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2024/049 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**

Corythucha arcuata (Hemiptera: Tingidae – formerly EPPO Alert List) occurs in Poland. It was first observed in August 2021 on the Bukowe Berdo mountain (Southern Poland) in a mixed forest (Gierlasiński and Orzechowski, 2023).

Phytophthora alni subsp. *alni* (formerly EPPO Alert List, EAEU A1 List) is reported from Belarus, on *Alnus glutinosa* and *A. incana* (Zviagintsev *et al.*, 2023).

Potato spindle tuber viroid (*Pospiviroid*, PSTVd – EPPO A2 List) is first reported from Vietnam. It was detected in 2022 during an export inspection in seeds of *Capsicum annuum* produced in Vietnam (Tanaka *et al.*, 2024).

Thaumastocoris peregrinus (Hemiptera: Thaumastocoridae – formerly EPPO Alert List) is reported for the first time from Cyprus. The first specimen was found in December 2020 in Germasogeia (near Limassol city) under the bark of a *Eucalyptus* sp. tree. More specimens were then found in the Limassol district in urban areas (Demetriou *et al.*, 2023).

- **Detailed records**

In China, *Austropuccinia psidii* (formerly EPPO Alert List), the causal agent of myrtle rust was first reported from Hainan province on *Syzygium jambos*. In 2023, *A. psidii* was also found in Guangdong province, causing a serious shoot and leaf rust disease on *Rhodomyrtus tomentosa* trees in two parks and one nursery in Zhanjiang (Liu *et al.*, 2024).

Metamasius hemipterus (Coleoptera: Curculionidae, EPPO A1 List) is first recorded from the state of Mato Grosso do Sul, Brazil. It was found in the soil of sugarcane (*Saccharum officinarum*) fields (Ávila *et al.*, 2023).

In Egypt, tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO A2 List) was first reported in 2019 from tomato (*Solanum lycopersicum*) but this report was considered invalid by the NPPO of Egypt (EPPO RS 2020/125). A recent article mentions the detection of ToBRFV on *Capsicum* spp. from samples collected in 2016-2017 (Khalifa *et al.*, 2024).

In Uzbekistan, tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO A2 List) was first observed greenhouses producing tomato fruit (*Solanum lycopersicum*) in October 2020 in the region of Ferghana and in the region of Davlatobod (EPPO RS 2021/222). Bakhtiyorova *et al.* (2024) report that it was also found in Zangiota, Qibray and Chirchiq districts in the region of Tashkent in spring 2021.

In Southern USA, *Xylella fastidiosa* (EPPO A2 List) causes leaf scorch in rabbiteye blueberry (*Vaccinium virgatum*) cultivars. So far, only *X. fastidiosa* subsp. *multiplex* had been reported associated with this species in Louisiana. Cieniewicz *et al.* (2024) showed that *X. fastidiosa* subsp. *fastidiosa* was causing leaf scorch of *V. virgatum* in South Carolina.

- **Host plants**

In China, *Xanthomonas euvesicatoria* pv. *perforans* (EPPO A2 List) was identified as the causative agent of bacterial leaf spot on water spinach (*Ipomoea aquatica)* in Fujian province (Fan *et al.*, 2023).

- **New pests and taxonomy**

For many years, the pathogen causing bacterial canker of tomato has been called *Clavibacter michiganensis* subsp. *michiganensis* (EPPO A2 List). In the 2010s, the division of *Clavibacter michiganensis* into subspecies started to be reviewed, and subspecies were progressively moved to species level, such as *C. sepedonicus, C. capsici* and *C. nebraskensis*. More recently, based on genomic and phylogenetic analysis, *C. michiganensis* subsp. *phaseoli*, *C. michiganensis* subsp. *californiensis,* and *C. michiganensis* subsp. *chilensis* were also elevated to species rank, leaving only one subspecies, *C. michiganensis* subsp. *michiganensis* (Arizala *et al.*, 2022; Osdaghi *et al.*, 2020). As a consequence, this remaining subspecies should now be called *Clavibacter michiganensis*.

When re-examining specimens belonging to three Japanese species of conifer-infesting gall midges (namely *Aschistonyx eppoi* on *Juniperus chinensis* var. *globosa, Dasineura nipponica* on *Larix kaempferi, Janetiella kimurai* on *Pinus parviflora* - Diptera: Cecidomyiidae), it was concluded that *Aschistonyx eppoi* (EU Annexes) should be transferred to a new genus and called *Byakushincecis eppoi*. During these studies, *B. eppoi* was also found infesting bonsai plants of *Juniperus chinensis* var. *sargentii* at a nursery in Saitama prefecture (Honshu). These plants were being produced for export to the EU (Yukawa *et al.*, 2024).

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Additional key words: detailed record, host plant, new record, taxonomy

Computer codes: ASCXEP, CORBMI, CRTHAR, METAHE, PHYTAL, PSTVD0, PUCCPS, THMCPE, TOBRFV, XANTPF, XYLEFA, XYLEFF, BR, BY, CN, CY, EG, PL, US, UZ, VN

2024/050 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 2024/030), the following new and revised EPPO datasheets have been published in the EPPO Global Database:

- *Anthonomus grandis*: https://gd.eppo.int/taxon/ANTHGR/datasheet
- *Anthonomus signatus*: https://gd.eppo.int/taxon/ANTHSI/datasheet
- *Plenodomus tracheiphilus*. https://gd.eppo.int/taxon/DEUTTR/datasheet
- *Xanthomonas citri* pv. *aurantifolii*. https://gd.eppo.int/taxon/XANTAU/datasheet
- *Xanthomonas translucens* pv. *translucens*. https://gd.eppo.int/taxon/XANTTR/datasheet

Source: EPPO Secretariat (2024-03).

Additional key words: publication

Computer codes: ANTHGR, ANTHSI, DEUTTR, XANTAU, XANTTR

2024/051 Update on the situation of *Anoplophora chinensis* in France

In France, an outbreak of *Anoplophora chinensis* (Coleoptera: Cerambycidae – EPPO A2 List) was found in 2018 in Royan (Charente-Maritime department, Nouvelle-Aquitaine region). Eradication measures were applied (EPPO RS 2018/138) and, in February 2024 the NPPO of France declared the outbreak eradicated.

In July 2023, a female specimen of *A. chinensis* was found by a private owner in his garden in Haute-Savoie department (Auvergne-Rhône-Alpes region) on a *Lagerstroemia indica* showing characteristic symptoms. An official survey using a sniffer dog was immediately conducted in the garden and its surroundings, and no other beetles were found. Trace-back activities showed that the lot of *L. indica* had been purchased in March 2022 by a French operator from an Italian supplier a few weeks before the plant was bought and planted by the owner in his garden. Given the life cycle of *A. chinensis*, it is highly probable that the insect arrived at a larval stage within the *L. indica* plant. The infested tree was destroyed. According to EU regulation 2022/2095, no demarcated area has been defined, but monitoring will be conducted over a 4-year period to verify that the pest has not established.

The pest status of *Anoplophora chinensis* in France is officially declared as: **Absent, pest eradicated.**

Source: NPPO of France (2024-02).

Commission Implementing Regulation (EU) 2022/2095 of 28 October 2022 establishing measures to prevent the introduction into, establishment and spread within the Union territory of *Anoplophora chinensis* (Forster) and repealing Decision 2012/138/EU. OJL 281, 53-71. http://data.europa.eu/eli/reg_impl/2022/2095/oj

Pictures: *Anoplophora chinensis*. https://gd.eppo.int/taxon/ANOLCN/photos

Additional key words: detailed record, eradication, absence **Computer codes:** ANOLCN, FR

2024/052 First report of *Xylosandrus compactus* and *Anisandrus maiche* in Slovenia

During the national survey of quarantine pests conducted in 2023, two non-native ambrosia beetles, *Anisandrus maiche* (Coleoptera: Curculionidae: Scolytinae) and *Xylosandrus compactus* (formerly EPPO Alert List), were recorded for the first time in Slovenia. Black multi-funnel traps baited with ethanol were suspended in 10 locations (forest stands) during spring 2023 (May to mid-June). Collected bark and ambrosia beetles were then studied in the laboratory and identified using morphological keys, and some specimens were selected for additional molecular analysis. As a result 15 bark beetles species were collected, including the following 6 non-native species: *Xylosandrus germanus* (1581 individuals caught), *Anisandrus maiche* (386), *Xylosandrus compactus* (3), *Gnathotrichus materiarius* (2), *Hypothenemus eruditus* (1) and *Xyleborinus attenuatus* (1).

- *A. maiche* was recorded in 3 locations (Murska šuma, Ragovo, Malo Mraševo) in the Eastern part of the country. The relatively large number of individuals caught suggests that it has been present in Slovenia for several years. Considering the locations where this insect has been caught, it is supposed that Slovenian populations are not resulting from natural spread from countries where it occurs (i.e. Italy, Switzerland, Ukraine) but rather from an introduction via infested wood or plants.

- Three individuals of *X. compactus* were found in one location (Srmin) in Western Slovenia, less than 2 km from the port of Koper which is thought to be the probable point of entry.

So far, no damage to trees has been recorded in Slovenia in association with these two newly recorded species.

Source: Hauptman T, Devetak Z, de Groot M, Faccoli M, Piškur B (2024) First record of non-native *Xylosandrus compactus* and *Anisandrus maiche* (Coleoptera: Curculionidae, Scolytinae) in Slovenia. *Zootaxa* **5415**(2), 339-345. https://doi.org/10.11646/ZOOTAXA.5415.2.8

Pictures *Anisandrus maiche*. https://gd.eppo.int/taxon/ANIDMA/photos
Xylosandrus compactus. https://gd.eppo.int/taxon/XYLSCO/photos

Additional key words: new record **Computer codes:** ANIDMA, GNAHMA, HYOTEU, XYBIAL, XYLBGE, XYLSCO, SI

2024/053 *Amasa parviseta*, a new invasive species of ambrosia beetle

The genus *Amasa* (Coleoptera: Curculionidae: Scolytinae) currently contains 47 species distributed in tropical Asia and Oceania. One exotic *Amasa* species first trapped in a *Eucalyptus grandis* plantation in São Paulo (Brazil) was initially identified as *A. truncata* in 2011, but it was later shown that it was a morphologically similar but different species, temporarily identified as '*Amasa* near *truncata*'. This species further spread in South America: Minas Gerais in Brazil in 2015, Uruguay (Tacuarembó) in 2015, Chile (Valparaíso) in 2016, and Argentina in 2018.

The species was also trapped in Spain in 2009 (identified as *Amasa resecta*), as well as in Southern France in 2018 and in Portugal in 2019 (EPPO RS 2021/157, RS 2023/045). The DNA barcoding of a French specimen showed that was identical to an undetermined *Amasa* species from New South Wales (Australia) which suggested that the species is native to Australia.

Knížek and Smith (2024) have formally described this new species and named it *Amasa parviseta*. In Australia, it occurs in the Australian Capital Territory, New South Wales, and Queensland. Specimens were collected from *Eucalyptus piperita* and *Eucalyptus* leaf litter in Australia, and from *Eucalyptus* in Chile, Uruguay and France. All other known specimens were collected in traps located in areas where *Pinus* and *Eucalyptus* were present.

This example underlines the need to support taxonomic research in entomology and other areas of plant health, as accurate identification of species is crucial to be able to identify potential threats.

Source: Knížek M, Smith SM (2024) A new widely distributed invasive alien species of *Amasa* ambrosia beetles (Coleoptera: Curculionidae: Scolytinae: Xyleborini). *Zootaxa* **5403**(3), 385-390.

Additional key words: new pest **Computer codes:** AMASPA

2024/054 First record of *Ambrostoma superbum* in Western Siberia

The genus *Ambrostoma* (Coleoptera: Chrysomelidae) includes ten species distributed Eastern and South-Eastern Asia. *Ambrostoma superbum* was recently found in Novosibirsk (Western Siberia, Russia) on elms (*Ulmus pumila* and *U. laevis)*. Larvae and adults feed on leaves, and adults can also feed on bark. Damage on *U. pumila* was considered significant. *A. superbum* was previously only known to occur in the Asian part of Russia (Far East and Eastern Siberia), as well as in Mongolia, China (including Taiwan), and the Korea Peninsula.

Other Asian species feeding on elms have been recorded in Western Siberia during the last decade, such as *Magdalis margaritae* (Coleoptera, Curculionidae) or *Orchestes ruber* (Coleoptera, Curculionidae). This suggest that plantations of *U. pumila* can act as a bridge between the European and Far Eastern parts of the indigenous distribution areas of elms and facilitate spread of invasive species.

Source: Legalov AA, Reshetnikov SV (2022) First invasion of *Ambrostoma superbum* (Thunberg, 1787) (Coleoptera, Chrysomelidae) in Western Siberia. *Acta Biologica Sibirica* **8**, 253–259.
Korotyaev BA, Efimov DA (2023) On the discovery of the weevil *Magdalis margaritae* Barrios (Coleoptera, Curculionidae: Magdalidini) in Kemerovo City, Russia, and role of plantations of the Siberian elm, *Ulmus pumila* L., in the exchange of herbivores between European and eastern Palaearctic forest regions with participation of elms. *Entomological Review* **103**(4), 492-494.

Additional key words: new record **Computer codes:** AMBOSU, MAGDMA, RU

2024/055 First findings of *Olenecamptus bilobus* in the EPPO region

Olenecamptus bilobus (Coleoptera, Cerambycidae) is a long horned beetle originating in the Australasian, Eastern Palearctic, Oriental Region and Madagascar. During the summer 2023, 2 specimens were observed in Spain (Les Salades, Province of Alicante, Comunidad Valenciana), as well as 1 specimen in Greece (island of Lemnos). The authors considered that the insect could have been introduced accidentally as a hitchhiker or via trade of plants for planting, as the findings were close to ports and airports, and to plant nurseries.

O. bilobus is considered as a pest in its area of origin. The species is polyphagous, but it seems to prefer plants of the genera *Artocarpus, Ficus* and *Morus*.

Source: Ruzzier E, de Queros CR, Mas H, Di Giulio A (2023) Simultaneous detections of *Olenecamptus bilobus* (Fabricius, 1801) (Cerambycidae, Dorcaschematini) in Europe. *Biodiversity Data Journal* **11**, e114432. https://doi.org/10.3897/BDJ.11.e114432

Pictures *Olenecamptus bilobus*. https://gd.eppo.int/taxon/OLENBI/photos

Additional key words: new record **Computer codes:** OLENBI, ES, GR

2024/056 First report of *Tuta absoluta* in Thailand

Tuta absoluta (Lepidoptera: Gelechiidae – EPPO A2 List) is first reported from Thailand. Surveys were conducted in 2019-2023 in 77 provinces throughout Thailand with pheromone traps. *T. absoluta* was detected in tomato (*Solanum lycopersicum*) and potato (*Solanum tuberosum*) crops in 8 provinces (Mae Hong Son, Chiang Mai, Tak, Loei, Nong Khai, Bueng Kan, Nakhon Phanom and Phetchabun). Official measures are taken to eradicate the pest in infested areas and limit its spread within the country (IPPC, 2024).

The pest status of *Tuta absoluta* in Thailand is officially declared as: **Present, not widely distributed and under official control.**

Source: IPPC website. Official Pest Reports- Thailand (2024-02-28): Pest status of *Phthorimaea absoluta* in Thailand. https://www.ippc.int/fr/countries/thailand/pestreports/2024/02/pest-status-of-phthorimaea-absoluta-in-thailand/

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

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

2024/057 First report of *Zeugodacus cucurbitae* in Mozambique

In Mozambique *Zeugodacus cucurbitae* (Diptera: Tephritidae – EPPO A1 List) was first reported in 2013 the province of Cabo Delgado near the border with Tanzania. During surveys in 2021-2023, the pest was found in the provinces of Cabo Delgado, Niassa, Nampula, Zambezia, Tete, Manica, and Sofala. Measures are applied to suppress the pest and prevent the movement of infested host plants from infested areas to non-infested areas (IPPC, 2024).

The pest status of *Zeugodacus cucurbitae* in Mozambique is officially declared as: **Present: except in specified pest free areas.**

Source: IPPC website. Official Pest Reports- Mozambique (2024-02-28): Occurrence of melon fly (*Zeugodacus cucurbitae*) in Mozambique. https://www.ippc.int/fr/countries/mozambique/pestreports/2023/08/occurrence-of-melon-fly-zeugodacus-cucurbitae-in-mozambique/

Pictures *Zeugodacus cucurbitae*. https://gd.eppo.int/taxon/DACUCU/photos

Additional key words: new record **Computer codes:** DACUCU, MZ

2024/058 First report of *Singhiella simplex* in mainland Spain

In October 2018, *Singhiella simplex* (Hemiptera: Aleyrodidae – formerly EPPO Alert List) was found for the first time in mainland Spain. It had been recorded previously in the island of Mallorca, Baleares. Nymphs (4th larval stage) were observed in the municipality of El Rincón de la Victoria, in the province of Málaga (Andalucía), on leaves of *Ficus microcarpa*. In 2019, the pest was also found in the province of Alicante (Comunidad Valenciana). Since 2020, significant damage has been observed in various species of ornamental *Ficus* trees in Murcia. Affected trees showed progressive yellowing of the foliage, massive defoliation leading to a significant reduction of plant vigour and in extreme cases to tree death.

Singhiella simplex originates from South-East Asia and feeds exclusively on *Ficus* species. This whitefly has spread to other regions of the world, including parts of North America, South America, and of the Mediterranean Basin. It damages *Ficus* plants by sucking sap, resulting in leaf yellowing, extensive leaf drop, branch dieback, stunting, wilting, and eventually plant death. *S. simplex* also produces honeydew on which sooty mould develops.

Source: Anonymous (2024) *Singhiella simplex*. Boletin Informativo 2/2024. Region de Murcia, Servicio de Sanidad Vegetal, 6 pp. [Link].
Dader Alonso B, Viñuela Sandoval E, Medina Velez MP, Budia Marigil MF, Adan del Rio AA, del Estal Padillo P (2019) Presencia en España de la mosca blanca del *Ficus* spp., *Singhiella simplex* (Singh, 1931) (Hemiptera: Aleyrodidae). Abstract of a paper presented at the XI Congreso de la Sociedad Española de Entomología Aplicada (Madrid, 2019-11-04/08), p 108. https://www.upm.es/observatorio/vi/index.jsp?pageac=actividad.jsp&id_actividad=324992

Pictures *Singhiella simplex*. https://gd.eppo.int/taxon/SINLSI/photos

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

2024/059 *Diaphorina citri* is a potential vector of *Citrus tristeza virus*

Diaphorina citri (Hemiptera: Psyllidae, EPPO A1 List) is a known vector of '*Candidatus* Liberibacter asiaticus' (EPPO A1 List) causing citrus huanglongbing. Citrus tristeza virus (*Closterovirus*, CTV – EPPO A2 List) has so far been considered to be spread by aphid species (Homoptera: Aphididae), such as *Aphis* (*Toxoptera) citricidus* and *Aphis gossypii*.

Experiments conducted in the laboratory and in the field in China showed that *D. citri* could acquire CTV from infected citrus plants. Both nymphs and adults could carry CTV. The virus was present at a higher level in the insect midguts than in the salivary glands.

Source: Zhang J, Xiao Y, Hu P, Chen L, Deng X, Xu M (2024) Report of Citrus tristeza virus in *Diaphorina citri* (Hemiptera: Liviidae) insects of different sexes, color morphs, and developmental stages. *Journal of Insect Science* **24**(1), 13. https://doi.org/10.1093/jisesa/ieae014

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

Additional key words: epidemiology **Computer codes:** CTV000

2024/060 *Xylella fastidiosa* subsp. *fastidiosa* detected on grapevine in Italy

As reported in February 2024, *Xylella fastidiosa* subsp. *fastidiosa* (EPPO A2 List, as *X. fastidiosa*) was first found in Italy in the municipality of Triggiano (province of Bari, region of Puglia). In this location, *X. fastidiosa* subsp. *fastidiosa* was detected in 6 almond (*Prunus dulcis*) trees, and eradication measures were taken (EPPO RS 2024/038). Further intensive surveys have been conducted in the demarcated area (in Triggiano), and as of the 22nd of March 2024, approximately 6000 samples were collected from potential host plants. In total, 25 plants were found to be infected by *X. fastidiosa* subsp. *fastidiosa*: 22 *Prunus dulcis* (including the 6 plants of the initial detection), 2 *Vitis vinifera* (grapevine) and 1 *Prunus avium* (cherry). It is noted that the 6 almond trees found to be infected in February 2024 have already been destroyed, and eradication measures are continuing. This is the first time that *X. fastidiosa* subsp. *fastidiosa* is detected on grapevine in Italy.

The pest status of *Xylella fastidiosa* subsp. *fastidiosa* in Italy is officially declared as: **Present, under eradication.**

Source: NPPO of Italy (2024-03).

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

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

2024/061 First record of '*Candidatus* Phytoplasma americanum' in Ecuador

'*Candidatus* Phytoplasma americanum' (EPPO A1 List) was first recorded in Ecuador in 2020. It was detected in potato (*Solanum tuberosum*) plants in a commercial field located in Pinchincha province. Infected plants showed symptoms including stunting, purple coloration of new leaves, leaf curling, swollen nodes and aerial tubers. This is also the first record of '*Ca*. P. americanum' in South America.

The situation of '*Candidatus* Phytoplasma americanum' in Ecuador can be described as follows: **Present not widely distributed.**

Source: Carrillo Castillo C, Rivera Varas V, Gill U, Rengifo J, Secor G (2022) '*Candidatus* Phytoplasma americanum' identification in potatoes showing purple top disease in Ecuador. *Phytopathogenic Mollicutes* **12**(2), 114-118.

Additional key words: new record **Computer codes:** PHYPAE, EC

2024/062 First report of tomato fruit blotch virus in Sicilia (Italy)

In Italy, tomato fruit blotch virus (ToFBV - *Blunervirus solani*, EPPO Alert List) was first reported in Lazio in 2018 (EPPO RS 2020/184). In December 2023, tomato plants (*Solanum lycopersicum*) cultivated in different greenhouses located in Ragusa province (Sicilia, Italy) showed circular or irregular chlorotic blotches in tomato fruit, while no symptoms were observed in young or middle leaves. Symptomatic plants were tested by real-time RT-PCR and were found positive for ToFBV. Eradication measures are underway in Sicilia to contain this outbreak.

Source: Panno S, Ragona A, Bertacca S, Agrò G, Yahyaoui E, Dimauro B, Caruso AG, Davino S (2023) Outbreak of tomato fruit blotch virus in the most relevant tomato greenhouse production area of Sicily. *Journal of Plant Pathology* (early view) https://doi.org/10.1007/s42161-024-01623-1

Pictures *Blunervirus solani*. https://gd.eppo.int/taxon/TOFBV0/photos

Additional key words: detailed record **Computer codes:** TOFBV0, IT

2024/063 First report ot tomato brown rugose fruit virus in India

Tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO A2 List) is reported for the first time in India. ToBRFV was detected in symptomatic tomato (*Solanum lycopersicum*) plants grown in open fields in May 2023 in Karnataka and Maharashtra states. Affected plants showed symptoms of mosaic patterns, mottling, yellowing, chlorosis, deformed leaves, and necrotic spots or brown rugose patches on the fruits. Laboratory analysis (DAS-ELISA, RT-PCR, sequencing) confirmed the presence of ToBRFV in 11 fruit samples which had been collected from symptomatic plants.

The situation of tomato brown rugose fruit virus in India can be described as follows: **Present not widely distributed.**

Source: Kavya SS, Mahantesha V, Chowdappa A, Mantesh M, Pooja PS, Venkataravanappa V, Reddy CL (2024) Tomato brown rugose fruit virus associated with leaf mosaic, mottling and brown rugose patches on fruits of tomato in India. *Australasian Plant Disease Notes* **9**(1),9.https://doi.org/10.1007/s13314-024-00534-5

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

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

2024/064 First report of cucurbit yellow stunting disorder virus in Iraq

Cucurbit yellow stunting disorder virus (Crinivirus, CYSDV - EPPO A2 List) is first reported from Iraq. CYSDV was detected from symptomatic courgettes (*Cucurbita pepo*) grown in open fields in 2022 in Baghdad Province.

The situation of cucurbit yellow stunting disorder virus in Iraq can be described as follows: **Present not widely distributed.**

Source: Mohammed MS, Lahuf AA, Jeddoa ZM, Al-Taey DK (2024) First detection of cucurbit yellow stunting disorder virus in Iraq. *Plant Health Progress* **25**(1) 95-97. https://doi.org/10.1094/PHP-09-23-0076-BR

Pictures Cucurbit yellow stunting disorder virus. https://gd.eppo.int/taxon/CYSDV0/photos

Additional key words: new record **Computer codes:** CYSDV0, IQ

2024/065 First report of cucurbit yellow stunting disorder virus in Jamaica

Cucurbit yellow stunting disorder virus (Crinivirus, CYSDV - EPPO A2 List) is first reported from Jamaica. In August 2018, foliar symptoms were observed on cantaloupe (*Cucumis melo*), watermelon (*Citrullus lanatus*), and cucumber (*Cucumis sativus*) plants in several commercial farms in St. Elizabeth. Plant material from these 3 hosts tested positive for the presence of CYSDV using RT-PCR. The virus was also detected in Manchester and Clarendon regions in 2020.

The situation of cucurbit yellow stunting disorder virus in Jamaica can be described as follows: **Present not widely distributed.**

Source: Pitter PL, Mondal S, Chang PG, Myers Morgan L, Aikman S, Wintermantel WM, Tennant PF (2024) First report of cucurbit yellow stunting disorder virus infecting cucurbit crops in Jamaica. *Plant Disease* (early view) https://doi.org/10.1094/PDIS-08-23-1551-PDN

Pictures Cucurbit yellow stunting disorder virus. https://gd.eppo.int/taxon/CYSDV0/photos

Additional key words: new record **Computer codes:** CYSDV0, JM

2024/066 The potential of *Trichogramma foersteri* as a biological control agent for *Spodoptera* species

Egg parasitoids of the genus *Trichogramma* (Hymenoptera: Trichogrammatidae) are extensively used against agricultural pests in both annual and perennial crops. *Spodoptera frugiperda* (Lepidoptera: Noctuidae, EPPO A2 List) and *Spodoptera eridania* (EPPO A1 List) are polyphagous species native to the Americas. The efficacy of the newly discovered species, *Trichogramma foersteri** was studied for the potential biological control of both *Spodoptera* species. In general, low parasitism rates are reported for *Trichogramma* species against *Spodoptera* species, in part, as female *Spodoptera* lay eggs in multiple layers which are protected by scales. However, screening tests performed in the laboratory have shown that *T. foersteri* can successfully parasitize the eggs of *S. eridania* and *S. frugiperda*. *T. foersteri* can negatively impact hosts without successful offspring development or direct feeding. Parasitism, non-reproductive mortality, and emergence rates of *T. foersteri* for both pest species were studied. *T. foersteri* demonstrated effective parasitism in 144 eggs (one layer) and 55 (two layers) of *S. frugiperda*, as well as 150 eggs of *S. eridania*. Non-reproductive effects also contributed to mortality in both *Spodoptera* species. The emergence of *T. foersteri* showed a high variability; on *S. frugiperda* it was 80 % compared to 23 % on *S. eridania* . The above findings highlight the potential of *T. foersteri* as an effective control agent for both pests.

* *Trichogramma foersteri* was first described in 2021 from eggs of *Anticarsia gemmatalis* (Lepidoptera: Erebidae), a defoliating pest of soybean, in Paraná State, Brazil.

Source: Sampaio F, Marchioro CA, Takahashi TA, Foerster LA (2024) A new biocontrol agent against old enemies: The potential of *Trichogramma foersteri* for the control of *Spodoptera frugiperda* and *Spodoptera eridania*. *Biological Control* **192**, 105504. https://doi.org/10.1016/j.biocontrol.2024.105504

Additional key words: biological control **Computer codes:** LAPHFR, PRODER, TRIGFO

2024/067 Biological control of *Popillia japonica*

Popillia japonica (Coleoptera: Scarabaeidae - EPPO A2 List) originates from Japan and is established in North America and the EPPO region. The larvae feed on roots of a wide range of plants whereas adults feed on foliage of various host plants. In Italy, the efficacy of two biocontrol agents; the fungus *Metarhizium anisopliae* (Hypocreales: Clavicipitaceae) and the nematode *Heterorhabditis bacteriophora* (Rhabditida: Heterorhabditidae: EPPO Augmentative BCA PM 6/3) were assessed. These BCAs were applied to the soil using a modified soil seeder which injects liquid into the soil in a precise application. In addition, an insecticide chlorantraniliprole, was also applied. In 2021, trials were carried out in two hay meadows in the Lombardy region of Italy, using water as the control treatment in undisturbed plots as controls. Both biological control agents and the insecticide reduced larval densities at one or the other site, but not at both sites, compared to the control. In spring 2022, drone surveys conducted over the hay meadows did not show differences in grass quality between treatments, including the control plots. *M. anisopliae* and *H. bacteriophora* may perform differently depending on the soil conditions and the timing of the application. Further research is required to optimize their use use according to soil properties in specific sites. Using such machinery to apply insecticides directly into the soil has the advantage of minimising drift from spraying.

Source: Santoiemma G, Battisti A, Ciampitti M, Cavagna B, Bianchi A, Brugnaro S, Glazer I, Gilioli G, Mori N (2024) Soil application of *Popillia japonica* control agents with a new injector. *Phytoparasitica* **52**, 21 https://doi.org/10.1007/s12600-024-01149-3

Additional key words: biological control **Computer codes:** HETOBA, MTRHAN, **POPIJA**

2024/068 Exploring agent and host traits in successful classical biological control programmes

Classical biological control of invasive alien plants has shown some excellent results worldwide, decreasing populations of some pests to below an economic and ecological threshold. Taxonomy and feeding characteristics of a biological control agent, and the life history of an invasive alien plant have been described as traits that can predict success. Global biological control programmes against invasive alien plants were evaluated for correlations between the biological control agent and target species traits. Data from the 5th edition of 'Biological Control of Weeds: A World Catalogue of Agents and Their Target Weeds' were used as the basis of the analysis. Analyses of biocontrol agents' establishment, reveal that the following traits were correlated with a greater probability of establishment: being an internal feeder, feeding on above-ground plant tissues, multivoltine agents and agents that feed during both their adult and immature life stages. The study did not find an correlation with insect taxon and establishment, except for Lepidopteran biocontrol agents, which had the lowest establishment probability. For invasive plant traits, species occurring in aquatic or riparian habitats were associated with a higher probability of biocontrol agent establishment. The study also looked at impact of biological control agents. Those which had the greatest impact were agents feeding externally and on vegetative plant tissues, multivoltine agents and those with both adult and immature stages feeding on the host. Greater biocontrol impact was associated with perennials, plants reproducing only vegetatively and those invading aquatic or riparian habitats. These correlations, could be used when prioritizing invasive alien plants for biocontrol, and the selection of suitable biocontrol agents.

Source: Panta S, Schwarzländer M, Weyl PSR, Hinz HL, Winston RL, Eigenbrode SD, Harmon BL, Bacher S, Paynter Q (2024) Traits of insect herbivores and target weeds associated with greater biological weed control establishment and impact. *BioControl*. https://doi.org/10.1007/s10526-024-10245-6

Additional key words: biological control

2024/069 First report of *Koenigia divaricata* in Poland

Koenigia divaricata (Polygonaceae) is a perennial herb native to East Asia (Russia Far East, Eastern Siberia, Mongolia, the Korean Peninsula, Northern China, and Japan). In the EPPO region, it is occasionally utilised as an ornamental species and it has been used as a fodder plant. It is reported as naturalised in Denmark, Finland, Norway, the European part of Russia and Sweden. In Norway and Russia it is considered as an invasive alien plant. *K. divaricata* was found in September 2021 in Stare Opole near Siedlce, Eastern Poland. It persisted in 2022, surviving the winter and plants developed fruit. Here it was recorded in a grassland site adjacent to the railway line (approximately 30 m from the railway track). There were also other plant species typical of ruderal habitats present(e.g., *Saponaria officinalis* and *Solidago gigantea*). Potentially, the occurrence of *K. divaricata* in Poland is a result of escape from cultivation, or it may have come from Belarus via the railway connection. In Norway, *K. divaricata* invades constructed sites (e.g., housing areas, industrial sites and roads) suggesting that the seeds or vegetative parts of the plant can be dispersed with soil or on construction machinery. *K. divaricata* should currently be treated as a casual alien species in Poland, though there is the potential for establishment due to suitable (temperate) climatic conditions.

Source: Łazarski G, Pliszko A (2023) First record of *Koenigia divaricata* (L.) T.M.Schust. & Reveal (Polygonaceae) in Poland. *BioInvasions Records* **12**(4), 909–917.

Additional key words: invasive alien plants, new record **Computer codes:** KOGDI, PL

2024/070 First report of *Elodea nuttallii* in Türkiye

Elodea nuttallii (Hydrocharitaceae: EPPO List of Invasive Alien Plants) is an aquatic plant species native to North America. Dense *E. nuttallii* populations can reduce water movement and light penetration, producing anaerobic conditions and trapping sediments. Decomposition of the biomass at the end of the growing season significantly contributes to the deterioration of water quality and intensification of secondary eutrophication altering the nutrient balance of the entire ecosystem. *E. nuttallii* was first identified in Türkiye in the Göksu Nature Park in the north west of the country in 2022. The plants were submerged in stagnant water at an altitude of 1350 m. In the habitat where *E. nuttallii* grows, other species included *E. canadensis, Persicaria amphibia* (Polygonaceae), *Lemna minor* (Araceae), *Equisetum arvense* (Equisetaceae), *Alisma plantago-aquatica* (Alismataceae). It is likely that *E. nuttallii* will probably become invasive in Türkiye in the future due to the availability of preferred habitat and compatible climatic conditions. Therefore, studies should be conducted to identify additional populations, and where found, management practices should be implemented.

Source: Özkan N, Koçer N, Aksoy N (2024) A new invasive neophyte *Elodea nuttallii* (Planch.) H.St.John for the flora of Türkiye. *BioInvasions Records* **13**, 149-159.

Additional key words: invasive alien plants, new record **Computer codes:** ALSPA, ELDNU, ELDCA, EQUAR, POLAM, LEMMI, TR

2024/071 *Brassica procumbens* in Corsica (FR)

Brassica procumbens (Brassicaceae) is an annual species native to North Africa where it inhabits forest clearings, pastures, stony slopes on low mountains. In Corsica (FR), it is currently found on the edges of several roads and occasionally in fields and gardens. Generally, individuals are grouped in dense stands, with cover ranging from 50 to 100 %. Currently, *B. procumbens* appears to be spread through earth-moving machinery, and vehicles carrying materials for construction can act to spread seed. *B. procumbens* is now more widespread in Corsica than was previously known. This suggests that it is a species in full expansion along roadsides and in some fields bordering them. Therefore, in Corsica, *B. procumbens* should be considered as an invasive alien plant species.

Source: Paradis G, Piazza C (2023) Distribution in Corsica of *Brassica procumbens* (Poir.) O.E. Schulz (Brassicaceae), a expanding exotic species. *Journal of the Society of Botany France* **110**, 003-026.

Additional key words: invasive alien plants, detailed record **Computer codes:** BRSPR, FR

2024/072 An update of alien plant taxa for Italy

A recent update of alien taxa in Italy presents updates on 106 taxa. The floristic data in the present work are the result of field and herbarium research carried out in twelve Italian regions: Basilicata, Calabria, Campania, Lazio, Liguria, Molise, Puglia, Sardinia, Sicily, Toscana, Umbria, and Trentino-Alto Adige. The highest proportion of reports are from Calabria, with 39 casual alien, 6 naturalized alien, and 3 invasive alien taxa reported. Among 117 updated records for the regions, 89 are first records, 27 are changes to status and 1 alien plant that was previously recorded is no longer found. Seven new taxa for the Italian alien flora are reported, two of which are new to Europe. The two main Italian island regions contributed an important number of taxa with 12 casual alien, 1 naturalized alien and 4 invasive alien taxa reported for Sardinia, and 12 casual alien and 3 naturalized alien taxa for Sicily.

Table 1. Plants new to the Italian flora.

Taxa	Family	Region	Status
Leucaena leucocephala subsp. *glabrata*	Fabaceae	Calabria	Invasive
Bidens aurea	Asteraceae	Sardinia	Invasive
Jaborosa integrifolia	Solanaceae	Sardinia	Invasive
Melia azedarach	Meliaceae	Calabria	Invasive
Polanisia dodecandra subsp. *trachysperma*	Cleomaceae	Toscana	Invasive
*Bauhinia variegata**	Fabaceae	Sicily	Casual
*Pinus elliottii**	Pinaceae	Sardinia	Casual

* First record for Europe.

Source: Musarella CM, Laface VLA, Angiolini C, Bacchetta G, Bajona E, Banfi E, Barone G, Biscotti N, Bonsanto D, Calvia G, Cambria S, Capuano A, Caruso G, Crisafulli A, Del Guacchio E, Di Gristina E, Domina G, Fanfarillo E, Fascetti S, Fiaschi T, Galasso G, Mascia F, Mazzacuva G, Mei G, Minissale P, Motti R, Perrino EV, Picone RM, Pinzani L, Podda L, Potenza L, Rosati L, Stinca A, Tavilla G, Villano C, Wagensommer RP, Spampinato G (2024) New alien plant taxa for Italy and Europe: an update. *Plants* **13**, 620. https://doi.org/10.3390/plants13050620

Additional key words: invasive alien plants **Computer codes:** LUALG, BIDAU, IABIN, MEIAZ, PONTR, BAUVA, PIUEL, IT

2024/073 *Veronica peregrina* in Lithuania

Veronica peregrina (Plantaginaceae) is native to the Americas. In North America it is reported to have weedy tendencies, and is potentially invasive in some areas. It has been reported from several countries in the EPPO region. *V. peregrina* was first recorded in Lithuania in 1829 with no additional records for almost two centuries. In May 2023, *V. peregrina* was rediscovered in Vilnius, Lithuania. In total, three small patches were discovered growing in between paving stones in a parking lot with the population comprising of approximately 700 individuals. Solitary specimens and smaller groups of plants were distributed over 1500 m^2. Flowering individuals were first recorded. *V. peregrina* was mostly growing in shady humid places under *Spiraea* shrubs along north-facing borders. It is presumed that the seeds of *V. peregrina* could have been introduced with plants from nurseries. The spread of this species in anthropogenic habitats in Lithuania was predicted to be likely. *V. peregrina* is currently considered a casual alien in Lithuania.

Source: Petrulaitis L (2023) *Veronica peregrina* (Plantaginaceae), an alien species rediscovered in Lithuania. *Botanica* **29**, 91-95.

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

2024/074 Invasive alien plants on the Island of Pantelleria (Italy)

Island biodiversity is typically more vulnerable to invasive alien species compared to mainland areas. The volcanic island of Pantelleria (Italy) is a designated national park, located in the centre of the Sicily Channel, between Tunisia and Sicily and has a native vascular flora comprising over 600 taxa. The island has a surface area of 85 km^2 with a maximum altitude of 836 m a.s.l. As with many island habitats, Pantelleria is at risk from anthropogenic influences, climate change, and invasive alien plant species. Although most taxa showed a relatively limited distribution, many of the non-native species are increasing their abundance and area, with the potential to be invasive species on the island in the near future (Table 1). The currently limited occurrences of these species suggests they are in the early stages of the invasion curve, when intervention is feasible and most likely to succeed. Prioritizing species for management can contribute to the conservation of native species and the preservation of the ecosystem of Pantelleria. *Cenchrus setaceus* (Poaceae) is reported for the first time as established on the island and it shows invasive behaviour.

Table 1. Examples of alien plant species on the island of Pantelleria.

Species	Family	EPPO Status	Origin
Acacia saligna	Fabaceae	L IAP*	Australia
Ailanthus altissima	Simaroubaceae	L IAP	Asia
Boerhavia coccinea	Nyctaginaceae	None	Americas
Carpobrotus edulis	Aizoaceae	L IAP	South Africa
Cenchrus setaceus	Poaceae	L IAP	Africa, Asia
Leucaena leucocephala subsp. *glabrata*	Fabaceae	L IAP	North & Central America
Malephora crocea	Aizoaceae	None	South Africa

Species	Family	EPPO Status	Origin
Melia azedarach	Meliaceae	None	Asia, Oceania
Nicotiana glauca	Solanaceae	None	South America
Opuntia ficus-indica	Cactaceae	None	Central America
Parkinsonia aculeata	Fabaceae	None	Americas
Washingtonia robusta	Arecaceae	None	North America

* L IAP = EPPO List of Invasive Alien Plants

Source: Minissale P, Cambria S, Montoleone E, Tavilla G, Giusso del Galdo G, Sciandrello S, Badalamenti E, La Mantia T (2023) The alien vascular flora of the Pantelleria Island National Park (Sicily Channel, Italy): new insights into the distribution of some potentially invasive species. *BioInvasions Records* **12**(4), 861–885.

Additional key words: invasive alien plants, detailed record

Computer codes: ACASA, AILAL, BOECC, CBSED, PESSA, LUALG, MPHCR, MEIAZ, NIOGL, OPUFI, PAKAC, WATRO, IT