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2021/119 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 no. 8.

New records

In the USA, Cydalima perspectalis (Lepidoptera: Crambidae - formerly EPPO Alert List) was first found in May 2021 in three retail facilities in Michigan, one in Connecticut, and one in South Carolina after import of infested boxwood (Buxus spp.) from one nursery in Ontario (Canada). Traceability studies showed that this nursery had delivered plants in three other states. Official phytosanitary measures are applied and include the destruction of infested plants as well as surveys with traps and information campaigns. A federal order was issued to halt the importation of host plants from Canada, including boxwood (Buxus spp.), Euonymus (Euonymus spp.), and holly (Ilex spp.). Present, few occurrences, under official control.

In Norway, symptoms caused by *Fusarium oxysporum* f. sp. *lactucae* (formerly EPPO Alert List) were first observed in winter 2018 on soil-grown lettuce (*Lactuca sativae* cv. Frillice) in a greenhouse located in Buskerud county. Affected plants showed stunted growth, wilting of outer leaves and brownish discoloration of vascular tissues of taproots and crowns. The grower estimated that the disease led to approximately 10% yield losses. Laboratory analysis confirmed the presence of *F. oxysporum* f. sp. *lactucae* race 1 in the diseased lettuce samples (Herrero *et al.*, 2021). **Present, few occurrences**.

In Iran, Scirtothrips dorsalis (Thysanoptera: Thripidae - EPPO A2 List) is widely distributed in the Southern part of the country. It was first recorded in Fars province in 2015. It is considered as a pest of citrus (Minaei & Mound, 2018). Present, restricted distribution.

Detailed records

Beech leaf disease, associated with *Litylenchus crenatae mccannii* (EPPO Alert List) is reported for the first time from the state of Maine (US). The disease was confirmed in leaf samples collected from a forest in Lincolnville (Waldo country). Citizens have been encouraged to report any sightings of diseased trees (Maine DACF, 2021).

In China, *Meloidogyne graminicola* (EPPO Alert List) is reported for the first time from Henan. In August 2020, rice (*Oryza sativa*) plants showing leaf yellowing, hooked root tips and poor development were observed in an irrigated paddy field in Yuanyang county, Xinxiang city. The identity of the nematode was confirmed by morphological methods, as well as by molecular and pathogenicity tests (Liu *et al.*, 2021).

In Greece, *Thaumastocoris peregrinus* (Hemiptera: Thaumastocoridae - formerly EPPO Alert List) was first found in 2016 in several locations in Southern Greece, on the mainland and several islands (Sifnos, Syros, Tinos). In December 2020, *T. peregrinus* was first observed in Crete on the northwestern coast: an adult specimen was photographed in a park in the village of Kounoupidiana, municipality of Chania (van der Heyden, 2021).

In Brazil, Xanthomonas citri subsp. citri (EPPO A1 List) is reported for the first time from Rio Grande do Norte. Symptoms of citrus canker were first observed in December 2019 on leaves and fruit of lime (Citrus aurantifolia cv. Galego) in a plantation located in the municipality

of Mossoró. The identity of the bacterium was confirmed by molecular and pathogenicity tests (Amancio *et al.*, 2021).

Eradication

In France, the tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV - EPPO A2 List) was first detected in a greenhouse producing tomato fruits in January 2020 (EPPO RS 2020/037). Eradication measures were taken, and this outbreak is now considered eradicated. No other outbreaks of ToBRFV were detected in France in 2020 (NPPO of France, 2021-06).

The pest status of tomato brown rugose fruit virus in France is officially declared as: **Absent**, **pest eradicated**.

In France the tomato leaf curl New Delhi virus (*Begomovirus*, ToLCNDV - EPPO Alert List) was detected on *Cucurbita pepo* in 4 locations in Southern France in September 2020 (EPPO RS 2020/250). Eradication measures were taken, and the four outbreaks are now considered eradicated (NPPO of France, 2021-06).

The pest status of the tomato leaf curl New Delhi virus in France is officially declared as: Absent, pest eradicated.

In Slovakia, *Phytophthora ramorum* (EPPO A2 List) was found in June 2018 in a garden centre (EPPO RS 2018/163). The NPPO of Slovakia declared that this outbreak is now eradicated (NPPO of Slovakia, 2021-05).

New pests and taxonomy

A new phytoplasma associated with a lethal wilt disease of palm trees in Australia has been described and tentatively called 'Candidatus Phytoplasma dypsidis'. This phytoplasma was initially found in *Dypsis poivreana* in the botanical gardens of Cairns, Queensland in 2017. Further surveys detected the pathogen in 8 dying ornamental palm species: *Euterpe precatoria*, *Cocos nucifera*, *Verschaffeltia splendida*, *Brassiophoenix drymophloeoides*, *Burretiokentia hapala*, *Cyrtostachys renda*, *Reinhardtia gracilis*, *Carpoxylon macrospermum*, as well as in 1 *Phoenix* sp., 1 *Euterpe* sp., and 2 native palm trees (*Archontophoenix alexandrae*) (Jones et al., 2021).

In 1957, a citrus disease called 'citrus yellow vein disease' (CYVD) was observed in California (US) in Eustis limequat (*Citrus aurantifolia* x *Fortunella japonica*). During subsequent studies, this uncommon disease was found to be graft-transmissible to multiple citrus species (except *Poncirus trifoliata*). Sensitive indicator plants (e.g. *C. medica*, *C. aurantifolia*) developed bright yellow discoloration of leaf petioles and veins. It was also observed that the CYVD pathogen could interact with other graft-transmissible agents resulting in either suppression or enhancement of symptoms. Recent studies have shown that the pathogen associated with CYVD is a new virus species tentatively called citrus yellow-vein associated virus (CYVaV), and closely related to unclassified virus-like RNAs in the family Tombusviridae (Kwon *et al.*, 2021).

A new *Phytophthora* species, *Phytophthora mediterranea* sp. nov., has been described in Italy. This new species was shown to be associated with collar and root rot symptoms on myrtle (*Myrtus communis*) seedlings grown in a forest nursery. Pathogenicity tests have also showed that *P. mediterranea* was pathogenic to myrtle (*M. communis*) and lentisc (*Pistacia lentiscus*) seedlings, and thus has the potential to threaten the native Mediterranean maquis vegetation (Bregant *et al.*, 2021).

Sources:

- Amancio L, Botelho Baia AD, Souza EB, Sales Júnior R, Paiva Negreiros AM, Queiroz Balbino V, Siqueira Gama MA (2021) First report of *Xanthomonas citri* subsp. *citri* causing citrus canker on lime in Rio Grande do Norte, Brazil. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-11-20-2498-PDN
- Bregant C, Mulas AA, Rossetto G, Deidda A, Maddau L, Piras G, Linaldeddu BT (2021) *Phytophthora mediterranea* sp. nov., a new species closely related to *Phytophthora cinnamomi* from nursery plants of *Myrtus communis* in Italy. *Forests* 12, 682. https://doi.org/10.3390/f12060682
- Herrero ML, Nagy NE, Solheim H (2021) First report of *Fusarium oxysporum* f. sp. *lactucae* race 1 causing Fusarium wilt of lettuce in Norway. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-01-21-0134-PDN
- Jones LM, Pease B, Perkiins SL, Constable FE, Kinoti WM, Warmington D, Allgood B, Powell S, Taylor P, Pearce C, Davis RI (2021) 'Candidatus Phytoplasma dypsidis', a novel taxon associated with a lethal wilt disease of palms in Australia.

 International Journal of Systematic and Evolutionary Microbiology 71(5). https://doi.org/10.1099/ijsem.0.004818
- Kwon S-J, Bodaghi S, Dang T, Gadhave KR, Ho T, Osman F, Al Rwahnih M, Tzanetakis IE, Simon AE, Vidalakis G (2021) Complete nucleotide sequence, genome organization, and comparative genomic analyses of citrus yellow-vein associated virus (CYVaV). *Frontiers in Microbiology* **12**, 683130. https://doi.org/10.3389/fmicb.2021.683130
- Liu MY, Huang W, Peng D (2021) First report of *Meloidogyne graminicola* on rice in Henan Province, China. *Plant Disease* (early view). https://doi.org/10.1094/PDIS-02-21-0303-PDN
- Maine Department of Agriculture, Conservation & Forestry (2021-06-07) Beech leaf disease added to Maine's invasive species list. https://www.maine.gov/dacf/mfs/news-article.html?id=4882869
- Minaei K, Mound L (2018) Scirtothrips genus-group in Iran with an unusual new species of Scirtothrips (Thysanoptera: Thripidae). Zootaxa 4394 (2): 288-294. NPPO of France (2021-06).

NPPO of Slovakia (2021-05)

- USDA (2021-05-26) USDA confirms box tree moth and takes action to contain and eradicate the pest. https://www.aphis.usda.gov/aphis/newsroom/stakeholder-info/sa_by_date/sa-2021/sa-05/box-tree-moth
- Van der Heyden T (2021) Thaumastocoris peregrinus Carpintero & Dellapé, 2006 (Hemiptera: Heteroptera: Thaumastocoridae) has reached the Greek island of Crete. Journal of the Heteroptera of Turkey 3(1), 11-13. https://doi.org/10.5281/zenodo.4822269

Additional key words: absence, detailed record, eradication, new host plant, new pest, new record, taxonomy

Computer codes: CVYAVO, DPHNPE, FUSALC, LITYMC, MELGGC, PHYPDY, PHYTMT, PHYTRA, SCITDO, THMCPE, TOBRFV, TOLCND, XANTCI, BR, CN, FR, GR, IR, IT, NO, SK, US

2021/120 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 2021/097), the following new and revised EPPO datasheets have been published in the EPPO Global Database:

- Aphis citricidus. https://gd.eppo.int/taxon/TOXOCI/datasheet
- 'Candidatus Phytoplasma solani'. https://gd.eppo.int/taxon/PHYPSO/datasheet
- Ips subelongatus. https://gd.eppo.int/taxon/IPSXFA/datasheet
- Leptinotarsa decemlineata. https://gd.eppo.int/taxon/LPTNDE/datasheet
- Pseudomonas syringae pv. actinidiae. https://gd.eppo.int/taxon/PSDMAK/datasheet

Source: EPPO Secretariat (2021-06).

Additional key words: publication Computer codes: IPSXFA, LPTNDE, PHYPSO, PSDMAK, TOXOCI

2021/121 Recommendations from Euphresco projects

The following research project has recently been carried out in the framework of Euphresco (network for phytosanitary research coordination and funding - hosted by EPPO). A report presenting the main objectives and results of this project, as well as recommendations made can be viewed on the Euphresco website.

Corythucha arcuata (Hemiptera: Tingidae): Evaluation of the pest status in Europe and development of survey, control and management strategies (OLBIE)

The OLBIE project focused on *Corythucha arcuata* (oak lace bug) an invasive Hemiptera introduced from its native range in North America into Europe, and which was first detected in Europe in Italy in 2000. The project addressed key questions and gaps in the knowledge on *Corythucha arcuata*, particularly in relation to its biology, dispersal, control and management options and the wider environmental impacts.

The research consortium proposed a methodology for undertaking visual surveys for *C. arcuata*. Several early detection methods were also recommended.

There are currently no suitable chemical control options available for use within forest and woodland environments, thus evaluation of suitable products and application techniques needs to be undertaken. The use of chemical methods within forests/woodlands is considered unpractical, uneconomical, and generally unacceptable to the public, thus classical biological control approaches are recommended, and research should focus on the potential natural enemies that need to be considered and evaluated for potential release.

Duration of the project: 2019-04-01 to 2021-03-31.

Authors: Williams, David; Hocht, Gernot; Csóka, György; de Groot, Maarten; Hradil, Karel; Chireceanu, Constatina; Hrašovec, Boris; Castagneyrol, Bastien.

Link: https://zenodo.org/record/4898795#.YLnOWfkzaUk

Source: Euphresco (2021-06). https://www.euphresco.net/projects/

Pictures: Corythucha arcuata. https://gd.eppo.int/taxon/CRTHAR/photos

Additional key words: research Computer codes: CRTHAR

2021/122 First call for applications to the EPPO Jens-Georg Unger Plant Health Fellowship for international co-operation in plant health

On the 23rd of June 2021, EPPO launched the first call for applications to the EPPO Jens-Georg Unger Plant Health Fellowship for international co-operation in plant health. This fellowship starts in the context of the International Year of Plant Health (IYPH) and is dedicated to Dr Jens-Georg Unger, a reputed professional in Plant Health who passed away much too early.

The aim of this fellowship is to enable plant health professionals from the EPPO region to gain international working experience in plant health in another country or organization through a secondment. This fellowship is meant for plant health professionals working in plant health in the early or middle stage of their careers.

All necessary information and an online form to submit applications can be found on the EPPO website:

https://www.eppo.int/ABOUT_EPPO/special_events/plant_health_fellowship

Deadline: 31st of August 2021.

Source: EPPO Secretariat (2021-06).

Additional key words: training

2021/123 First report of Grapholita inopinata in Finland

The NPPO of Finland recently informed the EPPO Secretariat of the first finding of the Manchurian fruit moth *Grapholita inopinata* (Lepidoptera: Tortricidae, EPPO A2 List) on its territory. This is the first time that the pest is reported from the EPPO region outside Russia. *G. inopinata* was found in 2019 by the Finnish Lepidopterological Society. One adult moth was found in a pheromone trap located on the south coast (municipality of Espoo). In April 2021, the society informed the Finnish Food Authority about the finding and the species identification was confirmed by the Plant Quarantine Laboratory of the Finnish Food Authority. A detection survey by pheromone trapping will be carried out in 2021 to define the infested area. The pathway of introduction of the pest remains unknown for the moment.

The pest status of *Grapholita inopinata* in Finland has not yet been determined.

Source: NPPO of Finland (2021-06).

Pictures: *Grapholita inopinata*. https://gd.eppo.int/taxon/CYDIIN/photos

Additional key words: new record Computer codes: CYDIIN, FI

2021/124 Updated situation of Ripersiella hibisci in Italy

The root mealybug *Ripersiella hibisci* (Hemiptera: Pseudococcidae - EPPO A1 List) was detected for the first time in Italy in April 2021 in the municipality of Fiumefreddo di Sicilia (Province of Catania - Sicily) (EPPO RS 2021/081). Further surveys conducted in May 2021 detected the pest in six other production sites located in the neighbouring municipalities of Piedimonte Etneo and Calatabiano (also in the province of Catania) on potted plants of palms (*Phoenix* sp., *Chamaerops humilis*, *Trachycarpus fortunei*) and *Hibiscus rosa-sinensis*. The potted plants found to be infested did not show any above-ground symptoms (e.g. chlorosis, wilting, reduction of development). Juvenile and female forms were found in the root system which was in good condition.

Phytosanitary measures are being adopted with the aim of eradicating the outbreaks: this includes the prohibition of movement of infested lots and the destruction of infested plants. Insecticide treatments and inspections are prescribed on host plants lots. Trace forward investigations have allowed two infested plants of *Callistemon citrinus* in Campania region to be found, these belonged to a batch of 25 plants. The plants were promptly destroyed.

The pest status of *Ripersiella hibisci* in Italy is officially declared as: **Transient**, **actionable**, **under eradication**.

Source: NPPO of Italy (2021-06).

Pictures: Ripersiella hibisci. https://gd.eppo.int/taxon/RHIOHI/photos

Additional key words: new record Computer codes: RHIOHI, IT

2021/125 First report of Ripersiella hibisci in Belgium

The NPPO of Belgium recently informed the EPPO Secretariat of the first finding of the root mealybug *Ripersiella hibisci* (Hemiptera: Pseudococcidae - EPPO A1 List) on its territory. The trace forward surveys related to the outbreak in Italy (EPPO RS 2021/081) identified several Belgian professional operators that had received *Callistemon* plants from the company in Italy where *R. hibisci* had been found. These plants had been delivered directly from Italy or via another EU Member State. Many of these plants had already been sold to final consumers. The plants that could be traced to professional operators were inspected and tested, and put aside until the results were available. *R. hibisci* was found on 5 plants in 5 different locations in Belgium in 4 provinces (Hainaut, Luxembourg, Antwerpen, Oost-Vlaanderen). All the plants left from the lots containing the 5 infected plants had the same plant passport number and were destroyed. Monitoring will continue.

The pest status of *Ripersiella hibisci* in Belgium is officially declared as: **Transient**, actionable, under eradication.

Source: NPPO of Belgium (2021-06).

Pictures: Ripersiella hibisci. https://gd.eppo.int/taxon/RHIOHI/photos

Additional key words: new record Computer codes: RHIOHI, BE

2021/126 First report of Ripersiella hibisci in Germany

The NPPO of Germany recently informed the EPPO Secretariat of the first finding of the root mealybug *Ripersiella hibisci* (Hemiptera: Pseudococcidae - EPPO A1 List) on its territory. The trace forward surveys related to the outbreak in Italy (EPPO RS 2021/081) identified possibly infested *Callistemon* plants that had been delivered from Italy to Germany to a garden centre in Hesse. Many plants had already been sold to end consumers, but four plants were found to be infested by *R. hibisci*. In total, 90% of the 132 delivered plants could be destroyed. A monitoring survey will be conducted. Another consignment (66 *Callistemon* plants) had been delivered to a garden centre in Baden-Württemberg: 56 plants had already been sold to end consumers and could not be traced back. The 10 remaining plants were destroyed: 6 plants had been inspected and found to be infested.

The pest status of *Ripersiella hibisci* in Germany is officially declared as: **Present, under eradication, only in some parts of the Member State concerned.**

Source: NPPO of Germany (2021-06).

Pictures: Ripersiella hibisci. https://gd.eppo.int/taxon/RHIOHI/photos

Additional key words: new record Computer codes: RHIOHI, DE

2021/127 First report of Ripersiella hibisci in Switzerland

The NPPO of Switzerland recently informed the EPPO Secretariat of the first finding of the root mealybug *Ripersiella hibisci* (Hemiptera: Pseudococcidae - EPPO A1 List) on its territory. The trace forward surveys related to the outbreak in Italy (EPPO RS 2021/081) identified 50 possibly infested *Callistemon* plants that had been delivered from Italy to Switzerland (Nordwestschweiz). Many plants had already been sold to end consumers, but three plants could be traced and were still held by the sellers. They were analyzed and all 3 plants were found to be infested by *R. hibisci*. Efforts are ongoing to trace forward the other plants as quickly as possible.

The pest status of *Ripersiella hibisci* in Switzerland is officially declared as: **Transient**, actionable, under eradication.

Source: NPPO of Switzerland (2021-05).

Pictures: Ripersiella hibisci. https://gd.eppo.int/taxon/RHIOHI/photos

Additional key words: new record Computer codes: RHIOHI, CH

2021/128 First report of Ripersiella hibisci in Denmark

The NPPO of Denmark recently informed the EPPO Secretariat of the first finding of the root mealybug *Ripersiella hibisci* (Hemiptera: Pseudococcidae - EPPO A1 List) on its territory. The trace forward surveys related to the outbreak in Italy (EPPO RS 2021/081) identified several consignments of possibly infested *Callistemon* plants that had been delivered from Italy to two garden centres in Denmark. Many plants had already been sold to end consumers, but the remaining *Callistemon* plants were inspected and in one of these garden centres 16 out of 54 *Callistemon* plants were found to be heavily infested with *R. hibisci*. The entire lot was destroyed.

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

Source: NPPO of Denmark (2021-06).

Pictures: Ripersiella hibisci. https://gd.eppo.int/taxon/RHIOHI/photos

Additional key words: new record Computer codes: RHIOHI, DK

2021/129 First reports of *Pochazia shantungensis* in the EPPO region both in Turkey and in France

Pochazia shantungensis (Hemiptera: Ricaniidae) was first recorded in the EPPO region in Turkey in Sariyer district (near Istanbul, Marmara region) in September 2018. Since then, it was also recorded in several sites on the Asian side of the Istanbul area on about 46 plant species.

The situation of *Pochazia shantungensis* in Turkey can be described as: **Present**, **restricted distribution**.

P. shantungensis was first observed in France in Alpes-Maritimes department in the Provence-Alpes-Côte d'Azur region. A single specimen was observed in a garden in Cagnessur-Mer in November 2018. Two other specimens were observed in October 2019 in the same location, suggesting that the species is established.

The situation of *Pochazia shantungensis* in France can be described as: **Present**, **few occurrences**.

Source: Bourgoin T, Gros P, Stroinski A (2020) Pochazia shantungensis (Chou & Lu, 1977), an

important Asiatic invasive pest on fruit trees, first time reported from France (Hemiptera, Fulgoromorpha, Ricaniidae). Bulletin de la Sociétée Entomologique

de France 125, 271-272.

Hizal E, Oztemiz S, Gjonov I (2019) *Ricania shantungensis* Chou & Lu 1977 (Hemiptera: Fulgoromorpha: Ricaniidae) a new invasive insect species in European Turkey. *Fresenius Environmental Bulletin* **28** (12A), 9816-9820.

Personal communication with E. Hizal (2021-05).

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

Additional key words: new record Computer codes: POCZSH, TR, FR

2021/130 Pochazia shantungensis (Hemiptera: Ricaniidae): addition to the EPPO Alert List

Why: Pochazia shantungensis is damaging fruit tree pest. It is native in China and invasive in the Republic of Korea, and it was recently reported for the first time in the EPPO region, both in Turkey and in France (EPPO RS 2021/129).

Where: *P. shantungensis* was first described in China in 1977. It was introduced in the Republic of Korea in 2010 and rapidly spread. It was collected for the first time in 2018 in the European part of Turkey (it was subsequently also found on the Asian side of the Istanbul area) and in Southern France.

EPPO region: France, Turkey.

Asia: China (Shandong, Zhejiang), Republic of Korea.

On which plants: *P. shantungensis* is a very polyphagous pest, with records on more than 200 plant species in 81 families. Economically important hosts include fruit species (e.g. apple, blueberry, chestnut, peach, persimmon) as well as forest and ornamental trees.

Damage: This pest directly causes damage by sucking plant sap as well as by damaging young branches when females insert their eggs. It also indirectly induces the development of sooty mold on leaves as a result of honeydew secretion. One generation per year is observed in the Republic of Korea but two generations occur per year in China. The pest overwinters as eggs on trees only. Eggs are covered with white wax filaments. Overwintered eggs start to hatch from May in the Republic of Korea. Nymphs seem to prefer herbaceous plants rather than trees. Adults can be observed from July, and the new generation of overwintering eggs are generally found until late August in the Republic of Korea. Adults are about 15 mm long. In the Republic of Korea, control of the pest in orchard requires insecticide application targeting the egg stages. Overall, the population of *P. shantungensis* in agricultural areas has increased by over 100% each year from 2015 to 2017, causing serious economic damage. In China, damage is reported only from Zhejiang.

Pictures are available at https://gd.eppo.int/taxon/POCZSH/photos

Dissemination: Data is missing on its natural spread, but adults can fly and have the highest mobility among all developmental stages. Nymphal stages are also mobile. Over long distances, the movement of host plants can transport the pest as eggs.

Pathways: Plants for planting of host plant species from countries where *P. shantungensis* occurs. As eggs are mostly laid on young branches, wood is unlikely to be a pathway.

Possible risks: *P. shantungensis* has a wide host range which includes economically important fruit crops for the EPPO region. It has already been introduced into two EPPO countries where it seems to be locally established. It is an important pest in the Republic of Korea and parts of China, and could also become an important pest in the EPPO region.

Sources

- Baek S, Kim M-J, Lee JH (2019) Current and future distribution of *Ricania shantungensis* (Hemiptera: Ricaniidae) in Korea: application of spatial analysis to select relevant environmental variables for MaxEnt and CLIMEX Modeling. *Forests* 10, 490. https://doi.org/10.3390/f10060490
- Bourgoin T (2021) FLOW (Fulgoromorpha Lists on The Web): a world knowledge base dedicated to Fulgoromorpha. Version 8, updated [2021-05-27]. https://hemiptera-databases.org/flow/
- Bourgoin T, Gros P, Stroinski A (2020) *Pochazia shantungensis* (Chou & Lu, 1977), an important Asiatic invasive pest on fruit trees, first time reported from France (Hemiptera, Fulgoromorpha, Ricaniidae). *Bulletin de la Sociétée Entomologique de France* 125, 271-272.
- Chou I, Lu C (1977) On the Chinese Ricaniidae with descriptions of eight new species. *Acta Entomologica Sinica* **20**(3), 314-322 (English summary)
- EFSA Panel on Plant Health (2021) Scientific Opinion on the commodity risk assessment of *Robinia pseudoacacia* plants from Turkey. *EFSA Journal* **19**(5):6568, 54 pp. https://doi.org/10.2903/j.efsa.2021.6568
- Hizal E, Oztemiz S, Gjonov I (2019) *Ricania shantungensis* Chou & Lu 1977 (Hemiptera: Fulgoromorpha: Ricaniidae) a new invasive insect species in European Turkey. *Fresenius Environmental Bulletin* **28** (12A), 9816-9820.
- Kim DE, Lee H, Kim MJ, Lee DH (2015) Predicting the potential habitat, host plants, and geographical distribution of *Pochazia shantungensis* (Hemiptera: Ricaniidae) in Korea. *Korean Journal of Applied Entomology* **54**, 179-189.
- Kwon DH, Kim S-J, Kang T-J, Lee JH, Kim DH (2017) Analysis of the molecular phylogenetics and genetic structure of an invasive alien species, *Ricania shantungensis*, in Korea. *Journal of Asia-Pacific Entomology*, **20**, 901-906
- Rahman MA, Kwon Y-J, Suh S-J, Youn Y-N, Jo S-H (2012) The genus *Pochazia* Amyot and Serville (Hemiptera: Ricaniidae) from Korea, with a newly recorded species. *Journal of Entomology* **9**(5), 239-247. https://doi.org/10.3923/je.2012.239.247

EPPO RS 2021/130

Panel review date - Entry date 2021-06

Additional key words: Alert List Computer codes: POCZSH

2021/131 First report of Scirtothrips dorsalis in Turkey

Scirtothrips dorsalis (Thysanoptera: Thripidae - EPPO A2 List) is reported for the first time in Turkey. It was collected from blueberries (*Vaccinium myrtillus*) in October 2020 in Adana province. The pest was reported to cause damage in blueberry production.

The situation of *Scirtothrips dorsalis* in Turkey can be described as: **Present, restricted** distribution.

Source: Atakan E, Pehlivan S (2021) First report of the chilli thrips, Scirtothrips dorsalis

Hood, 1919 (Thysanoptera: Thripidae) in Turkey. Turkish Journal of Zoology 45,

156-160. https://doi.org/10.3906/zoo-2012-14

Additional key words: new record Computer codes: SCITDO, TR

2021/132 Findings of Trichoferus campestris in Germany

According to Bense (2017), Trichoferus campestris (Coleoptera: Cerambycidae - EPPO A2 List) was first observed in Germany in 2013. One specimen was caught in a light trap in July 2013 at Altrip (Rhineland-Palatinate), in an alluvial forest near the Rhine. In May 2014, several adult beetles were also found in the port of Bremerhaven (Bremen) associated with wooden pallets imported from China. In August 2015, one female specimen was caught in a light trap which was located on the balcony of a house near an industrial area in Görlitz (Saxony). In July 2016, several specimens of T. campestris were found in Wilhelmshaven (Lower Saxony) probably emerging from decorative material (a wooden wreath showing exit holes) (EPPO RS 2016/164). In August 2016, a larva of T. campestris was also identified in wooden decorative material in an apartment in Mecklenburg Western-Pomerania (EPPO RS 2017/130). In these two cases, the wooden material was destroyed to prevent any further spread. In October 2017, two specimens (a male and a female) of T. campestris were caught in a trap near Breisach (Baden-Württemberg), and a another one was found in a residential building in Neckarweihingen (Ludwigsburg, Baden-Württemberg). The establishment of T. campestris in Germany remains to be demonstrated, but these repeated findings in different locations suggest that multiple introductions are taking place.

Source: Bense U (2017) Trichoferus campestris (Faldermann, 1835) - eine auch in Baden-

Württemberg neu auftretende Bockkäferart (Coleoptera, Cerambycidae).

Mitteilungen Entomologisher Verein Stuttgart 52(2), 85-88.

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

Additional key words: detailed record Computer codes: HESOCA, DE

2021/133 First confirmed report of Erthesina fullo in Albania

Since March 2017, an unusual stink bug species has been observed in Albania in several localities close to the cities of Tirana and Durrës. Preliminary observations suggested that the insect was most probably *Erthesina fullo* (Hemiptera: Pentatomidae - yellow spotted stink bug), but the insect identity could not be firmly confirmed (see EPPO RS 2020/170). Several specimens could subsequently be examined, and the species found in Albania was confirmed to be *E. fullo*. Specimens were collected in a garden located in Durrës on the bark of *Tilia cordata* (August 2020) and on *Ziziphus jujuba* (September 2020). These results also indicated that *E. fullo* is established in Albania and can develop on some plants already present, such as *T. cordata* and *Z. jujuba*. This first record of *E. fullo* in Albania is also the first record in the EPPO region.

As already explained in EPPO RS 2020/170, *E. fullo* originates from Asia and presents many similarities with *Halyomorpha halys* in its biology and behaviour. *E. fullo* is a highly polyphagous species which can feed on several economically important tree species (fruit trees, forest and ornamental trees). In the framework of the EU project (DROPSA), *E. fullo* had been identified as posing a potential risk to Europe on fruit crops. A geographical distribution and a preliminary list of host plants can be viewed on the EPPO Global Database: https://gd.eppo.int/taxon/ERTNFU

Source: Lupoli R, van der Heyden T, Dioli P (2021) Confirmation of Erthesina fullo

(Thunberg, 1783) (Hemiptera: Pentatomidae) in Albania and its host plants.

Heteroptera Poloniae - Acta Faunistica 15, 101-102.

https://zenodo.org/record/4918310

Additional key words: new record Computer codes: ERTNFU, AL

2021/134 First report of tomato brown rugose fruit virus in Hungary

The NPPO of Hungary recently informed the EPPO Secretariat of the first detection of tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV - EPPO A2 List) on its territory. The virus was detected in two greenhouses (6.2 ha and 5.2 ha) producing tomato fruit (*Solanum lycopersicum*) in May 2021 in the municipality of Lébény and the municipality of Forráskút respectively. Typical mosaic symptoms were observed on the leaves, but no particular symptoms could be seen on the fruits. The source of the outbreaks is under investigation, but it is noted that in Lébény, the tomato plants found to be infected with ToBRFV originated from the Netherlands. Eradication measures according to EU Regulation 2020/1191 are implemented. The crop, including the symptomatic fruits, will be destroyed after harvesting asymptomatic fruits. Asymptomatic fruits have been allowed to be sold exclusively for final consumption.

The pest status of tomato brown rugose fruit virus in Hungary is officially declared as: Present, under eradication.

Source: NPPO of Hungary (2021-05).

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

Additional key words: new record Computer codes: TOBRFV, HU

2021/135 First report of tomato brown rugose fruit virus in Bulgaria

The NPPO of Bulgaria recently informed the EPPO Secretariat of the first detection of tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV - EPPO A2 List) on its territory. The virus was detected in a greenhouse (500 m²) producing tomato fruit (*Solanum lycopersicum*) in June 2021 in the municipality of Mezdra (province of Vratsa). Symptoms were observed on leaves and fruit. Eradication measures are taken and include the destruction of infected plants.

The pest status of tomato brown rugose fruit virus in Bulgaria is officially declared as: **Present, only in some parts of the Member State concerned.**

Source: NPPO of Bulgaria (2021-06).

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

Additional key words: new record Computer codes: TOBRFV, BG

2021/136 First report of tomato brown rugose fruit virus in Norway

The Norwegian Food Safety Authority recently reported the first detection of tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV - EPPO A2 List) in Norway. The virus was detected in young tomato plants (*Solanum lycopersicum*) at a small producer in May 2021 in the municipality of Vestfold. Eradication measures are taken and include the destruction of infected plants, and disinfection of the structures. A survey on the presence of this virus in nurseries and in tomato fruit production is being conducted.

The situation of tomato brown rugose fruit virus in Norway can be described as: **Present**, **few occurrences**, **under eradication**.

EPPO Reporting Service 2021 no. 6 – *Diseases*

Source: Mattilsynet (2021-06-08) Tomatbrunflekkvirus påvist for første gang i Norge

https://www.mattilsynet.no/planter_og_dyrking/planteskadegjorere/virus_og_viroider_i_planter/tomatbrunflekkvirus__ToBRFV_/tomatbrunflekkvirus_paavist_for_fors

te_gang_i_norge.43345?fbclid=lwAR11wBJjyMRa5B_Yd-itoR-

yLqBYzEhbZ0o19IXdBYlneUf-3-0q8kZubmg

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

Additional key words: new record Computer codes: TOBRFV, NO

2021/137 Update on the situation of tomato brown rugose fruit virus in Italy

In Italy tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV - EPPO A2 List) was first detected in Sicilia in January 2019 (EPPO RS 2019/013, RS 2019/144). It was also found in Piemonte in May 2019 and eradicated (RS 2019/124 and RS 2019/144).

The virus was detected in more sites in Sicilia: in 2019, the virus had been detected in 5 tomato greenhouses and 2 nurseries in the municipality of Ispica (Ragusa province). In 2020 its presence was confirmed in 11 additional sites including 3 nurseries (8 in Ragusa province and 3 in Siracusa province). In 2021 ToBRFV was also reported from 3 tomato commercial greenhouses in the province of Caltanissetta, and one greenhouse in a new municipality of Ragusa province (Scicli).

ToBRFV was also in detected on the mainland in the following regions:

- Apulia: in the municipality of Giovinazzo (province of Bari) on tomato (*Solanum lycopersicum*) and pepper (*Capsicum annuum*) plants grown in two adjacent greenhouses in May 2021. The pepper plants were asymptomatic.
- Toscana: in the municipality of Monterotondo Marittimo (province of Grosseto) in two greenhouses for tomato fruit production in October 2020.

In all cases, eradication measures are applied.

The pest status of tomato brown rugose fruit virus in Italy is officially declared as: **Present**, only in some parts of the Member State concerned, under eradication.

Source: NPPO of Italy (2020-10, 2021-05, 2021-06).

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

Additional key words: detailed record Computer codes: TOBRFV, IT

2021/138 First report of pepino mosaic virus in New Zealand

Pepino mosaic virus (*Potexvirus*, PepMV - EPPO A2 List) is reported for the first time from New Zealand. In April and May 2021, the virus was detected in 4 commercial tomato glasshouses in Auckland. Biosecurity New Zealand, together with growers and other stakeholders, is working to determine the scale of the infection and develop appropriate management measures. Investigations are being carried out to identify the possible source of introduction of PepMV into New Zealand.

The situation of pepino mosaic virus in New Zealand can be described as follows: **Present:** not widely distributed and under official control.

EPPO Reporting Service 2021 no. 6 – *Diseases*

Source: New Zealand Biosecurity. Ministry for Primary Industries (2021-06-25) Pepino mosaic

virus (PepMV) in Auckland. https://www.mpi.govt.nz/biosecurity/major-pest-and-

disease-threats/pepino-mosaic-virus-pepmy-in-auckland/

Pictures: Pepino mosaic virus. https://gd.eppo.int/taxon/PEPMV0/photos

Additional key words: new record Computer codes: PEPMV0, NZ

2021/139 Situation of Grapevine red blotch virus in Italy

A study was conducted in Northern Italy to assess the presence of Grapevine red blotch virus (*Grablovirus*, GRBV - EPPO Alert List) in grapevine. The study was carried out using 596 grapevine samples, collected in 2004-2018 for other purposes and stored in the Research Centre for Viticulture and Oenology (CREA-VE) collection at -80°C as total RNA or DNA extracts. Samples included rootstock and table grape accessions from ampelographic collections, and commercial varieties with red blotch-like symptoms. GRBV was not detected in samples of commercial vines. Only 2 samples (one of 'Queen' and one of 'Incrocio Dalmasso VIII-5' accessions), collected from the CREA-Viticulture and Oenology repository of table grape varieties tested positive for GRBV.

The authors conclude that GRBV is absent from commercial vineyards of Northern Italy.

Source: Bertazzon N, Migliaro D, Rossa A, Filippin L, Casarin S, Giust M, Brancadoro L,

Crespan M, Angelini E (2021) Grapevine red blotch virus is sporadically present in a germplasm collection in Northern Italy. *Journal of Plant Diseases and Protection*.

https://doi.org/10.1007/s41348-021-00468-5

Additional key words: incursion, absence Computer codes: GRBAVO, IT

2021/140 First report of Ralstonia pseudosolanacearum in Germany

The NPPO of Germany recently informed the EPPO Secretariat of the first finding of *Ralstonia* pseudosolanacearum (EPPO A2 List) on its territory. The pathogen was detected in a research institution in Hesse on symptomatic ginger plants (*Zingiber officinale*) in a greenhouse. The identification was confirmed by the national reference laboratory. *R. pseudosolanacearum* was also detected in samples of irrigation water. Tests were also performed on other plant species that had been grown at the same time in the greenhouse (*Salicornia* sp., *Curcuma* sp. and *Solanum lycopersicum*). One sample from tomato plants tested positive but the plants did not show any symptoms. Official eradication measures are applied and include the incineration of infected material. The site will be monitored officially for at least 3 years. The source of the infection could not be clarified. However, the ginger roots used for planting were purchased as ginger for consumption that was probably imported from Peru via another EU Member State.

The pest status of *Ralstonia pseudosolanacearum* in Germany is officially declared as: Present, under eradication, only in some parts of the Member State concerned (one location).

Source: NPPO of Germany (2021-06).

Additional key words: new record Computer codes: RALSPS, DE

2021/141 Sarracenia purpurea in the EPPO region: addition to the EPPO Alert List

Why

Sarracenia purpurea (Sarraceniaceae) is a carnivorous pitcher plant native to North America. It occurs in the natural environment in several EPPO countries with a limited distribution, often in sites of high conservation importance where it poses a risk to natural plant communities and associated ecosystem services. The species is adapted to the Western European climate and therefore there is the potential for further establishment of the species in suitable habitats.

Geographical distribution

North America: Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Québec, Saskatchewan), USA (Alaska, Connecticut, Delaware, Georgia, Illinois, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Virginia, Washington, West Virginia, Introduced: California, Washington).

EPPO region: Austria, Czech Republic, Denmark, France, Germany, Ireland, Sweden, Switzerland, United Kingdom.

Morphology

Pitchers: persistent, appearing with or after flowers and continuously all summer, decumbent or sprawling to ascending, nearly green with various degrees of red or purple veins, or suffused reddish or purplish to nearly uniformly purplish red. Urceolate (gently Scurved), 5-25(-45) cm (bulging distal of middle, 3-6 cm at widest point), firm, sometimes shiny or waxy, external surface glabrous or glabrate to densely pubescent, wings 1-3(-4) cm diameter; orifice round to oval, (gaping, with rainwater held in pitcher), hood erect or with lobes arched together over orifice, same colours and veined as pitcher, reniform, undulate or entire, $2-5\times 3-7$ cm, wider than long, basal lobes cordate, attached to sides of rim of orifice with no neck, distal portion somewhat abaxially recurved and notched apically, apex not apiculate, adaxial surface with decurved setae 0.6-1.8(-3) mm.

Scapes: 22-79 cm, much longer than pitchers; bracts 0.5-0.8 cm.

Flowers: moderately fragrant; sepals purplish red, $2.2-4.2 \times 1.5-3.5$ cm; petals red to maroon, distal portion elliptic to obovate, $3.3-5.3 \times 1.5-3$ cm, margins entire; style disc green, 4-5 cm diameter, (style arms 1.7-3.8 cm). In Western Europe, S. *purpurea* usually flowers in June and July, setting seed in August and September.

Capsules: 1-2 cm diameter.

Seeds 1.7-2 mm long.

Biology and Ecology

Sarracenia purpurea is a carnivorous plant which attracts insects and other small animals to its pitchers (pitfall trap), where they are then digested. It reproduces by seed which are abundantly produced (up to 1 000 seeds per inflorescence) and remain viable in the seed bank for up to five years.

Habitats

In Western Europe, habitats where *S. purpurea* has become invasive include raised and blanket bogs and mires. Most populations in the United Kingdom occur below 100 m altitude. Once planted, populations can be very persistent.

Pathways for movement

In most, if not all, of the sites where *S. purpurea* occurs in Europe, it is believed to have been deliberately planted, presumably by carnivorous plant enthusiasts. There is the potential for movement of seed via water and movement of habitat material (e.g. soil or mosses) which includes seed.

Impacts

Where S. purpurea is present in abundance, it can outcompete native vegetation in particular displacing the bryophyte community. The presence of the species is also likely to restrict habitat availability of higher plants. The tendency for this species to be planted in habitats with high conservation potential may exacerbate its impacts.

Control

Manual removal of plants has been shown to be successful when controlling small populations. Hand-pulling is relatively quick and cost-effective but regeneration from the seed bank is likely. Chemical application (glyphosate) has been shown to kill the plant with no impact on the associated bryophyte community. However, non-target effects on higher plants have been reported. In the EPPO region, action has been taken to remove populations of this species in Belgium and the United Kingdom.

Sources

Adlassnig W, Mayer E, Peroutka M, Pois W, Lichtschneidl IK (2009) Two American *Sarracenia* species as neophyta in Central Europe. *Phyton* **49(2)** 279-292.

Walker KJ (2014) Sarracenia purpurea subsp. purpurea (Sarraceniaceae) naturalised in Britain and Ireland: distribution, ecology, impacts and control. New Journal of Botany 4(1), 33-41.

Walker KJ, Auld C, Austin E, Rook J (2016) Effectiveness of methods to control the invasive non-native pitcher plant *Sarracenia purpurea* L. on a European mire. *Journal for Nature Conservation* 31, 1-8.

Walker KJ (2015) GB Non-native Species Risk Assessment for Sarracenia purpurea. GBNNSS.

https://secure.fera.defra.gov.uk/nonnativespecies/downloadDocument.cfm?id=1416

Computer codes: SRNPU

Additional key words: invasive alien plant, alert list

2021/142 First report of Nassella longiglumis in France

Nassella longiglumis (Poaceae) is native to South America (Argentina, Chile and Uruguay) and has been recorded in the South of France at Rivesaltes (Pyrénées-Orientales) in an abandoned military camp where it was found growing in a ruderal wasteland in 2020. The population consists of a few hundred individuals forming a dense layer that covers approximately 0.25 hectare. Although several species of the genus Nassella are naturalized outside their native range, especially in Australia, N. longiglumis has never been reported before as an introduced plant. N. longiglumis has also never been recorded as a weed in its native range where it inhabits steppe grasslands (pampas) with little disturbance, on stony and loose soils. The origin of the plants at the military camp is unknown. Potential pathways include contamination through the movement of people, industrial activities, or horticulture though in the case of the latter, there is no clear evidence that the species has been used

for this purpose. There are a number of *Nassella* species which are recorded as invasive in various regions of the world, including *N. neesiana*, *N. tenuissima* and *N. trichotoma*. These species can degrade range land and agricultural systems, and reduce biodiversity and related ecosystem services when they invade a habitat.

Source: Andrieu F, Verloove F (2020) Nassella longiglumis (Phil.) Barkworth (Poaceae) dans

les Pyrénées-Orientales (France), espéce nouvelle pour l'Europe. Société botanique

d'Occitanie. https://doi.org/10.34971/f7mm-zv83

Additional key words: new record, invasive alien plant Computer codes: NASLO, FR

2021/143 First report of Impatiens balfourii in Turkey

Impatiens balfourii (Balsaminaceae) is native to the Western Himalayas and has been introduced into the EPPO region as an ornamental plant species. The species has been cultivated in France, Great Britain and Italy since the early 20th century. The species has shown invasive tendencies in the EPPO region over the last 15 years, and it is recorded as invasive in France, Italy and Croatia. I. balfourii was recorded in four different sites in the Düzce province of the Western Black Sea region of Turkey at the beginning of August 2020. It was deliberately introduced as a garden ornamental to this area where it was first detected (Beyköy). The species now occurs in forest edge habitats, grasslands (not arable fields), inland surface water and artificial habitats (roadsides, parks, gardens) in Turkey. The site where the species was originally discovered is approximately 25 km from the most recently found infested site (roadside side near Konuralp). The author highlights that there is significant potential for further spread of the species in the region, especially as it is often planted in areas used for human amenities and seeds can be collected and intentionally moved, or transported as contaminants. Awareness raising activities and management should be initiated for I. balfourii. In addition, a risk analysis may be performed for I. balfourii to determine its invasive status in Turkey.

Source: Yazhk A (2021) Impatiens balfourii (Balsaminaceae): First recording from the Western

Black Sea Region of Turkey. Turkish Journal of Weed Science 24, 13-18.

Additional key words: new record, invasive alien plant Computer codes: IPABF, TR

2021/144 First report of casual populations of Strelitzia nicolai in Sicily (IT)

Strelitzia nicolai (Strelitziaceae) is native to Africa (South Africa, Mozambique, Botswana, and Zimbabwe) where it grows in evergreen coastal forests and thicket communities in rich moist soils and full sun to part shade. The species is only known to have naturalised in Southeast Australia. The species has been grown as an ornamental species in the EPPO region since the mid-1800s, particularly for its bright exotic flowers. In Sicily the species was recorded as cultivated in Palermo around 1865 and in 1884 it was recorded as grown in the Botanical Garden of Palermo. Since then, the species has been widely planted in local public, and private gardens throughout Sicily. The first casual individuals of *S. nicolai* have been observed in three different sites in Northwest Sicily. In the first two sites the plants were found in two private gardens close to one another and located in the plain of Palermo. *S. nicolai* was introduced in one of the gardens in 1989 and the first ripe fruits were observed in 2005. In 2006, the first seedlings started to grow around 30 m from the nearest mother plants. Currently four new plants have been observed, i.e. 3 reproductive adults dating from

2009 and 2010 and one young plant from 2014. Another single plant was recorded growing in an abandoned orchard some 300 m from the garden. In the Bioparco di Sicilia (Palermo province) there is evidence of casual populations of *S. nicolai* from over the last 10 years. Some 50 individuals were originally introduced and since 2011/2012 these individuals have flowered and there is evidence of seed dispersal. Numerous seedlings and saplings occur, growing up to 12 m from the original plantings. Further observations of *S. nicolai* should be carried out in order to verify if casual or naturalized populations of *S. nicolai* already occur elsewhere in Sicily, Italy and in the whole Mediterranean area.

Source:

Collesano G, Fiorello A, Pasta S (2021) *Strelitzia nicolaii* Regel & Körn. (Strelitziaceae), a casual alien plant new to Northern Hemisphere. *Webbia. Journal of Plant Taxonomy and Geography* **76**(1), 135-140. https://doi.org/10.36253/jopt-10183

Computer codes: STZNI, IT

Additional key words: new record, invasive alien plant

2021/145 Herbicide resistant Amaranthus palmeri in Japanese ports

Amaranthus palmeri (Amaranthaceae - EPPO A2 List) is a dioecious summer annual species native to North America, where it has become a weed in agricultural fields and disturbed habitats. It has a high fecundity and a long-lived seed bank which makes management of the species difficult. In the EPPO region, it is established in a few countries and transient in several others. The species can develop resistance to herbicides which can complicate the management of the species (see EPPO RS 2021/095). In a survey, 14 major Japanese ports of entry for international commodities were surveyed between August - September 2014-2017. At each port, the main road network was surveyed in an approximate 10 km radius around each port. In total, A. palmeri was recorded at five ports, and at one port up to 10 000 individuals were found growing along 1.5 km of roadside and the central divider. At three ports (Kashima, Hakata and Mizushima), herbicide (glyphosate) resistant individuals were found (resistance was evaluated using PCR and microsatellite marker analysis). This study shows that in less than ten years since the first report of glyphosate resistant individuals in the United States, glyphosate resistant plants are established in Japan. Management measures should focus on the control of this species in the areas where it currently occurs.

Source:

Shimono A, Kanbe H, Nakamura S, Ueno S, Yamashita J, Asai M (2020) Initial invasion of glyphosate-resistant *Amaranthus palmeri* around grain-import ports in Japan. *People, Plants, Planet* **2**, 640-648.

Pictures: Amaranthus palmeri. https://gd.eppo.int/taxon/AMAPA/photos

Additional key words: invasive alien plant Computer codes: AMAPA, JP