ORGANISATION EUROPEENNE
ET MEDITERRANEENNE
POUR LA PROTECTION DES PLANTES

EUROPEAN AND MEDITERRANEAN
PLANT PROTECTION
ORGANIZATION

EPPO Reporting Service

NO. 10 PARIS, 2022-10

21 Bld Richard Lenoir
75011 Paris

Tel: 33 1 45 20 77 94
E-mail: hq@eppo.int

Web: www.eppo.int
GD: gd.eppo.int

2022/204 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 8.

- **New records**

In China in 2022, the potato cyst nematode, *Globodera rostochiensis* (EPPO A2 List) was detected for the first time in Sichuan and Yunnan provinces. Surveys conducted from 2018 to 2020 in Guizhou province also detected *Globodera rostochiensis* in potato fields (Peng *et al.*, 2022).

Xylosandrus crassiusculus (Coleoptera: Curculionidae: Scolytinae - formerly EPPO Alert List) is reported for the first time from Switzerland. Its presence was officially confirmed in the canton of Ticino in September 2022. It is noted that in the past, one specimen had been observed in 2013 and another one in 2019 also in Ticino (NPPO of Switzerland, 2022).

The pest status of *Xylosandrus crassiusculus* in Switzerland is officially declared as**: Present, only in some parts of the Member State concerned.**

- **Detailed records**

In Japan *Anoplophora glabripennis* (Coleoptera: Cerambycidae – EPPO A2 List) has been recorded in several prefectures in the island of Honshu: Hyogo (region of Kansai), Aichi and Toyama (region of Chubu), Saitama and Ibiraki (region of Kanto), Fukushima and Miyagi (region of Tohoku). The pest was also recorded on two new host plants: *Cercidiphyllum japonicum* and *Cerasus* × *yedoensis* (syn. *Prunus* × *yedoensis)*.

In the USA, *Gymnosporangium asiaticum* (EPPO A1 List) occurs in Oklahoma causing rust on pear trees (*Pyrus* spp.) (Olson, 2021).

In Canada, the cyst nematode *Heterodera glycines* (EPPO A2 List) is causing damage on soybean. In August 2018, it was first observed in black bean (*Phaseolus vulgaris*) roots in a commercial field in Bruce County, Ontario. This is the first report of a naturally occurring infection associated with damage in a commercial field (Trueman *et al.*, 2022).

In Türkiye, the root knot nematode *Meloidogyne luci* (EPPO Alert List) was detected during surveys conducted in 2017 in kiwi (*Actinidia chinensis*) orchards in Samsun province (Black Sea region). It was the dominant root knot species in the kiwi orchards (Aydingli & Mennan, 2022).

In the USA, *Popillia japonica* (Coleoptera: Rutelidae – EPPO A2 List) was first found in the western part of the country in Washington state in 2021, in the area of Grandview. Quarantine measures are applied in this area to prevent its further spread (WSDA, 2022).

- **Eradication**

In the Netherlands, *Scirtothrips dorsalis* (Thysanoptera: Thripidae – EPPO A2 List) was found in August 2019 on *Podocarpus* plants for planting which had been imported from China. The pest was detected during a post-import inspection carried out in the glasshouse of a nursery (EPPO RS 2019/182). Measures were taken against the pest and in 2022, the NPPO officially declared that *S. dorsalis* has been eradicated (NPPO of the Netherlands, 2022).

- **Absence**

In Louisiana (US), the root knot nematode *Meloidogyne enterolobii* (EPPO A2 List) was first found in 2018 in one sweet potato (*Ipomoea batatas*) field (EPPO RS 2020/048). Measures were taken to prevent establishment of the pest in 2018-2020. Soil samples collected in 2020 and 2021 in the infested field did not detect the nematode. Surveys conducted in 291 fields of sweet potato, soybean, cotton, and sugarcane did not detect *M. enterolobii*. Quarantine measures are also applied to prevent its introduction from US states where it occurs (Santos Rezende *et al.*, 2022).

- **Host plants**

In Florida, the root knot nematode *Meloidogyne enterolobii* (EPPO A2 List) was found infesting commercial crops of Asian vegetables: Thai basil (*Ocimum basilicum*), Vietnamese eggplants (*Solanum macrocarpon*), jute (*Corchorus olitorius*), luffa (*Luffa cylindrica*), Malabar spinach (*Basella alba*), peririla (*Perrila frutescens* var. *crispa*), pumpkin (*Cucurbita pepo*), sweet potato (*Ipomoea batatas*) (Bui *et al.*, 2022).

Sources:
Aydingli G, Mennan S (2022) Prevalence of root-knot nematodes and their effects on fruit yield in kiwifruit orchards in Samsun Province (Türkiye). *Turkish Journal of Entomology* **46**(2), 187-197. http://dx.doi.org/10.16970/entoted.1092654
Bui HX, Gu M, Riva G, Dasaeger JA (2022) *Meloidogyne* spp. infecting Asian vegetables in central Florida, USA. *Nematropica* **52**(1), 56-63. https://journals.flvc.org/nematropica/article/view/132098
INTERNET
WSDA - Washington State Department of Agriculture (2022) Japanese beetle. https://agr.wa.gov/departments/insects-pests-and-weeds/insects/japanese-beetle
NPPO of Switzerland (2022-10).
NPPO of the Netherlands (2022-07).
Olson J (2021) Pear Rust. Oklahoma Cooperative Extension Service. EPP-7681, 2 pp. https://extension.okstate.edu/fact-sheets/pear-rust.html (last accessed October 2022).
Peng D, Liu H, Peng H, Jiang R, Li Y, Wang X, Ge JJ, Zhao S, Feng X, Feng M (2022) First detection of the potato cyst nematode (*Globodera rostochiensis*) in a major potato production region of China. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-06-21-1263-PDN
Santos Rezende J, Clark CA, Sistrunk MW, Watson T (2022) Interception of *Meloidogyne enterolobii* on sweetpotato in Louisiana. *Nematropica* **52**(1), 1-5. https://journals.flvc.org/nematropica/article/view/131255
Trueman C, Blauel T, Abaya A, Zhang K, Gillard C (2022) First report of *Heterodera glycines* infecting commercial dry beans (*Phaseolus vulgaris*) in Canada. *Canadian Journal of Plant Science* **102**(4), 935-939.

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

Computer codes: ANOLGL, GYMNAS, HETDGL, HETDRO, MELGLC, MELGMY, POPIJA, SCITDO, XYLBCR, CA, CH, CN, JP, NL, TR, US

2022/205 New additions to the EPPO A1 and A2 Lists

In September 2022, the EPPO Council approved the following changes made 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)
- *Chionaspis pinifoliae* (Hemiptera: Diaspididae)
- *Dendroctonus valens* (Coleoptera: Curculionidae: Scolytinae)
- *Grapevine red blotch virus* (*Grablovirus*)

Additions to the A2 List (pests locally present in the EPPO region)
- *Solanum carolinense* (Solanaceae)
- *Tomato leaf curl New Delhi virus* (*Begomovirus*)

For each individual pest, PRA documents and datasheets have been prepared (or are under development) and will be available in due course in the EPPO Global Database (https://gd.eppo.int) and the EPPO Platform on PRAs (https://pra.eppo.int/).

Source: EPPO Secretariat (2022-09).

Pictures: *Chionaspis pinifoliae*. https://gd.eppo.int/taxon/PHECPI/photos
Grapevine red blotch virus. https://gd.eppo.int/taxon/GRBAV0/photos
Solanum carolinense. https://gd.eppo.int/taxon/SOLCA/photos
Tomato leaf curl New Delhi virus. https://gd.eppo.int/taxon/TOLCND/photos

Additional key words: EPPO lists **Computer codes:** DENCVA, GRBAV0, PHECPI, SOLCA, TOLCND

2022/206 New and revised dynamic EPPO datasheets are available in the EPPO Global Database

The EPPO Secretariat is in the process of revising the EPPO datasheets on pests recommended for regulation and creating new datasheets. This project is also supported by an EU grant agreement. This revision provides the opportunity to create dynamic datasheets in the EPPO Global Database in which the sections on pest identity, host range and geographical distribution are automatically generated by the database. It is planned that these dynamic datasheets will progressively replace the PDF documents that are currently stored in the database. Since the previous report (EPPO RS 2022/182), the following new and revised EPPO datasheets have been published in the EPPO Global Database:

- *Atropellis pinicola*. https://gd.eppo.int/taxon/ATRPPC/datasheet
- *Globodera pallida*. https://gd.eppo.int/taxon/HETDPA/datasheet
- *Globodera rostochiensis*. https://gd.eppo.int/taxon/HETDRO/datasheet
- *Monochamus nitens*. https://gd.eppo.int/taxon/MONCNI/datasheet
- *Pomacea maculata*. https://gd.eppo.int/taxon/POMAIN/datasheet
- *Thrips palmi*. https://gd.eppo.int/taxon/THRIPL/datasheet
- *Xanthomonas oryzae* pv. *oryzae*. https://gd.eppo.int/taxon/XANTOR/datasheet
- *Xanthomonas oryzae* pv. *oryzicola*. https://gd.eppo.int/taxon/XANTTO/datasheet

Source: EPPO Secretariat (2022-10).

Additional key words: publication **Computer codes:** ATRPPC, HETDPA, HETDRO, MONCNI, POMAIN, THRIPL, XANTOR, XANTTO

2022/207 Binomial nomenclature for virus species

For many years, proposals to use binomial names to name virus species have been debated among the virology community. In 2021, the International Committee on Taxonomy of Viruses (ICTV) approved a uniform system of formal virus names which follows the binomial 'genus-species' format with or without Latinized species epithets. In the following months this new rule started to be implemented. As a result, names of 6 481 virus species (60% of species names recognized by ICTV) now follow this format. For example, the virus species which is causing rose rosette is now called *Emaravirus rosae*.

Useful Excel files can be found on the ICTV website:

- The master species list: https://ictv.global/msl
- Exemplar viruses for species: https://ictv.global/vmr

As a user of taxonomy, the EPPO Secretariat has started to implement these changes for virus names (mainly plant viruses) in the EPPO Global Database.

As of October 2022, changes have been made in the EPPO Global Database for species belonging to the following genera:

- *Emaravirus*: https://gd.eppo.int/taxon/1EMRAG
- *Ophiovirus*: https://gd.eppo.int/taxon/1OPHVG
- *Alphachrysovirus*: https://gd.eppo.int/taxon/1CHRVG
- *Betachrysovirus*: https://gd.eppo.int/taxon/1BCHVG
- *Alphanucleorhabdovirus*: https://gd.eppo.int/taxon/1ARHVG
- *Betanucleorhabdovirus*: https://gd.eppo.int/taxon/1BRHVG
- *Cytorhabdovirus*: https://gd.eppo.int/taxon/1CRHAG
- *Dichorhavirus*. https://gd.eppo.int/taxon/1DICVG
- *Gammanucleorhabdovirus*: https://gd.eppo.int/taxon/1GRHVG
- *Varicosavirus*: https://gd.eppo.int/taxon/1VARIG
- *Idaeovirus*. https://gd.eppo.int/taxon/1IDAEG

Source: Siddell SG, Walker PJ, Lefkowitz EJ *et al*. (2020) Binomial nomenclature for virus species: a consultation. *Archives of Virology* **165**, 519–525. https://doi.org/10.1007/s00705-019-04477-6

Walker PJ *et al*. (2022) Changes to virus taxonomy and to the International Code of Virus Classification and Nomenclature ratified by the International Committee on Taxonomy of Viruses (2021). *Archives of Virology* **166**, 2633–2648. https://doi.org/10.1007/s00705-021-05156-1

Walker PJ *et al*. (2022) Recent changes to virus taxonomy ratified by the International Committee on Taxonomy of Viruses. *Archives of Virology* **167**, 2429–2440. https://doi.org/10.1007/s00705-022-05516-5

Additional key words: taxonomy

Computer codes: 1ARHVG, 1BCHVG, 1BRHVG, 1CHRVG, 1CRHAG, 1DICVG, 1EMRAG, 1GRHVG, 1IDAEG, 1OPHVG, 1VARIG

2022/208 First record of *Cylindrocopturus adspersus* in Ukraine and in the EPPO region

The sunflower stem weevil, *Cylindrocopturus adspersus* (Coleoptera: Cuculionidae) is reported for the first time from Ukraine, and the EPPO region. Larvae were found in November 2020 in a sunflower (*Helianthus annuus*) field in the Novotroitsk district of the Kherson region. The authors consider that the insect was probably introduced with plant debris transported in a consignment of sunflower seeds. Moroz & Fokin (2022) assessed the potential area of establishment of this species and considered that this species could establish in the South-Eastern part of Ukraine, as well as in several countries around the Mediterranean Sea. As of 2022, it has not been found in other parts of Ukraine.

C. adspersus is a damaging pest of sunflower in North America where it occurs throughout the Great Plains of the USA and in part of Canada. There is also one record from Pakistan in 2018. Damage is caused by larvae that live and feed inside the stem and render the crop more susceptible to lodging and infection by fungi such as *Macrophomina phaseolina*. Adults overwinter in old sunflower stumps and feed on sunflower leaves. In the USA, there is one generation per year.

Source: Moroz S, Fokin A (2022) Forecasting the potential area of an invasive species *Cylindrocopturus adspersus* LeConte (Coleoptera: Curculionidae) in Ukraine. *Journal of Plant Protection Research* **62**(1), 71–77. https://doi.org/10.24425/jppr.2022.140298

Said F, Jalal F, Imtiaz M, Khan MA, Hussain S (2018) General distribution of different arthropods species associated with sunflower in Khyber Pakhtunkhwa:(A survey of Peshawar, Mardan and Swabi District:). *Pure and Applied Biology* **7**(3), 1144-1160. http://dx.doi.org/10.19045/bspab.2018.700134

Personal communication with S. Moroz (2022-10).

Additional key words: new record **Computer codes** CYLPAD, UA

2022/209 Eradication of *Anoplophora glabripennis* in Corsica (France)

In Corsica, the Asian longhorn beetle *Anoplophora glabripennis* (Coleoptera: Cerambycidae – EPPO A1 List) was first found in the department of Haute-Corse in 2013 and eradication measures were applied (EPPO RS 2013/139, RS 2021/079). No *A. glabripennis* specimen has been detected during annual official surveys in the demarcated area since November 2017. According to the EU Regulation 2015/893, the outbreak in Corsica is therefore declared eradicated.
In mainland France, two outbreaks are still under eradication (near Gien, and in Divonne-les bains).

The pest status of *Anoplophora glabripennis* in France is officially declared as: **Present, only in some parts of the Member State concerned, under eradication.**

Source: NPPO of France (2022-10).

EU (2015) Commission Implementing Decision (EU) 2015/893 of 9 June 2015 as regards measures to prevent the introduction into and the spread within the Union

of *Anoplophora glabripennis* (Motschulsky). *OJL* **146**, 16–28.
http://data.europa.eu/eli/dec_impl/2015/893/oj

Pictures: *Anoplophora glabripennis*. https://gd.eppo.int/taxon/ANOLGL/photos

Additional key words: eradication **Computer codes** ANOLGL, FR

2022/210 Update on the situation of *Aromia bungii* in Italy and record of *Prunus laurocerasus* as a new host plant

In Italy, *Aromia bungii* (Coleoptera: Cerambycidae – EPPO A1 List) was first found in Campania region (province of Napoli) in 2012 (EPPO RS 2012/204) and in 2018 on the island of Procida (province of Napoli). It was also detected in 2013 in Lombardia region (RS 2013/187) and in 2020 in Lazio region (RS 2020/191). Official measures are applied, aiming at containment in Campania and Lombardia, and at eradication in Lazio (RS 2021/035). The NPPO of Italy provided an update of the situation following the surveys in 2021.

Campania
In the area of Napoli, a demarcated area with a 4 km buffer zone has been established. In 2021 in total 298 *Prunus* plants were found to be infested in the infested zones (45 sites). Some infested plants were also found in the buffer zone in the municipality of Somma Vesuviana, a few hundred metres from the boundary of the infested zone. The demarcated area has been updated accordingly. A map of the demarcated area is available in the regional decree n°56 of 31/03/2022.
In October 2021, as part of the official monitoring activities, larvae of *A. bungii* were found for the first time in *Prunus laurocerasus* trees within the infested area. This finding was confirmed by PCR analysis of the larvae. *P. laurocerasus* was the only *Prunus* species excluded from the plants to be surveyed by the EU Decision 2018/1503. The regional decree now includes *P. laurocerarus* in the species to be monitored.
In July 2021, larvae of *A. bungii* were found in apricot trees (*Prunus armeniaca*) located in the urban area of Castel Volturno, as well as an adult specimen. The outbreak is about 20 km from the northern limit of the Napoli outbreak. Surveys were conducted and 5 *Prunus* plants in total were found infested, located in 4 private gardens. Eradication measures are applied in the demarcated area.

Lazio
A. bungii was first found in Lazio in the municipality of Civitavecchia in June 2020 in two apricot trees. Eradication measures were applied. In 2021, as in 2020, intensive surveys were conducted in the demarcated area, but no infested plants were detected.

Lombardia
A demarcated area with a 4 km buffer zone has been established. Official surveys are conducted, with 14 615 plants monitored in 2019 (38 found infested), 10 200 in 2020 (36 infested), 19 511 in 2021 (37 infested) The infested plants were located in the municipalities of Bareggio, Sedriano, Vittuone, Corbetta, Cornaredo and Cisliano. In 2021, 125 plants have been cut down, including all infested plants and specified plants within a radius of 100 m around infested plants.

The pest status of *Aromia bungii* in Italy is officially declared as: **Present, only in some parts of the Member State concerned, under eradication or under containment, in case eradication is impossible**.

Source: EU (2018) Commission Implementing Decision (EU) 2018/1503 of 8 October 2018 establishing measures to prevent the introduction into and the spread within the Union of *Aromia bungii* (Faldermann). OJL 254, 9-18.
ELI: http://data.europa.eu/eli/dec_impl/2018/1503/oj

NPPO of Italy (2022-04).

Giunta Regionale della Campania (2022) Decreto Dirigenziale n°56 of 31/03/2022. Aggiornamento delimitazione del focolaio n° 1 (Napoli) di *Aromia bungii* - Allegato A e Allegato B. Inserimento del *Prunus laurocerasus* tra le specie da monitorare.
http://www.agricoltura.regione.campania.it/difesa/files/DRD_56-31-03-22.pdf

Servizio Fitosanitario Regionale. Cerambicide delle Drupacee - *Aromia bungii*.
http://www.agricoltura.regione.campania.it/difesa/aromia.html

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

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

2022/211 Update on the situation of *Bactrocera dorsalis* in Italy

In Italy, *Bactrocera dorsalis* (Diptera: Tephritidae – EPPO A1 List) was trapped in June 2022 in Campania region (municipality of Palma Campania) and further specimens were trapped in August and September in this municipality and once in San Gennaro Vesuviano (EPPO RS 2022/188). Surveys were intensified and official action was taken.
The NPPO of Italy recently provided an update: in the second half of September, 525 adults (5 females and 520 males) were caught in 36 traps set in Palma Campania and San Gennaro Vesuviano; in the first week of October, 310 adults were caught (305 males and 5 females) including in the neighbouring municipalities of Ottaviano (2 males) and Nola (4 males).
In addition, laboratory experiments showed that some adults of *B. dorsalis* emerged from fruits collected on the ground within a 10 m radius of the traps in early September (2 females from oranges, and 2 females and 3 males from a peach). A demarcated area has been established and includes part of the territories of the four municipalities and a buffer zone of 7.5 km. Measures applied include harvesting and destruction of fruits, prohibition of fruit movement out of the demarcated area, phytosanitary treatments, intensification of surveys with trapping and soil analysis.

The pest status of *Bactrocera dorsalis* in Italy is officially declared as: **Transient, actionable, under surveillance**.

Source: NPPO of Italy (2022-10).

Pictures: *Bactrocera dorsalis*. https://gd.eppo.int/taxon/DACUDO/photos

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

2022/212 *Zonosemata electa* (Diptera: Tephritidae): a brief description

The pepper maggot, *Zonosemata electa* (Diptera: Tephritidae – EU Annexes) was added in 2021 to the quarantine list of the European Union (Annex II A). It is an occasional pest of capsicum in the Eastern USA and South-Western Ontario (Canada). Its main hosts are capsicum (*Capsicum* spp.) and aubergine (*Solanum melongena*), but it can also attack tomato (*S. lycopersicum*) on rare occasions. This fruit fly has also been reported on wild *Solanum*, such as *S. capsicoides* and *S. carolinense*.

Damage is caused by larvae feeding inside the fruit. There is little evidence of attack on the outside of the fruit, but there can be extensive internal tunnelling and discoloration.

In the USA, *Z. electa* has one generation per year. Females emerge, mate and lay eggs in June-July. Eggs hatch within 8-10 days and larvae feed inside the fruit for about 18 days, then exit the fruit, drop to the soil, and pupate, usually within the top 5-10 cm of soil. Pupae persist from late summer or autumn until the next summer.

The geographical distribution of *Z. electa* is as follows:

EPPO region: Absent.
North America: Canada (Ontario), USA (Alabama, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, South Carolina, Tennessee, Texas, Virginia, West Virginia).

In the EPPO Global Database, the following data has now been added:
- a distribution map: https://gd.eppo.int/taxon/ZONOEL/distribution
- a list of host plants: https://gd.eppo.int/taxon/ZONOEL/hosts

Source:

BugwoodWiki. *Zonosemata electa*. https://wiki.bugwood.org/Zonosemata_electa
Carroll LE, Norrbom AL, Dallwitz MJ, Thompson FC (2004 onwards) Pest fruit flies of the world – larvae. https://www.delta-intkey.com/ffl/www/zon_elec.htm
EPPO (2015) EPPO Technical Document No. 1068, EPPO Study on Pest Risks Associated with the Import of Tomato Fruit. EPPO Paris. https://www.eppo.int/media/uploaded_images/RESOURCES/eppo_publications/td_1068_tomato_study.pdf
Ontario Ministry of Agriculture Food & Rural Affairs. Pepper maggot. http://www.omafra.gov.on.ca/IPM/english/peppers/insects/pepper-maggot.html#advanced
Ridge GE (undated) Pepper maggot (*Zonosemata electa* (Say)). The Connecticut Agricultural Experiment Station. https://portal.ct.gov/-/media/CAES/DOCUMENTS/Publications/Fact_Sheets/Entomology/Pepper_Maggot_Zonosemata.pdf
University of Georgia. Extension. Pepper maggot. https://extension.uga.edu/content/dam/extension/programs-and-services/integrated-pest-management/documents/insect-pdfs/pepper_maggot.pdf

Additional key words: distribution **Computer codes:** ZONOEL, CA, US

2022/213 First report of *Thaumetopoea processionea* in Jersey

The NPPO of the United Kingdom recently informed the EPPO Secretariat of the first record of *Thaumetopoea processionea* (Lepidoptera: Notodontidae – EU Annexes) in Jersey. A small outbreak of the oak processionary moth has been detected in the southern central part of the island, and single nests have been observed in two additional sites. This outbreak is thought to be the result of windborne spread, but further investigations are necessary. Eradication measures are currently being applied, including the removal and destruction of identified nests, as well as further surveys. Information campaigns are also being carried out to raise public awareness about this pest which has, in addition to tree defoliation, negative impacts on animal and human health (urticating setae causing ocular, skin and respiratory problems).

The pest status of *Thaumetopoea processionea* in Jersey is officially declared as: **Present: not widely distributed and under official control.**

Source: NPPO of the United Kingdom (2022-10).

Pictures: *Thaumetopoea processionea*. https://gd.eppo.int/taxon/THAUPR/photos

Additional key words: new record **Computer codes:** THAUPR, JS

2022/214 First report of *Meloidogyne chitwoodi* in Lithuania

The NPPO of Lithuania recently informed the EPPO Secretariat of the first report of the root knot nematode *Meloidogyne chitwoodi* (EPPO A2 List) on its territory. The nematode was detected in October 2022 in Klaipėda region, in a field where perennial grasses were grown in the municipality of Šilutės rajono savivaldybė. A sample of soil was collected as a part of the official survey. Phytosanitary measures are being applied in the place of production, including measures concerning farm machinery. In the infested field (0.42 ha), cropping restrictions are applied: a black fallow should be maintained for the first year; in the second and third year, only non-host crops can be grown, and no root crops are allowed; in the fourth year host plants for which only above-ground parts are harvested will be allowed. In order to evaluate the effectiveness of the prescribed phytosanitary measures, soil samples will be taken from the infested field for laboratory testing every year. Specific surveys will be carried out in the adjacent fields. The source of this outbreak is unknown, as since 2019 only perennial grasses have been grown in this field.

The pest status of *Meloidogyne chitwoodi* in Lithuania is officially declared as: **Present, under eradication, only in one location, at low prevalence.**

Source: NPPO of Lithuania (2022-10).

Pictures: *Meloidogyne chitwoodi*. https://gd.eppo.int/taxon/MELGCH/photos

Additional key words: new record **Computer codes:** MELGCH, LT

2022/215 Update of the situation of *Meloidogyne luci* in Slovenia

The NPPO of Slovenia recently updated the EPPO Secretariat concerning the situation of the root-knot nematode *Meloidogyne luci* (EPPO Alert List) on its territory. The nematode was first detected in a glasshouse in Dornberk in 2003 on tomato (*Solanum lycopersicum*) roots in a glasshouse situated in the village of Dornberk and eradicated (EPPO RS 2011/004, 2016/012 and 2017/126). It was found again in 2018 in tomato roots in a glasshouse located in the village of Šmartno near Ljubljana (RS 2018/058) and eradication measures have been applied. Measures are as follow:

- cultivation of *Capsicum annuum*, and nematode-resistant cultivars of *Solanum lycopersicum* and *S. melongena* is possible only in combination with the application of a nematicide during spring/summer;
- poor hosts (*Valerianella locusta, Cichorium intybus, Cichorium endivia, Lactuca sativa* and *Petroselinum crispum*) can be grown between October 1st and March 30th;
- underground parts of all plants should be destroyed at the end of the growing season;
- equipment, footwear and machinery used in the infested area should be cleaned to remove soil and plant plants, and disinfected.

Based on the survey results it can be concluded that the measures resulted in the reduction of the *M. luci* population. The eradication of the pest in the greenhouse is still ongoing. Regular annual surveys for *M. luci* have confirmed its absence in other parts of Slovenia.

The pest status of *Meloidogyne luci* in Slovenia is officially declared as: **Present, in one location (greenhouse), under eradication.**

Source: NPPO of Slovenia (2022-10).

Pictures: *Meloidogyne luci*. https://gd.eppo.int/taxon/MELGLC/photos

Additional key words: detailed record **Computer codes:** MELGLC, SI

2022/216 First report of *Cryphonectria parasitica* in Guernsey

The NPPO of the United Kingdom recently informed the EPPO Secretariat of the first record of *Cryphonectria parasitica* (EPPO A2 List) in Guernsey. During general surveillance activities, the disease was found in a public park in St Sampsons. A mature sweet chestnut (*Castanea sativa*) tree showing characteristic bark cracking symptoms was observed, and subsequent analysis by the Forestry Commission confirmed the presence of *C. parasitica*. The possible source of infection of this mature tree could not be determined. Official control measures have been put in place to eradicate the disease.

The pest status of *Cryphonectria parasitica* in Guernsey is officially declared as: **Present: not widely distributed and under official control.**

Source: NPPO of the United Kingdom (2022-10).

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

Additional key words: new record **Computer codes:** ENDOPA, GS

2022/217 First report of *Cryphonectria parasitica* in Jersey

The NPPO of the United Kingdom recently informed the EPPO Secretariat of the first record* of *Cryphonectria parasitica* (EPPO A2 List) in Jersey. Two isolated outbreaks have been detected on the island. A number of symptomatic sweet chestnut (*Castanea sativa*) trees in the wider environment tested positive. The origin of this outbreak remains unknown. Official control measures have been taken and include surveys to delimit the extent of the disease.

The pest status of *Cryphonectria parasitica* in Jersey is officially declared as: **Present: not widely distributed and under official control.**

* The detection of *C. parasitica* in Jersey had also been reported in a recent paper from Romon-Ochoa *et al*. (2022) with further details on the situation of the disease in Great Britain (EPPO RS 2022/119).

Source: NPPO of the United Kingdom (2022-10).

Romon-Ochoa P, Kranjec Orlović J, Gorton C, Lewis A, van der Linde S, Pérez-Sierra A (2022) New detections of chestnut blight in Great Britain during 2019–2020 reveal high *Cryphonectria parasitica* diversity and limited spread of the disease. *Plant Pathology* **71**(4), 793-804.

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

Additional key words: new record **Computer codes:** ENDOPA, JS

2022/218 First report of *Erysiphe corylacearum* in Germany and Hungary

Native to East Asia, *Erysiphe corylacearum* is a new powdery mildew of hazelnuts (*Corylus* spp.) which was first observed in Türkiye in 2013 and has since rapidly extended its distribution range in the Middle East, the Caucasus, the Mediterranean as well as some countries in Eastern and Central Europe (EPPO RS 2021/042, RS 2021/049, RS 2021/249).

In Hungary, *E. corylacearum* was observed in a hazelnut *(Corylus avellana)* plantation and in a collection of different varieties of hazelnut of the Hungarian University of Agricultural and Life Sciences in Érd in August 2021. White patches of mycelium and conidia were observed on both side of the leaves. The disease incidence was 100% on varieties 'Segorbe', and 'Corabel', 70% on 'Ennis', and 30% on 'Istrska dolgoplodna leska' (15 plants per cultivar). On observed leaves, *E. corylacearum* occurred together with *Phyllactinia guttata*.

In Germany, the presence of *E. corylacearum* was recorded in 2021 and 2022 in Bavaria, Baden-Württemberg and Nordrhein-Westfalen in gardens, parks and forests. It was mainly found on *Corylus avellana* but also found once on *C. avellana* var. *heterophylla* and twice on *C. maxima*. Beenken *et al*. (2022) consider that the pattern and the speed of its spread suggest that *E. corylacearum* is not only spread by wind-borne conidia but is also transported by human traffic.

In Switzerland, the pathogen was first reported in urban areas, but it is now widespread, even in forests far away from settlements, and in the alpine region where it occurs at altitudes up to 1450 m.

Source: Beenken L, Kruse J, Schmidt A, Braun U (2022) Epidemic spread of *Erysiphe corylacearum* in Europe–first records from Germany. *Schlechtendalia* **39**, 112-118.

Kalmár K, Desiderio F, Varjas V (2022) First report of *Erysiphe corylacearum* causing powdery mildew on hazelnut in Hungary. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-12-21-2737-PDN

Pictures: *Erysiphe corylacearum*. https://gd.eppo.int/taxon/ERYSCY/photos

Additional key words: new record **Computer codes:** ERYSCY, CH, DE, HU

2022/219 First report of Grapevine red blotch virus in Australia in grapevine collections

In September 2022, the presence of grapevine red blotch virus (*Grablovirus*, GRVB – EPPO A1 List) was reported for the first time from Australia. During routine testing for viruses, GRBV was detected in grapevine collection material in South Australia, Western Australia, and Victoria. Although these grapevine collections are used for propagation, the virus has not been discovered in commercial nurseries or vineyards. For the moment, no symptoms or damage have been reported and it is noted that the insect vector (*Spissistilus festinus*, Hemiptera: Membracidae) which is known to efficiently transmit the disease in California (US) does not occur in Australia. It is considered that the virus has been present in Australia for a long time (at least 30 years) and that these detections are not new incursions but long-standing infections. No phytosanitary regulations will be implemented but the grapevine industry has been informed and growers have been advised to follow good hygiene practices.

The situation of grapevine red blotch virus in Australia can be described as follows: **Present: not widely distributed and not under official control.**

Source: Agriculture Victoria (2022-09-25) Grapevine red blotch detections. https://agriculture.vic.gov.au/biosecurity/moving-plants-and-plant-products/biosecurity-updates/grapevine-red-blotch-virus-detections

Vine Health Australia. Industry Notice (2022-09-16). Grapevine red blotch virus detections: your questions answered. https://vinehealth.com.au/wp-content/uploads/VHA-Industry-Notice-GRBV-QA-V1.pdf

Pictures: Grapevine red blotch virus. https://gd.eppo.int/taxon/GRBAV0/photos

Additional key words: new record **Computer codes:** GRBAV0, AU

2022/220 First report of citrus yellow vein clearing virus in the USA

Citrus yellow vein clearing virus (*Potexvirus*, CYVCV) is reported for the first time from the USA. During routine surveys, CYVCV was detected in March 2022 in residential citrus trees in the city of Tulare, California. The identity of the virus has been confirmed by the USDA. Surveys are being conducted in residential and commercial properties, in Tulare and adjacent counties (Fresno and Kings) to determine the extent of the disease and its potential impact. This is the first time that this virus is reported from the USA and the American continent.

Source: University of California. News & Information Outreach (2022-08-19) Citrus yellow vein clearing virus in CA. https://ucanr.edu/sites/news/?blogpost=53918&blogasset=45720

Pictures: *Citrus yellow vein clearing virus*. https://gd.eppo.int/taxon/CSYV00/photos

Additional key words: new record **Computer codes:** CSYV00, US

2022/221 Citrus yellow vein clearing virus: addition to the EPPO Alert List

Why: The yellow vein clearing disease is an emerging disease of citrus that was first observed in Pakistan in 1988 in lemon (*Citrus limon*) and sour orange trees (*C. aurantium*). In 1997, the disease was observed in several citrus-growing areas of India on different citrus species (Etrog citron (*C. medica* var 'Etrog'), Rangpur lime (*C.* x *limonia*), sour orange, and lemon). In 2000, the disease was reported from Türkiye in lemon and sour orange trees, and in 2009 it was also found in lemon trees in Yunnan, China. The presence of a filamentous virus was consistently observed in symptomatic plants, but its identity remained unknown until 2012, when serological, molecular and biological studies showed that a new virus species called citrus yellow vein clearing virus (*Potexvirus*, CYVCV) was the causal agent of the disease (EPPO RS 2013/196). Since then, CYVCV has continued to spread in China and other Asian countries and has recently been reported in California (US), a first record for the Americas. Considering the potential impact of this emerging disease on citrus production, the EPPO Secretariat considered that CYVCV should be added to the EPPO Alert List.

Where:
EPPO region: Türkiye.
Asia: China (Chongqing, Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Sichuan, Yunnan), India (Andhra Pradesh, Maharashtra, Punjab), Iran, Pakistan.
North America: USA (California).

On which plants: CYVCV can infect most citrus species, cultivars and hybrids, particularly lemon (*C. limon*) and sour orange (*C. aurantium*). In Türkiye, in addition to the findings on citrus, CYVCV has been reported once on grapevine (*Vitis vinifera*) plants showing leaf necrosis, small leaves and shortened internodes. In addition to citrus and grapevine, CYVCV has also been detected in asymptomatic wild plants (*Malva sylvestris, Ranunculus arvensis, Sinapis arvensis* and *Solanum nigrum*).

Damage: On citrus, symptoms include strong yellow vein clearing, leaf distortion, and occasionally, ringspots and veinal necrosis, as well as fruit malformation. Severe infections can lead to tree decline and decreased fruit marketability (fruit quantity and quality is reduced). Disease symptoms may vary according to citrus varieties, viral strains, and environmental conditions.

Transmission: CYVCV can be transmitted by grafting and contaminated tools. In addition to mechanical transmission, CYVCV is transmitted by insect vectors. Two aphid species, *Aphis spiraecola* and *A. craccivora* have been shown to transmit CYVCV from infected lemons to legumes. In addition, *A. spiraecola A. gossypii* and *Dialeurodes citri* (citrus whitefly) could successfully transmit CYVCV between citrus species. It is thought that disease spread in the field is mainly ensured by insect vectors. So far, seed transmission of CYVCV has not been demonstrated.

Pathways: Plants for planting (scions, rootstocks, seedlings), viruliferous vectors, contaminated tools and equipment.

Possible risks: *Citrus* spp. are economically important trees for the Mediterranean Basin, cultivated for fruit production and ornamental purposes. CYVCV is causing an emerging disease which can potentially have negative impacts on citrus production by affecting tree growth and fruit marketability. The fact that CYVCV has been detected in grapevine in Türkiye may also add to the risk. The current distribution of CYVCV is limited in the EPPO region, however its known insect vectors are present to ensure its further spread. As CYVCV can be spread by the movements of infected propagation material, as well as by grafting and contaminated tool, it is important that NPPOs of the citrus-growing countries of the EPPO region are alerted about this new citrus disease.

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EPPO RS 2013/196, 2022/221

Panel review date – Entry date 2022-10

2022/222 Competition between two natural enemies of *Halyomorpha halys*

Halyomorpha halys (Heteroptera: Pentatomidae – formerly EPPO Alert List) is a highly polyphagous pest which is native to Asia. The solitary Asian egg parasitoid *Trissolcus japonicus* (Hymenoptera: Scelionidae) has been studied as a classical biological control agent against *H. halys* and has been released in Italy. Adventive populations of *Trissolcus mitsukurii* (Ashmead) (Hymenoptera, Scelionidae), a less well-studied egg parasitoid of Eastern Asia origin, have recently been found attacking *H. halys* in Italy and in neighbouring countries, Slovenia and France. Both species can co-occur in the same habitats and can compete for hosts. The foraging behaviour and the progeny production of both species was assessed under laboratory conditions with three different interspecific competition scenarios. For indirect competition (A), *H. halys* egg masses previously parasitized by the female of one species were offered to the competitor females after 0, 3, 5, or 7 days. For direct extrinsic competition, (B) females of each species were either introduced simultaneously (synchronous release) or (C) when half of the host egg mass had already been parasitized by the other species (asynchronous release). Both *Trissolcus* species were able to parasitize host eggs already parasitized by the other species, although the progeny production always favoured the species that arrived first on the host egg mass. However, in a synchronous release scenario, *T. mitsukurii* displayed more aggressive behaviour and spent more time defending the host egg mass compared to *T. japonicus*, resulting in a higher progeny production. For biological control of *H. halys*, the results suggest that a single-species release is the best strategy, since multiparasitism behaviour can result in lower reproductive potential.

Source: Giovannini L, Sabbatini-Peverieri G, Simoni S, Cervo R, Hoelmer KA, Roversi PF (2022) Interspecific competition between *Trissolcus japonicus* and *Trissolcus mitsukurii*, two promising candidates for biocontrol of *Halyomorpha halys*. *Biological Control*. https://doi.org/10.1016/j.biocontrol.2022.105068

Additional key words: biological control **Computer codes:** TRSSJP, HALYHA

2022/223 Biological control of *Hydrocotyle ranunculoides* in the United Kingdom

Hydrocotyle ranunculoides (Araliaceae: EPPO A2 List) is an aquatic plant species native to the Americas. In the EPPO region it can invade habitats such as slow-flowing and eutrophic water bodies, especially ponds, ditches, lakes, and streams. *H. ranunculoides* can have a negative impact on the habitat it invades where it transforms the habitat as a result of its matt forming behaviour. This can alter the chemical composition of the waterbody which in turn can have a negative impact on native plant biodiversity and associated ecosystem services. Traditional management options, such as chemical and manual control, are difficult to implement due to the habitat where the plant occurs. Since 2011, research has been conducted on the classical biological control of *H. ranunculoides* in the United Kingdom. Through natural enemy surveys in South America (Argentina and Paraguay) and subsequent host specificity testing, the weevil *Listronotus elongatus* (Coleoptera: Curculionidae) was identified as a biological control agent for the control of *H. ranunculoides*. Following the assessment of a pest risk analysis and stakeholder consultation, the weevil was released in a number of sites in the United Kingdom and a monitoring programme will evaluate the establishment, over wintering, and impact of the weevil on *H. ranunculoides*.

Source: CABI Invasive Species Compendium. *Hydrocotyle ranunculoides*. https://www.invasive-species.org/species/floating-pennywort/

Pictures: *Hydrocotyle ranunculoides*. https://gd.eppo.int/taxon/HYDRA/photos

Additional key words: biological control, invasive alien plants **Computer codes:** HYDRA, GB

2022/224 Artificial diets to increase performance in augmentative biological control

Supplementing the diets of adult synovigenic* parasitoids has been shown to increase fecundity and longevity. *Tamarixia triozae* (Hymenoptera: Eulophidae) is a parasitoid of *Bactericera cockerelli* (Hemiptera: Triozidae, EPPO A1 List) which is a vector of '*Candidatus* Liberibacter solanacearum'. To evaluate the effect of artificial diets on *T. triozae* fitness and oviposition, colonies of *B. cockerelli* and *T. triozae* were established in the laboratory and fed with varying diets (honey, water, yeast and the host alone and in combinations). Adults which were fed with only honey for four days, or with water or yeast for one day followed by host feeding for three days had similar longevity and lifetime pest killing ability. Adults which were fed with only water for one day before being released had a higher daily fecundity. Adults fed with honey or yeast for one day followed by host feeding for three days had a lower rate of oviposition. The results suggest that a honey diet may allow at least four days for successful shipment of host-deprived adults without compromising biological control effectiveness. Additionally, releasing host-deprived adults with one day water feeding may achieve rapid pest suppression when the pest population density is high. Finally, releasing host-deprived adults with one-day honey or yeast feeding followed by three-day host feeding can increase establishment success when the pest population density is low.

* Synovigenic: parasitoids that do not have a full complement of eggs at eclosion and that continue to mature them throughout adult life; females require host-supplied nutrients for egg production (American Entomological Institute, http://www.amentinst.org/glossary.php).

Source: Chen C, He XZ, Zhou P, Wang Q (2022) Diets for *Tamarixia triozae* adults before releasing in augmentative biological control. *BioControl* **67**, 297-306.

Additional key words: biological control **Computer codes:** PARZCO, TAMRTR

2022/225 *Zizania latifolia* (Poaceae) in the EPPO region: addition to the EPPO Alert List

Why
Zizania latifolia (Poaceae) is a perennial rhizomatous species found in damp habitats. In the EPPO region, it shows invasive behaviour in Lithuania, Russia, and Ukraine. The EPPO Panel on Invasive Alien Plants are seeking further information on the occurrence and behaviour of *Z. latifolia* in the EPPO region.

Geographical distribution

EPPO region: Belarus, Belgium, Kazakhstan, Lithuania, Russia (Central Russia, European Russia, Russian Far East*), Ukraine, United Kingdom.

Asia (native): China (Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Hunan, Jiangsu, Jiangxi, Jilin, Liaoning, Shaanxi, Shandong, Sichuan, Yunnan, Zhejiang), Japan, Mongolia, Myanmar, Taiwan.

North America: USA (Hawaii).

Oceania: New Zealand.

* *Zizania latifolia* is native to the Russian Far East.

Morphology
Culms erect, 1–2.5 m (taller in the non-native range), ca. 1 cm thick, rooting at lower nodes, nodes glabrous. Leaf sheaths longer than internodes, thickened, lower sheaths tessellate; leaf blades broadly linear, 50–90 × 1.5–3.5 cm, abaxial surface scabrous, adaxial surface glabrous, tapering to base, apex abruptly narrowed to a long point. Panicle 30–50 × 10–15 cm.

Biology and Ecology
In the EPPO region, *Z. latifolia* rarely flowers and seed-set has not been reported. *Zizania latifolia* can grow vigorously and forms dense monospecific stands. In Lithuania, extensive cover has been recorded (2 500 m^2).

Habitats
Zizania latifolia is an aquatic plant species which can tolerate fresh, brackish and saline water. It can be found at the margins of ponds and canals, wetlands and tidal flats. It is also found along ditches or any slow flowing water body.

Pathways for movement
Zizania latifolia is thought to have been introduced into New Zealand via soil ballast from ships. It has been introduced into several countries as a food crop (cultivated throughout Asia), a fodder crop and as an ornamental pond plant. In the introduced range, spread is mainly human mediated. Drainage machinery, boats and trailers can all act to spread rhizome fragments. *Z. latifolia* can spread locally via rhizome fragmentation that can be moved through the water course.

Impacts
Zizania latifolia can invade and degrade pastureland which can cause low lying pastures to become waterlogged. It can also clog drainage systems increasing the risk of flooding.

Z. latifolia can form dense monocultures which can outcompete native biodiversity causing impacts on ecosystem services.

Control
Zizania latifolia is a difficult species to control due to the habitats it invades. Additionally, rhizomes fragments should be removed to avoid re-growth. Herbicides are the most effective control measure, but their use is restricted because many chemicals can affect the biota in waterways.

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

2022/226 Invasive behaviour of *Gleditsia triacanthos* in Spain

Gleditsia triacanthos (Leguminosae) is a tree species native to Eastern USA which has been introduced to South America (Argentina, Uruguay), Australia, South Africa and the EPPO region. Its invasive range includes California, Australia and Argentina. Although widely planted in the EPPO region, *G. triacanthos* has, until now, not been reported as being invasive. In Spain, *G. triacanthos* was first introduced in the 19th century as an ornamental species in cities and along roadsides and for erosion control along riverbanks. In the Iberian Peninsula, *G. triacanthos* has been recorded as planted or as a transient species. However, in 2019, a population was discovered in the Southwest of Spain spreading over 1. 9 km along the Guadiamar River. The population structure includes seedlings, young vegetative saplings and large adult flowering and fruiting individuals, the latter often forming dense spiny thickets that restrict access. Measures of trunk perimeter showed the dominance of juveniles with trunks ≤ 0.1 m (57.8%, 244 individuals), but trunk perimeters greater than 0.4 m represented ca. 20% of all individuals found (84 out of 422 individuals). Currently, the ecological impact of *G. triacanthos* along the Guadiamar River has not been studied but it colonises areas that should be occupied by native vegetation. It is recommended that the species is eradicated from this area and the habitat is restored. The seeds of *G. triacanthos* can remain viable for long periods due to its thick, impermeable seed coat. Therefore, any management action must be monitored during a sufficient time to ensure eradication has been achieved.

Source: Dana ED, García-de-Lomas J, Jiménez-Cantizano FA, Verloove F (2022) *Gleditsia triacanthos* L. (honeylocust, Leguminosae): first record as an invader of riparian woodland in Southern Spain. *BioInvasions Records* **11** (in press).

Pictures: *Gleditsia triacanthos*. https://gd.eppo.int/taxon/GLITR/photos

Additional key words: invasive alien plants **Computer codes:** SIDRH, ES

2022/227 Control of *Pontederia crassipes* in Spain

Pontederia crassipes (Pontederiaceae: EPPO A2 List) is one of the world's most invasive aquatic plants. Native to South America, *P. crassipes* has been introduced into the EPPO region where it can cause significant negative impacts including blocking water channels, degrading biological diversity, and providing breeding grounds for mosquitoes. A rapid response control was carried out against *P. crassipes* in the Guadalquivir River in Seville (Southern Spain). Removal was implemented by the regional environmental Council, national security forces and public companies. After its detection, the distribution and abundance of *P. crassipes*, and the possible source of the introduction was assessed as the basis for selecting a feasible removal method. Plants were scattered across 110 ha. In the control programme, in total, over 1 900 kg (fresh weight) was removed between May and December 2021 by combining manual removal from water using inflatable boats and floating booms, as well as removal from the bank of the water body. In total, the action cost approximately 22 500 EUR. Most biomass (83 %) was removed during the initial control phase (one month). However, most of the efforts and costs (83 %) were incurred in the following seven months, especially for monitoring and follow-up treatments. The rapid response avoided summer growth, and spread and contributed to reduced biomass and control costs compared to that estimated if control had taken place at the end of the summer. The coordinated response of the stakeholders allowed for an effective rapid response.

Source: García-de-Lomas J, Dana ED, Borrero J, Yuste J, Corpas A, Boniquito JM, Castilleja FJ, Martínez JM, Rodríguez C, Verloove F (2022) Rapid response to water hyacinth (*Eichhornia crassipes*) invasion in the Guadalquivir river branch in Seville (southern Spain). *Management of Biological Invasions* **13** (in press).

Pictures: *Pontederia crassipes*. https://gd.eppo.int/taxon/EICCR/photos

Additional key words: invasive alien plants **Computer codes:** EICCR, ES

2022/228 *Solanum elaeagnifolium* in Portugal

Solanum elaeagnifolium (Solanaceae: EPPO A2 List) is a herbaceous perennial or a small shrub, native to the Americas and an alien invasive plant in parts of Asia, Africa and the EPPO region. Field surveys conducted in December 2021 in two regions in Portugal revealed the occurrence of this invasive plant species. The first population of *S. elaeagnifolium* was found at Costa da Caparica, municipality of Almada (Lisbon region), in an abandoned area located in an urban environment and next to the ocean and consisted of approximately 200 stems. The second population was found in an abandoned field located in an agricultural area at Cano, municipality of Sousel (Northern Alentejo region). This infestation was large (>0.5 ha) and may serve as a reservoir for future invasions in nearby arable fields and olive groves. Each plant can produce 40-60 fruits with each fruit containing 60-120 seeds which are spread both naturally (via wind and through water movement) and through human assisted spread (dispersal via agricultural machinery). Negative impacts include outcompeting native species, reducing crop yields in agricultural systems and impacts on ecosystem services (for example pollinators). For both populations, eradication attempts should be applied to eliminate the invasive alien plant before further spread. Monitoring actions and control of the population are the measures to prevent further dispersal of the plant in agricultural land in the Cano site.

Source: Tataridas A, Oliveira RS, Frazão L, Moreira M, Travlos I, Freitas H (2022) *Solanum elaeagnifolium* Cav. (Solanales: Solanaceae) presence confirmed in Portugal. *EPPO Bulletin* **52**, 499-504.

Pictures: *Solanum elaeagnifolium*. https://gd.eppo.int/taxon/SOLEL/photos

Additional key words: invasive alien plants **Computer codes:** SOLEL, PT