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2024/097 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**

Amrasca biguttula (Hemiptera: Cicadellidae), the Indian cotton jassid is first reported from Barbados. It was detected in February 2024 on okra (*Abelmoschus esculentus*), sorrel (*Hibiscus sabdariffa*) and cotton (*Gossypium* spp.) (IPPC, 2024). This is the second report in the Caribbean after Puerto Rico (EPPO RS 2024/036).
The pest status of *Amrasca biguttula* in Barbados is officially declared as: **Present: not widely distributed and not under official control.**

Bactrocera carambolae (Diptera: Tephritidae – EPPO A1 List) was found in Guyana in fruit of *Averrhoa bilimbi, Malpighia emarginata,* and *Psidium guajava* during a survey in 2022 in the region of Lethem. The EPPO Secretariat had no other records of this fruit fly species in Guyana since its successful eradication in 2001 (EPPO RS 2002/007). However, the article mentions that the species has been present there since 2007 (Costa *et al.*, 2024).

Drosophila suzukii (Diptera: Drosophilidae – EPPO A2 List) is reported for the first time from South Africa. It was detected in October 2023 in blueberry production (*Vaccinium* spp.) in the KouKamma municipality in the Eastern Cape Province. Further surveys detected the pest in Overberg municipality in the Western Cape Province in November 2023, and in the Mopani municipality in the Limpopo Province and in the uMgungundlovu municipality in Kwa-Zulu Natal Province in January and February 2024 respectively. Surveys are conducted in other parts of the country where host plants are produced, and phytosanitary measures are implemented to prevent further spread (IPPC, 2024).
The pest status of *Drosophila suzukii* in South Africa is officially declared as: **Present: not widely distributed and under official control.**

In Honduras, a survey was conducted in 2020-2021 to identify the species of thrips present in some crops and associated weeds. *Frankliniella occidentalis* (Thysanoptera: Thripidae, EPPO A2 List) was the dominant species on sweet pepper (*Capsicum annuum*), and *Microcephalothrips abdominalis* (Thysanoptera: Thripidae, formerly EPPO Alert List) was found on the weed *Melampodium divaricatum* (Gómez-Santos *et al.*, 2024).

In Bangladesh, surveys were conducted in 2021-2023 to identify thrips species in 16 regions on various host plants. In total 19 thrips species were identified by DNA barcoding, including 10 species that had not been previously reported in Bangladesh such as *Scirtothrips dorsalis* (Thysanoptera: Thripidae – EPPO A2 List), *Microcephalothrips abdominalis* (formerly EPPO Alert List), and *Thrips parvispinus* (Thysanoptera: Thripidae – formerly EPPO Alert List) (Khatun *et al.*, 2024).

- **Detailed records**

In Canada, *Agrilus planipennis* (Coleoptera: Buprestidae – EPPO A2 List) was found for the first time in British Columbia in early 2024, in the City of Vancouver. Phytosanitary measures including surveys and restrictions on the movements of ash material (e.g. logs, branches, woodchips) and firewood have been put into place from April 2024 to prevent any further spread. Surveys are conducted to determine where *A. planipennis* occurs in British Colombia (CFIA, 2024).

In Panama, '*Candidatus* Liberibacter asiaticus' (associated with huanglongbing – EPPO A1 List) was first detected in 2016 (EPPO RS 2017/117). The results of recent detection and delimitation surveys determined that the disease has spread within the province of Bocas del Toro, from Las Tablas and Guabito to the municipality of Punta de Peña, 119 km away (IPPC, 2024).
The pest status of citrus Huanglongbing in Panama is officially declared as: **Present in the province of Bocas del Toro, under official control, confirmed by surveys.**

In the USA, the nematode *Meloidogyne graminicola* (EPPO A2 List) was known to occur in the South-Eastern states. It was identified in Indiana during surveys conducted in 2021-2022 in bentgrass *(Agrostis stolonifera)* golf greens (McCurdy *et al.*, 2024).

Thrips parvispinus (Thysanoptera: Thripidae – formerly EPPO Alert List) carries on spreading in India. In early 2024 it was first reported from West Bengal, causing damage on chilli crops (*Capsicum annuum*) (Chatterjee *et al.*, 2024).

- **Denied record**

The presence of *Phytophthora alni* subsp. *alni* (formerly EPPO Alert List, EAEU A1 List) in Belarus had been reported during scientific studies (EPPO RS 2024/049). However, the NPPO of Belarus recently informed the EPPO Secretariat that this quarantine pest has not been detected during official surveys. It is planned to perform additional surveys in 2024. The NPPO of Belarus considers that *Phytophthora alni* subsp. *alni* is absent from its territory (NPPO of Belarus, 2024).

Sources:

CFIA (2024-05-02) Emerald ash borer confirmed in Vancouver. https://www.canada.ca/en/food-inspection-agency/news/2024/05/emerald-ash-borer-confirmed-in-vancouver-british-columbia.html

Chatterjee M, Biswas A, Chakraborty D, Patra B, Sahoo SK (2024) First report of invasive thrips, *Thrips parvispinus* (Karny)(Thysanoptera: Thripidae) in chilli from Alipurduar District of West Bengal, India. *Journal of Scientific Research and Reports* **30**(5), 618-624. https://doi.org/10.9734/jsrr/2024/v30i51980

Costa JV, de Aguiar Paes JL, Souza LA, Peters P, McWatt PM, van Sauers Muller A, de Sousa MD, Adaime R (2024) New records of host plants of *Bactrocera carambolae* Drew & Hancock, 1994 (Diptera: Tephritidae) in Cooperative Republic of Guyana. *EntomoBrasilis* **17**, e1048. https://doi.org/10.12741/ebrasilis.v17.e1048

Gómez-Santos AA, Orozco J, Valdespino RA (2024) Trips (Insecta: Thysanoptera) asociados a cebolla, lechuga, chile dulce y malezas asociadas en El Zamorano, Honduras. *Ciencia y Tecnología Agropecuaria* **25**(1), e3447. https://doi.org/10.21930/rcta.vol25_num1_art:3447

Khatun MF, Hwang HS, Kang JH, Lee KY, Kil EJ (2024) Genetic diversity and DNA barcoding of thrips in Bangladesh. *Insects* **15**(2), 107. https://doi.org/10.3390/insects15020107

IPPC website. Official Pest Reports – South Africa (ZAF-58/2 of 2024/03/28) Notification on the detection of *Drosophila suzukii*, the Spotted Wing Drosophila (SWD) in the Republic of South Africa. https://www.ippc.int/fr/countries/south-africa/pestreports/2024/05/notification-of-the-detection-of-drosophila-suzukii-the-spotted-wing-drosophila-swd-in-the-republic-of-south-africa/

IPPC website. Official Pest Reports – Barbados (BRB-10/1 of 2024/03/28) First report of presence of Indian cotton leafhopper (*Amrasca biguttula*) https://www.ippc.int/fr/countries/barbados/pestreports/2024/03/first-report-of-presence-of-indian-cotton-leafhopper-amrasca-biguttula/

IPPC website. Official Pest Reports – Panama (PAN-03/9 of 2024-03-13) Presence of Citrus HLB.

https://www.ippc.int/fr/countries/panama/pestreports/2017/08/presencia-de-hlb-de-los-citricos-presence-of-citrus-hlb/
McCurdy AL, Barizon J, Miller GL (2024) Depth distribution of plant-parasitic nematodes on bentgrass golf greens in Missouri and Indiana. *Journal of Nematology* **56**(1), 471-480. https://doi.org/10.2478/jofnem-2024-0006
NPPO of Belarus (2024-05).

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

Computer codes: AGRLPL, DROSSU, EMPOBI, LIBEAS, MCCTAB, MELGGC, PHYTAL, SCITDO, THRIPV, BB, BY, CA, GY, HN, IN, PA, US, ZA

2024/098 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 2024/076), the following new and revised EPPO datasheets have been published in the EPPO Global Database:

- *Fusarium euwallaceae*. https://gd.eppo.int/taxon/FUSAEW/datasheet
- *Phyllocoptes fructiphilus*. https://gd.eppo.int/taxon/PHYCFR/datasheet
- *Tomato yellow leaf curl virus*. https://gd.eppo.int/taxon/TYLCV0/datasheet
- *Xanthomonas euvesicatoria* pv. *euvesicatoria*. https://gd.eppo.int/taxon/XANTEU/datasheet
- *Xanthomonas euvesicatoria* pv. *perforans*. https://gd.eppo.int/taxon/XANTPF/datasheet
- *Xanthomonas hortorum* pv. *gardneri*. https://gd.eppo.int/taxon/XANTGA/datasheet
- *Xanthomonas vesicatoria*. https://gd.eppo.int/taxon/XANTVE/datasheet

Source: EPPO Secretariat (2024-05).

Additional key words: publication

Computer codes: FUSAEW, PHYCFR, TYLCV0, XANTEU, XANTGA, XANTPF, XANTVE

2024/099 First report of *Scirtothrips aurantii* in Madeira (Portugal)

In Portugal, *Scirtothrips aurantii* (Thysanoptera: Thripidae – EPPO A1 List) was first reported on the mainland in 2022 in Algarve and Alentejo regions (EPPO RS 2023/036, RS 2024/010). The NPPO of Portugal recently informed the EPPO Secretariat of the first finding in the island of Madeira.

At the end of January 2024, samples of suspicious insects collected in a strawberry *(Fragaria* × *ananassa*) fruit production field were submitted to the regional laboratory. The species was identified as *S. aurantii*. The authorities inspected other strawberry fields and the presence of *S. aurantii* was confirmed in four additional fields. Infested fields are located in the counties of Câmara de Lobos and Porto Moniz in Madeira Island. An investigation is ongoing and official phytosanitary measures will be taken, aiming at eradication.

The pest status of *Scirtothrips aurantii* in Portugal is officially declared as: **Present, under eradication, only in some parts of the Member State concerned.**

Source: NPPO of Portugal (2024-05).

Pictures *Scirtothrips aurantii*. https://gd.eppo.int/taxon/SCITAU/photos

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

2024/100 New host plants of *Scirtothrips aurantii* in Portugal

During surveys conducted in Algarve to delimit the presence of *Scirtothrips aurantii* (Thysanoptera: Thripidae – EPPO A1 List), the NPPO of Portugal found the thrips infesting the following plant species in the demarcated areas: *Citrus* x *limon, Citrus reticulata, Citrus* x *aurantium* var. *sinensis, Citrus* sp., *Citrus* x *aurantiifolia*, Citrus* x *nobilis*, Ficus carica*, Malus domestica*, Myoporum* sp.**, Myrtus communis*, Persea americana, Prunus persica* Rosa* sp.**, Rubus* sp.

S. aurantii is a very polyphagous species in its current area of distribution, and may further extend its host range while establishing in the EPPO region. The EPPO Secretariat had no previous record of the plant species marked with a *. This information may be useful for further surveys in EPPO countries.

Source: NPPO of Portugal (2024-03). https://www.dgav.pt/plantas/conteudo/sanidade-vegetal/inspecao-fitossanitaria/informacao-fitossanitaria/scirtothrips-aurantii/

Pictures *Scirtothrips aurantii*. https://gd.eppo.int/taxon/SCITAU/photos

Additional key words: host plants, detailed record **Computer codes:** SCITAU, PT

2024/101 Possible incursion of *Spodoptera frugiperda* in Malta

Spodoptera frugiperda (Lepidoptera: Noctuidae – EPPO A2 List) is reported for the first time in Malta. During faunistic studies, 3 specimens (2 males and 1 female) were caught in September 2023, in a light trap in Rabat (over a period of 18 nights), as well as 2 specimens (1 male and 1 female) in Naxxar (over a period of 23 nights). The origin of these specimens

is not known, nor whether the pest would be able to survive during winter conditions in Malta.

Following this first published record, the EPPO Secretariat contacted the NPPO of Malta which explained that official surveys to detect the presence of *S. frugiperda* on its territory have been conducted since 2019 with the use of specific pheromone traps. No specimen has been trapped in this framework. For the moment, the NPPO cannot confirm the presence of S. *frugiperda* on its territory as mentioned by Seguna *et al.* (2024) because the diagnosis was not performed by an accredited laboratory. An official survey will be conducted again in 2024.

Source: Seguna A, Catania A, Borg JJ, Sammut P (2024) *Spodoptera frugiperda* (Smith, 1797), an unwelcome visitor reaches the Maltese Islands (Lepidoptera: Noctuidae, Xyleninae). *SHILAP Revista de lepidopterología* **52**(205), 29-31. https://doi.org/10.57065/shilap.844

NPPO of Malta (2024-05).

Pictures *Spodoptera frugiperda*. https://gd.eppo.int/taxon/LAPHFR/photos

Additional key words: incursion **Computer codes:** LAPHFR, MT

2024/102 First report of *Aleurocanthus camelliae* in Croatia

The camellia spiny whitefly, *Aleurocanthus camelliae* (Hemiptera: Aleyrodidae), was first reported in the EPPO region in Italy, in the Pistoia province (Toscana) in September 2020 (EPPO RS 2022/125) on *Camellia sasanqua* plants grown in eight plant nurseries.

In 2022 during phytosanitary inspections for regulated *Aleurocanthus* species in plant nurseries and garden centres in Croatia, dark whitefly larvae were observed on the lower surfaces of leaves of camellia plants. The specimens were identified as *Aleurocanthus camelliae* on the basis of morphological characters. Infested potted camelias *(Camellia japonica* and *C. sasanqua)* were found in seven nurseries and garden centres in five counties, outdoors and in greenhouses. All infested seedlings had been imported from Italy. Infested plants did not show any significant damage as the whitefly infestation of camellia plants was generally sparse. No adults *A. camelliae* were observed. Since *A. camelliae* is a not a regulated pest, no specific phytosanitary measures were undertaken by importers of consignments of the infested plants.

Pictures were kindly provided by Dr Maja Pintar and are available in EPPO Global Database.

Source: Šimala M, Pintar M, Markotić V (2023) *Aleurocanthus camelliae* Kanmiya & Kasai, 2011 (Hemiptera: Aleyrodidae), a newly intercepted whitefly species in Croatia. *Natura Croatica* **32**(2), 431-437. DOI: 10.20302/NC2023.32.28. https://hrcak.srce.hr/file/446375.

Pictures: *Aleurocanthus camelliae*. https://gd.eppo.int/taxon/ALECCA/photos

Additional key words: new report **Computer codes:** ALECCA, HR

2024/103 First report of *Dactylopius opuntiae* in Tunisia

Dactylopius opuntiae (Hemiptera: Dactylopiidae) feeds on *Opuntia* species. This scale has been used as a biocontrol agent against *Opuntia* spp. where these plants are considered as weeds. However, in areas where *Opuntia* spp. are grown as crops (such as *Opuntia ficus-indica)*, the presence of this scale causes severe damage. *D. opuntiae* was first recorded in the EPPO region in Spain in 2009 (EPPO RS 2014/100), in Lebanon in 2012 (RS 2017/189), in Israel in 2013, in Morocco in 2014 (RS 2016/152), in Cyprus in 2016 (RS 2017/082) and in Jordan in 2019 (RS 2019/154).

The NPPO of Tunisia conducted a survey to assess the presence of *D. opuntiae* on its territory after observing suspicious symptoms in the region of Sidi Zid in 2021. The survey confirmed the presence of *D. opuntiae*. The identity of the pest was confirmed by molecular tests. An official control strategy was immediately put into place to eradicate the identified outbreaks and prevent the insect from spreading to other areas.

The pest status of *Dactylopius opuntiae* in Tunisia is officially declared as: **Present: not widely distributed and under official control.**

Source: IPPC website. Official Pest Reports – Tunisia (TUN-03/2 of 2024/05/02) Premier signalement de la cochenille du cactus ou *Dactylopius opuntiae* en Tunisie. https://www.ippc.int/en/countries/tunisia/pestreports/2024/05/premier-signalement-de-la-cochenille-du-cactus-ou-dactylopius-opuntiae-en-tunisie/

Pictures *Dactylopius opuntiae*. https://gd.eppo.int/taxon/DACLOP/photos

Additional key words: new record **Computer codes:** DACLOP, TN

2024/104 First confirmed report of *Pochazia shantungensis* in Japan

In Japan, the presence of an unidentified planthopper has been reported on the Internet since 2015. Several papers (in Japanese) suggested that this newly found species was *Pochazia shantungensis* (Hemiptera: Ricaniidae – EPPO Alert List), but because of taxonomic issues the identity of the species had not been confirmed. *P. shantungensis* is thought to originate from China and has recently been introduced in the Republic of Korea and several countries in the EPPO region.

In Japan, 120 adult specimens were collected from 32 locations in Nara, Osaka, Wakayama and Kumamoto prefectures from 2015 to 2023. Specimens from collections were also examined for taxonomic purposes. Results confirmed that *P. shantungensis* occurs in Japan in Honshu (Aichi, Chiba, Gifu, Gunma, Hiroshima, Hyogo, Kanagawa, Kyoto, Mie, Nara, Okayama, Osaka, Saitama, Shizuoka, Tokyo, Wakayama prefectures) and Kyushu (Kumamoto prefecture).

A list of host plants on which *P. shantungensis* was found in Japan has also been established and includes more than 60 plant species from 32 families. It is noted that *P. shantungensis* has often been collected from *Camellia* spp., *Cinnamomum camphora,* and *Ligustrum* spp. Despite the high densities of adults and nymphs observed on some plants, no serious damage has been reported so far.

Concerning the biology of the pest, it has been observed in the Osaka prefecture that *P. shantungensis* has two generations per year and overwinters in the egg stage on tree branches.

Finally, the diagnostic features of *P. shantungensis* have been reevaluated and descriptions of male and female genital structures, wings and fifth instar nymph are provided. A description of the male genitalia of *P. sublimata* (a similar species which has sometimes been confused with *P. shantungensis)* is also provided, together with several compared diagnostic features between three species: *P. shantungensis, P. sublimata* (absent from Japan) and *P. albomaculata* (present in Japan).

Source: Kobayashi S, Suzuki M, Kuwahara R, Park J, Yamada K, Jung S (2024) Reevaluation of taxonomic identity of the recently introduced invasive planthopper, *Pochazia shantungensis* (Chou & Lu, 1977)(Hemiptera: Fulgoroidea: Ricaniidae) in Japan. *Zootaxa* **5446**(2), 151-178.

Pictures *Pochazia shantungensis*. https://gd.eppo.int/taxon/POCZSH/photos

Additional key words: new record, taxonomy **Computer codes:** POCZSH, JP

2024/105 *Lamprodila nobilissima bellula* is a pest of peach trees in Northern China

In 2023, studies were carried out in the Beijing area (Northern China) on peach (*Prunus persica*) pests and their associated parasitoids, in particular to identify parasitoids of *Aromia bungii* (Coleoptera: Cerambycidae – EPPO A2 List). During these studies, it was found that another insect, *Lamprodila nobilissima bellula* (Coleoptera: Buprestidae), was causing the most damage to *P. persica* orchards. During these studies, a new parasitoid species, *Atanycolus yangi* (Hymenoptera: Braconidae) was found parasitizing *L. nobilissima bellula*.

L. nobilissima bellula is a wood borer which attacks various fruit and forest trees belonging to Rosaceae (*Crataegus pinnatifida, Malus asiatica, M. domestica, Prunus armeniaca, P. persica, P. pseudocerasus, Pyrus* spp.), Ulmaceae (*Ulmus pumila*), and Rhamnaceae (*Ziziphus jujuba*). The native range of this insect includes Northern China, the Democratic People's Republic of Korea (Pyŏngyang), Northern Japan and the Russian Far East (Primorye). Very little information on *L. nobilissima bellula* is available from the literature.

Source: Cao LM, Xie JY, Wang XG, Wang XY, Poland TM, Petrice TR, Yang ZQ (2024) Description of a new species of the genus *Atanycolus* Foerster (Hymenoptera: Braconidae) parasitizing *Lamprodila nobilissima bellula* (Lewis)(Coleoptera: Buprestidae) in China. *Zootaxa* **5448**(2), 248-260.

Holynski RB (2018) Buprestidae (Coleoptera) collected by the Természettudomány Múzeum (Budapest) expeditions in Korea between 1970 and 1991. *Procrustomachia Occasional Papers of the Uncensored Scientists Group* **3**(1), 1-16. https://rcin.org.pl/Content/69246/PDF/WA058_90220_P6868_P.pdf

Additional key words: new pest **Computer codes:** LAMRBE, CN

2024/106 Update on the situation of *Callidiellum rufipenne* in Europe

The Japanese cedar longhorned beetle, *Callidiellum rufipenne* (Coleoptera: Cerambycidae – formerly EPPO Alert List) is a wood borer of Cupressaceae (*Chamaecyparis, Cryptomeria, Cupressus, Juniperus, Thuja*) originating from the Far East which has been introduced into the USA and the EPPO region. A recent paper presents a detailed situation of this pest in Europe, based on scientific papers and verified observations published on various online

platforms. Countries are listed below in order of first detections. It is noted that in many cases, insect specimens were first noticed near sea harbours, suggesting that trade and human activities are playing a key role in its spread. Establishment of *C. rufipenne* has been confirmed in Belgium, France, Italy, Netherlands, Spain, and Sweden. In other countries only isolated findings have been made and establishment remains to be confirmed.

- **France (1906)**

In the literature, it is mentioned that *C. rufipenne* was accidentally caught in Southern France without any further details in 1906. An unconfirmed record was also made in February 2000 in Saint-Chamont (Loire department) but the insect has not been seen again in this area. The first confirmed findings were made in December 2011 in the Sare forest (Pyrénées-Atlantique department). This population is considered established and is spreading towards Spain. Further findings *of C. rufipenne* have been made in the Vendée department in 2019.

- **Denmark (1978)**

A single dead specimen was found in June 1978 on a beach in Skagen (North Jutland region), following an episode of strong eastern winds. It is supposed that this insect was blown onto the beach from a ship sailing along the Danish coast. No further specimens were reported.

- **Georgia (1987)**

A single female specimen was observed in May 1987 in Chakvi (Kobuleti municipality – Adjara Autonomous Republic).

- **Italy (1988)**

Several specimens were first found in March 1988 in Ravenna (Emilia-Romagna) in dead branches of *Juniperus communis* collected from a pine stand. *C. rufipenne* is established in Italy, but confined to this area.

- **Russia (1992)**

Several specimens were obtained in 1992 (after rearing) from cut trunks of *Cupressus* sp. in Sotchi (Krasnodar). The Russian Far East is part of the native range of *C. rufipenne*, but in Krasnodar (Southern Russia), its establishment is not confirmed.

- **Spain (1995)**

The first specimens were recorded in February 1995 in the province of Vizcaya (País Vasco) on *Cupressus macrocarpa*. From 1995 to 2014, further findings were made in various localities of País Vasco (Álava, Vizcaya provinces), Cantabria, and Navarra on *C. macrocarpa* and *C. lawsoniana*. It is supposed that populations are established along the littoral of País Vasco and Cantabria, but recent data is lacking to determine whether the pest is spreading or not.

- **Belgium (2006)**

C. rufipenne was first detected in 2006 near Antwerpen, and was then increasingly reported in the following years in the provinces of Antwerpen, Oost-Vlaanderen, and Vlaams-Brabant within a radius of 50 km around Antwerpen. Spread continued and records were made in Limburg (first in 2018), Brussels (2018), Brabant Wallon (2020), West-Vlaanderen (2021) and Hainaut (2023).

- **Slovenia (2006)**

A single male specimen was caught in October 2006 in Obrov (near Poljane), emerging from *Thuja* sp. wood which had been collected in 2002 (a surprisingly long delay).

- **Croatia (2007-2008)**

The first adult specimens were obtained in February 2008 from larvae infesting a fallen branch of *Thuja* collected in 2007 in Njivice, Krk Island. Another specimen was collected in May 2020 in Čačinci (Virovitica-Podravina county).

- **Serbia (2011)**

Outbreaks of *C. rufipenne* were noticed in 2011-2012 in nurseries producing Cupressaceae, in particular *Thuja* sp., in the districts of Mačva and Kolubara.

- **Portugal (2013)**

A female specimen was observed in April 2013 in Guarda (Beira Interior Norte) on the balcony of a private house near an avenue planted with conifers. These trees have been removed and no further insects have been seen.

- **Bosnia-Herzegovina (2017)**

A single female specimen was observed in April 2017 in Bijeljina (Semberija, Republika Srpska).

- **Sweden (2017)**

The first specimens were found in June 2017 in Harplinge, Halland county. Further specimens were then found in this county, as well as in Västra Götaland county. It is considered that these two populations are probably in the process of establishing.

- **Netherlands (2018)**

The insect was first observed in May 2018 in the municipality of Roedalen (Limburg province). Further observations were made in several localities in the counties of Gelderland, Limburg, Noord-Brabant, Noord-Holland, Zeeland and Zuid-Holland. Most findings were made in the Southern part of the country, as an extension of the populations observed in Belgium.

Source: Clément F (2023) Le point sur la distribution de *Callidiellum rufipenne* (Motschulsky, 1861) en France et en Europe (Coleoptera, Cerambycidae, Cerambycinae, Callidiini). *Le Coléoptériste* **26**(3), 188-203.

Additional key words: detailed record

Computer codes: CLLLRU, BE, BH, DK, ES, FR, GE, HR, IT, NL, RU, SE, SI, SR

2024/107 Update on the situation of *Meloidogyne chitwoodi* and *Meloidogyne fallax* in the Netherlands

In the Netherlands, *Meloidogyne chitwoodi* (EPPO A2 List) and *Meloidogyne fallax* (EPPO A2 List) were first recorded in the 1990s (EPPO RS 1997/01). A systematic surveillance programme has been carried out since 1999. The NPPO of the Netherlands recently published an update of the situation of these two nematodes based on official surveys conducted in 2023 in both demarcated areas and pest free areas.

In 2023, *M. fallax* was found for the first time in the natural environment in the central part of the Netherlands, on a sample of five plants of Cyperaceae. The two species were also detected in seed potatoes, ware potatoes, and starch potatoes. For seed potatoes, 913 lots were sampled and tested in all demarcated areas, of which 56 tested positive (128.6 ha). Outside the demarcated areas 1125 samples were taken, of which 22 samples tested positive

(156.7 ha). In total 2038 samples were taken for seed potatoes (which correspond to 4086 ha). New demarcated areas were defined accordingly. Official phytosanitary measures aiming at containing these nematodes are applied. They include the demarcation of an area of 1 km around the infested fields, the sampling and testing of all seed potatoes grown in demarcated areas, the destruction of infested seed potatoes (or use as ware potatoes or processing under official control), and the prohibition to market any plants for planting that tested positive for these nematodes.

The pest status of *Meloidogyne chitwoodi* in the Netherlands is officially declared as: **Present, only in some parts of the Member State**.

The pest status of *Meloidogyne fallax* in the Netherlands is officially declared as: **Present, only in some parts of the Member State**.

Source: NPPO of the Netherlands (2024-04) Update: new findings of *Meloidogyne chitwoodi* and *M. fallax* in 2023. First finding of *Meloidogyne fallax* on plants of Cyperaceae in natural environment. https://english.nvwa.nl/topics/pest-reporting/pest-reports (including a map of demarcated and infested areas)

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

Additional key words: detailed record **Computer codes:** MELGCH, MELGFA, NL

2024/108 *Globodera vulgaris*: a new cyst nematode found on potato in China

From 2018 to 2020, a *Globodera* species was observed infesting roots of potato (*Solanum tuberosum*) and surrounding wild plants (*Acroglochin persicarioides, Artemisia selengensis, Persicaria nepalensis, Silene* sp.) in three provinces of China (Guizhou, Sichuan and Yunnan). No particular symptoms were observed on the aerial parts of these plants. Cysts were collected from the rhizosphere of potatoes and wild plants in 7 locations in Guizhou, Sichuan and Yunnan. These samples were taken to the laboratory for morphological, molecular, and pathogenicity studies. Results showed that collected specimens corresponded to a new nematode species which was called *Globodera vulgaris* n. sp. Pathogenicity tests showed that *G. vulgaris* can infest potato, tomato (*Solanum lycopersicum*), but not tobacco (*Nicotiana tabacum*). It is noted that the pathogenicity of *G. vulgaris* on potato is low and similar to that of *G. ellingtonae*. *G. vulgaris* is closely related to *G. rostochiensis* (EPPO A2 List), but presents differences in its morphological characteristics, host range, symptomatology, egg-hatching rate, and molecular characteristics. The authors noted that during their studies, they have not found *G. rostochiensis*, although this species had recently been reported in potato fields in Guizhou, Sichuan and Yunnan provinces (EPPO RS 2022/204).

Source: Xu C, Yang S, Xie Y, He J, Chen Y, Pan Y, Xie H (2023) Morphological and molecular characterization, including parasitic and pathogenic studies of a new spherical cyst nematode species, *Globodera vulgaris* n. sp. (Nematoda: Heteroderidae), associated with potatoes in China. *Phytopathology* **113**(8), 1560-1582.

Additional key words: taxonomy **Computer codes:** GLOBVU, CN

2024/109 *Meloidogyne limonae* n. sp.: a new root-knot nematode of lemon tree described in Hainan province, China

In China, a new root-knot nematode species infesting *Citrus x limon* (lemon) trees in Hainan province has been described and called *Meloidogyne limonae* n. sp. This new nematode species was found during a survey conducted in 2019 and 2022, as several lemon trees showing stunting and leaf chlorosis were observed in a lemon orchard located in Chengmai. Affected lemon trees showed poor-quality lemon fruit, leaf chlorosis, weak growth, and numerous root galls with protruding white females and egg masses. The pathogenicity of this new nematode species has been verified by artificial inoculation experiments onto a commercial lemon cultivar (*C.* x *limon* cv. Rosso). It is noted that *M. limonae* has been isolated from many lemon tree root samples collected in the affected orchard, causing numerous cellular changes in the root tissues. Considering the potential damage that this nematode could cause to lemon fruit production, research studies are being carried out on its biology, host range and distribution.

Source: Sun Y, Jiang R, Peng D, Zhang Y, Peng H, Long H (2024) Morphological and molecular characterization of a new root-knot nematode, *Meloidogyne limonae* n. sp. (Nematoda: Meloidogynidae), parasitizing lemon in China. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-05-23-0919-SR

Additional key words: new pest, taxonomy **Computer codes:** MELGLI, CN

2024/110 Vascular streak dieback, an emerging disease of ornamentals in the Southeastern USA: addition to the EPPO Alert List

Why: A sample of redbud (*Cercis canadensis*) that showed wilting and dieback was received by the Tennessee Department of Agriculture in 2019 and since then, multiple laboratories in Southern USA have received numerous plant samples with symptoms of vascular streak dieback similar to those caused by *Ceratobasidium theobromae* on cocoa. Although the identity of causal agent of this vascular streak dieback in the USA is not yet clear, this disease is increasing its geographical and host ranges. As the host range includes popular ornamentals, the EPPO Secretariat considered it useful to add this disease to the EPPO Alert List.

Where: Vascular streak dieback is causing damage in Virginia, North Carolina and Tennessee and recently individual cases also occurred in nurseries in Indiana, Florida and Oklahoma.
EPPO region: Absent.
North America: USA (Indiana, Florida, North Carolina, Oklahoma, Tennessee, Virginia).

On which plants: vascular streak dieback symptoms were first recorded on redbud (*Cercis canadensis*) but since then over 25 ornamental and woody plant genera including more than one species of *Acer, Catalpa,* and *Cornus*, as well as one species of *Amelanchier, Calycanthus, Crataegus, Fothergilla, Hamamelis, Lindera, Liriodendron, Magnolia, Myrica, Nyssa, Prunus, Rhus* and *Syringa*.

Damage: in recent years, nurseries in Virginia, North Carolina and Tennessee have observed wilt and severe dieback on *C. canadensis* (redbud), *Acer* spp. (maple) and *Cornus* spp. (dogwood) plants. In some cases, 90-100% of nursery stock was unsellable due to the severity of damage. Vascular streak dieback was observed in nurseries, as well as in newly planted landscape plants and natural landscapes.
Early symptoms include leaf chlorosis, scorched leaf margins, and stunting and/or wilting of the current year's growth, eventually leading to death of individual branchesThis dieback may continue into the main stem of the tree and ultimately cause tree death. Streaking or discoloration within the vascular tissue can be observed when symptomatic branches or stems are cut. Opportunistic fungi such as *Botryosphaeria* and *Phomopsis* colonize the weakened branches and cause cankers. There are currently no recommended chemical or cultural treatments available. Infested plants should be removed and incinerated to prevent any further spread.

The causal agent of vascular streak dieback in the USA is debated: some sources note that the fungus *Ceratobasidium theobromae* was consistently isolated from diseased plants whereas others consider that it may be another *Ceratobasidium* species. *C. theobromae* is a damaging pathogen on cocoa (*Theobroma cacao*) in South-East Asia and Melanesia. *Ceratobasidium* species are difficult to maintain in culture, making it impossible so far to conduct pathogenicity testing. A Real-time PCR test is being developed for reliable diagnostic of vascular streak dieback in the USA.

Pictures of symptoms observed can be viewed on the Internet:
https://www.pubs.ext.vt.edu/content/pubs_ext_vt_edu/en/SPES/spes-483/spes-483.html

Dissemination: The spread of the disease is suspected to be via wind-dispersed spores, that are not disseminated over long distances. Pruning and grafting tools may transmit the pathogen from infested plants to healthy plants. Trade of plants for planting could be a pathway for long distance spread.

Pathways: Plants for planting, cut branches?

Possible risks: Host plants of vascular streak dieback include woody ornamentals that are frequently traded and grown in the EPPO region. The disease causes dieback and mortality of plants and could have an important impact in nurseries if it was introduced into the EPPO region.

Sources

Baysal-Gurel F, Liyanapathiranage P (2024) Vascular Streak Dieback, an emerging threat to the redbud nursery production in the southeastern United States. Tennessee State University. ANR-PATH-1-2024. https://www.tnstate.edu/extension/VSD%20FAct%20Sheet%20TSU_PL_Feb%2026.pdf

Beckerman J, Creswell T, Bonkowski J, Baysal-Gurel F (2022) Vascular streak dieback of redbud: what plant pathologists know so far. https://www.hriresearch.org/vascular-streak-dieback-update

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Gray J (2024) Unveiling Vascular Streak Dieback: Insights, Surveys, and Solutions. tHRIve - web series. https://www.hriresearch.org/unveiling-vascular-streak-dieback-insights-surveys-and-solutions

Samuels GJ, Ismaiel A, Rosmana A, Junaid M, Guest D, Mcmahon P, Keane P, Purwantara A, Lambert S, Rodriguez-Carres M, Cubeta MA (2012) Vascular streak dieback of cacao in Southeast Asia and Melanesia: *in planta* detection of the pathogen and a new taxonomy. *Fungal Biology* **116**(1), 11-23.

EPPO RS 2024/110

Panel review date – Entry date 2024-05-

Additional key words: Alert List **Computer codes:** VSD000, US

2024/111 First report of tomato brown rugose fruit virus in Lithuania

The NPPO of Lithuania recently informed the EPPO Secretariat of the occurrence of tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO A2 List) on its territory. ToBRFV was first detected in May 2024 in Alytus region as part of an official survey. The virus was detected in a greenhouse (220 m^2) where 500 plants of tomato (*Solanum lycopersicum*) had been grown from seeds that had been purchased at the beginning of 2023. Phytosanitary measures according to EU Regulation 2023/1032 are being applied: the greenhouse where the infested tomato plants were grown is a demarcated area, where tomato plants are only allowed to be grown for fruit production, and where measures are taken to prevent ToBRFV from spreading from the greenhouse to the environment during the cropping period. After harvest, the tomato plants should be destroyed, and the greenhouse and associated equipment disinfected. Only plants that are not host of ToBRFV will then be allowed to be grown for 2 years in the demarcated area.

The pest status of *tomato brown rugose fruit virus* in Lithuania is officially declared as follows: **Present, at low prevalence, under eradication**.

Source: NPPO of Lithuania (2024-05).

Commission Implementing Regulation (EU) 2023/1032 of 25 May 2023 establishing measures to prevent the introduction into and the spread within the Union territory

of Tomato brown rugose fruit virus (ToBRFV) and amending Implementing Regulation (EU) 2020/1191, OJ L 139. http://data.europa.eu/eli/reg_impl/2023/1032/oj

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

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

2024/112 Update on the situation of '*Candidatus* Liberibacter asiaticus' and *Diaphorina citri* in Saudi Arabia

In Saudi Arabia, huanglongbing was first reported in the 1970s on the basis of characteristic foliar and fruit symptoms. The presence of '*Candidatus* Liberibacter asiaticus' (EPPO A1 List) was detected in symptomatic trees in the early 1980s when phytoplasma-like cells were observed by transmission electron microscopy, but its presence in symptomatic plants or in the psyllid vector (*Diaphorina citri* – Hemiptera: Psyllidae – EPPO A1 List) had not been confirmed by molecular tests. Therefore, a survey was conducted in 13 citrus-producing regions from March 2018 to June 2021. Citrus leaves and fruit were collected from symptomatic trees in commercial and urban trees, and tested (real-time PCR). The possible presence of psyllids was evaluated in all surveyed sites, and some *D. citri* adults were tested for the presence of '*Ca*. L. asiaticus' by molecular tests.

'*Ca*. L. asiaticus' was detected in symptomatic citrus samples in 10 out of the 13 surveyed regions (Al Baha, Al Jouf, Al Madina, Al Qassim, Asir, Hail, Makkah, Najran, Riyadh, Tabuk), in Western and South-Western Saudi Arabia. These results confirm the presence of '*Ca*. L. asiaticus' in Saudi Arabia, and the large number of infected locations showed that the disease range has expanded; probably aided by the increasing movements of infected plants for planting by growers.

The presence of *D. citri* was observed in a smaller number of regions (Al Baha, Jazan, Makkah, Najran), and the psyllid was mainly found in Mexican lime (*Citrus* x *aurantiifolia*) trees. Infestation levels ranged from moderate to no infestation. In this study, the presence of '*Ca*. L. asiaticus' could not be detected in the adult specimens of *D. citri* tested, possibly because the overall infection rate was too low. It is also noted that the other psyllid vector of huanglongbing, *Trioza erytreae*, was not found during this survey.

The situation of both '*Candidatus* Liberibacter asiaticus' and *Diaphorina citri* in Saudi Arabia can be described as follows: **Present, not widely distributed.**

Source: Ibrahim YE, Al-Saleh MA, Widyawan A, El Komy MH, Al Dhafer HM, Brown JK (2024) Identification and distribution of the '*Candidatus* Liberibacter asiaticus'-Asian citrus psyllid pathosystem in Saudi Arabia. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-07-23-1460-RE

Pictures '*Candidatus* Liberibacter asiaticus'. https://gd.eppo.int/taxon/LIBEAS/photos
Diaphorina citri. https://gd.eppo.int/taxon/DIAACI/photos

Additional key words: detailed record **Computer codes:** DIAACI, LIBEAS, SA

2024/113 First report of *Curtobacterium allii* in Italy and in the EPPO region

Curtobacterium allii is a new bacterial species which was first described in 2023 from diseased onion bulbs (*Allium cepa*) in Texas (USA).

In Italy, samples of maize (*Zea mays*) grown in the province of Cremona (Lombardia region) were submitted to the Plant Protection Service laboratory by a private company in May 2022 for diagnosis. Maize samples showed symptoms including longitudinal streaking on leaves, yellowing and discoloration. In addition, maize plants showed reduced vegetative growth and in some cases leaf desiccation. These affected maize plants were grown in a demonstration field and were destroyed after the sampling, thus preventing any further official investigations.

Specific molecular tests were carried out to exclude the presence of the quarantine pathogens *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* (EPPO A2 List) and *Pantoea stewartii* subsp. *stewartii* (EPPO A2 List). DNA from the isolated colonies was amplified using general 16S primers and the amplicons were sequenced. In addition, individual colonies were sequenced using an Illumina platform and identified as the new species *Curtobacterium allii* sp. nov. The isolated *C. allii* colonies were inoculated onto onion bulbs and showed to cause rot as reported in the initial description by Khanal *et al.* (2023). In addition, Koch's postulates for this pathogen were demonstrated, showing that after infection conducted under controlled conditions, maize plants showed the same symptoms as those observed in the field in Cremona. This is the first detection of the bacterium on the territory of the European Union. No phytosanitary measures could be imposed because the crop in the demonstration field had already been destroyed. Since this report, there have been no further symptoms observed in the field nor any positive test results.

Source: NPPO of Italy (2024-05).

Khanal M, Bhatta BP, Timilsina S, Ghimire S, Cochran K, Malla S (2023) *Curtobacterium allii* sp. nov., the actinobacterial pathogen causing onion bulb rot. *Antonie Van Leeuwenhoek* **116**(2), 83-96.

Pictures *Curtobacterium allii* https://gd.eppo.int/taxon/CURTAL

Additional key words: new record, new pest **Computer codes:** CURTAL, IT

2024/114 First report of *Puccinia graminis* f. sp. *tritici* Ug99 in Nepal

The wheat stem rust fungus *Puccinia graminis* f. sp. *tritici* Ug99* (strain TTKTT) is reported for the first time from Nepal. The presence of the Ug99 race group was confirmed by laboratory tests on 2 samples which had been collected in early November 2023 from off-season wheat crops in Dolakha district. It is noted that the disease was present at a very low level in the fields concerned. In addition, these wheat fields were fodder crops which were cut soon after the detection to minimize the risk of spread. Extensive surveys will continue in 2024 in wheat-producing areas in Nepal. It is noted that this is also the first record of Ug99 in South Asia.

* The Ug99 race group of *P. graminis* f. sp. *tritici* is a lineage of wheat stem rust that is able to overcome a number of resistance genes of wheat varieties previously resistant to the disease. This race group has been found in several countries in Africa and the Middle East (see also RS 2008/147, 2016/108, 2021/088).

Source: CIMMYT (2024-04-03) Successful surveillance results in early first detection of Ug99 in South Asia. https://www.cimmyt.org/news/successful-surveillance-results-in-early-first-detection-of-ug99-in-south-asia/

Pictures *Puccinia graminis* f. sp. *tritici*. https://gd.eppo.int/taxon/PUCCGT/photos

Additional key words: detailed record **Computer codes:** PUCCGT, NP

2024/115 Biological control of *Myriophyllum aquaticum* using the weevil *Phytobius vestitus*

Myriophyllum aquaticum (Haloragaceae: EPPO List of Invasive Alien Plants) is an invasive aquatic plant which is utilised as aquarium plant. It is invasive in the EPPO region and North America. Native to South America, *M. aquaticum* can reduce native biodiversity and have negative impacts on ecosystem services (e.g. reducing human activities in waterbodies, blocking irrigation channels). Traditional control methods, for example mechanical and chemical control, are either difficult to implement or not suitable for use in and around waterbodies. Biological control is one potential solution that is being explored for North America. The weevil *Phytobius vestitus* (Coleoptera: Curculionidae) was identified as a potential biological control agent for *M. aquaticum*. Experiments using olfactometer-based bioassays were conducted using eight closely related species in the family Haloragaceae, the target *M. aquaticum,* and seven non-target species. Choice (the weevil is presented with bioassays from more than one plant species) and no-choice tests (single plant bioassay) were conducted. The results show that *P. vestitus* was more attracted to the olfactory cues emitted by *M. aquaticum* compared to the other plant species. The results highlight that *P. vestitus* should be assessed further as a potential biological control agent for *M. aquaticum*.

Source: Pessina A, Humair L, Naderi R, Röder G, Seehausen ML, Rasmann S, Weyl P (2024) Investigating the host finding behaviour of the weevil *Phytobius vestitus* for the biological control of the invasive aquatic weed *Myriophyllum aquaticum*. *Biological Control* **192**, 105509. https://doi.org/10.1016/j.biocontrol.2024.105509

Pictures *Myriophyllum aquaticum*. https://gd.eppo.int/taxon/MYPBR/photos

Additional key words: biological control **Computer codes:** MYPBR, US

2024/116 Biological control of *Aromia bungii*: a review of potential agents

Aromia bungii (Coleoptera: Cerambycidae, EPPO A2 List) is native to Asia and a pest within the EPPO region with isolated outbreaks. In China, native parasitoids provide control of the species in orchards. Species such as *Dastarcus helophoroides* (Coleoptera: Bothrideridae) and *Sclerodermus guani* (Hymenoptera: Bethylidae) have varying levels of efficacy against the pest in China, however, they are not suitable for use as classical biological control agents in the invasive range due to their broad host range. Entomopathogenic fungi and nematodes may be more suitable options for biological control in the invaded range. The fungus *Beauveria bassiana* (Hypocreales: Cordycipitaceae) was shown under laboratory conditions to cause 100 % infection rate and 70 % mortality when the insect was exposed to spores for 25 days. The nematode *Steinernema carpocapsae* (Rhabditida: Steinernematidae: Augmentative BCA (PM 6/3)) provided effective control of *A. bungii* larvae in peach and apricot trees in China at doses of 30 000 to 50 000 nematodes per mL. Other nematodes such as *S. longicaudum* (65 % mortality achieved at 30 days), *S. feltiae* (Augmentative BCA (PM 6/3)) and *S. bibionis* (both caused more than 70 % mortality within 20 days) have been applied with good results.

Source: Horrocks KJ, Zhang J, Haye T, Seehausen ML, Maggini R, Xian X, Chen J, Nugnes F, Collatz J, Gruber A, Gariepy TD (2023) Biology, impact, management and potential distribution of *Aromia bungii,* a major threat to fruit crops around the world. *Journal of Pest Science*. https://doi.org/10.1007/s10340-024-01767-0

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

Additional key words: biological control **Computer codes:** AROMBU

2024/117 Combining Sterile Insect Techniques and augmentative biological control for the control of *Thaumatotibia leucotreta* in South Africa

Thaumatotibia leucotreta (Lepidoptera: Tortricidae, EPPO A2 List) is native to sub-Saharan Africa, and in South Africa it has a wide host range, including citrus. Sterile Insect Technique (SIT) and augmentative biological control using the egg parasitoid *Trichogrammatoidea cryptophlebiae* (Hymenoptera: Trichogrammatidae) have been employed simultaneously to manage *T. leucotreta* in South Africa. To assess this combined approach, a laboratory study was conducted to explore the susceptibility of *T. leucotreta* eggs from both sterile and fertile moths to parasitism by *T. cryptophlebiae*. Different ratios of sterile to fertile adult moths (0:1, 10:1, 20:1, 40:1, and 60:1) were used to produce a total of 200 eggs per ratio and the eggs were exposed to the parasitoid. Additionally, sterile male and female moths were crossbred with fertile counterparts and the eggs were exposed to the egg parasitoid. Both studies assessed parasitism rates on 24 h, 48 h and 72 h old eggs. The results showed that generally, eggs from all ratios were used for oviposition and *T. cryptophlebiae* can hatch from eggs from different sterile to fertile moth ratios. Parasitism rates were reduced with egg age across all ratios. The results suggest that a combination of SIT and augmentative release of egg parasitoids could provide an enhanced effect.

Source: Githae MM, Coombes CA, Mutamiswa R, Moore SD, Hill MP (2024) Suitability of false codling moth eggs from different sterile to fertile moth ratios in the sterile insect technique programme, to parasitism by *Trichogrammatoidea cryptophlebiae*. *Crop Protection* **182**. https://doi.org/10.1016/j.cropro.2024.106744

Pictures *Thaumatotibia leucotreta*. https://gd.eppo.int/taxon/ARGPLE

Additional key words: biological control **Computer codes:** ARGPLE, TRGDCR, ZA

2024/118 *Ambrosia grayi* in the EPPO region: addition to the EPPO Alert List

Why
In the EPPO region, *Ambrosia grayi* (Asteraceae) is currently confined to a small area (approximately 4 ha) in Israel, where the species is considered transient. The EPPO Panel on Invasive Alien Plants are seeking further information on any additional occurrences of *A. grayi* in the EPPO region and any reports of environmental and economic impacts.

Geographical distribution
EPPO region: Israel.
North America: Mexico, USA (Colorado, Kansas, Nebraska, New Mexico, Oklahoma, Texas).

Morphology
Ambrosia grayi is a monoecious, perennial species 10–30 cm tall. Stems are erect. Leaves are mostly alternate and the petioles are 10–45+ mm; blades are elliptic to ovate. The female inflorescences are greenish and the stigma visibly protrudes from the female flower structure. Achenes (burs) have approximately ten hooks, which may be slightly curved or straight. Each achene typically contains one or two seeds enveloped in a dark, easily removable seed coat.

Biology and Ecology
In the USA, *A. grayi* can reproduce by both seed and rhizome, with the later extending up to 3 m deep in the soil. However, in Israel, sexual reproduction is considered unlikely to significantly contribute to the spread of the species. Rhizomes may remain in a dormant state in dry soils and dormancy can be broken when the soil moisture content increases to a range from 25 % to 60 %.

Habitats
In its native range, *A. grayi* can be found growing in wet or seasonally wet grasslands. In addition, it is found along roadsides, ditches and agricultural fields. In Israel, *A. grayi* is found in open fields and under tree canopies in fruit orchards.

Pathways for movement
It is not known how *A. grayi* entered the EPPO region. However, the burs can attach themselves to clothes, people and animals (e.g. livestock).

Impacts
In the USA, *A. grayi* is a weed in agricultural systems in the central and southern Great Plains. In Texas, *A. grayi* is considered a highly competitive species in crops such as cotton and sorghum.

Control
Chemical control methods can be effective in controlling *A. grayi* though the timing of application is critical for effectiveness. Additionally, repeated applications may be required to control populations.

Sources
Neta D, Abu-Nassar A,, Cafri D, Ezra N, David I, Shtein I, Goldway M, Elzenberg H, Matzrafi M (2024) *Ambrosia grayi* as a new alien causal species in Israel: plant biology and chemical management. *Pest Management Science*. https://doi.org/10.1002/ps.8048
Yair Y, Sibony M, Confino-Cohen R, Rubin, Shahar E (2019) Ragweed species (*Ambrosia* spp.) in Israel: distribution and allergenicity. *Aerobiologia* **35**, 85-95.

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

2024/119 Reassessment using the Prioritization process for five alien plant species on the EPPO Observation List

In 2023/24, the EPPO Panel on Invasive Alien Plants re-assessed five species from the EPPO Observation List using the EPPO Standard PM 5/6 *EPPO Prioritization process for invasive alien plants*. The Observation List contains plant species (absent or present in the EPPO region) which present a medium risk to the EPPO region. A species is included in this list if the species has: 1) a medium or high rate of spread coupled with a medium impact; or 2) a low or medium rate of spread coupled with a high impact. The species were re-assessed following a literature search on newly published information since the date of the original listing. Each species was then assessed with the prioritization process. Of the five species, only one species warranted being moved from the Observation List to another list. For *Araujia sericifera*, the outcome of the prioritization process was that the species has a high rate of spread coupled with a high impact, the species can smother native vegetation, and in Italy it is reported as being reclassified from a casual alien to a naturalised or invasive species. *A. sericifera* has therefore been transferred to the EPPO List of Invasive Alien Plants. All of the new prioritization reports for the species listed in Table 1 are stored in the EPPO Global Database.

Table 1. Five re-assessed species

Species	Family	Native range	Originally listed in	Result
Akebia quinata	Lardizabalaceae	Asia	2012	Maintained
Araujia sericifera	Apocynaceae	South America	2012	Moved to IAP List
Cenchrus spinifex	Poaceae	Americas	2012	Maintained
Eragrostis curvula	Poaceae	Africa	2012	Maintained
Verbesina encelioides	Asteraceae	Americas	2012	Maintained

Maintained: Maintained on Observation List

Source: EPPO Global Database: https://gd.eppo.int/

EPPO (2012) PM 5/6 EPPO prioritization process for invasive alien plants. *EPPO Bulletin* **43**, 463-474. https://doi.org/10.1111/epp.2592

Additional key words: invasive alien plants, EPPO lists **Computer codes:** AKEQI, AJASE, CCHPA, ERACU, VEEEN

2024/120 *Opuntia streptacantha* in Spain

Opuntia streptacantha (Cactaceae) is native to Mexico and Guatemala where it is found at altitudes from 1 600 to 2 500 m asl. It is an invasive species in Australia, where it can invade and form dense monocultures in pasture and agricultural land. It can also invade natural habitats having a negative impact on biodiversity and ecosystem services. In Australia, the species has been reported to be spread by stem fragments and fruits, distributed by animals, vehicles and water. In Spain, *O. streptacantha* is known from a single locality in Ayamonte (province of Huelva, Andalucía), where it was detected in 2017. In 2023, a large population was found in a dried-out riverbed of the Carraixet river in Bétera (province of Valencia,

Comunidad Valenciana). A few hundred individuals, ranging in age from very young to more mature, tall, fruit-bearing shrubs or small trees were found downstream of Bétera. In Spain *O. streptacantha* can be classified as established.

Source: Verloove F, Guillot Ortiz D, Guiggi A, Marti Colomer E, Serra L (2024) New naturalized populations of *Opuntia streptacantha* (Cactaceae) from Spain. *Bouteloua* **36**, 314-320.

Additional key words: invasive alien plants, detailed record **Computer codes:** OPUSR, ES

2024/121 The influence of climate change on the distribution of *Lonicera japonica* in North America

Lonicera japonica (Caprifolioideae) is a species of vine native to Asia. It was introduced into the USA in the early 1800s as a garden ornamental and was first reported in the natural environment in 1882. It is recorded from 43 States, thoughit is most invasive in the South-Eastern States. The distribution of *L. japonica* appears to be limited primarily by drought, heavy frost, and temperatures unsuitable for seed stratification. However, in areas unsuitable for seed stratification it can spread by vegetative propagation. A study was conducted to identify the climatic variables correlated with the successful invasion of *L. japonica* and to project the potential future distribution of the vine under climate change conditions. Modelling was conducted and the output suggested that annual precipitation, annual mean temperature, max temperature of the warmest month, mean diurnal range, temperature annual range, and isothermality were the variables that predict invasion. The modelling of future projections suggest a northward shift in distribution, with the states most likely to be affected being Kentucky, Virginia, Tennessee, North Carolina, Alabama, and Georgia. In the EPPO region, *L. japonica* is also a popular ornamental plant and it is recorded as an invasive species in some countries (e.g. Switzerland). The spread of the species should be monitored, especially as a result of climate change.

Source: Peterson MR, Derouen Z, Koralewski TE, Wang HH, Heldman SM, Bishop AE, Grant WE (2024) Climate change puts the invasive Japanese honeysuckle (*Lonicera japonica*) on the move in the southern forestlands of the United States. *Biological Invasions*. https://doi.org/10.1007/s10530-024-03314-5

Additional key words: invasive alien plants, climate change **Computer codes:** LONJA, US

2024/122 Impact of invasive alien plants on pollinators

A new report prepared by the International Union for Conservation of Nature summarises information on terrestrial invasive alien plant species in the European Union which can have a negative impact on pollinators. The report summarizes a literature review where 52 publications on invasive alien plants detail negative impacts of invasive plants on pollinators. In total, 35 invasive alien plant taxa were identified, and they were subsequently grouped and ranked using a combination of (1) their current distribution in Europe, and (2) their impact on pollination. To estimate impact, direct (e.g. negative impacts on abundance on pollinators) and indirect effects (e.g. outcompeting native plant species or habitat modification) were taken into account. Where no published evidence of impact was found (although publications mentioning potential impacts exist), an impact score of one was given. Where there was limited evidence of impact (one published paper supporting negative

impacts on pollinators in Europe) a score of two was given. A score of three indicates the highest evidence of impact, where there was more than one published paper supporting negative impacts on pollinators. The results are summarized in Table 1 below. It is noted that the following six species potentially having a high impact on pollinators are also widely distributed in the European Union: *Buddleia davidii, Heracleum mantegazzianum, Impatiens glandulifera, Lupinus polyphyllus, Solidago canadensis* and *S. gigantea*. The report also includes non-chemical management methods that can be used to control these invasive alien plants.

Table 1. Invasive alien plants with the potential to negatively impact native plants, pollinators and pollination.

Species	Family	EPPO Status	Impact score
Amorpha fruticosa	Fabaceae	L IAP	1
Araujia sericifera	Apocynaceae	Obs. List	1
Arundo donax	Poaceae		2
Asclepias syriaca	Apocynaceae	L IAP	1
Baccharis halimifolia	Asteraceae	A2 List	1
Berberis aquifolium	Berberidaceae		1
Buddleia davidii	Scrophulariaceae	L IAP	3
Carpobrotus acinaciformis	Aizoaceae	L IAP	3
Carpobrotus edulis	Aizoaceae	L IAP	3
Catalpa speciosa	Bignoniaceae		1
Cortaderia selloana	Poaceae	L IAP	1
Elaeagnus angustifolia	Elaeagnaceae		1
Erigeron bonariensis	Asteraceae		1
Erythranthe moschata	Phrymaceae		2
Galinsoga parviflora	Asteraceae		1
Heracleum mantegazzianum	Apiaceae	L IAP	3
Impatiens glandulifera	Balsaminaceae	L IAP	3
Lupinus nootkatensis	Fabaceae		2
Lupinus polyphyllus	Fabaceae	L IAP	3
Miscanthus spp.	Poaceae		1
Neltuma juliflora	Fabaceae	A2 List	1
Nicotiana glauca	Solanaceae		2
Nicotiana tabacum	Solanaceae		2
Oenothera biennis	Onagraceae		1
Oenothera speciosa	Onagraceae		1
Opuntia spp.	Cactaceae		3
Oxalis pes-caprae	Oxalidaceae	L IAP	3
Reynoutria japonica	Polygonaceae	L IAP	1
Rhododendron ponticum	Ericaceae	L IAP	3
Robinia pseudoacacia	Fabaceae		2
Senecio inaequidens	Asteraceae	L IAP	1
Solanum elaeagnifolium	Solanaceae	A2 List	2
Solidago canadensis	Asteraceae	L IAP	3

Species	Family	EPPO Status	Impact score
Solidago gigantea	Asteraceae	L IAP	3
Spiranthes cernua x *odorata*	Orchidaceae		2

EPPO Status:
L IAP = EPPO List of Invasive Alien Plants
Obs List = EPPO Observation List.

Impact score = impact on native pollinators and on pollination:
1 = no published evidence of impact found (although publications mentioning potential impacts exist);
2 = limited evidence of impact (one published paper supporting negative impacts on pollinators in Europe);
3 = high evidence of impact (more than one published paper supporting negative impacts on pollinators).

Source: Nunes AL (ed.), Pergl J, Rabitsch W (2024) Invasive alien plants most harmful to pollinators in the EU and their management focusing on non-chemical methods. Technical note prepared by IUCN for the European Commission. Available online: https://circabc.europa.eu/ui/group/4cd6cb36-b0f1-4db4-915e-65cd29067f49/library/fbd66c97-970c-4926-a6fb-a53818e739b4/details

Additional key words: invasive alien plants

Computer codes: ABKDO, AJASE, AMHFR, ASCSY, BACHA, BUDDA, CBSAC, CBSED, CDTSE, CTLSP, ELGAN, ERIBO, GASPA, HERMZ, IPAGL, LUPNO, LUPPO, MAHAQ, MIUMO, NIOGL, NIOTA, OEOBI, OEOSP, OXAPC, POLCU, PRCJU, RHOPO, ROBPS, SENIQ, SOLEL, SOOCA, SOOGI, 1MISG, 1OPUG