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21 Bld Richard Lenoir
75011 Paris

Tel: 33 1 45 20 77 94
Fax: 33 1 70 76 65 47

E-mail: hq@eppo.int
Web: www.eppo.int

2017/129 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**

Cydalima perspectalis (Lepidoptera: Crambidae – formerly EPPO Alert List) was first found in Crimea in 2015, and in Transcarpathia (near Velyka Dobron, West Ukraine) in 2016 (Nagy *et al*., 2017). **Present, only in some areas.**

Scirtothrips dorsalis (Thysanoptera: Thripidae – EPPO A2 List) has been found in Spain. The presence of the pest has been confirmed in 45 plots in the comarca of Vega Baja (Comunidad Valenciana). Eradication measures have been taken (Anonymous, 2017).
Present: only in some areas (Comunidad Valenciana), under eradication.

Singhiella simplex (Hemiptera: Aleyrodidae – EPPO Alert List) is reported for the first time from France. This whitefly was identified in 2017 in one lot of *Ficus* plants cultivated in a glasshouse near Paris. In this short note, it is also recalled that *S. simplex* was collected at the end of 2012 from Guadeloupe. As *S. simplex* does not attack *F. carica* (fig tree), its establishment in mainland France seems unlikely. Finally, in the sample collected from *Ficus* plants in mainland France, another whitefly *Parabemisia myricae* (formerly EPPO A2 List) was found in smaller numbers (Germain *et al*., 2017). **Present, only in some areas.**

In 2017, the presence of *Sternochetus mangiferae* (Coleoptera: Curculionidae – EPPO A1 List) was reported for the first time from Brazil. Insect specimens were found in mangoes collected from a tree planted in a residential area in the state of Rio de Janeiro (Silva and Ricalde, 2017). **Present, first specimens were found in 1 tree in the state of Rio de Janeiro.**

Tetranychus evansi (Acari: Tetranychidae – EPPO A2 List) is reported for the first time from Turkey. It was collected on black nightshade (*Solanum nigrum*) in the Eastern Mediterranean region (Kazak *et al*., 2017). **Present: only in some areas (Eastern Mediterranean region).**

During studies conducted in June/July 2012, '*Candidatus* Phytoplasma ulmi' associated with elm yellows (EPPO A1 List, initially listed as 'Elm phloem necrosis', a disease observed in North America) was found to be widespread across elm populations in Croatia, infecting *Ulmus laevis* and *U. minor*. In these studies, more than half of the infected *U. laevis* trees did not express any symptoms at the time of sampling (Katanić *et al*., 2016). **Present: widespread.**

- **Detailed records**

In the USA, *Ditylenchus dipsaci* (EPPO A2 List) is reported for the first time in New Mexico. The nematode was found in samples of garlic (*Allium sativum*) presenting symptoms. Surveys will be conducted in New Mexico to determine the extent of the infestation (French *et al*., 2017).

In France, *Phytophthora ramorum* has been observed for the first time on *Larix kaempferi* (Japanese larch). In May 2017, the pathogen was detected in Finistère on a *L. kaempferi* stand of approximately 50 years old. Infected trees will be destroyed (Internet, 2017).

In the USA, *Rose rosette virus* (*Emaravirus,* RRV – EPPO Alert List) associated with rose rosette disease is reported for the first time in Minnesota. RRV was detected (RT-PCR) in *Rosa* hybrids (Bratsch *et al*., 2017).

Recent genome-wide analysis of a group of 27 isolates of *Xylella fastidiosa* (EPPO A1 List) have provided evidence that the emergent *Xylella fastidiosa* genotype found in Italy is most closely related to isolates from Central America. These results support the hypothesis of a South American origin of the *X. fastidiosa* subsp. *pauca* strain CodiRO which is currently causing disease in olive trees in Southern Italy (Giampetruzzi *et al*., 2017).

Studies have been carried out to investigate the possible origins of the European *Lecanosticta acicola* (EPPO A2 List) populations. Results strongly suggest that at least two introductions of *L. acicola* have occurred from North America into Europe in the past, most likely as a consequence of human activities and movements of infected plants (Janoušek *et al*., 2016).

Studies were conducted in Southern Finland from 2011 to 2013 in carrot (*Daucus carota*) fields to determine the frequency and occurrence of *'Candidatus* Liberibacter solanacearum' (the potato haplotypes are listed in the EPPO A1 List). The bacterium was detected in 6 out of 7 regions where the main carrot cultivation areas are located. The highest disease incidence was found in the area where the disease was originally found (Southwestern Finland). In the regions Tavastia Proper and Southwestern Finland, the bacterium was found in 26 out of the 30 randomly studied fields. In approximately a third of these fields, 10% of the plants were symptomatic. In this area, 60% of the collected specimens of the vector *Trioza apicalis* (carrot psyllid) tested positive for the bacterium. The disease incidence was variable in South Ostrobothnia (Western Finland) and low in South Savonia (Eastern Finland). In these studies, only '*Ca*. L. solanacearum' haplotype C was identified (Haapalainen *et al*., 2017).

- **Eradication**

In March 2015, *Ceratitis capitata* (Diptera: Tephritidae – EPPO A2 List) was detected in the Dominican Republic near the international airport of Punta Cana. Eradication measures, including the release of sterile males were taken. In July 2017, the Minister of Agriculture officially declared the eradication of the pest from the Dominican Republic (Internet, 2017).

- **Host plants**

Studies have been conducted in China on potential hosts of *Pseudomonas syringae* pv. *actinidiae* (EPPO A2 List). The bacterium was detected in the following three wild or weed plant species which were growing under or nearby infected plants of kiwifruit (*Actinidia* spp.): *Alternanthera philoxeroides, Paulownia tomentosa* and *Setaria viridis*. Leaves of these plants were showing necrotic spots resembling those caused by *P. syringae* pv. *actinidiae* on kiwifruit (Liu *et al*., 2016).

In China, '*Candidatus* Phytoplasma solani' (EPPO A2 List) was detected in *Salvia miltiorrhiza* fields in the Shaanxi province during studies carried out in 2014/2015. Affected plants showed leaf reddening. In China, *S. miltiorrhiza* is cultivated for medicinal purposes (Yang *et al*., 2016).

During studies carried out on commercially available Apiaceae seeds, *'Candidatus* Liberibacter solanacearum' (the potato haplotypes are listed in EPPO A1 List) was detected

in parsley seeds (*Petroselinum crispum*). Both D and E haplotypes were found in parsley seeds. Various cultivars of parsley from different seed sources were tested and all gave positive results, thus suggesting that parsley could be a major host of '*Ca*. L. solanacearum'. However, the lack of reported disease problems with parsley also suggests that symptoms are probably not obvious in this plant (Monger and Jeffries, 2016).

- **Epidemiology**

The natural spread of *Dothistroma septosporum* (EU Annexes) has been studied in Southern England (GB) using plant traps. The fungus was considered to be primarily dispersed by rain splash over relatively short distances but this study has shown that it could be dispersed over several hundreds of metres from an inoculum source. A maximum dispersal distance of more than 1400 m (i.e. 1436 m) has been recorded in these studies (Mullet *et al.*, 2016).

- **Quarantine treatments**

Experiments conducted in South Africa have shown that cold treatments at 0.8°C for 20 days and at -0.6°C for 18 days were effective against *Thaumatotibia leucotreta* (Lepidoptera: Tortricidae – EPPO A2 List) in table grapes (*Vitis vinifera* cv. Redglobe). The authors concluded that these cold treatments could be recommended in international trade (Ware & du Toit, 2016).

- **New pests and taxonomy**

Two new moth species, *Thaumetopoea hellenica* sp. n. and *Thaumetopoea mediterranea* sp. n. (Lepidoptera: Notodontidae) have been described from Southern Europe. Adults of these new species were caught in traps which had been placed in 4 urban and recreational places during a research project about *Thaumetopoea* spp. in Southern Europe. *T. hellenica* was found in 2 localities in Greece: Magnessia (Thessaly) and Kifissia, Ktima Syggrou (Athens). During these studies, larvae were observed feeding on *Pinus halepensis*. Adults of *T. mediterranea* were caught in Trapani on the Island of Pantelleria (Italy). Larvae were observed feeding on *Cedrus* spp. Both *T. hellenica* and *T. mediterranea* species are morphologically similar to *T. pityocampa*, although some differences can be observed (e.g. wing patterns, canthus shape, male genitalia). Genetic studies have revealed significant differences between these three taxa (Trematerra *et al.*, 2017).

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Additional key words: new record, detailed record, eradication, new host plant, quarantine treatment, new pest, taxonomy

Computer codes: ARGPLE, CERTCA, CRYPMA, DITYDI, DPHNPE, LIBEPS, LIBEPS, PHYPSO, PHYPUL, PHYTRA, PRABMY, PSDMAK, RRV000, SCIRAC, SCIRPI, SCITDO, SINLSI, TETREV, THAUHL, THAUME, XYLEFA, BR, CN, DO, ES, FI, FR, FR, GP, GR, HR, IT, TR, UA, US

2017/130 Eradication of *Trichoferus campestris* from Germany

In July 2016, *Trichoferus campestris* (Coleoptera: Cerambycidae - EPPO A1 List) was detected for the first time in Germany in a residential building in Wilhelmshaven (Lower Saxony – EPPO RS 2016/164). The beetles most probably had emerged from a wooden wreath used for decoration. In August 2016, a larva of *T. campestris* was identified in wooden decorative material in the apartment of a plant health inspector in Mecklenburg Western-Pomerania. In these two cases, the decorative material has been destroyed. The surroundings were surveyed and no other specimens were found. Considering the circumstances of these findings (indoors and on imported wooden decorative material), the German NPPO considers that the pest has now been eradicated.
The pest status of *Trichoferus campestris* in Germany is officially declared as: **Absent, eradicated.**

Source: NPPO of Germany (2017-06).

Additional key words: absence, eradication **Computer codes:** HESOCA, DE

2017/131 Update on the situation of *Agrilus planipennis* in Russia

In Russia prior to 2003, *Agrilus planipennis* (Coleoptera: Buprestidae - EPPO A1 List) was only known to occur in the Far East, in the Southern part of Primorskye Krai. In this part of Russia, it was considered to be a rare species, exclusively associated with weakened or dying Mandchurian and Chinese ash trees (*Fraxinus mandshurica* and *F. chinensis*, respectively). However, damage was first noticed in 2004 when *A. planipennis* appeared to be the main cause of dieback of *F. pennsylvanica* (green ash - North American species) planted along the streets of Vladivostok. These infested trees had stem diameters of 20-40 cm. In 2004, the insect was also found near the city of Khabarovsk. Detailed studies carried out in 2010 in the arboretum and city parks of Khabarovsk on dead *F. pennsylvanica* trees showed that they had been killed by *A. planipennis* during the preceding 5 to 10 years at the age of 28-35 years.

In European Russia, the first beetles were collected in June 2003 on the streets of Moscow. The identity of the pest was confirmed in 2005. Within the following years, the pest rapidly spread from Moscow in all directions (EPPO RS 2007/067, 2014/062). In the Moscow region, it seems that the insect population has been diminishing since 2015, but the reasons for this decline remain to be elucidaded. In summer 2016, the Northwestern limit of *A. planipennis* was close to Tver city. In this Northern direction, it is noted that the expansion of the pest has slowed down, possibly because of some limiting factors which remain to be identified (e.g. climate, activity of parasitoids). At the same time, *A. planipennis* continues to expand its range Southward. In the currently infested regions of European Russia, it is noted that ash trees are mainly planted in cities, along roads and highways, as well as in field-protecting tree belts. Native forest stands of *F. excelsior* are very rare and of limited size. In the European part of Russia, *A. planipennis* has been found in the following regions:
Southern European Russia: Voronezh.
Central European Russia: Kaluga, Moscow, Orel, Ryazan, Smolensk, Tambov, Tula, Tver, Vladimir, Yaroslavl.

In the Russian Far East, *A. planipennis* is naturally controlled by egg parasitoids belonging to the genus *Oobius* (Hymenoptera; Encyrtidae) and by 3 species of larval ectoparasitoids: *Tetrastichus planipennisi* (Hymenoptera: Eulophidae), *Atanycolus nigriventris* (Hymenoptera: Braconidae) and *Spathius galinae* (Hymenoptera: Braconidae). In the European part, it is noted that local parasitoids have recently started to infest *A. planipennis*, in particular *Spathius polonicus* which is causing 50% mortality in *A. planipennis* larvae in the Moscow region. Two other *Spathius* species, *S. exarator* and *S. rubidus*, have also been recorded as potentially useful parasitoids. So far, among these parasitoids, the most effective species seems to be *S. galinae*.

Source: Gninenko YI, Kliukin MS, Khegai IV (2016) Emerald ash borer: catastrophe postponed? *Plant Health Research and Practice* **3**(17), 42-45.
Musolin DL, Selikhovkin AV, Shabunin DA, Zviagintsev B, Baranchikov YN (2017) Between ash dieback and emerald ash borer: two Asian invaders in Russia and the future of ash in Europe. *Baltic Forestry* **23**(1), 316-333.
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Pictures: *Agrilus planipennis*. https://gd.eppo.int/taxon/AGRLPL/photos

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

2017/132 Genetic diversity among eight *Dendrolimus* species in Eurasia

The genetic diversity of 8 species of *Dendrolimus* present in Eurasia (*Dendrolimus houi, D. kikuchii, D. pini, D. punctatus, D. sibiricus* (EPPO A2 List), *D. spectabilis, D. superans* (EPPO A2 List), *D. tabulaeformis*) has been studied comparing the nucleotide sequences of COI and COII mitochondrial genes and ITS2 spacer of nuclear ribosomal genes. All known sequences deposited in GenBank for these *Dendrolimus* species were used, and in addition 112 sequences were determined for 28 specimens of *D. sibiricus, D. pini* and *D. superans* collected from 5 regions of Siberia and the Russian Far East. Results showed that 2 clusters of closely related species could be determined: 1) *D. pini, D. sibiricus* and *D. superans*; 2) *D. spectabilis, D. punctatus* and *D. tabulaeformis*. The two species, *D. houi* and *D. kikuchii* were found to be more distantly related to all other studied *Dendrolimus* species. According to the authors, this study supports the view that *D. sibiricus* and *D. superans* are distinct species which can be distinguished based on the phylogenetic analysis of ITS2 sequences. They also considered that *D. tabulaeformis* should be considered as a subspecies of *D. punctatus*. Some sequences from *D. kilmez* were also added in these studies and results suggested that *D. kilmez* should not be considered as a distinct species but corresponds to *D. pini*. Finally, some cases of integration of *D. sibiricus* mitochondrial DNA sequences into European populations of *D. pini* were noted, showing that hybridization between these two species is probably taking place in their overlapping range (in southern parts of Western and Eastern Siberia).

Source: Kononov A, Ustyantsev K, WangB, Mastro VC, Fet V, Blinov A, Baranchikov Y (2016) Genetic diversity among eight *Dendrolimus* species in Eurasia (Lepidoptera: Lasiocampidae) inferred from mitochondrial COI and COII, and nuclear ITS2 markers. *BMC Genetics* *17*(suppl. 3), 157 DOI: 10.1186/s12863-016-0463-5. https://bmcgenet.biomedcentral.com/articles/10.1186/s12863-016-0463-5

Pictures: *Dendrolimus sibiricus.* https://gd.eppo.int/taxon/DENDSI/photos

Additional key words: genetics

Computer codes: DENDHO, DENDKK, DENDPI, DENDPU, DENDSC DENDSI, DENDSU,

2017/133 *Xylella fastidiosa* detected in mainland Spain and update for Baleares

Xylella fastidiosa (EPPO A1 List) has been detected for the first time from mainland Spain. The presence of the bacterium was confirmed in June 2017 in one plot of almond trees in El Castell de Guadalest, near Alicante (Comunidad Valenciana). This plot of 0.47 ha was comprised of almond trees (*Prunus dulcis* cvs. Marcona and Guara) that were more than 30 years old. The grower had alerted the official services because he had noticed a reduction in almond production. A first analysis (RT-PCR) carried out in December 2016 on an asymptomatic sample had given negative results. Another asymptomatic sample was collected in May 2017 and gave positive results by RT-PCR (but negative by cPCR). This plot was inspected and symptoms resembling those of *X. fastidiosa* were observed on leaves. The identity of the bacterium was then confirmed by other serological and molecular tests. It noted that this almond plot is located in a region where the main crops are fruit trees: 2 800 ha of loquat (*Eriobotrya japonica*), 1 700 ha of olive (*Olea europaea*), 920 ha of citrus, and 393 ha of almond. In this area, insect vectors of *X. fastidiosa* have been monitored by using yellow traps with more than 1 160 trapping points. All tests carried out on caught specimens gave negative results for *X. fastidiosa*. The origin of this outbreak is unknown. Eradication measures (in accordance with EU Implementing Decision 2015/789) were implemented with a demarcated area of 10 km radius around the infected plot and the application of insecticide treatments against vectors of *X. fastidiosa*. It was also prohibited to move plants out of the 7 nurseries and garden centres which are located within this demarcated area.
In Islas Baleares, the NPPO declared in 2017-07-10 that *X. fastidiosa* has been detected in a total of 281 plants (172 in Mallorca, 73 in Ibiza, 36 in Menorca). In Mallorca, *X. fastidiosa* has been detected for the first time in 2 symptomatic *Ficus carica* in the municipalities of Sant Llorenç des Cardassar and Santa Eugenia. Both trees were growing in agricultural areas where weeds were also present.
The pest status of *Xylella fastidiosa* in Spain is officially declared as: **Present, under eradication.**

Source: NPPO of Spain (2017-06).

Pictures: *Xylella fastidiosa*. https://gd.eppo.int/taxon/XYLEFA/photos

Additional key words: detailed record **Computer codes:** XYLEFA, ES

2017/134 '*Candidatus* Liberibacter solanacearum' haplotype E detected on potatoes in Spain

In Spain, '*Candidatus* Liberibacter solanacearum'* haplotype E which was so far only recorded in Apiaceae, has been detected in potatoes (*Solanum tuberosum*). The bacterium was found in Cantabria in two potato stores in December 2016.

* Potato haplotypes (i.e. A, B) and their vector *Bactericera cockerelli* are included in the EPPO A1 List.

Source: INTERNET
Ministerio de Agricultura y Pesca Alimentación y Medio Ambiante. '*Candidatus* Liberibacter solanacearum' (CaLsol).
http://www.mapama.gob.es/es/agricultura/temas/sanidad-vegetal/candidatus_liberibacter_solanacearum/

Pictures: https://gd.eppo.int/taxon/LIBEPS/photos

Additional key words: detailed record **Computer codes:** LIBEPS, ES

2017/135 Eradication of Grapevine flavescence dorée phytoplasma from Germany

In 2014, Grapevine flavescence dorée phytoplasma (EPPO A2 List) was detected for the first time in Germany on grapevine (*Vitis vinifera* cv. Chardonnay/SO4) in Rheinland-Pfalz (EPPO RS 2014/202). One plant was found to be infected in a lot of 4 400 grafted plants. The rootstocks originated from Italy. The infested plant was destroyed and 600 plants of the lot were treated with hot water. The remaining plants were replanted and visually inspected in July and September 2015. No suspect symptoms were observed. In addition, it is noted that the phytoplasma was not detected again in the survey conducted in Rheinland-Pfalz and that the vector, *Scaphoideus titanus*, does not occur in Germany. The NPPO of Germany considers that the disease has been successfully eradicated.
The pest status of Grapevine flavescence dorée phytoplasma in Germany is officially declared as: **Absent, eradicated.**

Source: NPPO of Germany (2017-06).

Pictures: Flavescence dorée. https://gd.eppo.int/taxon/PHYP64/photos

Additional key words: absence, eradication **Computer codes:** PHYP64, DE

2017/136 First report of *Raffaelea lauricola* in Myanmar

Raffaelea lauricola (EPPO Alert List) is reported for the first time from Myanmar. During a survey for pests and diseases of avocado (*Persea americana*) conducted in October 2014, a wilt disease was observed in the Tuanggyi district on avocado orchards and in the Ywangan district on avocado trees used as shade plants in coffee (*Coffea arabica*) plantations. In both districts, symptoms were observed on *P. americana* and not on any other tree species. Affected trees showed sapwood discoloration, leaf necrosis and defoliation, and usually died within a month or two following the onset of symptoms. Laboratory analysis conducted in the USA under quarantine facilities (PCR, pathogenicity tests) confirmed the identity of the fungus. The insect vector, *Xyleborus glabratus* (Coleoptera: Scolytidae), is known to occur in Myanmar.
The situation of *Raffaelea lauricola* in Myanmar can be described as follows: **Present: only in some areas (Tuanggyi and Ywangan districts) on avocado.**

Source: Ploetz RC, Thant YY, Hughes MA, Dreaden TJ, Konkol JL, Kyaw AT, Smith JA, Harmon CL (2016) Laurel wilt, caused by *Raffaelea lauricola*, is detected for the first time outside the Southeastern United States. *Plant Disease* **100**(10), 2166-2167.

Additional key words: new record **Computer codes:** XYLBCR, MM

2017/137 *Phytophthora pseudosyringae* associated with a severe disease of *Nothofagus obliqua* in Chile

During the last 30 years, dieback, partial defoliation, and mortality of *Nothofagus obliqua* and *N. alpina* have been observed in Chile, between the Biobío and Los Lagos regions. Although the cause of this disease is unknown, symptoms observed resembled those caused by *Phytophthora* spp. on other tree species. Studies have been conducted in the Nahuelbuta coastal range (Biobío region) to determine *Phytophthora* species associated with dieback symptoms and mortality of *N. obliqua* trees. Samples (bark, wood, soil) were collected in March 2013 in a pure stand of *N. obliqua* trees which were showing partial defoliation and bleeding cankers. In this stand, approximately 10% of the trees were severely defoliated, with dead twigs and many trees displayed stem cankers. A *Phytophthora* species was isolated from stem cankers and soil samples, and all isolates were identified as *Phytophthora pseudosyringae*. In inoculation experiments, it was found that these isolates were also pathogenic to *N. alpina* and *N. dombeyi*. The similarity between the symptoms observed on *Nothofagus* spp. over the past 30 years in Southern Chilean regions and the symptoms observed on *N. obliqua* in the Nahuelbuta coastal range indicates that *Phytophthora* spp. have the potential to damage *Nothofagus* spp. It is concluded that more studies are needed to determine the extent and impact of *P. pseudosyringae* on *Nothofagus* spp. in Chilean forests.

Source: Fajardo SN, Valenzuela S, Dos Santos AF, González MP, Sanfuentes EA (2017) *Phytophthora pseudosyringae* associated with the mortality of *Nothofagus obliqua* in a pure stand in central-southern Chile. *Forest Pathology* e12361. https://doi.org/10.1111/efp.12361

Additional key words: detailed record **Computer codes:** PHYTPS, CL

2017/138 First reports of *Pseudodidymella fagi* and *Petrakia deviata* in Europe

Two unusual tree pathogens associated with leaf blotch symptoms have recently been reported for the first time in Europe. *Pseudodidymella fagi* has been found on *Fagus sylvatica* in Switzerland and Germany. Leaves of *F. sylvatica* showing brown to dark-brown necrotic leaf spots were observed for the first time near Zurich in 2008. Similar symptoms were then observed on numerous sites in Switzerland, as well as in several localities in Southern Germany, including one case on *F. orientalis* in the botanical garden of Munich. *Ps. fagi* was described in 1997 as a pathogen causing leaf blotch on *F. crenata* in Japan, and until these records in Europe, it was only known to occur in Japan. The pathogenicity of *Ps. fagi* was tested on *F. sylvatica* by inoculation on detached leaves in vitro and Koch's postulates were fulfilled. The other species which is reported in Europe for the first time is *Petrakia deviata* which causes a leaf blotch disease on *Acer campestre*. There was an old record from the central Caucasus region in 1929, but the fungus has never been found again there. In Switzerland, *P. deviata* was found in 2 locations on *A. campestre* and *A. platanoides*. It is noted that compared to *Ps. fagi, P. deviata* was rarely found and caused a rather weak infection, suggesting that it has probably only a minor impact on tree vigour. The identity of both fungus species has been confirmed by morphological and molecular methods. It is not known whether these two species have simply been overlooked, favoured by climate change, altered management practices, or represent newly introduced and invasive species. Finally, phylogenetic analyses have revealed a close relationship between *Ps. fagi* and *P. deviata*. In subsequent taxonomic studies, it has been proposed that both the genus *Petrakia* and the genus *Pseudodidymella* should be placed in a new family called Pseudodidymellaceae fam. nov.

Source: Gross A, Beenken L, Dubach V, Queloz V, Tanaka K, Hashimoto A, Holdenrieder O (2017) *Pseudodidymella fagi* and *Petrakia deviata*: two closely related tree pathogens new to central Europe. *Forest Pathology* 00:e12351. https://doi.org/10.1111/efp.12351

Hashimoto A, Matsumura M, Hirayama K, Fujimoto R, Tanaka K (2017) Pseudodidymellaceae fam. nov.: phylogenetic affiliations of mycopappus-like genera in Dothideomycetes. *Studies in Mycology* (in press). http://www.sciencedirect.com/science/article/pii/S0166061617300271

Additional key words: new record **Computer codes:** PTRKDE, PDIDFA, CH

2017/139 Update on the situation of *Neonectria neomacrospora* in the United Kingdom

In the United Kindgom, *Neonectria neomacrospora* (EPPO Alert List) has been sporadically reported in the 1950s-60s and in the 1990s. In those periods, the pathogen was known as *Nectria cucurbitula* or *Nectria macrospora*. Since the 1950s, *N. neomacrospora* has been recorded on *Abies cephalonica* in Argyll (Scotland) and *A. concolor* in Gloucestershire (England) associated with severe twig canker and dieback. This fungus was also recorded on *A. procera* in Wales in the 1990s where it caused extensive cankers and dieback. In 2015, *N. neomacrospora* re-emerged and was isolated from *A. kawakamii* in an arboretum and *A. alba* in a garden. Subsequently, the fungus was found in England and Wales in forest plantations (*A. procera*), gardens and arboreta on a wide range of *Abies* species: *A. alba, A. amabilis, A. balsamea, A. durangensis, A. fraseri, A. grandis, A. kawakamii, A. lasiocarpa, A. magnifica, A. procera, A. pinsapo, A. sibirica, A. vejarii*. For the moment, no findings have been made in Christmas tree plantations in the United Kingdom.

Source: INTERNET
Forest Research.
- *Neonectria* canker of *Abies*. https://www.forestry.gov.uk/fr/neonectria
- *Neonectria* canker of *Abies*. Pathology Advisory Note 16.
https://www.forestry.gov.uk/pdf/Path_Note_16_Neonectria.pdf/$file/Path_Note_16_Neonectria.pdf

Pictures: *Neonectria neomacrospora.* https://gd.eppo.int/taxon/NECTMA/photos

Additional key words: detailed record **Computer codes:** NECTMA, GB

2017/140 Update on the situation of *Hymenoscyphus fraxineus* in Russia and first report in Belarus

In the European part of Russia, *Hymenoscyphus fraxineus* (formerly EPPO Alert List) was found for the first time in 2011 in St Petersburg (Central European Russia). Apothecia of the fungus were detected in 2 botanical gardens (Dendrarium of the Saint Petersburg State Forestry Technical University - Botanical Institute of Russian Academy of Sciences) but at that time, no particular symptoms were observed on ash trees. In 2012, ash dieback symptoms were recorded in tree stands near St Petersburg (Dudergof Heights). On this site, numerous declining ash trees were observed, as well as some dead trees. In 2013, the disease was also detected in a State Nature Reserve 'The Northern Coast of the Neva River Bay' but

no tree mortality was observed on this site. In 2014, *H. fraxineus* was found during a survey of ash stands (dominated by *Fraxinus pennsylvanica*) planted along a major road (M1) going from the border of Russia with Belarus to Moscow. It is noted that by 2014 in Belarus more than 54% of ash stands had died most likely because of ash dieback (prior to this report the EPPO Secretariat had no data on the occurrence of the disease in Belarus). Observations have shown that *H. fraxineus* is widely distributed along this major road (M1) and that the disease has reached the city of Moscow. In the Russian Far East, *H. fraxineus* has been detected in green and fallen leaves of *F. mandshurica* in Primorye territory. However, no dieback symptoms have been observed on ash trees. It is hypothesized that the Russian Far East is a part of the fungus' native range. It is concluded that further studies are needed to better determine the distribution and impact of *H. fraxineus* in ash trees in Russian forests.

Source: Musolin DL, Selikhovkin AV, Shabunin DA, Zviagintsev B, Baranchikov YN (2017) Between ash dieback and emerald ash borer: two Asian invaders in Russia and the future of ash in Europe. *Baltic Forestry* **23**(1), 316-333.

Pictures: *Hymenoscyphus fraxineus*. https://gd.eppo.int/taxon/CHAAFR/photos

Additional key words: new record, detailed record **Computer codes:** CHAAFR, BY, RU

2017/141 Updating the list of invasive alien species of Union concern (European Union)

On the 14th July 2016, the European Commission published the Commission Implementing Regulation 2016/1141 which adopted a list of 37 invasive alien species of Union concern. In July 2017, a further 12 invasive alien species were added to the list, of which 8 species are invasive plant species (see table below). The list is at the centre of the Regulation (1143/2014), on the prevention and management of the introduction and spread of invasive alien species, which was adopted in September 2014 and came into force on the 1st January 2015. Before a species is included in the List of Union concern, a risk assessement should show the species has an adverse impact on biodiversity and ecosystem services along with other requirements from Article 5(1) of the Regulation. For each species on the list, Member States will need to implement the following measures: (1) prevention, (2) early detection and rapid eradication of new invasions, (3) management of invasions that are already widely spread.

Table 1. The eight invasive alien plant species included in the list of Union concern in 2017

Species	EPPO list	Native range
Alternanthera philoxeroides (Amaranthaceae)	EPPO A2	South America
Elodea nuttallii (Hydrocharitaceae)	Invasive Alien Plants	North America
Gunnera tinctoria (Gunneraceae)	Invasive Alien Plants	Asia
Heracleum mantegazzianum (Apiaceae)	Invasive Alien Plants	Caucasus region
Impatiens glandulifera (Balsaminaceae)	Invasive Alien Plants	Himalayas
Microstegium vimineum (Andropogonaeae)	EPPO A2	Asia
Myriophyllum heterophyllum (Haloragaceae)	EPPO A2	North America
Pennisetum setaceum (Poaceae)	Invasive Alien Plants	Africa

Source: COMMISSION IMPLEMENTING REGULATION (EU) 2017/1263 of 12 July 2017 updating the list of invasive alien species of Union concern established by Implementing Regulation (EU) 2016/1141 pursuant to Regulation (EU) No 1143/2014 of the European Parliament and of the Council http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.182.01.0037.01.ENG&toc=OJ:L:2017:182:TOC
European Commission website:
http://ec.europa.eu/environment/nature/invasivealien/
European Commission brochure
http://ec.europa.eu/environment/nature/pdf/IAS_brochure_species.pdf

Additional key words: invasive alien plants

Computer codes: ALRPH, ELDNU, GUATI, HERMZ, IPAGL MCGVI, MYPHE, PESSA

2017/142 *Acer rufinerve* in the EPPO region: addition to the EPPO Alert List

Why
Acer rufinerve (Sapindaceae) is a medium sized deciduous tree and is native to Japan. It is planted throughout the EPPO region in arboreta and green areas. Recent observations in three Belgian forests show the species has invasive tendencies where it outcompetes native plant species and reduces local biodiversity.

Geographical distribution
EPPO Region: Belgium (invasive), the Czech Republic, Denmark, Finland, France, Germany, Ireland, Lithuania, the Netherlands, Poland, Russia, Slovenia, Sweden, Switzerland, the United Kingdom.
Asia: Japan (native).
North America: Canada, USA (Arizona, California, Colorado, Delaware, Georgia, Idaho, Illinois, Kentucky, Maryland, Massachusetts, Michigan, Nebraska, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Virginia, Washington).
Oceania: Australia, New Zealand.

Morphology
A. rufinerve is a medium sized deciduous growing tree to a height of 15 – 20 m. The trunk is up to 40 cm in diameter and grey-green with narrow grey-white longitudinal stripes. Branches are green and new shoots are glaucous, with a bluish-grey bloom. Leaves are opposite, 8–15 cm long and wide, with either 3 or 5 shallow lobes. Flowers are in terminal 5-10 cm racemes with 10-20 flowers.

Biology and ecology
Throughout its native and introduced range, seed production is very high and dispersal can occur up to 50 m from the maternal plant facilitated by wind.

Habitats
A. rufinerve is an early successional light demanding forest species which occurs in forest edges, small gaps and the understory of acidic woodlands. The abundance of the species declines as the forest successional process proceeds. In its native range, *A. rufinerve* grows in the middle and upper parts of mountain forest slopes to an elevation of 2 500 m.

Pathways for movement
A. rufinerve was introduced widely into the EPPO region in the late 19th century as an ornamental tree species. The species was first introduced into Europe in 1880 where the first record was for a nursery in Denmark.

Impacts
The impact of *A. rufinerve* in Belgium forests is the first time the species has been reported as showing invasive behaviour in its introduced range. A few *A. rufinerve* trees were planted by foresters in a 300 ha forest of Bon-Secours near Mons (Belgium) between 1950 and 1970. Since, the species has colonised over 60 ha. Young saplings can form dense thickets and plant species richness of the herbaceous layer and regeneration of light demanding tree species are strongly reduced in these areas.

Control
Young plants (4 – 5 cm in diameter) have a shallow root system and individuals can be hand-pulled and removed. Hand pulling of larger stems is more difficult and could be replaced by cutting combined with chemical treatment of stumps to avoid sprouting. Where the species

is widespread, mechanical soil crushing up to a depth of 25 cm may be used but superficial mulching should be avoided because of the high re-sprouting capacity of the plant.

Source: Branquart E, Dupriez P, Vanderhoeven S, Landuyt Wvan, Rossum Fvan, Verloove F, (2011) Harmonia database: *Acer rufinerve* - red veined maple. Harmonia version 1.2., Belgium: Belgian Forum on Invasive Species. http://ias.biodiversity.be

Additional key words: invasive alien plants, alert list **Computer codes:** ACRRU, BE

2017/143 Reproductive capacity of the invasive tree *Ailanthus altissima*

Ailanthus altissima (Simaroubaceae: EPPO List of Invasive Alien Plants), commonly known as tree of heaven, is a small to medium sized tree (6 – 10 m in height) native to Asia. In the introduced range, habitats invaded by the tree include managed grasslands, natural grasslands, managed and natural forests, and riverbanks/canalsides. *A. altissima* establishes itself readily on artificially disturbed sites such as roadsides and ditches, particularly in the Mediterranean region, such as in Southern France. It is the most widespread woody invasive species invading forested areas in the USA, occurring wherever moisture allows. In the current study, 55 female seed-bearing trees were sampled at various locations along transportation corridors throughout south-central Pennsylvania (US) between 2011 and 2012. Trees were felled and the age of the tree was determined by sampling one cross section disk removed at breast height. Seeds were collected and taken to the laboratory. Existing data on seed production was combined with the novel dataset. The reproductive window of *A. altissima* is shown to be long spanning more than 100 years. Seed viability of a 104-year-old individual was 65 % and individuals can produce over 1-million seeds annually. Seeds are dispersed over long distances by wind and thus management should concentrate on controlling individuals before they are mature and produce viable seed.

Source: Wickert K, O'Neal ES, Davis DD, Kasson MT (2017) Seed production, viability, and reproductive limits of the invasive *Ailanthus altissima* (Tree-of-Heaven) within invaded environments. Forests, DOI: 10.3390/f8070226.

Additional key words: Invasive alien plants **Computer codes:** AILAL, FR, US

2017/144 18th European Weed Research Society international symposium (Ljubljana 2018/06/17-21)

The European Weed Research Society will hold the 18th International Symposium "New approaches for smarter weed management" in Ljubljana between 2018/06/17-21. The symposium aims to bring together representatives from research, academia, and industry to present and discuss the latest research in weed biology and weed management. Abstract submission is now open and presentations in the following areas are particularly welcome: weed biology; weed ecology; integrated weed management; herbicide resistance; new, smart approaches in weed management; and invasive plants. Further details for the symposium, including local arrangements and registration details will be provided at the dedicated symposium web site: www.ewrs2018.org.

Source: EWRS website: http://www.ewrs2018.org/call-for-abstracts/

Additional key words: conference, invasive alien plants **Computer codes:** SI