPO A2 List) continues to spread. The Northwestern limit of the core invaded range (i.e. around the Moscow region) corresponds approximately to the city of Tver (EPPO RS 2021/103), although an isolated outbreak has recently been found in Saint-Petersburg (EPPO RS 2021/009).

Other surveys have been conducted in European Russia in 2019-2020 and confirmed the presence of *A. planipennis* outside its core invaded range:

1) towards the northwest in Saint-Petersburg, thus approaching the European Union territory.
2) towards the south in the Lower Volga Basin, in Volgograd city and Astrakhan province, thus approaching Kazakhstan.

In Saint-Petersburg city, *A. planipennis* was found in several locations (Martyshkino, Lomonosov, Staryi Peterhof), mainly on *Fraxinus pennsylvanica* and on a few *F. excelsior*. Affected trees showed crown dieback, larval galleries and exit holes. In Volgograd city, *A. planipennis* was found on *F. pennsylvanica* planted along the roads. Dead and declining trees were observed, as well as signs of the insect. In Astrakhan province, a dead specimen of *A. planipennis* was found in the Nikolskoe village in one *F. pennsylvanica* tree which presented larval galleries and exit holes. It is noted that the infested sites in Saint-Petersburg and in the Lower Volga Basin are distant from the core invaded range by 470 and 370 km,

respectively. During these surveys, *A. planipennis* was **not** found in the regions along the Middle Volga Basin (Mari El, Chuvash and Tatarstan republics, Nizhny Novgorod, Samara and Saratov provinces).

Finally, observations were made in a forest stand of *F. excelsior* (Kokinskij Forest) in the Moscow province. This forest stand (10.6 ha) was composed of several thousand *F. excelsior* trees, approximately 60 years old. Observations confirmed that almost all trees were severely damaged by *A. planipennis*. Inspections of several hundred trees confirmed that all of them presented larval galleries and exit holes of *A. planipennis*. It was also observed that *F. pennsylvanica* trees planted along a nearby roadside were severely damaged by the insect. These observations confirm that under certain conditions, *A. planipennis* can seriously damage *F. excelsior*.

In European Russia, *A. planipennis* is now known to occur in the following 18 provinces: Astrakhan, Belgorod, Bryansk, Kaluga, Kursk, Lipetsk, Moscow, Orel, Ryazan, Smolensk, St. Petersburg, Tambov, Tula, Tver, Vladimir, Volgograd, Voronezh, and Yaroslavl.

Source: Volkovitsh MG, Bieńkowski AO, Orlova-Bienkowskaja MJ (2021) Emerald ash borer approaches the borders of the European Union and Kazakhstan and is confirmed to infest European ash. *Forests* **12**, 691. https://doi.org/10.3390/f12060691

Pictures: *Agrilus planipennis*. https://gd.eppo.int/taxon/AGRLPL/photos

Additional key words: detailed record **Computer codes:** AGRLPL, RU

2021/155 First report of *Monochamus alternatus* in Denmark

The NPPO of Denmark recently informed the EPPO Secretariat of the first finding of *Monochamus alternatus* (Coleoptera: Cerambycidae – EPPO A1 List, vector of *Bursaphelenchus xylophilus*) on its territory. Three adults and two larvae were detected on wood packaging material from China by an importer in the municipality of Favrskov. The importer informed the NPPO in June 2021 and the identity of the pest was officially confirmed. No pine wood nematodes (*B. xylophilus)* were detected in the beetles. The NPPO will monitor future consignments. The wood packaging material was marked with the ISPM 15 stamp.

The pest status of *Monochamus alternatus* in Denmark is officially declared as: **Transient, actionable, under eradication.**

Source: NPPO of Denmark (2021-06).

Additional key words: new record **Computer codes:** MONCAL, DK

2021/156 Alien species of Scolytinae and Platypodinae introduced or intercepted in France

A recent review provides an annotated list of 22 alien species of bark and ambrosia beetles (Coleoptera: Curculionidae, Scolytinae and Platypodinae) that have been introduced or intercepted in France since the beginning of the 19th century. In addition to them, an unidentified species resembling *Amasa truncata* has also been recorded. These species were

discovered during various research projects, as well as during official surveillance programmes. This review paper provides details about the native range of the pests, their host plants and situation in France. The EPPO Secretariat has summarized some of the information in the table below.

Species	Native to	1st record	Situation in France	Hosts
Scolytinae				
Amasa sp. near *truncata*	Australia	2018	Established. French Riviera (Antibes, Cannes)	Presumably *Eucalyptus*
Coccotrypes dactyliperda	Unknown (cosmopolitan)	Before 1949	Established. Mediterranean region	Seeds of palm trees
Cyclorhipidion bodoanum	Asia	1960	Established. Widespread	Broadleaved trees (mainly *Quercus*)
Cyclorhipidion distinguendum	Asia	2013	Established. Rare (Alps)	Broadleaved trees (Fagaceae)
Cryphalus dilutus	India	2017	Established. French Riviera (Ramatuelle, Saint-Tropez)	Broadleaved trees (*Ficus* spp.)
Dactylotrypes longicollis	Canary Islands (ES)	1940	Established. Mediterranean region, invasive	Seeds of palm trees
Dryocoetes himalayensis	India	1975	Established. Rare and sporadic	Broadleaved trees (*Juglans* spp.)
Gnathotrichus materiarius	USA (Northeastern)	1933	Established. Widespread	Conifers (mainly *Pinus*)
Hypothenemus eruditus	Unknown (cosmopolitan)	Before 1949	Established. Southern France	Broadleaved trees (mainly *Ficus* spp.)
Liparthrum mandibulare	Canary Islands (ES)	2015	Established. Locally abundant. Côte d'Armor (Brittany)	Broadleaved trees and shrubs
Phloeosinus rudis	Asia	1940	Not established. Not recorded since 1945	Cupressaceae
Phloeotribus liminaris	USA (Eastern)	2007	Not established. Intercepted on *Prunus serotina* in Gironde.	*Prunus serotina*
Xyleborus affinis	Unknown (pantropical)	2016	Not established. intercepted in the harbour of La Rochelle	Caught in traps
Xyleborus bispinatus	Americas	2017	Established. French Riviera (Nice)	Broadleaved trees
Xyleborus ferrugineus	Americas	2016	Not established. Intercepted in the harbour of La Rochelle	Caught in a trap
Xyleborus pfeilii	Asia	19th century	Established. Very rare.	Broadleaved trees
Xylosandrus compactus (formerly EPPO Alert List)	Asia	2015	Established. Southeastern France (Alpes-Maritimes, Var). Locally abundant.	Broadleaved trees
Xylosandrus crassiusculus (formerly EPPO Alert List)	Asia	2013	Established. Southern France. Locally abundant.	Broadleaved trees
Xylosandrus germanus	Asia	1984	Established. Widespread	Broadleaved trees
Xylosandrus morigerus	Asia	1897	Not established. Found in greenhouses on orchids in Marseille. Not recorded since the 19th century.	Orchids
Xyloterinus politus	North America	2017	Established. Northwestern France (from Le Havre to Rouen). Rare.	Broadleaved trees (in particular *Acer campestre*)
Platypodinae				
Euplatypus hintzi	Africa	2012	Not established. Intercepted in the harbours of La Rochelle and Sète.	Caught in traps
Euplatypus parallelus	Americas	2012	Not established. Intercepted in the harbour of La Rochelle	Caught in traps

Source: Barnouin T, Soldati F, Roques A, Faccoli M, Kirkendall LR, Mouttet R, Daubree JB, Noblecourt T (2020) Bark beetles and pinhole borers recently or newly introduced to France (Coleoptera: Curculionidae, Scolytinae and Platypodinae). *Zootaxa* **4877**(1), 51-74. https://www.mapress.com/j/zt/

Additional key words: new record, detailed record

Computer codes: COCODA, CRYHSC, CYCRFU, DACPLO, DRYOHI, EPLTHI, GNAHMA, HYOTEU, LPRTMA, PHLBLI, PHLSRD, PLTPPA, XYLBAF, XYLBBI, XYLBCA, XYLBCR, XYLBFE, XYLBGE, XYLBPF, XYLSCO, XYLSMO, XYORPO, FR

2021/157 Invasive alien wood borers: trapping studies in France

A survey programme on invasive alien wood borers has been carried out France in 2020. Traps of different colours and baited with a mixture of 8 pheromones to attract a wide range of insects have been placed in several sites: 8 points of entry (harbours, airports, nurseries, large markets), 11 forestry sites covering 7 different forest areas, 11 sites with a special focus on possible incursions of *Aromia bungii* and *Xylosandrus* spp. (9 in Southeastern France and 2 in Corsica). In total 94 insect species (6000 specimens), including the following alien species have been caught.

Alien species	Family/subfamily	Specimen number	Comments
Amasa truncata	Scolytinae	7	Harbour of Fos sur Mer
Cordylomera spinicornis	Cerambycidae	5	Harbour of Sète (caught near infested lots of imported tropical wood)
Euplatypus hintzii	Platypodinae	16	Harbour of La Rochelle (not established)
Euplatypus parallelus	Platypodinae	7	Harbour of La Rochelle (not established)
Phoracantha recurva (formerly EPPO Alert List)	Cerambycidae	1	-
Phoracantha semipunctata (formerly EPPO A2 List)	Cerambycidae	3	-
Rhynchophorus ferrugineus (EPPO A2 List)	Dryophthoridae	4	-
Trichoferus campestris (EPPO A2 List)	Cerambycidae	2	Harbour of Huningue
Xylosandrus compactus (formerly EPPO Alert List)	Scolytinae	109	Caught in 3 sites in Southeastern France (spreading) and caught for the first time in Corsica
Xylosandrus crassiusculus (formerly EPPO Alert List)	Scolytinae	123	Caught in 5 sites in Southeastern France (spreading)
Xylosandrus germanus	Scolytinae	96	
Xylotrechus chinensis (EPPO Alert List)	Cerambycidae	3	Caught near the harbour of Sète and established on ornamental *Morus* sp. in the city
Xylotrechus stebbingi	Cerambycidae	813	Caught in the Paris region (Rungis international market, nursery in Montesson), harbours of Fos sur Mer and Sète, several sites in Southeastern France and for the first time in Corsica

It is noted that *Amasa truncata* was first detected in 2018 in Antibes and is now probably established in eucalyptus plantations in Southeastern France. *Aromia bungii* was not caught

during this survey. Surveys will continue in 2021 with two additional pheromones and including more points of entry.

Source: Roques A, Bernard A, Courtin C, Denux O, Roques O, Auger-Rozenberg MA (2021) Bilan des piégeages 2020 dans les ports d'entrée et en forets avec le mélange générique attractif pour les xylophages exotiques envahissants. Rapport INRAE URZF Orléans, 13 pp.

Additional key words: detailed record, interceptions

Computer codes: CRDMSN, EPLTHI, HESOCA, PHOARE, PHOASE, PLTPPA, RHYCFE, XYLBCR, XYLBGE, XYLBTR, XYLOCH, XYLOST, XYLSCO, FR

2021/158 *Euplatypus parallelus*: addition to the EPPO Alert List

Why: *Euplatypus parallelus* (Coleoptera: Curculionidae: Platypodinae) is an ambrosia beetle which has been reported to cause tree mortality. It is absent from the EPPO region, but it has been intercepted in trade. Considering the wide host range of *E. parallelus*, its invasive behaviour in Asia, and the fact that *E. parallelus* might be associated with pathogenic fungi and tree mortality, the EPPO Panel on Phytosanitary Measures suggested to add it to the EPPO Alert List.

Where: *E. parallelus* is native to Central and South America, and has been introduced into Africa, Asia, and Oceania, probably with trade of timber. In Asia, it was first recorded in the 1970s in Sri Lanka and has since been reported in a large part of the continent, most recently in India (2012) and China (first on the island of Hainan in 2016 and Yunnan in 2019).
EPPO region: Absent.
Africa: Angola, Cameroon, Chad, Congo, Cote d'Ivoire, Equatorial Guinea, Gabon, Ghana, Guinea, Kenya, Madagascar, Nigeria, Sao Tome & Principe, Senegal, Seychelles, Sierra Leone, South Africa, Tanzania, Togo, Uganda, Zaire.
Asia: Bangladesh, Brunei Darussalam, Cambodia, China (Hainan, Yunnan), India (Goa, Karnataka, Kerala), Indonesia (Irian Jaya, Java, Sulawesi, Sumatra), Laos, Malaysia (Sabah, Sarawak, West), Philippines, Saudi Arabia, Singapore, Sri Lanka, Taiwan, Thailand.
North America: Mexico, USA (California, Florida, Hawaii, Texas).
Central America and Caribbean: Bahamas, Belize, Costa Rica, Cuba, Dominican Republic, El Salvador, Grenada, Guadeloupe, Guatemala, Haiti, Honduras, Jamaica, Martinique, Montserrat, Nicaragua, Panama, Puerto Rico, Saint Lucia, St Kitts-Nevis.
South America: Argentina, Bolivia, Brazil (Acre, Amazonas, Mato Grosso do Sul, Minas Gerais, Para, Sao Paulo), Chile, Colombia, Ecuador (Galapagos), French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela.
Oceania: Australia (Queensland), Papua New Guinea.

On which plants: *E. parallelus* is a highly polyphagous species with no apparent preference for particular plant families. Its host range covers a large number of tropical and subtropical woody plants, such as: *Acacia* spp., *Anacardium occidentale* (cashew nut), *Areca catechu* (betel nut palm), *Cocos nucifera* (coconut), *Eucalyptus* spp., *Ficus* spp., *Hevea brasiliensis* (rubber tree), *Khaya senegalensis* (African mahogany), *Mangifera indica* (mango), *Persea americana* (avocado), *Pinus oocarpa, Tectona grandis* (teak). For a more complete list of hosts see https://gd.eppo.int/taxon/PLTPPA/hosts

Damage: Damage is caused by adults boring galleries that may extend deeply into the wood, and by pathogenic fungi that are associated with the insect. External signs of attack are

pinholes (entrance holes) on trunks and branches which are usually associated with frass and 'toothpicks' (compacted frass expelled from entrance holes), accumulation of frass at the base of the trunk, wilting, fallen leaves and eventually tree mortality. The internal walls of the galleries are stained a dark colour, due to the action of the symbiotic fungal species carried by the insect, some of which being possibly pathogenic to plants (e.g. *Fusarium* spp.). *E. parallelus* tends to attack trees that recently died or that are dying (stressed by various factors), but can also attack living trees that are apparently healthy. In India, serious infestations have been observed on healthy *Areca catechu* palms in Karnataka and Kerala, and mortality of rubber trees has been observed in Kerala. Tree mortality has also been observed on *Pterocarpus indicus* planted as shade trees along roads in Indonesia, as well as on *Dalbergia sissoo* in Bangladesh although in this latter case the exact role of *E. parallelus* could not be ascertained. Impacts relate to decrease in the value of the wood following attacks on live trees or recently felled wood, decrease of production in fruit trees, and may cause tree mortality.
There is limited information about the biology of the insect, but observations have been made on the life cycle of *E. parallelus* on rubber trees in Brazil. It was observed that males bored the initial gallery and were then joined by a single female (*E. parallelus* is a monogynous species) which continued to bore the gallery system. Eggs are laid in batches in the galleries. Larvae are apodous and when mature they construct their own pupal chambers. After pupation, adults emerge through the original entrance hole. Within a single gallery system, it was also observed that larvae at different stages, pupae and adults were present simultaneously (overlapping generations). Adult beetles are yellowish-brown and 3.8-4.5 mm in length.
Pictures can be viewed on the Internet: https://www.barkbeetles.info/index.php

Dissemination: No detailed information is available about the natural spread of *E. parallelus*, but adult beetles can move from tree to tree. In the EPPO region, this insect has been intercepted on several occasions on wood packaging material from India, wood of *Entandrophragma cylindricum* from Congo, logs of *Tetraberlina bifoliata* from Cameroon, and beetles have been caught in traps in the harbour of La Rochelle (FR).

Pathways: Wood, wood packaging material, plants for planting of hosts of *E. parallelus* from countries where the pest occurs.

Possible risks: Most of the currently known host plants of *E. parallelus* are tropical and subtropical species which are not widely grown in the EPPO region. However, some of them are grown in the southern part of the region (e.g. *Eucalyptus* spp., *Persea americana*) or grown for ornamental purposes. Similarly, the potential for establishment under the climatic conditions of the EPPO region would need to be further studied. Control of *E. parallelus* is difficult because of the hidden life of this wood boring insect, and few natural enemies have been described. More information would also be needed on the symbiotic fungi that are associated with *E. parallelus*, as these are usually key in the potential impact of species. More details about the potential risks associated with *E. parallelus* can be found in the EPPO Study on the risk of bark and ambrosia beetles associated with imported non-coniferous wood. Although there is high uncertainty about the potential of establishment and economic impact of *E. parallelus* in the EPPO region, particular attention should be paid to these ambrosia beetles which have the capacity to attack apparently healthy trees and cause mortality under certain circumstances.

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EPPO RS 2021/158

Panel review date –

Entry date 2021-07

Additional key words: Alert List

Computer codes: PLTPPA

2021/159 First report of tomato brown rugose fruit virus in Austria

The NPPO of Austria recently informed the EPPO Secretariat of the first detection of tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO A2 List) on its territory. The virus was detected in a greenhouse producing tomato fruit (*Solanum lycopersicum*) at the end of June 2021 in the municipality of Münchendorf (Niederösterreich). Symptoms (elongated narrow leaves with slight mosaic pattern and occasionally rugose symptoms) were observed but were not severe. Eradication measures are taken and include the destruction of all plants, fruits, and growing medium (rock wool), as well as thorough cleaning and disinfection of containers, storage facilities, devices, machines, vehicles and other objects.

The pest status of tomato brown rugose fruit virus in Austria is officially declared as: **Present, under eradication.**

Source: NPPO of Austria (2021-07).

Pictures: tomato brown rugose fruit virus. https://gd.eppo.int/taxon/TOBRFV/photos

Additional key words: new record **Computer codes:** TOBRFV, AT

2021/160 First report and eradication of lettuce infectious yellows virus in Spain

The NPPO of Spain recently informed the EPPO Secretariat of the first finding of lettuce infectious yellows virus (*Crinivirus*, LIYV – EPPO A1 List) on its territory. This is the first record of this virus in the EPPO region.
The virus was first detected in a greenhouse located in the municipality of Urduliz, Vizcaya province, in the Autonomous Region of País Vasco. In January 2021, batavia lettuce plants (*Lactuca sativa*) grown hydroponically in a cold tunnel showed symptoms of a possible viral infection: poor development, bunchy aspect, variegation, light green mosaic and chlorosis mainly of the outer leaves. Samples were taken and the identity of the virus was confirmed in March 2021 by the National Reference Laboratory. In the meantime, the grower had destroyed the infected plants, and replanted lettuces at the end of January. The lettuces were harvested at the end of March and showed no symptoms. Two more cycles of production were carried out (planted in April and in June) and no symptoms were observed. The insect vector (*Bemisia tabaci*) has never been detected in the crops. In the absence of symptoms during three crop cycles and absence of the vector, the outbreak is considered as eradicated.

The pest status of lettuce infectious yellows virus in Spain is officially declared as: **Absent, pest eradicated.**

Source: NPPO of Spain (2021-04, 2021-07).

Pictures: lettuce infectious yellows virus. https://gd.eppo.int/taxon/LIYV00/photos

Additional key words: new record, eradication **Computer codes:** LIYV00, ES

2021/161 First report of Coconut lethal yellowing phytoplasma and its vector *Haplaxius crudus* in Guadeloupe

In June 2021, the phytoplasma associated with palm lethal yellowing (Coconut lethal yellowing phytoplasma - EPPO A1 List) was reported for the first time from Guadeloupe. The disease was observed in a private property in Sainte-Anne (Grande-Terre). It is also noted that the insect vector, *Haplaxius crudus* (Hemiptera: Cixiidae – EPPO A1 List) had been detected on the island in Basse-Terre in 2013. In Guadeloupe, affected palm trees were *Washingtonia robusta* and *Cocos nucifera*. Eradication measures have been put into place.

The situation of Coconut lethal yellowing phytoplasma in Guadeloupe can be described as follows: **Present: not widely distributed and under eradication**.

Source: Direction de l'alimentation de l'agriculture et de la forêt (2021-06-07) Première détection du phytoplasme responsable du jaunissement mortel du palmier en Guadeloupe. https://daaf.guadeloupe.agriculture.gouv.fr/Premiere-detection-du-phytoplasme

Pictures: *Coconut lethal yellowing phytoplasma*. https://gd.eppo.int/taxon/PHYP56/photos

Additional key words: new record **Computer codes:** MYNDCR, PHYP56, GD

2021/162 *Paulownia tomentosa* in the EPPO region: addition to the EPPO Alert List

Why
The EPPO Panel on Invasive Alien Plants suggested that *Paulownia tomentosa* (Paulowniaceae) could be included on the EPPO Alert List with the aim of gathering additional information on the occurrence of the species in the EPPO region. Additionally, the Panel is seeking information on its impacts, both economic and ecological from across its non-native range.

Geographical distribution

Africa: South Africa.
Asia: China (native) (Anhui, Gansu, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Liaoning, Shaanxi, Shanxi, Sichuan), Korean peninsula (native), Japan.
EPPO region: Austria, Belgium, Czech Republic, France (including Corsica), Germany, Hungary, Italy (including Sardinia and Sicily), Slovenia, Switzerland, United Kingdom.
North America: Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Hawaii, Louisiana, Maryland, Mississippi, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, Washington, West Virginia.
Oceania: New Zealand.

Morphology

Tree up to 20 m tall; crown broad, umbelliform.

Bark: brown-grey. Twigs conspicuously lenticellate, viscid glandular when young.

Leaf blade cordate, approximately 40 cm, abaxially densely to sparsely hairy, adaxially sparsely hairy, apex acute.

Inflorescence: thyrses pyramidal to narrowly conical, up to 50 cm long; cymes 3- or 4-flowered; peduncle 1-2 cm, nearly as long as pedicels.

Flowers: calyx shallowly campanulate, ca. 1.5 cm, outside tomentose; lobes up to 1/2 or more calyx length, ovate-oblong. Corolla purple, funnelform-campanulate, 5-7.5 cm, ridged ventrally, outside glandular, inside glabrous; limb ca. 4.5 cm in diam. Stamens up to 2.5 cm. Ovary ovoid, glandular. Style shorter than stamens. Flowering April-May.

Capsule: ovoid, 3-4.5 cm, densely viscid-glandular hairy; pericarp ca. 1 mm; persistent calyx lobes flat.

Seeds: 2.5-4 mm including wing.

Biology and Ecology
Paulownia tomentosa is a deciduous fast growing tree species which produces thousands of seed capsules containing up to 2 000 small light winged seeds each, which can be easily transported by wind and water over large distances. Seeds can survive in the seed bank for 2 – 3 years. *P. tomentosa* can also reproduce from root sprouts.

Habitats
Paulownia tomentosa is a pioneer species and can colonize disturbed urban habitats in the EPPO region. It is recorded growing in crevices between paving stones, xerophytic ruderal vegetation, wall crevices and railway habitats. *Paulownia tomentosa* prefers areas with good

light and mineral soils with adequate moisture for germination and establishment. In North America, the species has been shown to invade more natural habitats for example forests and forest margins where there is some level of disturbance.

Pathways for movement
Paulownia tomentosa is a commonly planted tree species in cities and urban parks due to its floristic elegance. Due to the fast growth rate of *P. tomentosa*, and other *Paulownia* species and possible hybrids, this group is being assessed for utilisation for timber or biomass production in plantations and agroforestry systems, which could become more important in the future.

Impacts
Information on ecological and economic impact are sparce. Management of the species in urban areas (e.g. railway embankments) can incur economic costs. In North America, the species is considered to be moderately invasive and can have negative impacts on native plants communities in the eastern United States.

Control
Physical and or mechanical control can be effective at controlling *P. tomentosa*. Mature trees can be cut at ground level before the onset of flowering. Because *P. tomentosa* spreads by suckering, root sprouts are common after treatment, and additional control methods, such as repeated cutting for sprouts or herbicidal control to prevent sprouting, may be required.

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Pictures *Paulownia tomentosa*. https://gd.eppo.int/taxon/PAZTO/photos

Additional key words: invasive alien plant, alert list **Computer codes:** PAZTO

2021/163 First report of *Cyperus eragrostis* in Tunisia

Cyperus eragrostis (Cyperaceae) is native to the Americas and is reported for the first time in the natural environment from Tunisia. In the EPPO region, *C. eragrostis* has been present since the mid-1800s where the species was first recorded in Hamburg (Germany). Since then, the species has been recorded in a number of EPPO countries where between 1850 and 2000, the number of new records has steadily increased. Habitats where the species occurs include riverbanks, estuaries, roadsides or rail tracks, and wet meadows. During 2016, surveys were

conducted around water bodies within the Kroumiria region, Northwest Tunisia. An unknown species was discovered and erroneously identified as *C. flavescens*, a species native to Tunisia. However, further field surveys in the same area in 2017/18, and 2020 confirmed the presence of *C. eragrostis*. The species grows along the banks of the river Bouhertma. Here *C. eragrostis* is well established and is part of the summer floristic vegetation of tributaries to the dam of Bouhertma. In continental North Africa, the exact mode of introduction of *C. eragrostis* is unknown. The species is a relatively recent introduction, only known from a few localities in Morocco.

Source: El Mokni R, Verloove F (2021) First appointment of the invasive *Cyperus eragrostis* (Cyperaceae) as an established species in Tunisia. *Flora Mediterranea* **31**, 83-88.

Additional key words: new record, invasive alien plant **Computer codes:** CYPER, TN

2021/164 Using mowing as a management tool for *Solidago gigantea*

Solidago gigantea (Asteraceae: EPPO List of Invasive Alien Plants) is a rhizomatous perennial herb native to North America and widely distributed in the EPPO region. The species can have negative impacts on biological diversity and ecosystem services. In the current study, competition between the native *Tanacetum vulgare* and *S. gigantea* was assessed under different management regimes. Seeds of both species were collected from Hungarian populations and planted in fifty 50 x 50 cm plots within a mesic meadow in May 2010. Half of the plots contained *S. gigantea* alone and half of the plots contained both *T. vulgare* and *S. gigantea*. Following planting, the plots were allowed to grow and interact with the native vegetation for two years without any intervention. Competition between the two species, mowing frequency and the duration of management was assessed in a full factorial design experiment. Mowing was simulated with a hand clipper in June 2012 and 2013 by cutting individual plants 5-10 cm above the soil surface and removing the biomass. *T. vulgare* was shown to supress *S. gigantea* by 79 % in the absence of management. Mowing reduced the density of *S. gigantea* by 80-98 % in the absence of *T. vulgare*. When *T. vulgare* was present, moving did not reduce the density of *S. gigantea*, in fact the density of the non-native species was increased. It is not clear why the effect of *T. vulgare* changes from competition, in the absence of disturbance, to facilitation with management associated disturbance. Studies have shown that *T. vulgare* can create plant soil feedback that benefits *S. gigantea*. Therefore, mowing may reduce aboveground competition, but positive effects belowground remain unchanged. The results indicate that consideration should be given to the plant community when management is undertaken to control invasive alien plants.

Source: Nagy DU, Rauschert ESJ, Callaway RM, Henn T, Filep R, Pal RW (2021) Intense mowing management suppresses invader, but shifts competitive resistance by a native to facilitation. *Restoration Ecology*. https://doi.org/10.1111/rec.13483

Pictures *Solidago gigantea*. https://gd.eppo.int/taxon/SOOGI/photos

Additional key words: invasive alien plant **Computer codes:** CHYVU, SOOGI, HU

2021/165 Alien flora in a boreal region of European Russia

Kostroma Oblast is in the central part of European Russia, between 57°160' and 59°370' latitude and between 40°230' and 47°380' longitude and is located mostly in the Upper Volga River basin. Approximately 70 % of the region is covered with coniferous and secondary mixed forest and the region has a temperate continental climate. An assessment of the alien vascular plants in the Kostroma Oblast region was conducted using a dataset of literature published from 1866-2000 and field observations made between 2011-2020. Among the 1 200 vascular taxa listed for this region, 330 are neophytes, including 125 casual and 172 naturalized species, with 21 species considered invasive (Table 1). 33 casual species previously recorded for the region are no longer found. Naturalized alien plants made up approximately 14% of the vascular flora of Kostroma Oblast. *Elodea canadensis*, *Erigeron canadensis*, *Heracleum pubescens*, *Lupinus polyphyllus*, and *Matricaria discoidea* are the most widely distributed invasive species across the region.

Table 1. Twenty-one invasive plant taxa considered invasive in Kostroma Oblast (RU) (* = species on the EPPO List of Invasive Alien Plants and ** = species on the EPPO Observation List).

Species/Taxa	Family	Form
Acer negundo	Sapindaceae	tree
*Amelanchier spicata**	Rosaceae	shrub
Aronia × mitschurinii	Rosaceae	shrub
*Bidens frondosa***	Bidens frondosa	annual
Echinocystis lobata	Cucurbitaceae	annual
Elodea canadensis	Hydrocharitaceae	aquatic
Epilobium ciliatum subsp. adenocaulon	Onagraceae	perennial
Epilobium pseudorubescens	Onagraceae	perennial
Erigeron annuus	Asteraceae	annual, biennial
Erigeron canadensis	Asteraceae	annual
Heracleum pubescens	Apiaceae	biennial, perennial
Hippophae rhamnoides	Elaeagnaceae	shrub
Impatiens parviflora	Balsaminaceae	annual
Juncus tenuis	Juncaceae	perennial
*Lupinus polyphyllus**	Fabaceae	perennial
Matricaria discoidea	Asteraceae	annual
Sambucus racemosa	Adoxaceae	shrub
Schedonorus arundinaceus	Poaceae	perennial
*Solidago canadensis**	Asteraceae	perennial
Symphyotrichum x *salignum*	Asteraceae	perennial
Zizania latifolia	Poaceae	perennial

Source: Leostrin A, Pergl J (2021) Alien flora in a boreal region of European Russia: an example of Kostroma oblast. *Biological Invasions*. https://doi.org/10.1007/s10530-021-02589-2

Additional key words: invasive alien plants

Computer codes: ACRNE, AMESP, BIDFR, ECNLO, ELDCA, EPIPS, ERIAN, ERICA, HERPU, HIORH, IPAPA, IUNTE, LUPPO, MATMT, SAMRA, FESAR, SOOCA, ZMYSA, ZIZLA, RU