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2017/157 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 June 2017, *Aproceros leucopoda* (Hymenoptera: Argidae - zig-zag elm sawfly, formerly EPPO Alert List), was found for the first time in Switzerland, in the canton of Zurich (INTERNET, 2017). **Present: only in some areas (canton of Zurich).**

In Spain, *Grapevine Syrah virus 1* (*Marafivirus,* GSyV-1) was detected for the first time in May 2017 in 3 samples of grapevine (*Vitis vinifera*) collected from the municipalities of Capçanes, Bellmunt and Bot (all in the province of Tarragona, Cataluña). The virus was detected and identified by using molecular methods: NGS and conventional PCR (NPPO of Spain, 2017-06). According to Ruiz-García *et al*. (2017), GSyV-1 has been recorded in the Americas (Brazil, Chile, USA), Africa (South Africa) and in the EPPO region (Czech Republic, France, Italy, Hungary, Slovakia, Turkey). It is also noted that GSyV-1 has not been clearly associated with any plant disease.
The pest status of *Grapevine Syrah virus 1* in Spain is officially declared as: **Present, only in some parts of the Member State concerned.**

In August 2016, *Macrohomotoma gladiata* (Hemiptera: Homotomidae) was detected for the first time in Montenegro. The pest was found on ornamental *Ficus microcarpa* (potted plants) growing within a hotel complex in the urban area of Budva (Radonjić and Hrnčić, 2017). **Present: few occurrences (few potted plants in a hotel near Budva).**

In October 2016, *Macrohomotoma gladiata* (Hemiptera: Homotomidae) was detected for the first time in Malta. The pest was found on *Ficus atrocarpae* trees in the locality of Attard. The extent of the outbreak was severe in the affected area (NPPO of Malta, 2017-05). The pest status of *Macrohomotoma gladiata* in Malta is officially declared as: **Present, only in some parts of the Member State concerned.**

In Albania, a specimen of *Thaumastocoris peregrinus* (Hemiptera: Thaumastocoridae - formerly EPPO Alert List) was observed for the first time in December 2016 in Vlorë (van der Heyden, 2017). **Present: few occurrences (a single specimen found in Vlorë).**

- **Detailed records**

In Italy, *Aleurocanthus spiniferus* (Hemiptera: Aleyrodidae – EPPO A2 List) was first found in 2008 in Puglia region (EPPO RS 2008/092, 2010/147). In June 2017, *A. spiniferus* was found on 2 citrus plants (*Citrus limon* and *C. reticulata*) in the urban area of Salerno (Campania region). In July 2017, its presence was also confirmed in the municipality of Roma (Lazio region) in 5 sites. *A. spiniferus* was found in public and private gardens on *Citrus, Hedera helix* and *Rosa* (NPPO of Italy, 2017).
The pest status of *Aleurocanthus spiniferus* in Italy is officially declared as: **Present, only in some parts of the Member State concerned.**

In Spain, an outbreak of *Tomato spotted wilt virus* (*Tospovirus*, TSWV – EPPO A2 List) was found for the first time in Castilla y Leon in May 2017. TSWV was detected in tomato

(*Solanum lycopersicum*) plants in one nursery in the municipality of Valencia de Don Juan, province of León (NPPO of Spain, 2017-07).
The pest status of *Tomato spotted wilt virus* in Spain is officially declared as: **Present, only in some parts of the Member State concerned.**

In Romania, an outbreak of *Tomato spotted wilt virus* (*Tospovirus*, TSWV – EPPO A2 List) was found in June 2017. TSWV was detected in a tomato (*Solanum lycopersicum*) field (660 m²) located in the municipality of Oraşu Geoagiu (Hunedoara county). Phytosanitary measures were taken to eradicate the disease (NPPO of Romania, 2017-06).
The pest status of *Tomato spotted wilt virus* in Romania is officially declared as: **Present, only in some parts of the Member State concerned, under eradication.**

In Romania, an outbreak of *Clavibacter michiganensis* subsp*. michiganensis* (EPPO A2 List) was found in June 2017. The bacterium was detected in tomatoes (*Solanum lycopersicum*) grown in a glasshouse (800 m²) located in Bârcea Mare, Hunedoara county. It is suspected that the bacterium has been introduced into this glasshouse via infected tomato seeds whose origin could not be ascertained. Phytosanitary measures were taken to eradicate the disease.
The pest status of *Clavibacter michiganensis* subsp*. michiganensis* in Romania is officially declared as: **Present, only in some parts of the Member State concerned, under eradication.**

In Estonia, an outbreak of *Globodera rostochiensis* (EPPO A2 List) was found in June 2017 during an official survey. Live cysts were identified in 5 soil samples which had been collected from a seed potato (*Solanum tuberosum*) production site (2 ha) in the village of Paunküla (Harju county). The identity of the nematode was confirmed by morphological and molecular (PCR) methods. On the infested site, it will be prohibited to grow seed potatoes and only the production of ware potatoes of resistant varieties will be allowed and all equipment used will have to be disinfected. These measures will be applied until 2023 (NPPO of Estonia, 2017).
The pest status of *Globodera rostochiensis* in Estonia is officially declared as: **Present, under eradication.**

In Finland, an outbreak of *Globodera rostochiensis* (EPPO A2 List) was reported in February 2017. The nematode was identified in soil samples from a potato (*Solanum tuberosum*) field (1 ha) located in the municipality of Säkylä (Satakunta region). Phytosanitary measures are being implemented to eradicate the pest (NPPO of Finland, 2017).
The pest status of *Globodera rostochiensis* in Finland is officially declared as: **Present, under eradication.**

In Luxembourg, an outbreak of *Globodera rostochiensis* (EPPO A2 List) was reported in February 2017. The nematode was identified in soil samples from a potato (*Solanum tuberosum*) field (approximately 10 ha). Phytosanitary measures are being implemented to eradicate the pest (NPPO of Luxembourg, 2017).
The pest status of *Globodera rostochiensis* in Luxembourg is officially declared as: **Present, only in some parts of the Member State concerned.**

In Germany, *Thrips setosus* (Thysanoptera: Thripidae – EPPO Alert List) was first found in 2015 on *Hydrangea* plants grown for cut flower production near Hamburg. In 2016, further findings were made in Baden-Württemberg. In 2017, an outbreak was reported on *Hydrangea* pot plants in a greenhouse of a nursery in North Rhine Westphalia. All infested plants and those belonging to the same lot were immediately destroyed. The production site concerned was then surveyed but no further infestation was found.

The pest status of *Thrips setosus* in Germany is officially declared as: **Present, few occurrences, not confirmed by survey, only in some parts of the Member State concerned.**

In Romania, an outbreak of *Xanthomonas axonopodis* pv. *vesicatoria* (EPPO A2 List) was found in June 2017. The bacterium was detected in tomatoes (*Solanum lycopersicum*) grown in a glasshouse (400 m²) located in Brănişca, Hunedoara county. Phytosanitary measures were taken to eradicate the disease.
The pest status of *Xanthomonas axonopodis* pv. *vesicatoria* in Romania is officially declared as: **Present, only in some parts of the Member State concerned.**

- **Absence**

In March 2017, the NPPO of the Czech Republic had reported a suspected finding of *Xylella fastidiosa* (at that time EPPO A1 List but recently transferred to A2 List – see EPPO RS 2017/158) in a single plant of *Polygala myrtifolia* growing in a private house in the village of Husinec (EPPO RS 2017/084). This plant had been imported from Spain. Later, two plants of *Phoenix canariensis* imported from France were also suspected to be infected. However, confirmation tests were subsequently carried out by the laboratory in Bari (IT) and gave negative results.

Sources:

INTERNET
- Waldschutz Aktuell - 2/2017. Zickzack-Ulmenblattwespe erstmals in der Schweiz festgestellt. Swiss Federal Research Institute WSL (2017-08-24). http://www.wsl.ch/fe/walddynamik/waldschutz/wsinfo/wsaktuell/wsaktuell50d.pdf
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NPPO of Luxembourg (2017-02).
NPPO of Malta (2017-05).
NPPO of Romania (2017-06).
NPPO of Spain (2017-06, 2017-07).
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Radonjić S, Hrnčić S (2017) First record of the alien psyllid *Macrohomotoma gladiata* (Hemiptera Psylloidea Homotomidae) in Montenegro. *Redia* **100**, 77-80.
Ruiz-García AB, Sabaté J, Lloria O, Laviña A, Batlle A (2017) First report of Grapevine Syrah virus-1 in grapevine in Spain. *Plant Disease* https://doi.org/10.1094/PDIS-05-17-0700-PDN
Van der Heyden T (2017) The first record of *Thaumastocoris peregrinus* Carpintero & Dellapé, 2006 (Hemiptera: Heteroptera: Thaumastocoridae) for Albania. *Revista gaditana de Entomología* **8**(1), 133-135 (via PestLens).

Additional key words: new record, detailed record, denied record, absence

Computer codes: ALECSN, APRCLE, CORBMI, GSYV10, HETDRO, MAHOGL, THMCPE, THRISE, XANTAV, XYLEFA, AL, CH, CZ, DE, EE, ES, FI, IT, LU, ME, MT, RO

2017/158 New additions to the EPPO A1 and A2 Lists

In September 2017, the EPPO Council approved the addition of the following pests to the EPPO A1 and A2 Lists of pests recommended for regulation as quarantine pests.

Additions to the A1 List (pests absent from the EPPO region):
- *Bactrocera latifrons* (Diptera: Tephritidae),
- *Ceratothripoides brunneus* and *Ceratothripoides claratris* (Thysanoptera: Thripidae),
- *Prodiplosis longifila* (Diptera: Cecidomyiidae),
- *'Candidatus* Phytoplasma phoenicium' (Bacteria),
- *Ralstonia syzygii** (Bacteria).

Additions to the A2 List (pests locally present in the EPPO region):
- *Platynota stultana* (Lepidoptera: Tortricidae),
- *Meloidogyne mali* (Nematoda),
- *Citrus bark cracking viroid* (*Cocadviroid*),
- *Ralstonia pseudosolanacearum** (Bacteria),
- *Thekopsora minima* (Fungi),
- *Cardiospermum grandiflorum* (Sapindaceae),
- *Gymnocoronis spilanthoides* (Asteraceae),
- *Pistia stratiotes* (Araceae),
- *Salvinia molesta* (Salviniaceae).

Transfer from the A1 to the A2 List:
- *Xylella fastidiosa* (Bacteria).

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* Modification of pest listing following changes in taxonomy for *Ralstonia solanacearum.*

Source: EPPO Secretariat (2017-09).

Additional key words: EPPO Lists

Computer codes: CBCVD0, CRTZBR, CRTZCL, DACULA, GYNSP, MELGMA, PHYPPH, PIIST, PLAAST, PRDILO, RALSSO, SAVMO, THEKMI, XYLEFA

2017/159 Transfer of datasheets and short pest descriptions into EPPO Global Database

All EPPO datasheets and short pest descriptions have now been transferred into the EPPO Global Database. These documents include:
- Datasheets published in the book Quarantine Pests for Europe (1997)[1];
- EPPO datasheets published in the EPPO Bulletin since 1997;
- Short descriptions of pests which were formerly included in the EPPO Alert List;
- Short descriptions of pests which are included in the DROPSA[2] alert lists for apple, *Citrus* (orange and mandarin), *Vaccinium,* and *Vitis* fruit;
- Short descriptions of pests which are included in the EPPO Study on Pest Risks Associated with the Import of Tomato Fruit[3].

All datasheets and short descriptions can be retrieved by searching the database on a pest by pest basis, or by clickling on this link (explore by datasheets):
https://gd.eppo.int/datasheets/

1 CABI/EPPO (1997) Quarantine Pests for Europe. 2nd edition. CABI, Wallingford, UK, 1425 pp.
2 EU FP7 project DROPSA - Strategies to develop effective, innovative and practical approaches to protect major European fruit crops from pests and pathogens (grant agreement no. 613678).
3 EPPO (2015) EPPO Technical Document No. 1068, EPPO Study on Pest Risks Associated with the Import of Tomato Fruit. EPPO Paris [link]

Source: EPPO Secretariat (2017-09).

Additional key words: publications

2017/160 First report of *Popillia japonica* in Switzerland

In Switzerland, *Popillia japonica* (Coleoptera: Scarabaeidae - EPPO A2 List) was found for the first time in June 2017 in Ticino during an official survey. In 2017-07-21, the first 3 adult specimens were caught in a pheromone trap located near the border with Italy, and only a few kilometres away from the demarcated area of an outbreak detected in 2014 in Italy (Ticino Valley Natural Park, Lombardia and Piemonte regions). As of 2017-07-21, a total of 18 adult beetles were caught in this single trap and *P. japonica* has not been found in other sites so far. It is noted that the most probable source of this introduction results from the natural spread of the *P. japonica* population which is established in the Ticino Valley Natural Park in Italy. Phytosanitary measures have immediately been implemented and include the intensification of the surveillance programme in the region, an inventory of potential hotspots, the continuation of a public awareness raising campaign, and the circulation of pest-specific information to farmers and producers. In addition, a research project has been initiated by the federal agricultural research institute (Agroscope) to identify strains of entomopathogenic fungi which could be used against *P. japonica*.
The pest status of *Popillia japonica* in Switzerland is officially declared as: **Transient, the pest has not been detected outside of the specified pheromone trap on Swiss territory so far, actionable, under eradication**

Source: NPPO of Switzerland (2017-06).

Pictures: *Popillia japonica*. https://gd.eppo.int/taxon/POPIJA/photos

Additional key words: new record **Computer codes:** POPIJA, CH

2017/161 First report of *Tuta absoluta* in Kyrgyzstan

In Kyrgyzstan, tomato (*Solanum lycopersicum*) fruits severely damaged and infested by lepidopteran larvae were observed in October 2016 in a village near Bishkek. Tomato fruits were sold by growers on open markets. These initial observations triggered further surveys which were conducted in markets and tomato greenhouses. Results confirmed the presence of *Tuta absoluta* (Lepidoptera: Gelechiidae – EPPO A2 List) in several localities (Ak-Orgo, Kalys-Ordo, Kelechek-Dordoi, Kirg-Shelk, Leninskyi, Leshoz, Sokuluk). This is the first time that *T. absoluta* is reported from Kyrgyzstan. The authors noted that further studies are needed to determine the distribution of *T. absoluta* and its host plants in Kyrgyzstan.
The situation of *Tuta absoluta* in Kyrgyzstan can be described as follows: **Present, first found in 2016 in several localities.**

Source: Esenali Uulu T, Ulusoy MR, Çalışkan AF (2017) First record of tomato leafminer *Tuta absoluta* Meyrick (Lepidoptera: Gelechiidae) in Kyrgyzstan. *Bulletin OEPP/EPPO Bulletin* **47**(2), 10.1111/epp.12390

Pictures: *Tuta absoluta*. https://gd.eppo.int/taxon/GNORAB/photos

Additional key words: new record **Computer codes:** GNORAB, KG

2017/162 First report of *Lissorhoptrus oryzophilus* in Greece

In Greece, rice is cultivated in the region of Central Macedonia in the delta of Axios (Thessaloniki regional unit). During a surveillance programme on mosquitoes carried in July and August 2016 in rice fields of the Western part of Thessaloniki, 30 specimens of *Lissorhoptrus oryzophilus* (Coleoptera: Curculionidae, rice water weevil – formerly EPPO Alert List) were collected. The identity of the pest was confirmed by morphological and molecular methods. It can be recalled that in Europe, *L. oryzophilus* was first found in Italy in 2004 (EPPO RS 2005/005). Although *L. oryzophilus* is considered to be a major pest of rice in Asia and the Americas, no severe economic damage has been reported in Italy (EPPO RS 2015/073). Further studies will be carried out in Greece to determine the pest distribution and the possible sources of its introduction.

Source: Giantsis IA, Castells Sierra J, Chaskopoulou A (2017) The distribution of the invasive pest, rice water weevil *Lissorhoptrus oryzophilus* Kuschel (Coleoptera: Curculionidae), is expanding in Europe: First record in the Balkans, confirmed by CO1 DNA barcoding. *Phytoparasitica* **45**(2), 147-149.

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

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

2017/163 First report of *Epitrix cucumeris* in Spain

During official surveys on *Epitrix* spp. conducted in Spain, adults of *Epitrix* species were found in 2017-06-21. These specimens were collected from *Solanum nigrum* plants growing in the borders of a potato (*Solanum tuberosum*) field in the municipality of Jerez de la Frontera (province of Cádiz, Andalucía). The Plant Health Laboratory of Sevilla initially identified the specimens as *Epitrix cucumeris* (Coleoptera: Chrysomelidae - EPPO A2 List) and these results were then confirmed on a sample of 3 adults by the National Reference Laboratory on Arthropods. In 2017-06-23, all potato tubers of the nearby field were mechanically destroyed, remaining plant parts were buried, and field borders were treated with an insecticide.
The pest status of *Epitrix cucumeris* in Spain is officially declared as: **Present, under eradication.**

Source: NPPO of Spain (2017-07).

Pictures: *Epitrix* spp. https://gd.eppo.int/taxon/EPIXPP/photos

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

2017/164 Update on the situation of *Epitrix papa* in Spain

The presence of *Epitrix papa* (Coleoptera: Chrysomelidae - EPPO A2 List) in Spain was first recorded in 2009 in Galicia. At the time, the insect was identified as *E. similaris* due to complex taxonomic issues which were later resolved (EPPO RS 2011/078, 2014/068, 2015/203). In 2017, official surveys on *Epitrix* species were conducted and several new outbreaks of *E. papa* were detected. In all cases, official phytosanitary measures were taken to eradicate the pest.

- In May 2017, the presence of *E. papa* was confirmed in a potato (*Solanum tuberosum*) field in the municipality of Coria del Río (province of Sevilla, Andalucía). Only 1 larva and some symptomatic potato tubers were detected, suggesting that the pest population was low.
- In May 2017, *E. papa* was detected in *Solanum nigrum* plants growing in the borders of 4 potato fields, in the municipality of Torrox (province of Málaga, Andalucía). This was the first time that *E. papa* was found in the province of Málaga.
- In May 2017, adults of *E. papa* were collected on *S. nigrum* plants growing in the borders of a potato plot in the municipality of Jerez de la Frontera (province of Cádiz, Andalucía). The identity of the pest was confirmed in June 2017.
- In June 2017, *E. papa* was detected in 4 potato fields, located in the municipality of Coín (province of Málaga, Andalucía).

The pest status of *Epitrix papa* in Spain is officially declared as: **Present, under eradication, only in some parts of the Member State concerned.**

Source: NPPO of Spain (2017-05, 2017-07).

Pictures: *Epitrix* spp. https://gd.eppo.int/taxon/EPIXPP/photos

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

2017/165 *Epitrix papa* and *E. cucumeris* found in Alentejo, Portugal

During official surveys conducted in Portugal during 2017, suspicious symptoms of *Epitrix* spp. were detected in June 2017 in Alentejo, Southern Portugal. These symptoms caused by larvae of *Epitrix* spp. were observed in 3 potato (*Solanum tuberosum*) plots located in the municipality of Santa Susana (county of Alcácer do Sal), in the Alentejo region. Adult insects were collected on those plots and were identified as *Epitrix papa* and *E. cucumeris* (Coleoptera: Chrysomelidae – both EPPO A2 List).

The pest status of *Epitrix papa* and *E. cucumeris* in Portugal is officially declared as: **Present, only in some parts of the Member State concerned, under containment.**

Source: NPPO of Portugal (2017-06).

Pictures: *Epitrix papa*. https://gd.eppo.int/taxon/EPIXPP/photos

Additional key words: detailed record **Computer codes:** EPIXCU, EPIXPP, PT

2017/166 First report of *Diaphorina citri* in Kenya and in Zanzibar (TZ)

Following the recent report of *Diaphorina citri* (vector of '*Candidatus* Liberibacter asiaticus' - Hemiptera: Liviidae, EPPO A1 List) in Tanzania (EPPO RS 2016/111), a survey was carried out in East Africa, focusing on Kenya, mainland Tanzania and Zanzibar. From September 2015 to August 2016, 168 sites located at various altitudes were surveyed, including large commercial citrus orchards as well as small scale citrus plantations. In addition to *D. citri,* the occurrence of *Trioza erytreae* (vector of 'Candidatus Liberibacter africanus' - Hemiptera: Triozidae, EPPO A2 List) was also studied. Molecular tools (DNA barcoding) were used to confirm the identity of the collected psyllids. Results showed that nymphs and adults of either *D. citri* or *T. erytreae* were collected from citrus trees at many of the surveyed sites in Tanzania (at altitudes ranging from 19 to 668 m above sea level), in Kenya (20-1666 m asl), and in Zanzibar (42-48 m asl). It was observed that *D. citri* and *T. erytreae* were sympatric at medium and high altitudes (1375-1666 m asl), but that *T. erytreae* or its galls were no longer observed at low altitudes (below 523 asl). *T. erytreae* was not found in Zanzibar. In Kenya, a total of 20 adults and 60 nymphs of *D. citri* was collected from the following 6 sites: Msambweni, Lunga Lunga, Machanzuni (Kwale county); Karura forest (Nairobi county); Soin, Koitaburot (Kericho county). In Tanzania, *D. citri* was most prevalent in the Morogoro region, but was also found in other sites around Dar-Es-Salaam (Bagamoyo, Dar-Es-Salaam and Mkuranga districts). In Zanzibar, 6 adults and 21 nymphs of *D. citri* were found in 3 sites (Mahonda, Kitope and Selem Station, all on Unuguja island). This is the first time that *D. citri* is reported from Kenya and Zanzibar.

It is hypothetized that *D. citri* may have been blown by storms from Indian Ocean islands (e.g. Mauritius, La Réunion) into East Africa, resulting in multiple incursion points. Another possible source of introduction could be the movement of infested plants of *Murraya koenigii* from Asia. It is concluded that the arrival of *D. citri* in Eastern Africa represents a major threat to citrus production, in particular if '*Candidatus* Liberibacter asiaticus' became present in the region. It is recalled that this pathogen has been detected once in Ethiopia. It is considered that it is urgently needed to implement phytosanitary measures to prevent any further spread of *D. citri*, to establish insect-proof nurseries to produce huanglongbing-free citrus plants, to develop management strategy for the disease and its vectors, as well as to better understand the epidemiology of the *Liberibacter* spp. and their vectors in Africa.

Source: Rwomushana I, Khamis FM, Grout TG, Mohamed SA, Sétamou M, Borgemeister C, Heya HM, Tanga CM, Nderitu PW, Seguni ZS, Materu CL, Ekesi S (2017) Detection of *Diaphorina citri* Kuwayama (Hemiptera: Liviidae) in Kenya and potential implication for the spread of Huanglongbing disease in East Africa. *Biological Invasions* DOI 10.1007/s10530-017-1502-5

Pictures: *Diaphorina citri*. https://gd.eppo.int/taxon/DIAACI/photos

Additional key words: new record **Computer codes:** DIAACI, KE

2017/167 Update on the situation of *Trioza erytreae* in Portugal

In mainland Portugal, *Trioza erytreae* (Hemiptera: Triozidae – EPPO A2 List, vector of huanglongbing) was first found in the region of Porto in January 2015 (EPPO RS 2015/204). Subsequent official surveys (yellow sticky traps and observation of leaf galls) have shown that the pest currently occurs in a total of 36 municipalities (corresponding to a total of 178 parishes) in the Norte and Centro regions. A detailed map of demarcated areas can be viewed on the DGAV website. During these surveys, samples were also collected and tested for '*Candidatus* Liberibacter spp.' to verify the absence of huanglongbing. Phytosanitary measures have been taken to eradicate *T. erytreae*.
The pest status of *Trioza erytreae* in Portugal is officially declared as: **Present, under eradication.**

Source: NPPO of Portugal (2017-07).

INTERNET
DGAV website. *Trioza erytreae*. Mapa com atualização da zona demarcada e freguesias da zona demarcada. http://www.dgv.min-agricultura.pt/portal/page/portal/DGV/genericos?generico=4011097&cboui=4011097

Pictures: *Trioza erytreae*. https://gd.eppo.int/taxon/TRIZER/photos

Additional key words: detailed record **Computer codes:** TRIZER, PT

2017/168 Update on the situation of *Aromia bungii* in Italy

In Italy, *Aromia bungii* (Coleoptera: Cerambycidae - EPPO A1 List) was first found in September 2012 in urban areas between Napoli and Pozzuoli (Campania region) on plum (*Prunus domestica*) and apricot (*P. armeniaca*) trees. In August 2013, the pest was also found in the municipality of Sedriano emerging from the trunk of 1 peach (*P. persica*) tree which had been felled and stored as firewood. In all cases, eradication measures have been taken. During an official survey, *A. bungii* was found in March 2017 on several apricot and plum trees (252 trees) in the municipalities of Marigliano and Somma Vesuviana (both in the province of Napoli, Campania region), approximately 15 km outside the boundaries of the previously delimited infested area in Campania. As a result, the monitoring programme has been intensified in this area and eradication measures have been taken.
The pest status of *Aromia bungii* in Italy is officially declared as: **Present, under eradication.**

Source: NPPO of Italy (2017-04).

Pictures: *Aromia bungii*. https://gd.eppo.int/taxon/AROMBU/photos

Additional key words: detailed record **Computer codes:** AROMBU, IT

2017/169 First confirmed report of *Globodera rostochiensis* in Egypt

From 2012 to 2016, a survey on cyst nematodes was conducted in 3 Egyptian governorates (Alexandria, El-Behera and Sogha). During this survey, 178 soil and root samples were collected and studied in the laboratory. Results showed the presence of the following 9 cyst nematodes which were identified on the basis of their morphology:

- *Globodera rostochiensis* (EPPO A2 List) on *Solanum tuberosum* (potato)
- *Heterodera avenae* on *Triticum aestivum* (wheat)
- *H. daverti* on *Trifolium alexandrinum* (Egyptian clover)
- *H. goldeni* on *Panicum coloratum* (qasabagrass)
- *H. lespedezae* on *T. alexandrinum* (Egyptian clover) and *Lens esculenta* (lentil)
- *H. leuceilyma* on *Cynodon dactylon* (Bermuda grass)
- *H. schachtii* on *Brassica oleracea* var. *capitata* (cabbage) and *Beta vulgaris* (sugar beet)
- *H. trifolii* on *T. alexandrinum* (Egyptian clover)
- *H. zeae* (formerly EPPO Alert List) on *Zea mays* (maize) and *T. aestivum* (wheat)

G. rostochiensis was found in samples collected from El-Nobarria in the El-Behera governorate. There had been some unconfirmed reports of *G. rostochiensis* in the past, but these studies are the first confirmed report of this nematode in Egypt.
The situation of *Globodera rostochiensis* in Egypt can be described as follows: **Present, presence confirmed during surveys (2012-2016) in the El-Behera governorate.**

Source: Ibrahim IKA, Handoo ZA, Basyony ABA (2017) The cyst nematodes *Heterodera* and *Globodera* species in Egypt. *Pakistan Journal of Nematology* **35**(2), 151-154 via PestLens.

Pictures: *Globodera rostochiensis*. https://gd.eppo.int/taxon/HETDRO/photos

Additional key words: new record **Computer codes:** HETDRO, EG

2017/170 First report of '*Candidatus* Phytoplasma pyri' in Chile

At the beginning of autumn 2014, symptoms of pear decline were observed for the first time in Chile in one pear orchard located in Biobío region (Central zone of Chile). In this orchard which had been planted in 2012, 26 out of 1 120 trees (*Pyrus communis* cv. Williams grafted on quince BA29 rootstock) showed a significant decline with reddening of leaves and branch phloem necrosis. Samples were collected from 8 symptomatic plants and from 2 asymptomatic plants. Laboratory analysis (nested PCR, RFLP) confirmed the presence of '*Candidatus* Phytoplasma pyri' (EPPO A2 List) in symptomatic samples. This first report from Chile is also a first record for South America. A survey is being carried out in other commercial pear orchards and nurseries to study the distribution of '*Ca.* P. pyri' in Chile and determine its possible origin. Epidemiological studies are also under way to identify the possible presence of insect vectors, considering that *Cacopsylla pyri* and *C. pyricola* have never been found in Chile.
The situation of '*Candidatus* Phytoplasma pyri' in Chile can be described as follows: **Present, first found in 2014 in one pear orchard (Biobío region).**

Source: Facundo R, Quiroga N, Méndez P, Zamorano A, Fiore N (2017) First report of '*Candidatus* Phytoplasma pyri' on Pear in Chile. *Plant Disease* **101**(5), p 830.

Pictures: '*Candidatus* Phytoplasma pyri'. https://gd.eppo.int/taxon/PHYPPY/photos

Additional key words: new record **Computer codes:** PHYPPY, CL

2017/171 First report of '*Candidatus* Phytoplasma mali' and '*Ca*. P. pyri' in Belarus

A study on phytoplasmas of pome fruit was carried out in Belarus, as a number of pear trees showing early foliar reddening and premature defoliation had been observed. During autumn 2014 and spring 2015, root samples were collected from 27 apple (*Malus domestica*) and 58 pear (*Pyrus communis*) trees. Pear trees were growing in the collection orchard of the Institute for Fruit Growing (Samochvalovichi). Apple samples were collected from old trees growing in private orchards in the same area. Molecular tests (PCR, sequencing) showed that out of the 27 tested apple trees, 23 were found to be infected by '*Candidatus* Phytoplasma mali' (EPPO A2 List) and that out of the 58 tested pear trees, 46 were found to be infected by '*Candidatus* Phytoplasma pyri' (EPPO A2 List). These studies also revealed a high variability among phytoplasma strains, and the presence of several strains within the same tree. This is the first time that '*Candidatus* Phytoplasma mali' and '*Ca*. P. pyri' are reported from Belarus. It is noted that further studies would be needed to better understand the distribution of these phytoplasmas in Belarus and develop management strategies.
The situation of both *Candidatus* Phytoplasma mali' and '*Ca*. P. pyri' in Belarus can be described as follows: **Present, first recorded in 2014.**

Source: Valasevich N, Schneider B (2016) Detection, identification, and characterization of phytoplasmas infecting apple and pear trees in Belarus. *Plant Disease* **100**(11), 2275-2280.

Pictures: '*Candidatus* Phytoplasma mali'. https://gd.eppo.int/taxon/PHYPMA/photos
'*Candidatus* Phytoplasma pyri'. https://gd.eppo.int/taxon/PHYPPY/photos

Additional key words: new record **Computer codes:** PHYPPY, PHYPMA, BY

2017/172 *Ralstonia solanacearum* race 1detected on glasshouse roses in Portugal

In 2016-2017, 4 outbreaks of *Ralstonia solanacearum* (EPPO A2 List) on glasshouse roses (*Rosa* spp.) were reported from Portugal. These findings were made following the notification of outbreaks in Dutch propagation companies which had supplied *Rosa* plants for planting to Portugal (either directly or via Germany). It is noted that in all glasshouses concerned, no symptoms were observed on plants of *Rosa* spp. Laboratory tests were carried out according to Directive 2006/63/EC. In all cases, phytosanitary measures were taken to eradicate the disease and included the destruction of the affected lots and their associated growing media, as well as the disinfection of irrigation systems, tools and equipment.

- In December 2016, *R. solanacearum* race 1 was detected in a glasshouse (3250 m²) producing cut flowers of roses in the parish of Landim (county of Vila Nova de Famalicão, Norte region).
- In January 2017, *R. solanacearum* race 1 was detected in a glasshouse producing cut flowers of roses in the municipality of Viana do Castelo (Norte region). The infected glasshouse contained 663 Rosa plants of different cultivars: Deep Water (383); Green Gene (43), Jenny (64) and Jessica (173).
- In February 2017, *R. solanacearum* race 1 was detected in a glasshouse producing cut flowers of roses in the parish of Avessadas (Norte region). Out of a total of 3957 plants, it was noted that 3621 were infected.
- In April 2017, *R. solanacearum* race 1 was detected in a glasshouse producing cut flowers of roses (5000 plants) in the parish of Sarilhos Grandes, near Lisbon.

The pest status of *Ralstonia solanacearum* race 1 in Portugal is officially declared as: **Present, only in the greenhouses concerned, under eradication.**

Source: NPPO of Portugal (2017-01, 2017-02, 2017-03, 2017-06).

Pictures: *Ralstonia solanacearum*. https://gd.eppo.int/taxon/RALSSO/photos

Additional key words: detailed record **Computer codes:** RALSSO, PT

2017/173 *Clavibacter michiganensis* subsp*. michiganensis* detected in Portugal

In January 2017, *Clavibacter michiganensis* subsp*. michiganensis* (EPPO A2 List) was detected in tomato *(Solanum lycopersicum*) plants in Portugal. The affected plants were grown for fruit production in a greenhouse located in the municipality of Odemira, Alentejo region. In this greenhouse, only 2 plants were showing wilting symptoms. The identity of the bacterium was confirmed by laboratory tests. Phytosanitary measures were taken to eradicate the disease and included the destruction of all tomato plants of the affected row, including their growing medium and the 5 surrounding rows situated on each side of the infected one. The irrigation system and other tools used in the glasshouse were disinfected.
The pest status of *Clavibacter michiganensis* subsp*. michiganensis* in Portugal is officially declared as: **Present, only in the greenhouse concerned, under eradication.**

Source: NPPO of Portugal (2017-01).

Pictures: *C. michiganensis* subsp*. michiganensis*. https://gd.eppo.int/taxon/CORBMI/photos

Additional key words: detailed record **Computer codes:** CORBMI, PT

2017/174 Update on the situation of *Cryphonectria parasitica* in the United Kingdom

The NPPO of the United Kingdom recently informed the EPPO Secretariat of the detection of *Cryphonectria parasitica* (EPPO A2 List) in new areas in 2016 and 2017. All previous outbreaks (see EPPO RS 2012/048, 2013/214) had limited distributions and were eradicated or are currently under eradication.

Outer London

In June 2017, *C. parasitica* was found in Lesnes Abbey (outer London) during an official survey targeting another pathogen, *Phytophthora ramorum,* which was also present on the inspected site. The site of Lesnes Abbey is a local nature reserve and historic woodland (70 ha) comprised of approximately 75% *Castanea sativa* (sweet chestnut). The identity of the fungus was confirmed by laboratory analysis (morphology, PCR) of one collected sample. A survey within a radius of 5 km around the site of the initial outbreak, as recommended by the UK contingency plan, led to 4 other findings (all within 10 km of the first finding): 1 in planted street trees (heavily infected), and 3 in parkland trees. Evidence suggest that *C. parasitica* has been present in this area for at least 5 years. Delimiting surveys, including aerial surveillance are ongoing within 5 km of each site to determine the extent of the disease. It is considered that poor equipment hygiene during maintenance work and the fact that trees were stressed by the presence of other pathogens such as *P. ramorum*, have probably contributed to the spread of *C. parasitica* in the affected area.

Southwestern England (Devon and Dorset)

In total, there have been 6 findings of *C. parasitica* in South-western England: 5 in Devon and 1 in Dorset. In December 2016, *C. parasitica* was detected on a single sweet chestnut tree on the edge of an office car park in Devon. A 5 km survey around the site of the outbreak led to a second finding of the fungus in a mixed broadleaf woodland, with over 140 symptomatic trees identified. The most heavily affected sweet chestnut trees were those planted in 1995 and 2002, which were traced back to a single UK nursery. While records are no longer available, the nursery has indicated that at that time and until 2013, its chestnut trees had been provided by a sole distributor in the Netherlands. Then, tracing forward studies of trees supplied by the UK nursery in 1995 and 2002 identified 4 other sites (3 in Devon and 1 in Dorset) with trees infected with *C. parasitica*. Surveillance within 5 km has been completed for 5 of the 6 findings and no further symptoms of *C. parasitica* have been found. Phytosanitary measures are being implemented at all sites to contain and eradicate *C. parasitica.*

The pest status of *Cryphonectria parasitica* in the United Kingdom is officially declared as: **Present, only in some parts of the Member State concerned, under eradication.**

Source: NPPO of the United Kingdom (2017-03, 2017-07).

Pictures: *Cryphonectria parasitica.* https://gd.eppo.int/taxon/ENDOPA/photos

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

2017/175 Update on the situation of *Dothistroma septosporum* in Germany

The NPPO of Germany recently informed the EPPO Secretariat of the detection of *Dothistroma septosporum* (teleomorph: *Mycosphaerella pini* – EU Annexes) in new areas in 2016 (see also RS 2016/138) and in 2017.

- **Brandenburg:** In June 2016, *D. septosporum* was found on *Pinus nigra* trees in a forest of Brandenburg. These trees were planted approximately 15 years ago and it was estimated that 10 ha were affected. Official phytosanitary measures are being taken to contain the disease.
- **Hamburg:** In December 2016, *D. septosporum* was found for the first time in the Northern part of Hamburg on *Pinus mugo* planted in a hedge. Affected trees and fallen needles were removed and burnt. Further investigations are being carried out in the surroundings to delimit the extent of the infection.
- **Schleswig-Holstein:** In April 2016, *D. septosporum* was detected in symptomatic plants of *Pinus parviflora* (30 plants), *P. sylvestris* (50 plants) and *Pinus heldreichii* var. *leucodermis* (25 plants) which belonged to a landscaping company in Schleswig-Holstein. Further investigations are being carried out in the surroundings to delimit the extent of the infection.

The pest status of *Dothistroma septosporum* in Germany is officially declared as: **Present, only in some parts of the Member State concerned, under containment, in case eradication is impossible.**

Source: NPPO of Germany (2017-03, 2017-07).

Pictures: *Dothistroma septosporum.* https://gd.eppo.int/taxon/SCIRPI/photos

Additional key words: detailed record **Computer codes:** SCIRPI, DE

2017/176 *Venturia nashicola* is no longer present in France

In France, isolates of *Venturia nashicola* (EU Annexes) had been collected from several collections of nashi (*Pyrus pyrifolia* var. *culta*) in the 1990s (Le Cam *et al.*, 2001). At that time, nashi was considered as a potentially new crop for France. However, due to high production costs, this crop was not developed any further and collections were no longer maintained. In 2013, there was less than 4 ha of nashi recorded in France and there are currently no registered French producers of nashi plants for planting. The NPPO of France stated that as general surveillance has not detected *V. nashicola* again, this fungus should be considered as no longer present.
The pest status of *Venturia nashicola* in France is officially declared as: **Absent, pest no longer present.**

Source: Le Cam B, Devaux M, Parisi L (2001) Specific Polymerase Chain Reaction identification of *Venturia nashicola* using Internally Transcribed Spacer region in the ribosomal DNA. *Phytopathology* **91**, 900–904.

NPPO of France (2017-09).

Pictures: *Venturia nashicola*. https://gd.eppo.int/taxon/VENTNA/photos

Additional key words: absence, denied record **Computer codes:** VENTNA, FR

2017/177 Molecular ecology of three invasive *Heracleum* species in Europe

Heracleum mantegazzianum (EPPO List of Invasive Alien Plants), *H. persicum* and *H. sosnowskyi* (both EPPO A2 List) are three invasive species of hogweeds in the EPPO region. They were introduced in the 19th century as garden ornamentals and as fodder species in the middle of the 20th century. Population genetic structure and variation were studied used AFLP fingerprinting and the authors employed a biogeographical sampling approach on three scales: (i) continental, covering 16 countries in Europe, (ii) regional, covering three regions (the United Kingdom, Czech Republic and the Swiss Alps), and (iii) local, consisting of one river system in England. For *H. mantegazzianum,* sampling also covered approximately a half of its distribution area in the native range (Caucasus). Samples from the native area of *H. persicum* (Iran) and *H. sosnowskyi* (Caucasus) were also obtained. In total over 2 000 individuals from 180 populations were sampled. Preliminary results for *H. mantegazzianum* revealed a higher within-population variation in the native populations compared to invaded populations. The United Kingdom samples for *H. mantegazzianum* showed a higher among-population variation than those of the Czech and Swiss regions, possibly due to more isolated populations in UK. On the local scale, a limited genetic varability was detected along particular rivers, but stronger differentiation within the same catchment.

Source: Jahodova S, Pyšek P (2017) Molecular ecology of three invasive *Heracleum* species in Europe. Oral Presentation: Ecology and Management of Alien Plant Invasions (Lisbon, PT, 2017-09-04/08).

Pictures: *Heracleum mantegazzianum*. https://gd.eppo.int/taxon/HERMZ/photos
Heracleum sosnowskyi. https://gd.eppo.int/taxon/HERSO/photos

Additional key words: biological control, invasive alien plants **Computer codes:** HERMZ, HERPE, HERSO, CH, CZ, GB

2017/178 Testing the effectiveness of two biological control agents on *Carpobrotus edulis*

Carpobrotus edulis (EPPO List of Invasive Alien Plants) is native to South Africa and is a succulent species which invades temperate coastal areas around the world. The species has been shown to modify the abiotic environment and affect the composition, diversity and dynamics of native plant communities in different coastal habitats. Current control efforts to eradicate *C. edulis* using traditional methodologies, i.e. physical and chemical control, usually lack effectiveness and/or affect native plant species. To-date, biological control has not been applied against *C. edulis* in Europe. In a 6-month greenhouse experiment, two potential biological control agents the scale insect *Pulvinariella mesembryanthemi* (a highly specific insect feeding on the plant) and the fungus *Sclerotinia sclerotiorum* (a generalist pathogen native in Europe) – were tested to evaluate their effects on four native (South African) and four invasive (Iberian) populations. Five plants from each population were individually potted in a peat-sand mixture and assigned randomly to one of four treatments (control, fungus-inoculated, insect infested and fungus and insect-infested). Chlorophyll fluorescence and spectral reflectance parameters, as well as plant mortality, were recorded every month. Plants inoculated with the fungus showed significantly less photochemical efficiency and chlorophyll content than the control and insect-infested plants respectively, while plants infested with *P. mesembryanthemi* showed lower fluorescence yield and lower survival than control plants. The combination of both agents led to a higher chlorophyll degradation and to a lower survival than control plants.

Source: Vieites-Blanco C, Retuerto R, Lema M (2017) Testing the effectiveness of two biological control agents on the invasive plant *Carpobrotus edulis*. Oral Presentation: Ecology and Management of Alien Plant Invasions (Lisbon, PT, 2017-09-04/08).

Pictures: *Carpobrotus edulis*. https://gd.eppo.int/taxon/CBSED/photos

Additional key words: invasive alien plants **Computer codes:** CBSED, SCLESC

2017/179 The role of invasive alien species in shaping local livelihoods and human well-being

Invasive species are recognised drivers of social-ecological change. However, most research focuses on ecological impacts, whilst the role of invasive species in human well-being and livelihoods is less understood. However, understanding the benefits and costs of invasive species for livelihoods and human well-being is necessary for guiding policy and management. The authors present findings from several case studies and a recent literature review on the role of invasive species in livelihoods. From the review, almost half (45 %) of species studied had both positive and negative effects on local livelihoods (e.g. *Prosopis* species), with 38 % inducing mainly costs (e.g. *Chromolaena odorata*) and 18 % producing mainly benefits (e.g. *Opuntia ficus-indica*). Common benefits included the provision of firewood, fodder, timber and food products and to a lesser extent supporting and regulating services such as soil improvement and shade. Some also provided cultural services such as recreation and well being. However, in some cases invasive species also undermine livelihoods and increase vulnerability through encroaching land and reducing access, decreasing provisioning services and reducing agricultural production, all of which can result in losses that increase vulnerability in human communities. Furthermore, some invasive species have negative implications for human health and safety and reduce cultural values. Economic impacts on livelihoods were highly variable between sites and cases. The mean cost induced by invasive species was USD 532±894 per household per year in comparison to benefits of approximately USD 226±244 per household per year.

Source: Shackleton C, Kull C, Shackleton R (2017) The role of invasive alien species in shaping local livelihoods and human well-being. Oral Presentation: Ecology and Management of Alien Plant Invasions (Lisbon, PT, 2017-09-04/08).

Additional key words: biological control, invasive alien plants **Computer codes:** ACALO, PT

2017/180 European Alien Species Information Network (EASIN)

Sharing scientific information is crucial to address the growing threat of alien species. The European Alien Species Information Network (EASIN), launched in 2012 by the European Commission, is an online platform facilitating the exploration of existing information on alien species from distributed sources, supporting scientific assessments and the implementation of European policies on alien species (e.g. EU Regulation 1143/2014). EASIN records more than 14,000 alien species occurring in Europe, including all kinds of taxa and habitats. For each taxon listed, EASIN gathers information on taxonomy, year and country of first introduction in Europe, habitat, pathways, impact, synonyms and common names. EASIN also aggregates, integrates and harmonizes spatial occurrences of alien species in Europe, from a partnership of global and European databases and literature. The quality of the EASIN data is ensured by an Editorial Board, composed of experts on different taxonomic groups and

habitats, contributing to the continuous update and review of the EASIN Catalogue through a dedicated platform. All the information gathered in the EASIN is publicly available through a widget framework, providing free, easy to use and flexible web tools for tailored searching, analyzing and mapping, aiding scientists and policy makers in obtaining high quality information. These web tools follow internationally recognized standards and protocols, while ownership of the data remains with its source. The EASIN datasets have been used for pan-European assessments of pathways and gateways of alien invasions, to model scenarios for the spread of aquatic species (*Elodea nuttallii*) and recently for an updated inventory, distribution patterns and introduction trends of alien terrestrial plants in Europe (in preparation), contributing thus towards the fulfilment of the related targets of European policies. EASIN is also oriented to citizen science, and developed a Smartphone Application "Invasive Alien Species Europe" allowing citizens to report invasive alien species of Union Concern. EPPO is a partner of EASIN, along with a number of other organisations, supplying information on invasive species as appropriate.

Source: EASIN web site: https://easin.jrc.ec.europa.eu/

Gervasini E, Tsiamis K, Cardoso AC (2017) European Alien Species Information Network (EASIN): supporting scientific research & European policies Oral Presentation: Ecology and Management of Alien Plant Invasions (Lisbon, PT, 2017-09-04/08).

Additional key words: database, invasive alien plants

2017/181 LIFE project update

The LIFE project 'Mitigating the threat of invasive alien plants in the EU through pest risk analysis to support the EU Regulation 1143/2014' will have risk assessed 16 invasive alien plants upon its completion in June 2018. The final expert working group for the project will be held between 2017-10-16/20. During this meeting, six experts will evaluate the risks to the EPPO region from *Triadica sebifera* (Euphorbiaceae) and *Lespedeza sericea* (Fabaceae). *T. sebifera* commonly known as Chinese tallow is a medium sized tree native to Asia and introduced to North America, Africa and Australia. The species is currently absent from the wild in the EPPO region. *L. sericea* is native to Asia and has been introduced into North America where it was widely planted for erosion control. Again, *L. sericea* is absent from the EPPO region.

Source: EPPO Secretariat (2017-10).

Project website: http://www.iap-risk.eu

Additional key words: Invasive alien plants **Computer codes:** LESSE, SAQSE