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POUR LA PROTECTION DES PLANTES

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# EPPO Reporting Service

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## 2023/001 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 record**

*Meloidogyne mali* (EPPO A2 List) is reported for the first time from the Republic of Korea. During a study on *Meloidogyne* species, root galls were observed on an *Acer palmatum* tree collected in the Naejangsan National Park. The identity of the nematode was confirmed by morphological and molecular tests, as well as by pathogenicity tests. During these studies, *M. mali* was not found on other economically important host plants, such as grapevine. It is noted that *M. mali* is a quarantine pest in the Republic of Korea and that regular monitoring will be needed (Kang *et al.*, 2022).

*Paysandisia archon* (Lepidoptera: Castniidae – EPPO A2 List) occurs on the southern coast of Crimea since 2018. *Ceroplastes ceriferus* (Hemiptera: Coccidae, formerly EPPO Alert List) has also been recorded in Crimea since 2019 (Stryukova & Stryukov, 2022).

Squash leaf curl virus (SLCV, *Begomovirus* - EPPO A2 List) was detected for the first time in Indonesia in 2020. SLCV was identified from symptomatic butternut squash (*Cucurbita moschata*) in the island of Bali (Nusa Tenggara). SLCV was found in three regions of Bali and caused 10 to 26% yield loss (Selangga & Listihani, 2022).

*Xanthomonas phaseoli* pv. *phaseoli* (EPPO A2 List) is first reported from Bosnia and Herzegovina. The bacterium was detected in 2016-2017 in local varieties of bean (*Phaseolus vulgaris*) seeds deposited in the national gene bank. *X. citri* pv. *fuscans* was not detected. The authors note that conservation of these varieties is of national interest, however, reproduction of all infected samples is prohibited in pest-free areas for commercial seed production (Sopic *et al.*, 2021).

- **Detailed records**

In Tamil Nadu, India, an outbreak of *Liriomyza huidobrensis* (Diptera: Agromyzidae – EPPO A2 List) was observed in 2020 in potato crops in several localities of the Nilgiri Hills. The pest was also found on other crops (e.g. carrot, beetroot, garlic, beans and broccoli) and weeds (*Amaranthus* sp., *Bidens pilosa*, *Chenopodium* spp., *Galinsoga parviflora*, *Hypochaeris glabra*, *Solanum nigrum* and *Sonchus oleraceus*) (Mhatre *et al.*, 2022).

In Australia the root-knot nematode *Meloidogyne enterolobii* (EPPO A2 List) was first reported in October 2022 in the Northern Territory (EPPO RS 2022/241). In December 2022 it was detected in a property in North Queensland. Investigations are underway to determine whether this is an isolated occurence, or if the pest is more widespread, and to prevent any further spread. As of December 2022, it is unknown if the recent detection in Queensland has any connection to the earlier detections of the pest in the Northern Territory (Queensland Government, 2022).

In China, *Xanthomonas fragariae* (EPPO A2 List) is reported for the first time from the province of Yunnan. Symptoms of bacterial angular leaf spot were observed for the first time in the strawberry-growing regions of Yuxi and Kunming in September 2021. The average disease incidence in an infected field was 10-20% but could reach up to 40%. The identity of the bacterium was confirmed by molecular and pathogenicity tests (Zhang *et al.*, 2022).

In Brazil, citrus greening has been detected for the first time in 2022 in the state of Santa Catarina. Plants with symptoms were found in the municipalities of Xanxerê, Abelardo Luz and São Domingos. It is hypothesised that the introduction of greening occurred through infected seedlings, originating from illegal trade. Official measures are being applied to prevent the spread of the disease (Fondecitrus, 2022). The Liberibacter species is not specified but the most prevalent Liberibacter species in Brazil is '*Candidatus* Liberibacter asiaticus' (EPPO A1 List).

In the USA, tar spot of maize caused by *Phyllachora maydis* (EPPO Alert List) was first reported in five counties in Kansas in October 2022 (Kansas State University, 2022).

- **Eradication**

In Italy, the outbreak of the fungus *Geosmithia morbida* and its vector *Pityophthorus juglandis* (Coleoptera: Scolytidae - walnut twig beetle) the causal agents of thousand cankers disease (EPPO A2 List) found in 2019 in the municipality of Luzzara (region of Emilia-Romagna) (EPPO RS 2019/102) is considered eradicated. During the period 2019-2022 surveys were carried out in the demarcated area as laid down in the Commission Implementing Decision (EU) 2019/2032 and no infected *Juglans* tree was detected.
The situation of *Geosmithia morbida* in Italy is officially declared as: **Present, only in some parts of the Member State concerned** (NPPO of Italy, 2022-12).

- **Host plants**

In September 2020, *Meloidogyne enterolobii* (EPPO A2 List) was found causing root galls on a *Celosia argentea* var. *cristata* (Amaranthaceae) plant in a garden in Taichung, Taiwan (Ho *et al.*, 2022).

- **New pests and taxonomy**

*Bactrocera divenderi* Maneesh, Hancock and Prabhakar, sp. n. is a new species in the *B. nigrotibialis* complex and is a pest of horticultural importance. Earlier it was misidentified as *B. nigrofemoralis* White & Tsuruta and its significance as a pest was unrecognized. This species is present in Himachal Pradesh, Northern India and also recorded from Bhutan and Northern Pakistan. *B. divenderi* is monophagous on peach and nectarine (*Prunus persica*) and has replaced *B. zonata* as a pest in peach orchards in the Himalayas in recent years (Singh *et al.*, 2022). All *Bactrocera* spp. except *B. oleae* are A1 quarantine pests for the EU.

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

**Computer codes**: 1BCTRG, BCTRDV, CERPCE, GEOHMO, LIBEAS, LIRIHU, MELGMA, MELGMY, PAYSAR, PHYRMA, SLCV00, XANTFR, XANTPH, AU, BA, CN, ID, IN, IN, IT, KR, TW, UA, US

## 2023/002 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 2022/206), the following new and revised EPPO datasheets have been published in the EPPO Global Database:

- *Acleris gloverana*. https://gd.eppo.int/taxon/ACLRGL/datasheet
- *Atropellis piniphila*. https://gd.eppo.int/taxon/ATRPPP/datasheet
- *Bemisia tabaci*. https://gd.eppo.int/taxon/BEMITA/datasheet
- *Carposina sasakii*. https://gd.eppo.int/taxon/CARSSA/datasheet
- *Choristoneura fumiferana*. https://gd.eppo.int/taxon/CHONFU/datasheet
- *Dickeya dianthicola*. https://gd.eppo.int/taxon/ERWICD/datasheet
- Grapevine flavescence dorée phytoplasma. https://gd.eppo.int/taxon/PHYP64/datasheet
- *Lecanosticta acicola*. https://gd.eppo.int/taxon/SCIRAC/datasheet
- *Margarodes trimeni*. https://gd.eppo.int/taxon/MARGTR/datasheet
- Tomato marchitez virus. https://gd.eppo.int/taxon/TOANV0/datasheet

**Source:** EPPO Secretariat (2023-01).

**Additional key words:** publication

**Computer codes:** ACLRGL, ATRPPP, BEMITA, CARSSA, CHONFU, ERWICD, MARGTR, PHYP64, SCIRAC, TOANV0

## 2023/003 Recent additions to the quarantine lists of the Eurasian Economic Union (EAEU)

The quarantine lists of the Eurasian Economic Union (EAEU) which is composed of Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia were first published in November 2016 (EPPO RS 2017/146) and revised in 2018 (RS 2019/050) and 2021 (RS 2022/144). The 'A1 List of quarantine pests which are absent from the EAEU territory' was further amended in July 2022. As a result the following 11 pests were added to it.

**Additions to the List of quarantine pests which are absent from the EAEU territory (A1)**

- *Ceratitis rosa*
- *Diabrotica speciosa*
- *Epitrix subcrinita*
- *Ips emarginatus*
- *Pseudips mexicanus*
- *Rhagoletis indifferens*
- *Spodoptera exempta*
- *Strauzia longipennis*
- *Xiphinema americanum sensu stricto*
- *Xiphinema bricolense*
- *Xiphinema californicum*

This list has been updated in the EPPO Global Database (https://gd.eppo.int/rppo/EAEU/categorization).

The Quarantine Phytosanitary Requirements of the EAEU have been changed accordingly. It was also decided to allow the import of regulated products in express cargo with a total weight of not more than 5 kg (with the exception of seeds, planting material and potatoes) without being accompanied by a phytosanitary certificate. A similar rule applies to regulated products imported by mail.

**Source:** Eurasian Economic Union (EAEU). http://www.eaeunion.org/
Решение Совета Евразийской экономической комиссии от 30.11.2016 N 157 (ред. от 15.07.2022) "Об утверждении Единых карантинных фитосанитарных требований, предъявляемых к подкарантинной продукции и подкарантинным объектам на таможенной границе и на таможенной территории Евразийского экономического союза" [Decision of the Council of the Eurasian Economic Commission dated November 30, 2016 N 157 (as amended on 07/15/2022) "On Approval of the Unified Quarantine Phytosanitary Requirements for Quarantine Products and Quarantine Objects at the Customs Border and on the Customs Territory of the Eurasian Economic Union"].
Решение Совета Евразийской экономической комиссии от 30.11.2016 N 158 (ред. от 15.07.2022) "Об утверждении единого перечня карантинных объектов Евразийского экономического союза" [Decision of the Council of the Eurasian Economic Commission dated November 30, 2016 N 158 (as amended on July 15, 2022) "On approval of a unified list of quarantine objects of the Eurasian Economic Union"].

**Additional key words:** regulation

**Computer codes:** CERTRO, DIABSC, IPSXEM, IPSXRA, LAPHEX, RHAGIN, STRALO, XIPHAA, XIPHBC, XIPHCA, EAEU

## 2023/004 EPPO Workshop on Pest Reporting (Tbilisi, 2023-06-06/08)

The EPPO Secretariat is pleased to announce that the next Workshop on Pest Reporting will be organized from the 6th to the 8th of June 2023 in Tbilisi, Georgia. The objectives of this Workshop are to improve the understanding of pest reporting obligations, share experience, and discuss pest reporting procedures and tools. The main target audience of the Workshop is NPPO staff involved in pest reporting. For this Workshop, priority will be given to experts from the EPPO region. The Workshop will be held in English.

Link for pre-registration and call for presentations (deadline 1st of March 2023):
http://meeting.eppo.int/index.php/M7541

More information can be found on the EPPO website:
https://www.eppo.int/MEETINGS/2023_meetings/wk_pest_reporting

**Source:** EPPO Secretariat (2023-01).

**Additional key words:** workshop

## 2023/005 Update on the situation of *Euwallacea fornicatus sensu lato* in Europe

A recent article by Schuler *et al*. reviews the recent findings of *Euwallacea fornicatus sensu lato* (Coleoptera: Scolytinae, EPPO A2 List) in tropical greenhouses in Europe and the eradication measures applied. A comparative genetic analysis of insects from different locations in Europe was performed to trace back the introduction pathway of these beetles in Europe. In addition, several NPPOs have recently reported successful eradication of outbreaks detected in tropical greenhouses.

*Euwallacea fornicatus sensu lato* was found in greenhouses in Poland (EPPO RS 2019/030), in Italy (RS 2020/094), in Germany (RS 2021/033, RS 2021/059) and in the Netherlands (RS 2021/078, RS 2022/082). The outbreaks in Poland, Italy and the Netherlands are now eradicated. In Germany, the outbreak in Erfurt is eradicated, and the one in Berlin is still under eradication as beetles were still trapped in September 2022. Trace back investigations showed that infested host plants had been imported through the Netherlands, but infestation was only detected several months after they had been planted.

Molecular analyses of the beetles showed that individuals from Poland and Italy are genetically identical and belong to a different mitochondrial clade to individuals in Germany. The specimens from Germany were identical to most individuals from two greenhouses in the Netherlands. However, in the two greenhouses in the Netherlands some beetles belonged to another haplotype of *E. fornicatus* and to two haplotypes of *E. perbrevis*, a species in the *E. fornicatus* complex which had not previously been detected in Europe. The finding of several haplotypes from various geographic regions highlighted that both *Euwallacea* species had likely been introduced by multiple introduction events.

In the infested greenhouse in Italy, a total of 28 trees of 21 different species (*Annona muricata, Artocarpus heterophyllus, Averrhoa carambola, Bixa orellana, Bulnesia arborea, Cananga odorata, Clausena lansium, Crescentia cujete, Debregeasia edulis, Dimocarpus longan, Ficus altissima, Ficus* sp., *Justicia* sp., *Kigelia africana, Melicoccus bijugatus, Magnolia champaca, Millettia brandisiana, Persea americana, Terminalia catappa, Terminalia buceras, Theobroma cacao*) showed boreholes and ejection of wooden debris. Most of them were not yet recorded as hosts elsewhere.

The pest status of *Euwallacea fornicatus sensu lato* in Italy is officially declared as: **Absent, pest eradicated**.

The pest status of *Euwallacea fornicatus sensu lato i*n the Netherlands is officially declared as: **Absent, pest eradicated**.

The pest status of *Euwallacea fornicatus sensu lato* in Germany is officially declared as: **Present, only in some parts of the Member State concerned, only in greenhouse, under eradication**.

**Source:** Schuler H, Witkowski R, van de Vossenberg B, Hoppe B, Mittelbach M, Bukovinszki T, Schwembacher S, van de Meulengraaf B, Lange U, Rode S, Andriolo A (2022) Recent invasion and eradication of two members of the *Euwallacea fornicatus* species complex (Coleoptera: Curculionidae: Scolytinae) from tropical greenhouses in Europe. *Biological Invasions*. https://doi.org/10.1007/s10530-022-02929-w

NPPO of Italy (2022-07).

NPPO of the Netherlands (2022-10).

NPPO of Germany (2022-10).

**Additional key words:** detailed record, eradication **Computer codes:** EUWAPE, EUWAWH, XYLBFO, DE, IT, NL

## 2023/006 First record of *Arboridia kakogawana* in Moldova

In Moldova, the first specimens of the Japanese grape leafhopper *Arboridia kakogawana* (Hemiptera: Cicadellidae – EPPO Alert List) were recorded in 2020. Field surveys were conducted from May to October 2022 in a vineyard (*Vitis vinifera*) in the southern part of the Republic of Moldova in Congaz commune (Comrat district) and confirmed the presence of this species. Specimens were caught from the end of May to the end of September with a peak at the end of August.

**Source:** Gargalik S (2022) Information about the presence of the Japanese grape leafhopper *Arboridia kakogawana* (Matsumura, 1932) (Hemiptera: Cicadellidae) in the Republic of Moldova. *Biology and sustainable development* Ediția 20, R, 24-25 noiembrie 2022, Bacău (pp. 39-40). https://ibn.idsi.md/vizualizare_articol/169713

**Pictures:** *Arboridia kakogawana*. https://gd.eppo.int/taxon/ARBOKA/photos

**Additional key words:** new record **Computer codes:** ARBOKA, MD

## 2023/007 First report of *Cacoecimorpha pronubana* in Canada

In June 2021, the Canadian Food Inspection Agency (CFIA) confirmed the presence of *Cacoecimorpha pronubana* (Lepidoptera; Tortricidae – EPPO A2 List) in British Columbia. The pest was found in a nursery in the Fraser Valley. It is noted that *C. pronubana* is currently a regulated pest in Canada. This insect is established in North-Western USA and was deregulated for continental USA in August 2020. Considering the fact that no significant impacts have been reported by Canadian growers and that this species has been deregulated in the continental USA, CFIA is in the process of reviewing the regulatory status of *C. pronubana* for Canada.

The pest status of *Cacoecimorpha pronubana* in Canada is officially declared as: **Present but not widely distributed.**

**Source:** NAPPO Phytosanitary Alert System. Official Pest Reports. Canada (2022-11-01) Report of carnation tortrix (*Cacoecimorpha pronubana*) in British Columbia, Canada (2022). https://www.pestalerts.org/official-pest-report/report-carnation-tortrix-cacoecimorpha-pronubana-british-columbia-canada-2022

**Pictures:** *Cacoecimorpha pronubana*. https://gd.eppo.int/taxon/TORTPR/photos

**Additional key words:** new record **Computer codes:** TORTPR, CA

## 2023/008 Update on the situation of *Anoplophora glabripennis* in Germany

In Germany, the first outbreak of *Anoplophora glabripennis* (Coleoptera: Cerambycidae - EPPO A2 list) was detected in Bavaria in 2004 (EPPO RS 2004/072). Since then, other outbreaks have been detected in Bavaria, as well as in Baden Württemberg (now eradicated), Nordrhein-Westfalen, and Sachsen-Anhalt. Eradication measures have been applied in all cases. The NPPO of Germany recently declared the eradication of several outbreaks and updated the situation of others:

- **Bavaria**

The outbreak in Ziemetshausen, near Augsburg, first detected in 2014 (RS 2014/184, RS 2021/058) is considered eradicated since November 2022. No signs of *A. glabripennis* were found in the years from 2019 to 2022.

- **Nordrhein-Westfalen: the region is now free from *A. glabripennis***

An outbreak had been detected in 2005 in a commercial zone in the municipality of Bornheim (EPPO RS 2008/095) and then in neighbouring areas. A demarcated area was established. The last finding of *A. glabripennis* occurred in 2017. In 2017-2021 the demarcated area was intensively investigated and no *A. glabripennis* has been found since 2017. The outbreak is considered eradicated since November 2021.

- **Sachsen-Anhalt**

An outbreak was detected in 2014 in Madgdeburg (EPPO RS 2014/184, 2021/058). In 2020, 15 trees were felled and destroyed. Only *Acer* trees were found to be infested. In addition, 2 specimens were caught in traps. From December 2020 to September 2022, 6 infested trees were found (1 *Acer* sp.; 3 *Salix* sp. and 2 *Populus* sp.). In August 2021, one female was caught in a pheromone trap within the demarcated area. The trap was located 172 m west of the last findings made in March 2020. Additional survey activities have been initiated immediately in that area. In August 2022 and in September 2022, a female was caught in a pheromone trap within the demarcated area. The demarcated area is currently 48.36 km$^2$. Eradication measures continue.

The pest status of *Anoplophora glabripennis* in Germany is officially declared as: **Transient, actionable, under eradication**.

**Source:** NPPO of Germany (2022-11, 2022-12).

**Additional key words:** detailed record, eradication **Computer codes:** ANOLGL, DE

## 2023/009 First report of *Cacopsylla fulguralis* in Germany

The psyllid *Cacopsylla fulguralis* (Homoptera: Psyllidae – formerly EPPO Alert List) is first reported from Germany, where it was found on *Elaeagnus* plants in Niedersachsen. In the EPPO region, this psyllid was first recorded in France and the United Kingdom in the 2000s (EPPO RS 2002/116), and then further spread to several European countries (Belgium, Croatia, Italy, Netherlands, Portugal (Madeira)). The Julius Kühn Institute (JKI, DE) prepared an express pest risk analysis and concluded that this pest does not qualify to be a quarantine pest, but it can be damaging to its host plants, in particular in warmer regions. Regulating it on *Elaeagnus* plants for planting as a Regulated Non-Quarantine Pest could help limit the risk of spread of to new areas where the climate is suitable.

**Source:** JKI (2022) Express-PRA zu *Cacopsylla fulguralis* – Auftreten available at https://pflanzengesundheit.julius-kuehn.de/risikoanalysen.html

**Additional key words:** new record **Computer codes:** CCPSFU, DE

## 2023/010 New finding of *Scirtothrips dorsalis* in the Netherlands

In the Netherlands, *Scirtothrips dorsalis* (Thysanoptera: Thripidae – EPPO A2 List) was first found in 2019 in a nursery on *Podocarpus* plants for planting imported from China (EPPO RS 2019/182) and declared eradicated in July 2022 (RS 2022/204). In October 2022, *S. dorsalis* was found again during a regular inspection on *Podocarpus macrophyllus* in a greenhouse. Official measures were applied and include a crop treatment schedule of 5 weeks in the infested production site followed by a monitoring survey with sticky traps to ensure that the treatment was successful. The movement of plants from the infested site is prohibited for 7-8 weeks.

**Source:** NVWA (2022-11-24) NVWA legt maatregelen op vanwege besmetting met *Scirtothrips dorsalis*. https://www.nvwa.nl/nieuws-en-media/nieuws/2022/11/24/nvwa-legt-maatregelen-op-vanwege-besmetting-met-scirtothrips-dorsalis

**Additional key words:** new record **Computer codes:** SCITDO, NL

## 2023/011 New finding of *Pochazia shantungensis* in France

In France, *Pochazia shantungensis* (Hemiptera: Ricaniidae - EPPO Alert List) was first recorded in 2018 in a garden in Cagnes-sur-Mer (Alpes-Maritimes department, Provence-Alpes-Côte d'Azur region) and again in the same location in 2019 and 2021 (EPPO RS 2021/129, RS 2022/001). The NPPO of France recently informed the EPPO Secretariat that a male specimen of *P. shantungensis* was captured in Montpellier (Hérault department, Occitanie region) on 19 October 2022 by a national association for nature protection and environmental education specialised in entomology. The capture took place under UV light during a night hunt for nocturnal lepidoptera on a private property. An official inspection was conducted on 8 November at the place of capture and in a garden centre in its vicinity. No new specimens of the insect were found, and no damage on plants observed. A further survey will be carried out in 2023. In addition, an investigation will be carried out to check whether there is a possible link between this capture and the earlier detections in Cagnes-sur-Mer.
Since Mars 2022, *P. shantungensis* has been listed as a temporary quarantine pest in France, together with *Xylotrechus chinensis* (Coleoptera: Cerambycidae – EPPO Alert List), and *Toumeyella parvicornis* (Hemiptera: Coccidae - EPPO Alert List).

The pest status of *Pochazia shantungensis* in France is officially declared as: **Transient, actionable, under eradication**.

**Source:** NPPO of France (2022-12).

Arrêté du 11 mars 2022 portant établissement des listes d'organismes nuisibles au titre du 5° de l'article L. 251-3 du code rural et de la pêche maritime. JORF n°0063

du 16 mars 2022.
https://www.legifrance.gouv.fr/eli/arrete/2022/3/11/AGRG2135065A/jo/texte

**Additional key words:** detailed record **Computer codes:** POCZSH, FR

## 2023/012 *Eurytoma samsonovi* a new pest of apricot in Tunisia

Over the last decade in Tunisia, growers in the oasis of Gafsa have reported massive premature fruit fall in apricot (*Prunus armeniaca*) orchards. It was initially thought that the Mediterranean fruit fly (*Ceratitis capitata*) or physiological disorders were responsible for the damage. In February 2015, a large number of 'mummified' apricots still attached to the trees were collected and brought to the laboratory. Some of the collected fruit was dissected, and others were maintained in emergence cages. Insect larvae, pupa, and adult wasps could be found inside apricot stones, and adults also emerged from collected apricots. Laboratory studies confirmed the identity of the pest as *Eurytoma samsonovi* (Hymenoptera: Eurytomidae), the apricot seed wasp. Surveys were then conducted from 2017 to 2021 in the main Tunisian apricot production areas (i.e. Gafsa, Sidi Bouzid, Kairouan and Tozeur) and revealed the presence of *E. samsonovi* in Gafsa (Oasis Lela, Oasis El Guettar), Sidi Bouzid (Sidi Ali ben Aoun) and Tozeur (Neflayet and Deguedch). Severe damage was observed in some areas. Infested fruit either fall prematurely or became black, 'mummified' and remain attached to the tree. The highest infestation rates in infested orchards reached 64 to 76 %, depending on the year.

The authors recalled that *E. samsonovi* was first described in 1915 in the Ferghana region, in Uzbekistan, and that it has also been recorded in Armenia, India, Kyrgyzstan, Pakistan, Russia, Tajikistan, and Southern Europe*. Larvae of *E. samsonovi* feed on apricot nucellar tissues. The authors finally noted that considering the severity of losses observed in orchards, *E. samsonovi* should be considered as an emerging economic pest of apricots in Tunisia and that management measures were needed against this pest.

* There is little data available from the literature on this insect and the EPPO Secretariat could not find recent publications to confirm the presence of *E. samsonovi* in Europe.

**Source:** Wannassi T, Harbi A, Abbes K, Elimem M, Delvare G, Chermiti B (2022) Emergence of the apricot seed wasp *Eurytoma samsonowi* Vassiliev (Hymenoptera: Eurytomidae) as an economic pest of apricots in Tunisia. *Phytoparasitica* **50**, 837-852.

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

**2023/013 *Chloridea virescens* (Lepidoptera: Noctuidae): addition to the EPPO Alert List**

**Why:** *Chloridea virescens* (Lepidoptera: Noctuidae - tobacco budworm), formerly placed in the genus *Heliothis,* occurs in the Americas where it is a polyphagous pest of many field crops, in particular cotton, maize, tomato, and tobacco (hence its common name). *C. virescens* was identified in the EPPO Study on Pest Risks Associated with the Import of Tomato Fruit as a potential threat to tomato crops, and recently, the European Union has established measures to prevent its introduction into the EU territory, also considering that it had been intercepted on consignments of fruit and vegetables imported from the Americas.

**Where:** *C. virescens* occurs throughout the Eastern and South-Western USA. Generally, it overwinters only in southern states, but it annually migrates towards the north. It is occasionally found in northern US states and southern Canada, surviving in greenhouses or other sheltered locations. It is widespread in the Caribbean and sporadically found in Central and South America.

**EPPO region**: absent.
**North America**: Canada (Ontario), Mexico, USA (Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Hawaii, Illinois, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Nebraska, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, Washington, West Virginia).
**Central America and the Caribbean**: Barbados, Costa Rica, Cuba, Dominican Republic, El Salvador, Guadeloupe, Haiti, Jamaica, Martinique, Nicaragua, Puerto Rico, Saint Lucia, Trinidad and Tobago, Virgin Islands (US).
**South America**: Argentina, Bolivia, Brazil (Bahia, Distrito Federal, Espirito Santo, Goias, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Parana, Rio Grande do Sul, Roraima, Sao Paulo), Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela.

**On which plants:** *C. virescens* is a highly polyphagous pest (feeding on at least 55 species in 14 families). It is mainly a pest of field crops such as: alfalfa (*Medicago sativa*), clover (*Trifolium* spp.), cotton (*Gossypium* spp.), flax (*Linum sativum*), soybean (*Glycine max*), and tobacco (*Nicotiana tabacum*). It can also attack fruit and vegetables crops (e.g. asparagus (*Asparagus officinalis*), cabbage (*Brassica* spp.), melon (*Cucumis melo*), lettuce (*Lactuca sativa*), pea (*Pisum sativum*), cucurbits, tomato (*Solanum lycopersicum*) and *Vitis* spp.), as well as ornamentals (e.g. chrysanthemum, gardenia, pelargonium, petunia, verbena, zinnia). A large number of weeds or wild plants have also been reported as larval hosts (e.g. *Geranium dissectum, Lonicera japonica, Medicago lupulina, Rumex* spp., *Sida spinosa*).

**Damage:** Larvae bore into buds and blossoms. Larvae can also feed on tender terminal foliar growth, leaf petioles and stalks, as well as on leaves in the absence of other growing plant tissues. They can also feed on fruit, and attacked fruit may then be more susceptible to secondary infections by pathogens.
Adults are brownish moths, 28 to 35 mm long. In Southern US states, they emerge in spring (March to May). Spherical eggs are deposited on blossoms, fruit, and terminal growth. Females normally produce 300-500 eggs. *C. virescens* has 5 to 7 instars and fully-grown larvae are 25.5-36 mm long, their body colour is variable from pale green to pinkish, reddish or brownish with whitish dorsal and lateral bands. Pupation takes place in the soil. In the USA, 4 to 5 generations have been observed with an overwintering period (as pupae) starting in autumn (September to November).

Pictures can be view on the Internet:
http://mothphotographersgroup.msstate.edu/species.php?hodges=11071
http://pnwmoths.biol.wwu.edu/browse/family-noctuidae/subfamily-heliothinae/chloridea/chloridea-virescens/

**Dissemination:** Adult moths can fly over long distances. In North America, it has been observed that the pest annually spreads northwards during summer. Over long distances, *C. virescens* can be transported on plant material. Several EU countries have reported interceptions of *C. virescens* on imported consignments of fruit and vegetables (e.g. *Abelmoschus esculentus*, *Asparagus officinalis*, and *Physalis peruviana*) from several countries (e.g. Colombia, Dominican Republic, Mexico, and Peru).

**Pathways:** Fruits and vegetables, plants for planting of host plants, cut flowers, soil, from countries where *C. virescens* occurs.

**Possible risks:** Several host plants of *C. virescens* are economically important crops in the EPPO region (e.g. cotton, maize, tobacco, tomato, ornamentals). According to the EPPO Study on Pest Risks Associated with the Import of Tomato Fruit, the climatic similarity between the areas where the pest occurs and the EPPO region is high. *C. virescens* probably has the potential to establish outdoors in the Southern part of the EPPO region. It could also be a threat to greenhouse crops. Risk assessment studies (Express-PRA and Quick-scan) carried out by Germany and the Netherlands reached a similar conclusion. At the EU level, it has been considered that although further risk assessment studies were needed, it was necessary to take measures to avoid the introduction of *C. virescens* in the EU territory (Commission Implementing Regulation (EU) 2022/1941.

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EPPO RS 2023/013

Panel review date – Entry date 2023-01

## 2023/014 Update on the situation of *Meloidogyne enterolobii* in Switzerland

In Switzerland the root knot nematode *Meloidogyne enterolobii* (EPPO A2 List) was first found in 2008 (EPPO RS 2008/105) in two commercial greenhouses used for vegetable production in the cantons of Aargau and Luzern in Northern Switzerland. At the time it was not a quarantine pest in Switzerland. The NPPO noted that it had been found again in 2018 in the same sites and eradicated. *M. enterolobii* was listed as a quarantine pest in 2019 and the sites where infestations occurred in the past were sampled in 2022 to check the presence of the pest.
In November 2022, *M. enterolobii* was found in the same locations as in 2008 and 2018 in the cantons of Aargau and Luzern. Official measures are taken inside the demarcated area and include strict hygiene measures to stop the spread of the pest.

The pest status of *Meloidogyne enterolobii* in Switzerland is officially declared as: **Present, only in some parts of country, under containment, in case eradication is impossible.**

**Source:** NPPO of Switzerland (2022-11, 2022-12).

**Additional key words:** detailed record, eradication **Computer codes:** MELGMY, CH

## 2023/015 New outbreaks of *Xylella fastidiosa* in Portugal, and first report on citrus plants

Since the last update of the situation of *Xylella fastidiosa* (EPPO A2 List) in Portugal (EPPO RS 2022/064) official surveys have been performed, and new outbreaks detected for the first time in the region Centro, and additional outbreaks in regions Norte, and Lisboa e Vale do Tejo. In particular, an outbreak has been detected for the first time on several citrus species in the region Norte. Eradication measures according to EU Regulation 2020/1201 are applied in all cases, and the outbreak in Algarve has been successfully eradicated.

- Region Norte

- Área Metropolitana do Porto: following new detections during the official survey, the demarcated area has been extended. The subspecies *fastidiosa* was detected for the first time, and official measures consequently apply to the host plants of both *Xylella fastidiosa* subsp. *fastidiosa* and *Xylella fastidiosa* subsp. *multiplex*. *Xylella fastidiosa* subsp. *fastidiosa* was detected in a number of citrus species (*Citrus limon, C. paradisi, C. reticulata, C. sinensis)*. This is the first time that *X. fastidiosa* is reported on citrus in the EPPO region.
- New demarcated areas have been established in Alijó (in December 2022, following a finding (subspecies not determined) on *Prunus persica*), in Baião (in November 2022, following a finding (subspecies not determined) on *Pyracantha coccinea* in a public garden), in Bougado (in January 2023, following a finding (subspecies *multiplex*) on *Salvia rosmarinus*), in two sites in Mirandela (in November 2022, following a finding (subspecies not determined) on *Olea europaea*; and in December 2022, following a finding (subspecies not determined) on *Hibiscus syriacus*).

- Region Centro

Following detections, demarcated areas have been established in the following municipalities: Fundão (in November 2022, following a finding (subspecies *fastidiosa*) on *Prunus dulcis* in a nursery), Gândaras (in October 2022, following findings (subspecies *multiplex*) on *Prunus dulcis* in 2 nurseries), Marrazes (in January 2023, following a finding (subspecies *multiplex*) on *Lavandula stoechas*), Monte Redondo (in December 2022, following a finding (subspecies not determined) on *Lavandula angustifolia*), Póvoa de Midões (in January 2023, following a finding (subspecies *multiplex*) on *Olea europaea*).

- Region Lisboa e Vale do Tejo

The demarcated area established in July 2021 in the Área Metropolitana de Lisboa has been extended and now includes 6 outbreaks. The subspecies *fastidiosa* was detected.
The following new demarcated areas have been recently established: in Colares (in September 2022, following a finding (subspecies not determined) on *Lavandula dentata*, in Palmela (in December 2022, following a finding (subspecies *multiplex*) on *Quercus suber*).

- Region Algarve

Intensive surveys were conducted in the demarcated area in the municipality of Luz de Tavira e Santo Estevão (established in July 2021). No other infected plants and no vectors were found, which confirmed that the initial presence of the bacterium constituted an isolated case. *X. fastidiosa* is therefore considered eradicated in this area.

The pest status of *Xylella fastidiosa* subsp. *fastidiosa* and *Xylella fastidiosa* subsp. *multiplex* in Portugal is officially declared as: **Present, only in some parts of the Member State concerned, under eradication**.

**Source:** NPPO of Portugal (2023-01) Maps of demarcated areas and list of infested host plants are available at: https://www.dgav.pt/plantas/conteudo/sanidade-vegetal/inspecao-fitossanitaria/informacao-fitossanitaria/xylella-fastidiosa/

EU (2020) Commission Implementing Regulation (EU) 2020/1201 of 14 August 2020 as regards measures to prevent the introduction into and the spread within the Union of *Xylella fastidiosa* (Wells *et al.*) http://data.europa.eu/eli/reg_impl/2020/1201/oj

**Additional key words:** detailed record **Computer codes:** XYLEFA, XYLEFF, XYLEFM, PT

## 2023/016 Update on the situation of *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* in Russia

In Russia, *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* (EPPO A2 List) was previously only recorded on bean (*Phaseolus vulgaris*) based on disease symptoms from Southern and Far East Russia. The pathogen has recently been first reported causing disease on sunflower (*Helianthus annuus*) and soybean (*Glycine max*).

On sunflower, symptoms of bacterial wilt and blight were first observed in summer 2018 in fields near Kursk (Southern Russia), and the incidence of this disease was 5 to 20% in the inspected fields in the following years. The pathogen was also recovered from seeds of infected sunflower plants (Pilik *et al.*, 2022).

On soybean, symptoms of tan spot were first observed in summer 2020 and again in spring 2021 in Stavropol Krai (Southern Russia). During routine surveys of several fields, about 10-40% of soybean plants were observed to have tan spot disease. After harvest in 2021, 48 soybean seed lots collected in different regions of Russia were tested for the presence of *C. flaccumfaciens* pv. *flaccumfaciens*. The bacterium was isolated from seed lots produced in Stavropol, Ryazan (Central Russia), and Amur (Far East).

In both case the identity of the pathogen was confirmed by morphological and molecular methods.

**Source:** Pilik RI, Tesic S, Ignatov AN, Tarakanov RI, Dorofeeva LV, Lukianova AA, Evseev PV, Dzhalilov FS, Miroshnikov KA (2022) First report *of Curtobacterium flaccumfaciens* pv. *flaccumfaciens* causing bacterial wilt and blight on sunflower in Russia. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-05-22-1203-PDN

Tarakanov RI, Lukianova AA, Pilik RI, Evseev PV, Miroshnikov KA, Dzhalilov FS, Tesic S, Ignatov AN (2022) First report of *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* causing bacterial tan spot of soybean in Russia. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-08-22-1778-PDN

**Pictures:** *Curtobacterium flaccumfaciens pv. flaccumfaciens.* https://gd.eppo.int/taxon/CORBFL/photos

**Additional key words:** detailed record, host plants **Computer codes:** CORBFL, RU

## 2023/017 First report of *Phyllosticta citricarpa* in Botswana

Citrus black spot caused by the fungus *Phyllosticta citricarpa* (EPPO A1 List) is first reported from Botswana in parts of Central and North East districts. An emergency incursion response has been drawn and implemented with immediate effect. The strategy involves the following actions:

- conducting a delimiting survey,
- implementing eradication procedures,
- implementing internal controls,
- maintaining the pest free areas in Phikwe, North West, Chobe, Ghanzi and Kgalagadi districts.

The pest status of *Phyllosticta citricarpa* in Botswana is officially declared as: **Present: not widely distributed and under official control.**

**Source:** IPPC website. Official Pest Reports – Botswana (BWA-02/1 of 2022-10-04). Notification on the first detection of Citrus black spot in Botswana. https://www.ippc.int/en/countries/botswana/pestreports/2022/10/notification-on-the-first-detection-of-citrus-black-spot-in-botswana/

**Pictures:** *Phyllosticta citricarpa*. https://gd.eppo.int/taxon/GUIGCI/photos

**Additional key words:** new record **Computer codes:** GUIGCI, BW

## 2023/018 First report of *Geosmithia morbida* in France

The NPPO of France recently informed the EPPO Secretariat of the first finding of *Geosmithia morbida* (EPPO A2 List) on its territory. This fungus which is associated with the thousand cankers disease was detected in the vicinity of Lyon (Auvergne-Rhône-Alpes region) in a park on 3 symptomatic walnut (*Juglans regia*) trees. The identity of the fungus was confirmed in November 2022 by morphological and molecular methods. This detection was linked to surveys which have been carried out following the capture of the insect vector, *Pityophthorus juglandis* (Coleoptera: Curculionidae: Scolytinae, EPPO A2 List) in September 2022 near Lyon (EPPO RS 2022/232). After careful examination, it was found that attacked walnut trees also showed holes and galleries of *P. juglandis*, and that a few insect specimens were present. A specific survey for *G. morbida* and its vector will be carried out, including visual examination of host plants (*Juglans, Pterocarya*), sampling in the case of symptoms and inspections on sites which are more at risk. The source of this outbreak is under investigation.

The pest status of *Geosmithia morbida* in France is officially declared as: **Transient, actionable, under eradication**.

**Source:** NPPO of France (2022-12).

**Pictures:** *Geosmithia morbida*. https://gd.eppo.int/taxon/GEOHMO/photos

**Additional key words:** new record **Computer codes:** GEOHMO, FR

## 2023/019 Update on the situation of *Synchytrium endobioticum* in the Netherlands

In the Netherlands, official surveys on potato wart disease caused by *Synchytrium endobioticum* (EPPO A2 List) are conducted every year, and now follow EU Regulation 2022/1195. When the fungus is detected, official measures are taken and a ban on the cultivation of potatoes and propagation material is imposed on all plots found to be infected. In 2020 the pathotype 38 (Nevşehir) was detected for the first time in 3 plots in the municipality of Stadskanaa (EPPO RS 2021/200).
In 2021, *S. endobioticum* was detected in four additional plots in the north-east of the Netherlands: two plots in the municipality of Westerwolde (pathotype 38 (Nevşehir)), one in the municipality of Veendam (pathotype 18 (T1)) and one in the municipality of Emmen (pathotype not determined).
In 2022 in order to gain a better insight into the distribution of pathotype 38 (Nevşehir) in this area, the official survey focused on the area around the outbreaks detected in 2020 and 2021, and 90 inspections were conducted in an area within a radius of 10 km. As a result, eight new plots were found to be infested: two in the municipality of Westerwolde, two in the municipality of Stadskanaal, two in the municipality of Midden Groningen, one in the municipality of Pekela and one in the municipality of Emmen. Based on the resistance profiles of the potato varieties cropped in these fields, it is suspected that outbreaks were due to pathotype 38 (Nevşehir). Pathotype determination is ongoing. The NPPO is also conducting tests to assess the resistance of a number of potato varieties to pathotype 38 (Nevşehir).

**Source:** NVWA (2022-11-25) NVWA treft wratziekte aan op 8 landbouwpercelen in noordoost-Nederland. https://www.nvwa.nl/nieuws-en-media/nieuws/2022/11/25/nvwa-treft-wratziekte-aan-op-acht-landbouwpercelen-in-noordoost-nederland

EU Commission Implementing Regulation (EU) 2022/1195 of July 11, 2022 establishing measures to eradicate *Synchytrium endobioticum* (Schilbersky) Percival and prevent its spread. OJL 185 12.07.2022, p. 65, ELI: http://data.europa.eu/eli/reg_impl/2022/1195/oj

**Additional key words:** detailed record **Computer codes:** SYNCEN, NL

## 2023/020 Phylogenetic studies on *Phyllachora* species infecting maize and other Poaceae

Tar spot of maize (*Zea mays*) caused by *Phyllachora maydis* (EPPO Alert List) was first reported in the USA in 2015. It then spread across several maize-producing areas of the USA and Canada, causing significant economic losses. Tar spot of maize is an emerging disease in the USA and Canada, but has been present in Mexico, several Caribbean islands and Central America for more than 70 years causing little damage. Studies have recently been carried out to better understand the genetic diversity of *Phyllachora* species causing tar spot using symptomatic samples of maize and wild grasses (Poaceae) collected in US maize fields and their vicinity, as well as herbarium specimens of *Phyllachora* spp. mainly associated with maize and Poaceae from the USA and other areas (Mexico, Central and South America, the Caribbean, Asia, and Europe). DNA sequences from 186 isolates collected from 16 host plants (*Zea mays*, other Poaceae and 2 dicotyledons) from 15 countries (Bolivia, Colombia, Costa Rica, Cuba, Dominican Republic, Germany, Guatemala, India, Mexico, Nicaragua, Peru, Philippines, Puerto Rico, Trinidad and Tobago, USA) were studied.

Results showed that these 186 isolates could be grouped into 5 distinct species.

- *Phyllachora* sp. 1 and *Phyllachora* sp. 2 were found only on maize (field and herbarium samples), and from a limited geographical range (Colombia, Mexico, Puerto Rico, and the USA).
- *Phyllachora* sp. 3 included field isolates collected from maize in the USA, but also a large number of herbarium isolates described under other *Phyllachora* species names (*P. chaetochloae, P. diplocarpa, P. epicampsis, P. euphorbiaceae, P. graminis, P. heraclei, P. junci, P. rottboelliae, P. sylvatica, P. vulgata*), in association with a broad range of hosts (Poaceae and two dicotyledons) and from various regions of the world (Asia, Europe, the Caribbean, Central America, Mexico, South America, and the USA). It is noted that the specimen of *P. maydis* collected in Mexico in 1904 and the *P. maydis* isolate used in the first report of tar spot in the United States in 2015 were both gouped under *Phyllachora* sp. 3 and isolates of this species have since been recorded in Illinois, Indiana, Iowa, Michigan, Minnesota, and Wisconsin.
- *Phyllachora* sp. 4 was found on maize from Guatemala and Venezuela (herbarium samples only), as well as on other Poaceae collected from the USA (field samples).
- *Phyllachora* sp. 5 was not found on maize but was recovered from a broad range of Poaceae collected in the USA (field samples).

These results show that the taxonomy of *Phyllachora* needs to be further clarified, as species which had previously been described only on their morphological characteristics and host range may be synonymous. They also strongly suggest that tar spot of maize in the USA is caused by a complex of several closely related *Phyllachora* species. The authors recommended that *Phyllachora* sp. 1, *Phyllachora* sp. 2, and *Phyllachora* sp. 3 should be referred to as '*Phyllachora maydis* species complex' until further studies can properly delineate them.

**Source:** Broders K, Iriarte-Broders G, Bergstrom GC, Byamukama E, Chilvers M, Cruz C, Dalla-Lana F, Duray Z, Malvick D, Mueller D, Paul P, Raid R, Robertson AE, Salgado-Salazar C, Smith D, Telenko D, VanEtten K, Kleczewski NM (2022) *Phyllachora* species infecting maize and other grass species in the Americas represents a complex of closely related species. *Ecology and Evolution* **12**(4), e8832. https://onlinelibrary.wiley.com/doi/full/10.1002/ece3.8832

**Additional key words:** taxonomy, etiology, host plant **Computer codes:** PHYRMA

## 2023/021 New findings of tomato leaf curl New Delhi virus in France

In France, tomato leaf curl New Delhi virus (Begomovirus, ToLCNDV – EPPO A2 List) was first found in 2020 on *Cucurbita pepo* and eradicated (EPPO RS 2020/250, RS 2021/119). The NPPO of France recently informed the EPPO Secretariat of new detections of ToLCNDV on its territory. The virus was detected in 5 locations in Bouches-du-Rhône department (Provence-Alpes-Côte d'Azur region) in September and October 2022:

- in 3 companies producing and trading seeds of *Cucurbita pepo, Cucumis sativus* and *Cucumis melo*. Phytosanitary measures were implemented (destruction and incineration of plants, treatments against the virus vector, *Bemisia tabaci*),
- in 2 sites for fruit production of *Cucurbita pepo* (1 ha outdoor plot and a 640 $m^2$ growing tunnel). All plants in the affected plots were uprooted and destroyed after harvest. In 2023, the growers will have to carry out crop rotation and apply treatments against the vector.

The pest status of tomato leaf curl New Delhi virus in France is officially declared as: **Transient, actionable, under eradication**.

**Source:** NPPO of France (2022-12).

**Additional key words:** detailed record **Computer codes:** TOLCND, FR

## 2023/022 Report on the current situation of invertebrate biological control agents in the European Union

Within the European Union, the Council Decision (EU) 2021/1102 requested the European Commission to carry out a study in 2022 to analyze the current situation regarding invertebrate biological control agents and to identify options for improving it. To produce the study, the European Commission was supported by an external contractor. Representatives of the Competent Authorities of all EU Member States and of two non-EU countries, as well as of the relevant stakeholders (representing the biocontrol industry, growers and foresters, Non-Governmental Organisations, scientific organisations and academia, and international organisations) were invited to provide information by means of surveys and targeted interviews. The report of the study can be found via the following link: https://food.ec.europa.eu/plants/plant-health-and-biosecurity/invertebrate-biological-control-agents-ibcas-against-plant-pests_en#study-requested-by-the-2021-decision.

**Source:** European Commission (2022) Study on the Union's situation and options regarding the introduction, production, evaluation, marketing and use of invertebrate biological agents within the territory of the Union. SWD (2022) 446 final. Available at: https://food.ec.europa.eu/plants/plant-health-and-biosecurity/invertebrate-biological-control-agents-ibcas-against-plant-pests_en#study-requested-by-the-2021-decision

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

## 2023/023 Biological control of *Drosophila suzukii* using the larval parasitoid *Ganaspis brasiliensis* in Italy

*Drosophila suzukii* (Diptera: Tephritidae – EPPO A2) is a frugivorous fly native to East Asia. It has spread to many regions worldwide, including other parts of Asia, the Americas, Africa and the EPPO region. In 2021, after the evaluation of a comprehensive risk assessment submitted by Italian scientific institutions and phytosanitary services, the Italian Ministry of Ecological Transition authorised the release of *Ganaspis brasiliensis* G1 in seven regions and two autonomous provinces within the frame of a national biological control programme. *G. brasiliensis* was released in 12 locations in the Trento province. All sites were located at the margins of wooded areas thereby providing natural corridors for the parasitoid movement. At each site, a single release point was selected, and parasitoid releases (300 males and 300 females) were performed once a week for three consecutive weeks. At each site sampling was carried out, at least once pre-release and five times post-release. After the releases, *G. brasiliensis* was recovered at 50% of the locations. In at least two locations, *G. brasiliensis* was able to survive the cold season and to start new generations in spring. The parasitoid only emerged from *D. suzukii*, the latter being mostly collected from fresh fruit still on the plant.

**Source:** Fellin L, Grassi A, Puppato S, Saddi A, Anfora G, Ioriatti C, Rossi-Stacconi MV (2023) First report on classical biological control releases of the larval parasitoid *Ganaspis brasiliensis* against *Drosophila suzukii* in northern Italy. *BioControl*, https://doi.org/10.1007/s10526-022-10174-2

**Pictures:** *Drosophila suzukii*. https://gd.eppo.int/taxon/DROSSU/photos

**Additional key words:** biological control **Computer codes:** DROSSU, IT

## 2023/024 Ground cover increases activity of generalist ground-dwelling predators to control subterranean life stages of *Ceratitis capitata*

*Ceratitis capitata* (Diptera: Tephritidae – EPPO A2 List) is a highly polyphagous pest which has been recorded from more than 350 different confirmed hosts worldwide. Economic costs include direct crop losses, control and prevention of infestations, both pre- and post-harvest, and limited or loss of access to export markets. Treatment and control methods against *C. capitata* have included chemical control, pheromone trapping (e.g. lure-and-kill), biological control (classical, augmentative and conservation), and sterile insect techniques. For conservation biological control, the development stages of *C. capitata* which occur in the soil can be targeted. In total, three stages of the fly's life cycle can be found in the soil: the late 3rd instar stage, the pupae stage and teneral adults, all of which can be predated by generalist ground-dwelling predators. To investigate the association with ground cover management (bare soil, seeded cover of *Festuca arundinacea* and straw mulch), the emergence of *C. capitata*, and the activity of the most important groups of ground-dwelling predators (spiders, beetles, ants and earwigs) experiments were set up in a citrus orchard in Spain in 2019/2021. Twenty-four, two-year-old clementine trees were individually enclosed in a cage and the cages received one of the three ground management treatments. A controlled number of *C. capitata* third instar larvae were added to the three ground management treatments. *C. capitata* emergence was significantly lower in a seeded cover of *Festuca arundinacea* and a mulch of straw compared to bare soil. Ground cover was related to higher diversity and activity of ground-dwelling predators in the two former treatments compared to bare soil. Ground covers appear to be a strong and sustainable conservation biological control method that should be taken into consideration for the management of *C. capitata* populations.

**Source:** Cruz-Miralles J, Guzzo M, Ibáñez-Gual MV, Dembilio Ó, Jaques JA (2022) Ground-covers affect the activity density of ground-dwelling predators and their impact on the Mediterranean fruit fly, *Ceratitis capitata*, *BioControl* https://doi.org/10.1007/s10526-022-10168-0

**Pictures:** *Ceratitis capitata*. https://gd.eppo.int/taxon/CERTCA/photos

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

## 2023/025 First report of *Elodea nuttallii* in Lithuania

*Elodea nuttallii* (Hydrocharitaceae) (EPPO List of IAP) poses a significant risk to European freshwater systems based on its current distribution, rate of spread and potentially high biomass accumulation. *E. nuttallii* was first introduced to the EPPO region in 1939 and has since spread rapidly having an impact on native biodiversity. Its presence is now reported for the first time in Lithuania. It was found in three locations of the Nemunas River (Southern Lithuania) in June 2020 and 2021. The first population was found with several young shoots growing at a depth of 0.65 m, on a sandy and gravelly river bottom with dominant *Myriophyllum spicatum* and other submerged plants. The second population was found growing downstream together with *Elodea canadensis*. The third population was found growing about 10 km downstream from the second population. Potentially, *E. nuttallii* may be more widespread in this region of Lithuania than currently recorded. The species has rapid growth, vegetative reproduction and can easily be dispersed by waterbirds.

**Source:** Butkuvienė J, Kamaitytė-Bukelskienė L, Naugžemys D, Patamsytė J, Sinkevičienė Z (2022) First records and molecular confirmation of invasive species *Elodea nuttallii* (Planch.) H.St.John, 1920 in Lithuania. *BioInvasions Records* **11**, 1019-1030

**Additional key words: new record.** invasive alien plants, new record **Computer codes:** BACDR, LT

## 2023/026 First record of *Vallisneria australis* in France

In 2022, almost simultaneous observations were made of the same undetermined species of submerged plant with long, ribbon-like leaves in two artificial water bodies located far apart in France, Lake Salagou (Hérault) and Lake Vaivre, near Vesoul (Haute-Saône). Both populations consist of dense populations extending over several thousand square metres. Visual examination of the plants made it possible to determine that they were both from the genus *Vallisneria* but the leaf morphology was different to that of the native species *Vallisneria spiralis*. When comparing these specimens with *Vallisneria australis*, it was confirmed that they were the same species and molecular analysis conducted by the Dutch Plant Protection Service also suggests that the species is very probably *V. australis*. The 'very probable' identification highlights the fact that within Europe, *V. australis* shows genetic variation. *V. australis* has been observed in Hungary, Germany, Belgium and Italy. It has been known from Hungary since the end of the 19th Century with the first observations in the thermal springs of Budapest in 1891. However, it is quite capable of establishing itself in unheated natural environments as was subsequently seen in other sites in Europe. As for the two cases in France, it has been observed that the plant occupies human modified water bodies by developing monospecific stands capable of eliminating other submerged plants. Further research is needed to confirm the identity of certain populations in France and to assess its behaviour and impacts.

**Source:** Dutartre A (2022) *Vallisneria australis*, une nouvelle espèce aquatique exotique en France. http://especes-exotiques-envahissantes.fr/vallisneria-australis-une-nouvelle-espece-aquatique-exotique-en-france/

Mesterházy A, Somogyi G, Efremov A, Verloove V (2021) Assessing the genuine identity of alien *Vallisneria* (Hydrocharitaceae) species in Europe. *Aquatic Botany* **174**, 103431, 6 pp.

**Additional key words:** new record, invasive alien plants, new record **Computer codes:** VAIAU, VAISP, FR

## 2023/027 *Cornus sanguinea* subsp. *australis* in Lithuania

In Lithuania, the presence and spread of the non-native *Cornus sanguinea* subsp. *australis*, has gone unnoticed due largely to its similarity to the native *Cornus sanguinea* subsp. *sanguinea*. *C. sanguinea* subsp. *australis* is native to South-Eastern Europe and Western Asia and is considered alien in other parts of Europe. During a study in Lithuania between 2018 and 2022, the distribution of *C. sanguinea* subsp. *australis* was recorded. The results showed that *C. sanguinea* subsp. *australis* has been present in Lithuania for several decades and its establishment is now well advanced. When comparing *C. sanguinea* subsp. *australis* with *Cornus sanguinea* subsp. *sanguinea*, it was shown that the alien subspecies grows faster and that individuals in analogous habitats mature earlier than the native subspecies. Other traits that can aid its spread and establishment over the native species include the fact that *C. sanguinea* subsp. *australis* produces more flowers per inflorescence and has a higher abundance of ripening fruits. *C. sanguinea* subsp. *australis* can have a negative effect on species diversity in the community. Considering the current distribution and the drivers of dispersal, *C. sanguinea* subsp. *australis* is likely to continue to spread rapidly in Lithuania and may pose a threat to the native subsp. *sanguinea* populations.

**Source:** Petrulaitis L, Gudžinskas Z (2023) Drivers and effects of cryptic invasion of *Cornus sanguinea* subsp. *australis* in Lithuania. *Diversity* **15**, 107. https://doi.org/10.3390/d15010107

**Additional key words:** invasive alien plants, detailed record **Computer codes:** CRWSA, CRWSA, LT

## 2023/028 *Impatiens glandulifera* in Ukraine

*Impatiens glandulifera* (Balsaminaceae: EPPO List of Invasive Alien Plants) is an invasive, annual species native to the Western Himalayas. It was originally introduced into the EPPO region as a garden ornamental and has spread throughout Europe. The current distribution of *I. glandulifera* in Ukraine was assessed using material from herbarium records and online databases. In total, 529 locations of *I. glandulifera* were identified (mainly in the east and central north of the country). Assessing the historic expansion of locations showed that in the last 30 years, *I. glandulifera* has spread exponentially. Habitats where *I. glandulifera* occurs include valleys, floodplains and in anthropogenic habitats. In Ukraine, *I. glandulifera* grows with a number of other plant species (in total 89 species were recorded), including native and non-native species. Some of the commonly associated non-native species include *Solidago canadensis*, *Acer negundo*, *Impatiens parviflora*, *Erigeron annuus*, *Erigeron canadensis*, *Echinocystis lobata* and *Geranium sibiricum*. Twelve ecological factors were assessed in a model to determine which of these had the most influence on the distribution of the species. In the studied areas, the environmental niche of *I. glandulifera* was estimated to be limited mainly by the amount of water content in the soil, saline, and soil carbonate content. It is estimated that a temperature increase of 2°C could result in a critical shift in the values of soil acidity and salinity that could cause a decline of the potential niches in the studied area. The obtained data have the potential to be useful in limiting the spread of *I. glandulifera* into new territories and reducing its negative effect on plant communities of river valley corridors.

**Source:** Koniakin SM, Gubar LM, Budzhak VV (2022) *Impatiens glandulifera* (Balsaminaceae) in Ukraine: its current distribution, ecological and coenotic features. *Environmental and Socio-economic studies*. **10** 46-58.

**Pictures:** *Impatiens glandulifera*. https://gd.eppo.int/taxon/IPAGL/photos

**Additional key words:** invasive alien plants, detailed record

**Computer codes:** ACRNE, ECNLO, ERICA, ERIAN, GERSI, IPAGL, IPAPA, SOOCA, UA

## 2023/029 Catalogue of alien plants of the Czech Republic (3rd edition)

The 3rd edition of the Catalogue of alien plants of the Czech Republic has been published. It lists 1576 taxa alien to the country, with information on their taxonomic position, life form, geographic origin, residence time category (archaeophyte or neophyte), invasion status (casual, naturalized or invasive), date of the first and last field record, grid-cell occupancy, pathway of introduction into the country, habitat affiliation and impact assessment. This edition includes 122 additional taxa compared to the 2nd edition (2012); 157 taxa were added and 35 were removed. Of the removed taxa, 17 were reclassified as native, 8 were removed due to lack of evidence of their occurrence in the wild, records of 6 taxa were assessed as doubtful, and 4 were not taxonomically justified.

**Source:** Pyšek P, Sádlo J, Chrtek Jr J, Chytrý M, Kaplan Z, Pergl J, Pokorná A, Axmanová I, Čuda J, Doležal J, Dřevojan P, Hejda M, Kočár P, Kortz A, Lososová Z, Lustyk P, Skálová H, Štajerová K, Večeřa M, Vítková M, Wild J, Danihelka J (2022) Catalogue of alien plants of the Czech Republic (3rd edition): species richness, status, distributions, habitats, regional invasion levels, introduction pathways and impacts. *Preslia* **94**, 447-577.

**Additional key words:** invasive alien plants

**Computer codes:** CZ

## 2023/030 International conference on Ecology and Management of Alien Plant Invasions (Pucón, Chile, 2023-10-23/27)

The 16th International conference on Ecology and Management of Alien Plant Invasions (EMAPI) will be held on 2023-10-23/27 in Pucón, Chile. The conference will take place from the 23-25 October and field trips and workshops will be arranged on the 26th and 27th respectively.

Important dates:

- Applications for organizing workshops and symposia: Jan 17, 2023 to March 31,2023.
- Registration (early bird), abstract submissions and optional workshops registrations: March 1, 2023 to May 31, 2023.
- Late registration: June 6, 2023 to September 15, 2023.
- Abstract acceptance: July 31, 2023.
- Fees and other costs, as well as Hotel details, will be published in late February on the conference website.

Pre-registration is open via the following link: https://emapi2023.com

**Source:** EMAPI website: https://emapi2023.com

**Additional key words: conference,** invasive alien plants, conference

**Computer codes:** CL