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2022/229 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**

Chrysanthemum stunt viroid (*Pospiviroid*, CSVd – EPPO A2 List) and chrysanthemum chlorotic mottle viroid (*Pelamoviroid*, CCMVD) occur in Thailand. They were detected from chrysanthemum (*Chrysanthemum x morifolium*) crops during surveys in Chiang Mai and Chiang Rai provinces (North-western Thailand) in 2019–2021 (Supakitthanakorn *et al.*, 2022). CSVd had been first reported from chrysanthemum in Nakhon Ratchasima province (Northeastern Thailand) in 2020 (Netwong *et al.*, 2020)

Corythucha arcuata (Heteroptera: Tingidae – formerly EPPO Alert List) has recently been observed for the first time in the Iberian Peninsula. In March 2021, several specimens were collected in Portugal in the municipalities of Lousada and Vila Nova de Gaia, district of Porto (Gil & Grosso-Silva, 2021). In August 2022, *C. arcuata* was found in Spain, on *Quercus pubescens* in the Arán Valley (Lérida province, Cataluña) near the border with France (Riba-Flinch, 2022).

Drosophila suzukii (Diptera: Drosophilidae – EPPO A2 List) is reported for the first time from Algeria. It was trapped in 2018 in M'sila in pomegranate (*Punica granatum*) orchards. During these trapping studies *Zaprionus indianus* and *Drosophila melanogaster* were also caught (Aouari *et al.*, 2022).

Epitrix hirtipennis (Coleoptera: Chrysomelidae), the tobacco flea beetle, is reported for the first time in Hungary. The first specimen was collected in May 2022 on a steppic sandy pasture near Bököny (Eastern Hungary). More specimens were then also found in several tobacco (*Nicotiana tabacum*) crops in the regions of Nyírség (Eastern Hungary) and Kiskunság (Central Hungary). *E. hirtipennis* is native to North and Central America and was introduced into Europe in the 1980s. It is a pest of tobacco, eggplant, and potato, and it can also feed on wild Solanaceae species (Lukátsi *et al.*, 2022).

Eurytoma plotnikovi (Hymenoptera: Eurytomidae) occurs in France. This pistachio seed pest was first detected in 2021 in pistachio (*Pistacia vera*) seeds which had been collected in 2020 in a non-commercial orchard in Le Tholonet, South-Eastern France) (Rousse & Reynaud, 2022).

Halyomorpha halys (Hemiptera: Pentatomidae – formerly EPPO Alert List) occurs in Armenia. It was first found in 2020 in the city of Yerevan and in 2021 near the city of Alaverdi (Lori region). Many specimens were first observed by citizens whose findings were then confirmed by entomologists (Kalashian *et al.*, 2022).

Nematus lipovskyi (Hymenoptera: Tenthredinidae – Azalea sawfly) is recorded for the first time in Latvia. In May 2020, it was found in a Botanical Garden and a Rhododendron Breeding and Experimental Nursery. Larvae feeding on the foliage *of Rhododendron calendulaceum, R. luteum, R. occidentale,* and *R. albrechtii* have been observed, causing almost complete defoliation. In some cases, larvae also fed on flowers. *N. lipovskyi* occurs in the USA and was discovered for the first time in Europe in 2013 in the Czech Republic (EPPO RS 2013/143). For the moment in the EPPO region, *N. lipovskyi* has only been recorded in the Czech Republic and Latvia (Alpine & Piterāns, 2021).

Ophraella communa (Coleoptera: Chrysomelidae), an insect feeding mainly on *Ambrosia artemisiifolia* (Asteraceae) is reported for the first time in Hungary. In September 2020, a picture of a beetle taken near Budapest (with precise coordinates) and resembling *O. communa* was posted on a citizen science webpage. A few days later, entomologists visiting this location could collect further specimens (adults, a larva, a pupa, and eggs) on *A. artemisiifolia* and confirm the identity of the insect. As the meadows where *O. communa* was found are located near a motorway, cargo centres and a wholesale market for fruit and vegetables, it is supposed that *O. communa* has been introduced with international transport (Horváth & Lukátsi, 2020).

- **Detailed records**

The invasive grapevine aphid, *Aphis illinoisensis* (Hemiptera: Aphididae), is recorded for the first time in mainland Italy. Its presence was noticed in September 2021 in Colli Aniene (Rome) in a garden on *Vitis labrusca*. Photos of this first finding on the mainland had been posted on social media and the identity of the aphid was then confirmed by an aphidologist. (Casiraghi, 2021).

In the USA, Japanese apple rust caused by *Gymnosporangium yamadae* (EPPO A1 List) has been first confirmed in Minnesota in September 2022, at several orchards and nurseries in Dakota, Rice, and Scott counties on many different varieties of both crabapple and apple (*Malus* spp.) but not on junipers (MDA, 2022). *G. yamadae* was also reported from Wisconsin for the first time in 2021 on a crabapple tree in a nursery in Milwaukee County and again in 2022 in Dane and Ozaukee counties (WI DATCP, 2022).

In the USA, tar spot of maize caused by *Phyllachora maydis* (EPPO Alert List) was first reported from Maryland, county of Harford in September 2022 (Kness, 2022).

In Brazil, the blueberry rust *Pucciniastrum minimum* (syn. *Thekopsora minima* - EPPO A2 List) was found in Santa Catarina State in three orchards of blueberry (*Vaccinium* sp.) in 2020 (Araujo *et al.*, 2022).

- **Eradication**

In the Netherlands the whitefly *Aleurocanthus spiniferus* (Hemiptera: Aleyrodidae – EPPO A2 List) was first found in potted plants of *Citrus limon* and *x Citrofortunella microcarpa* in the facilities of a trading company of potted plants in the province of Noord-Holland in February 2022. Larvae and pupae were found but no adults. Trace back investigations showed that plants originated in Italy. All host plants in the company were destroyed. Monitoring with traps did not detect any other adults. The outbreak is considered eradicated.
The pest status of *Aleurocanthus spiniferus* in the Netherlands is officially declared as: **Absent, pest eradicated.**

- **Epidemiology**

Studies on seed transmission in Jalapeno pepper (*Capsicum annuum*) showed that 33 to 70 % of seeds collected from plants infected by '*Candidatus* Liberibacter solanacearum' (EPPO A1 List for Solanaceae haplotypes) were positive for '*Ca.* L. solanacearum'. However, the pathogen was rarely detected in the seed embryo (0-8%) and none of the plants that emerged from the infected seed showed symptoms or tested positive. It is concluded that *Capsicum*

seeds are unlikely to serve as sources for new infections by '*Ca*. L. solanacearum' and their impact on disease epidemiology is negligible (Workneh *et al.*, 2022).

- **New pests and taxonomy**

During studies about a new *Pucciniastrum* species affecting an endangered plant in New Zealand (*Pucciniastrum myosotidii* sp. nov. on *Myosotidium hortensia* (Boraginaceae)), it was also proposed to transfer *Thekopsora minima* (EPPO A2 List) into the genus *Pucciniastrum*, and thus to name it *Pucciniastrum minimum* (Padamsee & McKenzie, 2014).

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Additional key words: absence, detailed records, epidemiology, eradication, host plant, taxonomy

Computer codes: ALECSN, APHIIL, CCMVD0, CRTHAR, CSVD00, DROSSU, EPIXPA, EURTPL, GYMNYA, HALYHA, LIBEPS, NEMALI, OPHLCO, PHYRMA, THEKMI, AM, BR, DZ, ES, FR, HU, IT, LV, NL, PT, TH, US

2022/230 New EU Regulations

The EU Commission has established measures to prevent the introduction, movement, holding, multiplication or release of the following pests into the European Union:

- *Chloridea virescens* (Lepidoptera: Noctuidae),
- *Leucinodes orbonalis* (Lepidoptera: Pyralidae, EPPO A1 List),
- *Leucinodes pseudorbonalis* (Lepidoptera: Pyralidae, EPPO A1 List),
- *Resseliella citrifrugis* (Diptera: Cecidomyiidae, EPPO Alert List),
- *Spodoptera ornithogalli* (Lepidoptera: Noctuidae, EPPO Alert List).

This Regulation shall apply until 31 May 2027.

The Regulation establishing measures to prevent the introduction into, establishment and spread within the Union territory of *Anoplophora chinensis* has been revised.

Source: Commission Implementing Regulation (EU) 2022/1941 of 13 October 2022 on the prohibition of introduction, movement, holding, multiplication or release of certain pests pursuant to Article 30(1) of Regulation (EU) 2016/2031 of the European Parliament and of the Council. OJL 268, 13-15. http://data.europa.eu/eli/reg_impl/2022/1941/oj

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

Additional key words: regulation

Computer codes: ANOLCN, HELIVI, LEUIOR, LEUIPS, PRODOR, RESSCI, EU

2022/231 EPPO Standards on efficacy evaluation of plant protection products: update of the PP1 database

The EPPO Standards for the efficacy evaluation of plant protection products (PP1) describe the conduct of trials carried out to assess the efficacy of plant protection products against specific pests. They are addressed to all institutions, official registration authorities, public institutes or private firms carrying out such trials. The whole series of EPPO PP1 Standards (more than 300 standards covering a wide range of crops and pests) is available in an online database. All Standards can be easily retrieved as PDF files by using a simple search tool. All general Standards (e.g. design, conduct, reporting and analysis of trials, phytotoxicity, effects on succeeding crops, analysis of resistance risk, minor uses) can be accessed free of charge. Access to specific Standards (e.g. aphids on potato, weeds in cereals) is provided for an annual fee. Subscriptions should be made directly online via the database.

The PP1 database was last updated in November 2022 with the new and revised Standards that were approved by EPPO Council in September 2022.

Specific Standards

- PP 1/325 *Ceratitis capitata* and other tropical fruit flies on tropical fruit trees – foliar application (NEW)
- PP 1/326 *Ceratitis capitata* and other tropical fruit flies on tropical fruit trees – bait application (NEW)
- PP 1/327 Anthracnose in tropical fruits (NEW)
- PP 1/328 *Xanthomonas arboricola* pv. *juglandis* on walnut (NEW)
- Revision of PP 1/56 *Phytophthora* spp. causing fruit rot on citrus
- Revision of PP 1/228 Aphids on beet, including aphid vectors of viruses
- Revision of PP 1/254 *Eriosoma lanigerum* on apple
- Revision of PP 1/258 Aphids on stone and pome fruit
- Revision of PP 1/299 Aphids on citrus

Access to the PP1 database: https://pp1.eppo.int

Source: EPPO Secretariat (2022-11).

Additional key words: database

2022/232 First report of *Pityophthorus juglandis* in France

The NPPO of France recently informed the EPPO Secretariat of the first finding of the walnut twig beetle *Pityophthorus juglandis* (Coleoptera: Curculionidae: Scolytinae, EPPO A2 List) on its territory.
The presence of *P. juglandis* has been officially confirmed in September 2022 in the region Auvergne-Rhône-Alpes on black walnut trees (*Juglans nigra*). Several adult specimens were caught in the context of the official surveillance in traps installed in the parks of la tête d'Or and Parilly in Lyon and its close suburbs. Investigations are underway to understand the origin of this introduction and surveys are planned to assess the extent of the spread of the pest in the area. Control measures aiming at eradication are being drafted. At this stage, it is not possible to officially confirm the presence of the fungus *Geosmithia morbida* (EPPO A2 list) in the trapped specimens.

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

Source: NPPO of France (2022-10).

Pictures: *Pityophthorus juglandis*. https://gd.eppo.int/taxon/PITOJU/photos

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

2022/233 First report of *Trichoferus campestris* and *Xylosandrus germanus* in Georgia

In Georgia, a faunistic survey on Coleoptera has been carried out in the Lagodekhi Natural Reserve which is located in the North-Eastern part of the country, on the southern slopes of the Caucasus Mountains. From April to November 2014, Malaise traps were placed on 6 different sites at various altitudes (varying from 666 to 2559 m asl) and supplemented by other types of traps (funnel and Moericke traps). As a result, 195 Coleoptera species were collected and 66 of them were new records for Georgia. Among these new records, the two following ones can be noted:

- *Trichoferus campestris* (Coleoptera: Cerambycidae – EPPO A2 List): 1 specimen was trapped in June 2014 in a high altitude forest environment.
- *Xylosandrus germanus* (Coleoptera: Curculionidae: Scolytinae): 9 specimens were trapped in 2014 in various environments (low-altitude forest, mid-altitude forest, and subalpine meadow and scrubland).

Source: Japoshvili G, Hilszczański J, Byk A, Jaworski T, Łoś K, Borowski J, Tarwacki G, Piętka J, Plewa R (2022) New records of Coleoptera from Lagodekhi Protected Areas, with new records for Georgia (Sakartvelo). *Caucasiana* **25**(1), 29-39.

Pictures: *Trichoferus campestris*. https://gd.eppo.int/taxon/HESOCA/photos

Additional key words: new record **Computer codes:** HESOCA, XYLBGE, GE

2022/234 First record of a *Coccotrypes* species in Denmark

On 23 September 2022, Denmark was notified by Sweden of findings of *Coccotrypes cyperi* (Coleoptera: Scolytinae, EU A1 Quarantine pest as 'non-European Scolytinae'), on plants of *Ficus microcarpa* sold by a Danish producer in January 2022 (EPPO RS 2021/099). As a follow-up to the notification, trace back and forward surveys showed that the infested lot had been imported from China, and that plants had been sent on to other EU Member States (that will be notified).
Inspections were performed at the place of production where the plants had been imported. Production sites are closed greenhouses. Symptomatic plants of *F. microcarpa* were found in September 2022. The plants also originated from China and from the same supplier as the plants of the finding in Sweden. Laboratory analysis confirmed the presence of *Coccotrypes* sp. In total approximately 70 000 plants of *F. microcarpa* of different lots have been imported from China. Official measures are applied: infested plants will be destroyed, and thorough inspection and destructive sampling of the lot will be performed. Plans for additional inspection and sampling are currently drawn up.

The pest status of *Coccotrypes* sp. in Denmark is officially declared as: **Transient, actionable, under eradication.**

Source: NPPO of Denmark (2022-10).

Pictures *Coccotrypes cyperi*. https://gd.eppo.int/taxon/COCOCY/photos

Additional key words: new record **Computer codes:** COCOSP, COCOCY, DK

2022/235 Update of the situation of *Coccotrypes* cyperi in Sweden

In Sweden *Coccotrypes cyperi* (Coleoptera: Scolytinae, EU A1 Quarantine pest as 'non-European Scolytinae') was first reported in February 2021 on plants of *Ficus microcarpa* (EPPO RS 2021/099). Another finding occurred in August 2022 again on a *F. macrocarpa* plant in a retail store in Uppsala. Trace back analysis showed that 24 plants from the same batch had been delivered to 2 separate retail stores in Uppsala and Sikla. One plant was destructively sampled, two were destroyed by burning. The rest had already been sold to private customers. The two outbreaks are considered eradicated.

The pest status of *Coccotrypes cyperi* in Sweden is officially declared as: **Absent.**

Source: NPPO of Sweden (2022-10).

Pictures *Coccotrypes cyperi*. https://gd.eppo.int/taxon/COCOCY/photos

Additional key words: detailed record, eradication **Computer codes:** COCOCY, SE

2022/236 Update on the situation of *Anisandrus maiche* in Italy

Anisandrus maiche (Coleoptera: Curculionidae: Scolytinae, regulated by the EU as 'non-European Scolytinae') was first recorded in spring 2021 in Italy when one specimen was caught in a trap in Veneto (EPPO RS 2022/147) in Treviso province.
Further surveys were conducted in 2021 in Northern Italy: in Lombardia, trapping was performed in multiple localities in the provinces of Bergamo, Milan and Lecco in April–May 2021, and in Veneto, trapping was performed in the Euganean hills area (province of Padua) from March to July 2021
In total 165 adults were caught in all provinces surveyed. *A. maiche* was detected in multiple, non-contiguous areas and in a consistent number of specimens during trapping activities. The authors consider that it is either a recent introduction followed by a rapid spread or multiple independent introductions. No damage has been reported in Italy so far.

Source: Ruzzier E, Bani L, Cavaletto G, Faccoli M, Rassati D (2022) *Anisandrus maiche* Kurentzov (Curculionidae: Scolytinae), an Asian species recently introduced and now widely established in Northern Italy. *BioInvasions Records* **11**(3), 652–658, https://doi.org/10.3391/bir.2022.11.3.07

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

2022/237 *Apriona swainsoni*, an emerging pest in Japan

Apriona swainsoni (Coleoptera: Cerambycidae) is a species originating in Southeast Asia. It was recorded for the first time in Japan in 2014 in Sukagawa city (Fukushima Prefecture, Honshu) and has carried on spreading in several locations in Fukushima Prefecture, causing significant damage on *Maackia amurensis* (new host) and on *Styphnolobium japonicum* (syn. *Sophora japonica*). It has been reported as a serious pest of *S. japonicum* in China where this tree species both grows in forests and is used as an ornamental. Other recorded host plants are: *Butea monosperma, B. superba, Caesalpinia decapetala, Dalbergia hupeana, D. volubilis, Ligustrum lucidum, Paulownia tomentosa, Tectona grandis*. Trials in Japan showed that the native species *Lespedeza bicolor* and *L. homoloba* could also be hosts.

A distribution map and host list are available in EPPO Global Database https://gd.eppo.int/taxon/APRISW.

Note: *Apriona germari, A. japonica,* and *A. cinerea* (all Coleoptera: Cerambycidae) are listed on EPPO A1 List. *A. swainsoni* was considered while conducting the EPPO Pest risk analysis on *Apriona germari, A. japonica, A. cinerea*. It was then considered that conducting a full PRA for *A. swainsoni* was not needed as its main hosts are mainly ornamentals in the EPPO region, and that the major host at that time (*S. japonica*) could already be covered by measures for *Apriona germari*.

Source: Anzai Y (2021) Report of the *Apriona swainsoni swainsoni* (Hope) (Coleoptera: Cerambycidae) found in Koriyama City, Fukushima Prefecture, Japan. *Gekkan-Mushi* **609**, 16-22 (in Japanese).

Mtow, S, Yoshii S, Tsutsumi T (2022) Preliminary report on distribution, infestation, and feeding plants of the alien longhorn beetle *Apriona swainsoni swainsoni* (Hope, 1840) (Coleoptera: Cerambycidae, Lamiinae) discovered from Fukushima Prefecture, Japan. *Japanese Journal of Entomology* (N.S.) **25**(1), 18–24 (In Japanese, with English summary). https://doi.org/10.20848/kontyu.25.1_18

Personal communication with Eiriki Sunamura, Forestry and Forest Products Research Institute, JP.

Tavakilian G. (Author) & Chevillotte H. (Software) [2018]. Titan : base de données internationales sur les Cerambycidae ou Longicornes. Version 4.0. http://titan.gbif.fr/index.html

Additional key words: new record **Computer codes:** APRISW, JP, CN

2022/238 First report of *Scirtothrips dorsalis* in Denmark

The NPPO of Denmark recently informed the EPPO Secretariat of the first finding of *Scirtothrips dorsalis* (Thysanoptera: Thripidae – EPPO A2 List) on its territory.
During a plant health inspection at a nursery (indoors) in October 2022, thrips were found on one plant of *Begonia* sp. Laboratory analysis showed that the species was *Scirtothrips dorsalis*. Phytosanitary measures were applied: movement of plants was prohibited within and out of the place of production, and the lot with the infested plant was destroyed. Thorough inspection of the other plants in the site did not result in further findings.

The pest status of *Scirtothrips dorsalis* in Denmark is officially declared as: **Transient, actionable, under eradication.**

Source: NPPO of Denmark (2022-10).

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

2022/239 First record of *Rhagoletis cingulata* in Lithuania

Rhagoletis cingulata (Diptera: Tephritidae – EPPO A2 List) is native to Eastern North America and has been introduced into the EPPO region. It was first found in Switzerland (Ticino), in 1983, and then gradually spread to other Western European countries. However, its spread remained rather unnoticed as it was confused with *R. indifferens* until the early 2000s. A survey was conducted in Lithuania to assess the presence of *R. cingulata*. This species was first detected in *Prunus serotina* fruits collected in the Puvočiai village (Varėna municipality, Alytus county, South-Eastern Lithuania). The identity of the pest was confirmed by molecular analysis. Pupae of *R. cingulata* were further found in the same location in 2020 and 2021, which confirms the establishment of the species in this site. This is the most northerly site of establishment in Europe. Specimens were also found in three additional sites (out of 12 sites surveyed) in Lithuania: Vilnius, Jonava, and Kapčiamiestis.

The situation of *Rhagoletis cingulata* in Lithuania can be described as: **Present: not widely distributed and not under official control.**

Source: Wolfe TM, Hembach S, Petrašiūnas A, Juzėnas S, Stauffer C, Schuler H (2022) First report of the American eastern cherry fruit fly *Rhagoletis cingulata* (Loew) (Diptera: Tephritidae) in Lithuania. *BioInvasions Records* **11** (in press). https://www.reabic.net/journals/bir/2022/Accepted.aspx

Pictures: *Rhagoletis cingulata*. https://gd.eppo.int/taxon/RHAGCI/photos

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

2022/240 *Resseliella citrifrugis* (Diptera: Cecidomyiidae): addition to the EPPO Alert List

Why: *Resseliella citrifrugis* (Diptera: Cecidomyiidae) is an economically important citrus pest in China, which has recently been intercepted in the EPPO region. Live larvae of *R. citrifrugis* have been detected several times by the Dutch NPPO on pummelo (*Citrus maxima*) fruit imported from China. In addition, risk assessments conducted by EPPO and JKI, Germany (as part of the DROPSA project), as well as by EFSA have concluded that *R. citrifrugis* presents a risk to citrus cultivation in the EPPO region.

Where: *R. citrifrugis* occurs in China, in areas with tropical, subtropical and temperate climates.
Asia: China (Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Sichuan).

On which plants: *R. citrifrugis* feed on citrus, including *Citrus maxima* (pummelo), *C. reticulata* (mandarin), *C. sinensis* (orange), *C. tangerine* (tangerine), *C. trifoliata* (trifoliate orange), *C. unshiu* (satsuma).

Damage: Larvae feed inside citrus fruit causing brown discoloration in the white mesocarp. Brown circular spot and exit holes can also be observed on the fruit skin (i.e. exocarp and mesocarp). Attacked fruit may drop prematurely. In a single fruit, several hundreds of larvae can be observed. In the case of the Dutch interceptions, approximately 25 live larvae were observed within the skin of the fruit.
R. citrifrugis is a small insect. Adult females and males are approximately 2-3 mm and 1.8-2 mm long, respectively. Pupae are 2.7-3.2 mm long, reddish-brown and becoming dark brown prior to adult emergence. There are 4 larval instars and full-grown larvae are 3-4 mm long and reddish in colour. Depending on geographical location, *R. citrifrugis* has 2 to 4 generations per year. In Southern China, mature larvae overwinter in the soil or in the fruit.

Dissemination: Over short distances, natural spread can be ensured by larval movements (mature larvae can jump) and adult flight aided by wind. Over long distances, trade of infested plant material and possibly other human activities (e.g. travels) can transport the pest.

Pathways: Plants for planting, fruit, soil.

Possible risks: *Citrus* spp. are economically important fruit crops around the Mediterranean Basin. *R. citrifrugis* is absent from the EPPO region and considered to be a major citrus pest in China, causing economic losses to growers. It is estimated that these losses vary from 10 to 100%, depending on how citrus orchards are managed. Control measures are applied in citrus orchards in China to limit insect populations and include prophylactic measures (e.g. removal of fallen and infested fruit), fruit bagging, and insecticide applications. Data is limited on the biology of the pest, but it has been observed in various climatic zones in China, suggesting that its establishment in the EPPO region might be possible. The fact that *R. citrifrugis* has been intercepted in fruit trade clearly shows that this insect has the potential to enter the EPPO region. Among uncertainties, it can be noted that the taxonomic status of *R. citrifrugis* is still unclear as no description or definition has been published according to the rules of the International Code of Zoological Nomenclature (*nomen nudum*). Citrus-growing countries of the EPPO region should pay attention to this insect, and it can be noted that the European Union has recently taken measures to prevent the introduction of *R. citrifrugis* on its territory.

Sources

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EPPO RS 2022/240

Panel review date – Entry date 2022-11

Additional key words: Alert List **Computer codes:** RESSCI

2022/241 First report of *Meloidogyne enterolobii* in Australia

In October 2022, the presence of *Meloidogyne enterolobii* (EPPO A2 List) in Australia was reported for the time. The nematode has been identified in 4 locations (Middle Point, Jingili, Palmerston, and Malak) in the Northern Territory on various vegetable plants (*Capsicum* spp., *Cucurbita* spp., *Cucumis sativus, Ipomoea batatas, Phaseolus* sp.) in a commercial farm, 2 residential gardens and a community garden. A sample which had been collected in 2021 was re-examined and shown to be *M. enterolobii*, thus suggesting that the nematode has been present in the Northern Territory at least since then.

The situation of *Meloidogyne enterolobii* in Australia can be described as follows: **Present: not widely distributed.**

Source: ProMed posting (no. 20221102.8706512) of 2022-11-02. *Meloidogyne enterolobii*, vegetable crops - Australia: 1st rep (NT). http://www.promedmail.org

Pictures: *Meloidogyne enterolobii*. https://gd.eppo.int/taxon/MELGMY/photos

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

2022/242 First report of *Ralstonia pseudosolanacearum* in Hungary

The NPPO of Hungary recently informed the EPPO Secretariat of the first finding of *Ralstonia pseudosolanacearum* (EPPO A2 List) on its territory. Following the recent reports of this bacterium in the Netherlands and in Germany (EPPO RS 2021/140, RS 2021/179, RS 2022/195), the NPPO of Hungary decided to test water samples contaminated with *Ralstonia solanacearum* species complex with a specific test which can distinguish the different *Ralstonia* species of the species complex, as described in EU Regulation 2022/1193. The tests were carried out by the National Reference Laboratory for Plant Health in September 2022. Samples from three counties (Hajdú-Bihar in Eastern Hungary, Jász-Nagykun-Szolnok in Central Hungary, and Zala in South-western Hungary) were positive for *Ralstonia pseudosolanacearum*. Further tests will be conducted to clarify the origin of the contamination.

The pest status of *Ralstonia pseudosolanacearum* in Hungary is officially declared as: **Present.**

Source: NPPO of Hungary (2022-11).

Commission Implementing Regulation (EU) 2022/119 of 11 July 2022 establishing measures to eradicate and prevent the spread of *Ralstonia solanacearum* (Smith 1896) Yabuuchi *et al*. 1996 emend. Safni *et al*. 2014. OJL 185 12.07.2022, 27-46, ELI: http://data.europa.eu/eli/reg_impl/2022/1193/oj

Additional key words: new record **Computer codes** RALSPS, HU

2022/243 First report of tomato leaf curl New Delhi virus in China

Tomato leaf curl New Delhi virus (*Begomovirus*, ToLCNDV – EPPO A2 List) is reported for the first time in China. In August 2021, virus-like symptoms were observed on tomato (*Solanum lycopersicum*) plants grown in a greenhouse (approximately 0.5 ha) in Zhejiang province. Laboratory analysis (PCR tests, sequencing) confirmed the presence of ToLCNDV in a symptomatic sample. Further PCR tests also confirmed the presence of ToLCNDV in 8 tomato plants showing upward leaf curling and leaf distortion. Considering the widespread occurrence of the virus vector, *Bemisia tabaci*, in China, it is noted that ToLCNDV may represent a potential threat to tomato cultivation in China.

The situation of tomato leaf curl New Delhi virus in China can be described as follows: **Present, not widely distributed.**

Source: Li R, Liu Y, Yin C, Sun K, Zhang P (2022) Occurrence of tomato leaf curl New Delhi virus in tomato (*Lycopersicon esculentum*) in China. *Plant Disease* **106**(early view). https://doi.org/10.1094/PDIS-06-22-1427-PDN

Pictures: *Tomato leaf curl New Delhi virus*. https://gd.eppo.int/taxon/TOLCND/photos

Additional key words: new record **Computer codes:** TOLCND, CN

2022/244 First record of sweet potato chlorotic stunt virus in the Netherlands

The NPPO of the Netherlands recently informed the EPPO Secretariat of the first finding of sweet potato chlorotic stunt virus (*Crinivirus*, SPCSV - EU Annexes) in sweet potato (*Ipomoea batatas)* plants on its territory. SPCSV was found in September 2022 in two open fields in Noord-Brabant province (11.83 and 4.72 ha) and one in Limburg province (0.5 ha). The official survey was part of the Euphresco project 'Phytosanitary risks of newly introduced crops' (PRONC). Tracing back investigations to the origin of the finding showed that the sweet potato slips used for planting originated from a company in another EU Member State. Sweet potato is a new crop in the Netherlands. During the survey, plants with and without virus symptoms were sampled and tested. SPCSV was identified in several plants with virus-like symptoms (e.g. vein banding, discoloration, rings, dots). Additionally, in several of these symptomatic plants a second, non-EU listed, virus was identified: sweet potato virus G (*Potyvirus,* SPVG00). The mixed infection may have increased the severity of the observed symptoms.
Official phytosanitary measures have been taken. The companies have to report to the NPPO when all tubers of the *Ipomoea batatas* plants have been harvested and the total quantity thereof. All infected lots should be stored in a traceable manner, separately from other harvested lots. Only sales for consumption/industry are allowed, otherwise the lots have to be destroyed. The companies should report when the infected lots are sold or destroyed. The lots must be sold/destroyed before 31 March 2023.

The pest status of sweet potato chlorotic stunt virus in the Netherlands is officially declared as: **Transient, actionable, under eradication.**

Source: NPPO of the Netherlands (2022-10). https://english.nvwa.nl/topics/pest-reporting/pest-reports

Additional key words: new record **Computer codes:** SPCSV0, SPVG00, NL

2022/245 First record of sweet potato chlorotic stunt virus in Belgium

The NPPO of Belgium recently informed the EPPO Secretariat of the first finding of sweet potato chlorotic stunt virus (*Crinivirus*, SPCSV, EU Annexes) on its territory.
Cuttings of sweet potatoes (*Ipomoea batatas*) were imported from Portugal and planted in June 2022 in a field (2.5 ha) in the county of Tielt (province of West-Vlaanderen). In September, the farmer took a symptomatic sample for diagnosis and SPCSV was detected. An official sample was taken by the NPPO in October which confirmed the identity of the virus. Traceability studies showed that cuttings of the same imported lot had been planted in other fields. SPCSV was found in 2 municipalities in the county of Tielt, as well as in the counties of Aalst and Gent (province of Oost-Vlaanderen). A demarcated area has been defined and official measures taken: it is forbidden for one year to grow sweet potato in the fields where the infected lots had been planted. Harvested tubers may only be used for consumption and processing. Foliage show remain on the plot or be destroyed where possible. It is noted that the vector of SPCSV, *Bemisia tabaci* (Hemiptera: Aleyrodidae - EPPO A2 List) does not occur outdoors in Belgium.

The pest status of sweet potato chlorotic stunt virus in Belgium is officially declared as: **Transient, actionable, under eradication.**

Source: NPPO of Belgium (2022-10, 2022-11).

Additional key words: new record **Computer codes:** SPCSV0, BE

2022/246 First record of cotton leaf curl Gezira virus in Germany

The NPPO of Germany recently informed the Secretariat of the first finding of cotton leaf curl Gezira virus (*Begomovirus*, CLCuGV - EU A1 Quarantine pest as 'Begomovirus') on its territory in September 2022. Following the outbreak of CLCuGV on *Lavatera* plants reported in the Netherlands (EPPO RS 2022/153) and in Belgium, (RS 2022/196), trace back studies showed that infected plants from the Netherlands had been delivered in summer 2021 and further grown and propagated in a nursery in Nordrhein-Westfalen. Official eradication measures are applied in the nursery including destruction of the infected lot. Trace-forward investigations of already delivered plants are ongoing.
It is noted that the vector of CLCuGV, *Bemisia tabaci* (Hemiptera: Aleyrodidae - EPPO A2 List) is not present in the nursery, and therefore no demarcated area has been established.

The situation of cotton leaf curl Gezira virus in Germany can be described as: **Transient, actionable, under eradication.**

Source: NPPO of Germany (2022-11).

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

2022/247 First report of *Sporobolus indicus* in Hungary

Sporobolus indicus (Poaceae) is native to the Americas and was introduced into the EPPO region as a contaminant of seed and shipments of wool. From the middle of the 19th century until the last decade of the 20th century, it has mainly expanded its distribution in the Mediterranean region of Europe. It was first recorded in France, followed by reports in Spain, Belgium, Italy, Germany, and Portugal. However, the number of observations has dramatically increased in the past decades, even outside the Mediterranean region. It has been reported in Switzerland with a growing number of observations since the late 1990s and it is reported in Austria, Bulgaria, Greece, Montenegro, Serbia, and Slovenia. It is also present in Morocco. In 2021, *S. indicus* was recorded from Hungary in the residential area of Zamárdi. About 15 specimens of *S. indicus* emerged in a mown lawn. The specimens of *S. indicus* were in the fruiting stage. No other individuals were found in the immediate vicinity. Its recent rapid spread in the EPPO region is evident along roads, in lawns and places visted by tourists (e.g., campsites). The genus *Sporobolus* contains approximately 200 species of tropical or sub-tropical origin. It is interesting to note there are three species of *Sporobolus* on the EPPO Alert List: *S. cryptandrus*, *S. neglectus* and *S. vaginiflorus*. All three species can have a negative impact on species richness and abundance of native plants.

Source: Bauer N, Verloove F (2023) The accelerated spread of a neophyte introduced to Europe long ago – First occurrence of *Sporobolus indicus* (Poaceae) in Hungary. *Acta Botanica Croatica* **82**(1), 15 pp. https://doi.org/10.37427/botcro-2022-024

Additional key words: invasive alien plants **Computer codes:** SPZIN, HU

2022/248 Impacts of *Carpobrotus acinaciformis* and *C. edulis* on Giglio Island, Central Italy

Carpobrotus acinaciformis and *C. edulis* (Aizoaceae: both EPPO List of Invasive Alien Plants) are succulent plants which are native to South Africa. Both species can invade coastlines, in particular cliffs and dune systems. Due to the inaccessible nature of invaded habitats, these species are difficult to control. Both species have a number of negative impacts including modifying the nutrient dynamics, and outcompeting and reducing the fitness of native plant species. The current study was conducted on the Island of Giglio, the second largest island in the Tuscan Archipelago (Italy). The impact of *Carpobrotus* species was evaluated along rocky coastal cliffs. The study was established to include three different habitats, all with conservation status at the EU level (1) vegetated sea cliffs of the Mediterranean coasts with endemic *Limonium* spp., (2) Halo-nitrophilous scrubs, and (3) low formation of *Euphorbia* close to cliffs. In total 44 permanent plots were sampled where each plot was comprised of an invaded area and a control area. Each plot was georeferenced, and vegetation sampling was carried out during May–June in 2020 and 2021. In each plot, the cover of *Carpobrotus* species was estimated, as well as the cover of native species. In all habitats, *Carpobrotus* species had significant impacts on the diversity of native plant species. In addition, the invaded sites had a lower abundance of native plant species compared to the uninvaded controls. The invasion of *Carpobrotus* species has a negative impact on the conservation value of the invaded habitat.

Source: Mugnai M, Benesperi R, Viciani D, Ferretti G, Giunti M, Giannini F, Lazzaro L (2022) Impacts of the Invasive alien *Carpobrotus* spp. on coastal habitats on a Mediterranean Island (Giglio Island, Central Italy). *Plants* **11**, 2802. https://doi.org/10.3390/plants11202802

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

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

2022/249 Invasiveness of *Solanum elaeagnifolium* in Tunisia

Solanum elaeagnifolium (Solanaceae: EPPO A2 List) is a herbaceous perennial or a small shrub, native to the Americas and an invasive alien plant in parts of Asia, Africa and the EPPO region. It was first recorded in North Africa around 1940. *S. elaeagnifolium* can have negative impacts on the environment and can reduce yields in a number of crops (e.g. maize, wheat, cotton). In Tunisia, S. *elaeagnifolium* was first recorded in 1985 at Sbikha (central Tunisia). Since then, it has spread in the country and is now recorded in Sousse, Mahdia, Sidi Bouzid, Sfax, and Zaghouan. An experiment was conducted in the Chott Mariem region of Tunisia, a semi-arid region, to assess the growth phenology of S. *elaeagnifolium* under semi-arid environmental conditions. Two-hundred taproots were planted under controlled conditions and the plants were monitored over three growing seasons (2013, 2014, 2015). Five parameters were measured (1) vegetative regeneration rate, calculated as the number of regenerated new shoots from old stems; (2) vegetative propagation rate, calculated as the number of lateral offshoots emerged from rhizomes; (3) vegetative spread, estimated as the product of the number of lateral offshoots emerged from rhizomes per the average distance from the parent plants; (4) flowering potential, calculated as the total number of flowering shoots per month; and (5) fruiting potential, calculated as the total number of fruiting shoots per month. *S. elaeagnifolium* showed an active vegetative growth phase during the spring (March–May). It stopped its vegetative growth in June–August investing resources in flowering and fruiting. The vegetative growth resumed during September–October and declined in November, where it entered its dormant period. The vigorous growth of the rhizomatous system enabled offshoot growth with a radius of up to 1.5 m 30 months after its establishment. These findings could inform and improve dedicated management control options for *S. elaeagnifolium*. These results suggest that *S. elaeagnifolium* should be controlled before the full-flowering stage in spring and following the first autumnal rainfall to prevent vegetative propagation and fruiting.

Source: Sayari N, Brundu G, Soilhi Z, Mekki M (2022) *Solanum elaeagnifolium* invasiveness under semi-arid environmental conditions in Tunisia. *Earth* **3**, 1076–1086. https://doi.org/10.3390/earth3040062

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

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

2022/250 Invasive alien plants in Romania

Invasive alien plant species were identified in Romania by conducting extensive literature searches of databases, scientific publications, grey literature, and herbaria. Over 800 alien plant species were identified from Romania and 75 taxa were identified as invasive alien species (Table 1). The majority of the invasive alien plants listed in table 1 were introduced intentionally for horticulture or ornamental purposes.

Table 1. List of invasive alien plant species in Romania (List IAPs = EPPO List of Invasive Alien Plants; Obs List = EPPO Observation List).

Species	Family	EPPO status	Habitat
Acer negundo	Aceraceae		Deciduous forest, scrub, grassland, riparian, wetland
Abutilon theophrasti	Malvaceae		Agricultural, ruderal
Ailanthus altissima	Simaroubaceae	List IAPs	Moist and loamy soils, limestone-rich soils
Amaranthus albus	Amaranthaceae		Anthropogenic
Amaranthus blitoides	Amaranthaceae		Ruderal, agricultural
Amaranthus blitum subsp. *blitum*	Amaranthaceae		Ruderal, agricultural
Amaranthus crispus	Amaranthaceae		Ruderal, riparian
Amaranthus deflexus	Amaranthaceae		Ruderal
Amaranthus powellii	Amaranthaceae		Canyons, desert scrub, open habitats
Amaranthus retroflexus	Amaranthaceae		Riparian
Ambrosia artemisiifolia	Asteraceae	A2 List	Grassland
Amorpha fruticosa	Euphorbiaceae	List IAPs	Riparian, lakeshore, open forest, ruderal
Armoracia rusticana	Brassicaceae		Ruderal, agricultural, riparian
Artemisia annua	Asteraceae		Riparian, lakeshore
Asclepias syriaca	Asclepiadaceae	List IAPs	Anthropogenic
Azolla filiculoides	Salviniaceae	List IAPs	Stagnant and slow-moving waters
Bassia scoparia	Chenopodiaceae		Pastures, ruderal, agricultural
Bidens frondosa	Asteraceae	List IAPs	Moist forest, meadow, agricultural
Cenchrus longispinus	Poaceae	Obs. List	Sandy forests, agricultural
Cuscuta campestris	Cuscutaceae		Parasite of herbaceous plants
Iva xanthiifolia	Asteraceae		Ruderal, agricultural
Cyperus difformis	Cuscutaceae		Riparian, wetland
Cytisus scoparius	Fabaceae		Sandy soils, pastures on acid soils, gravelly soils
Datura stramonium	Solanaceae		Fertile soils
Dysphania ambrosioides	Chenopodiaceae		Riparian, ruderal, agricultural
Echinocystis lobata	Cucurbitaceae		Riparian, palustrine, moist ruderal, ditches, thickets
Elaeagnus angustifolia	Cyperaceae		Forests, grassland
Elodea canadensis	Fabaceae		Riverbanks, wetlands, shallow waters and muddy substrates
Elodea nuttallii	Hydrocharitaceae	List IAPs	Lakes and rivers, mostly calcareous
Erigeron annuus subsp. *annuus*	Asteraceae		Ruderal, agricultural
Erigeron annuus subsp. *strigosus*	Asteraceae		Grassland, ruderal
Erigeron canadensis	Asteraceae		Ruderal, anthropogenic
Eriochloa villosa	Poaceae	Obs. List	Riverbanks, meadows, ruderal, agricultural
Euphorbia maculata	Elaeagnaceae		Ruderal, agricultural
Fraxinus pennsylvanica	Oleaceae		Open woodlands, riverbanks, swamps, ditches
Galinsoga parviflora	Asteraceae		Ruderal, agricultural, anthropogenic
Galinsoga quadriradiata	Asteraceae		Ruderal, agricultural, anthropogenic
Helianthus tuberosus	Asteraceae	List IAPs	Ruderal, forest edge
Impatiens glandulifera	Balsaminaceae	List IAPs	Mountain
Impatiens parviflora	Balsaminaceae		Grassland, floodplain, forest edges

Species	Family	EPPO status	Habitat
Juncus tenuis	Hydrocharitaceae		Sandy to clayey soils
Juniperus virginiana	Cupressaceae		Forests, moist ruderal
Lindernia dubia	Linderniaceae		Moist habitats
Lycium barbarum	Solanaceae		Riverbanks, meadows
Matricaria discoidea	Asteraceae		Ruderal, anthropogenic
Morus alba	Moraceae		Open habitats
Nelumbo nucifera	Nelumbonaceae		Floodplain
Oenothera biennis	Onagraceae		Dry grassland, lakeshores, open forest
Oxalis corniculata	Oxalidaceae		Forest, grassland, riverbanks, agricultural, ruderal
Oxalis dillenii	Oxalidaceae		Grassland, roadsides, riverbanks
Oxalis stricta	Oxalidaceae		Grassland, riverbanks, floodplains, ruderal, forest
Panicum capillare	Poaceae		Ruderal, agricultural
Panicum miliaceum	Poaceae		Grassland
Parthenocissus quinquefolia	Vitaceae		Open forest, riparian
Parthenocissus inserta	Vitaceae		Open forest, riparian
Paspalum distichum	Poaceae	List IAPs	Riparian
Phytolacca americana	Phytolaccaceae	Obs. List	Ruderal, grassland, thickets, forest edges
Prunus serotina	Rosaceae	List IAPs	Ruderal, agricultural, open forest, riverbanks
Fallopia × bohemica	Polygonaceae	List IAPs	Mountains, ruderal, agricultural
Fallopia japonica	Polygonaceae	List IAPs	Mountains, ruderal, agricultural
Robinia pseudoacacia	Fabaceae		Forest, ruderal
Rudbeckia laciniata	Asteraceae		Moist forest, riverbanks
Salvia reflexa	Lamiaceae		Grassland, ruderal
Sicyos angulatus	Cucurbitaceae	List IAPs	Riverbanks, ruderal
Solidago canadensis	Asteraceae	List IAPs	Grasslands, riverbank
Solidago gigantea	Asteraceae	List IAPs	Moist habitats, open forest
Sorghum halepense	Poaceae		Dry open habitats
Symphyotrichum ciliatum	Asteraceae		Moist, saline, sandy soil
Symphyotrichum lanceolatum	Asteraceae		Riparian, meadow
Trigonella caerulea	Fabaceae		Well-drained loamy soils
Vallisneria spiralis	Hydrocharitaceae		Lakes and rivers, wetland
Veronica persica	Plantaginaceae		Mountains
Xanthium orientale	Asteraceae		Anthropogenic
Xanthium spinosum	Asteraceae		Ruderal, riparian

Source: Sirbu C, Miu IV, Gavrilidis AA, Gradinaru SR, Niculae IM, Preda C, Oprea A, Urziceanu M, Camen-Comanescu P, Nagoda E, Sirbu IM, Memedemin D, Anastasiu P (2022) Distribution and pathways of introduction of invasive alien plant species in Romania. *NeoBiota* **75**, 1–21.

Additional key words: invasive alien plants

Computer codes: ABUTH, AILAL, AMAAL, AMABL, AMACP, AMADE, AMAPO, AMARE, AMBEL, AMHFR, ARTAN, ARWLA, ASCSY, ASTLN, AZOFI, BCACI, BIDFR, CCHLO, CHEAM, CVCCA, CYPDI, DATST, ECNLO, ELDCA, ELDNU, ELGAN, EPHMA, ERBVI, ERICA, FRXPE, GASCI, GASPA, HELTU, IPAGL, IPAPA, IUNTE, IUPVI, IVAXA, KCHSC, LIDDU, LYUHA, MATMT, MORAL, NELNU, OEOBI, OXACO, OXADI, OXAST, PANCA, PANMI, PASDS, PHTAM, POLCU, PRNSO, PRTIN, PRTQU, ROBPS, RUDLA, SALRE, SAOSC, SIYAN, SOOCA, SOOGI, SORHA, TRKMC, VAISP, VERPE, XANOR, XANSP, RO