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2020/112 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**

Grapevine red blotch virus (*Grablovirus*, GRBV – EPPO Alert List) is reported for the first time from Argentina. A specific survey was conducted in 2018 in the provinces of Mendoza and San Juan and 188 grapevine plants, including wine and table grape cultivars, as well as rootstock genotypes, were tested. GRBV was detected in 1 sample of *Vitis vinifera* cv. Flame Seedless. The affected plant did not show any particular virus symptoms (Luna *et al.*, 2019). **Present**.

Grapevine Pinot gris virus (*Trichovirus*, GPGV) was reported for the first time from Belgium in 2018. GPGV was then also detected in samples collected from a vineyard in the province of Namur. In this vineyard, some samples were also infected by *Grapevine rupestris stem pitting associated virus* (*Foveavirus*). No particular symptoms were observed in this vineyard (Massart *et al.*, 2020). **Present**.

Grapevine Pinot gris virus (*Trichovirus*, GPGV) is reported for the first time from Iran. In 2016-2017, samples (leaves and canes) showing leaf deformation, mottling, vein clearing and necrotic spots were collected from grapevines (*Vitis vinifera*) in different regions. GPGV was detected in 6 (out of 30) tested samples (Tokhmechi and Koolivand, 2020). **Present**.

In Northern Thailand, *Pantoea ananatis* and *Pantoea stewartii* (EPPO A2 List) were detected in rice (*Oryza sativa*) crops during surveys conducted from 2014 to 2017. Affected rice plants were showing leaf blight symptoms (Arayaskul *et al.*, 2020). **Present**.

In Russia, *Monilinia fructicola* (EPPO A2 List) was detected in peach (*Prunus persica*) samples collected in Sochi (Southern Russia) and in the Gulripshsky district in Abkhazia (Mikhailova *et al.*, 2020). **Present, only in some areas.**

In Spain *Rhagoletis completa* (Diptera: Tephritidae, formerly EPPO A2 List) was first detected in 2014 in traps placed in a plot of *Juglans regia* located in the municipality of Crespià, Girona province, in the Autonomous Region of Cataluña. In 2019, new individuals have been collected from traps placed in a plot of walnut trees (*J. regia*) grown under organic production located in the same municipality. **Present, under eradication**. (NPPO of Spain 2020-01).

In Tunisia, unusual damage was observed in October 2019 on *Carissa macrocarpa* fruit, in the ornamental nursery of the Higher Agronomic Institute (ISA CM), Chott Mariem (Sousse). Fruit samples were collected and brought to the laboratory for observation. After a few days, *Zaprionus indianus, Z. tuberculatus* (both Diptera: Drosophilidae – EPPO Alert List), and *Ceratitis capitata* (Diptera: Tephritidae – EPPO A2 List) emerged from infested fruit. This is the first time that *Z. indianus* and *Z. tuberculatus* are recorded in Tunisia, as well as the first time that *Carissa macrocarpa* (Apocynaceae) is recorded as a host for these three insect species (Ben Halima Kamel *et al.*, 2020). **Present, only in some areas.**

In China, *Xanthomonas euvesicatoria* pv. *euvesicatoria* (EPPO A2 List) was detected in 2017 in Hailun county *on Physalis pubescens* (Solanaceae). Leaves of affected plants showed water-soaked spots and brown interveinal necrotic lesions with chlorotic margins (Song *et al.*, 2019).

- **Detailed records**

In South Carolina (US), cucurbit yellow stunting disorder virus (*Crinivirus* - EPPO A2 List) was first found in 2019. The virus was detected in symptomatic watermelon (*Citrullus lanatus*) plants in a research trial in Charleston (Kousik and Adkins, 2020).

In China, *Pseudomonas syringae* pv. *actinidiae* (EPPO A2 List) also occurs in the provinces of Chonqing, Guangdong, Hebei, Henan, Hubei, Jiangsu, Jiangxi, Shandong, and Yunnan (Ye *et al.*, 2020).

- **Eradication**

In Italy, *Achatina fulica* (Gastropoda: Achatinidae - giant African snail) was first found in October 2018 in Emilia-Romagna region (EPPO RS 2019/039). Further surveys were performed, and no other specimens were found.
The pest status of *Achatina fulica* in Italy is officially declared as: **Absent, pest eradicated.**

- **Host plants**

Cherry rasp leaf virus (*Cheravirus*, CRLV - EPPO A1 List) has been detected in symptomatic high tunnel grown tomatoes (*Solanum lycopersicum*) in Minnesota (US). The virus was identified by high throughput sequencing (Bratsch *et al.*, 2020)

'*Candidatus* Phytoplasma solani' (EPPO A2 List) has been detected in plum (*Prunus domestica*) trees in the Mafraq region, in Northeastern Jordan. Affected trees showed symptoms of leaf yellowing and reddening, as well as stunted growth and witches' broom (Salem *et al.*, 2020).

Meloidogyne enterolobii has been detected in *Camellia oleifera* in a nursery in Hainan, China. Affected *C. oleifera* seedlings showed slow growth, leaf chlorosis, leaf fall, and root galls (Zhu *et al.*, 2020).

Potato yellowing virus (*Ilarvirus*, PYV – EPPO A1 List) has been detected in *Solanum quitoense* (naranjilla) in Tumbaco (Pichincha province), Ecuador. Affected plants showed generalized chlorosis, interveinal yellowing and chlorosis, and leaf curling (Ramos *et al.*, 2020).

Tomato leaf curl New Delhi virus (*Begomovirus*, ToLCNDV – EPPO Alert List), has been detected in *Physalis minima* in Pakistan. Affected plants were showing severe mottling and leaf curling symptoms. These plants were growing as weeds in and around fields of *Luffa acutangula* which were also affected by ToLCNDV (Zubair *et al.*, 2020).

- **New pests**

A new fungal disease of *Foeniculum vulgare* (fennel) has been described from Sicily, Italy. The disease was first observed in 2017 in a farm in the province of Catania. Affected plants showed necrotic lesions on the crown, roots and stems. Studies confirmed that the causal agent of this disease is a new species called *Ochraceocephala foeniculi* gen. et sp. nov. (Aiella *et al.*, 2020).

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

Computer codes: ACHAFU, CRLV00, CYSDV0, ERWIAN, ERWIST, GPGV00, GRBAV0, MELGMY, MONIFC, OKRCFO, PHYPSO, PSDMAK, PYV000, RHAGCO, TOLCND, ZAPRIN, ZAPRTU, AR, BE, BE, CN, EC, ES, IR, IT, JO, PK, RU, TH, TN

2020/113 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. 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 2020/090), The following revised EPPO datasheets have been published in the EPPO Global Database:

- '*Candidatus* Liberibacter africanus': https://gd.eppo.int/taxon/LIBEAF/datasheet
- '*Candidatus* Liberibacter americanus': https://gd.eppo.int/taxon/LIBEAM/datasheet
- '*Candidatus* Liberibacter asiaticus': https://gd.eppo.int/taxon/LIBEAS/datasheet
- Citrus tristeza virus: https://gd.eppo.int/taxon/CTV000/datasheet
- *Ips amitinus*: https://gd.eppo.int/taxon/IPSXAM/datasheet
- *Neoleucinodes elegantalis*: https://gd.eppo.int/taxon/NEOLEL/datasheet
- *Paysandisia archon*: https://gd.eppo.int/taxon/PAYSAR/datasheet
- *Phyllosticta citricarpa*: https://gd.eppo.int/taxon/GUIGCI/datasheet
- *Spodoptera frugiperda*: https://gd.eppo.int/taxon/LAPHFR/datasheet
- *Trirachys sartus*: https://gd.eppo.int/taxon/AELSSA/datasheet

Source: EPPO Secretariat (2020-06).

Additional key words: publication

Computer codes: AELSSA, CTV000, GUIGCI, IPSXAM, LAPHFR, LIBEAF, LIBEAM, LIBEAS, NEOLEL, PAYSAR

2020/114 EPPO report on notifications of non-compliance

The EPPO Secretariat has gathered below the notifications of non-compliance for 2020 received since the previous report (EPPO RS 2020/068). Notifications have been sent via Europhyt for the EU countries and Switzerland. The EPPO Secretariat has selected notifications of non-compliance made because of the detection of pests. Other notifications of non-compliance due to prohibited commodities, missing or invalid certificates are not indicated. It must be pointed out that the report is only partial, as many EPPO countries have not yet sent their notifications. When a consignment has been re-exported and the country of origin is unknown, the re-exporting country is indicated in brackets. When the occurrence of a pest in a given country is not known to the EPPO Secretariat, this is indicated by an asterisk (*).

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Bemisia tabaci	*Abelmoschus esculentus*	Cuttings	Honduras	Netherlands	1
	Amaranthus, Corchorus, Hibiscus, Ipomoea	Vegetables (leaves)	Togo	France	1
	Capsicum annuum	Vegetables	India	United Kingdom	1
	Capsicum frutescens	Vegetables	South Africa	Netherlands	1
	Colocasia	Vegetables (leaves)	India	United Kingdom	1
	Colocasia esculenta	Vegetables	Ghana	United Kingdom	1
	Corchorus	Vegetables (leaves)	Malaysia	United Kingdom	1
	Epipremnum	Plants for planting	Sri Lanka	United Kingdom	1
	Hibiscus	Cuttings	Egypt	Netherlands	1
	Hibiscus	Vegetables (leaves)	Togo	United Kingdom	1
	Hibiscus sabdariffa	Vegetables (leaves)	Togo	Belgium	1
	Ipomoea	Vegetables (leaves)	Sierra Leone	Belgium	1
	Limnophila aromatica	Vegetables (leaves)	Vietnam	Netherlands	1
	Manihot esculenta	Vegetables	Congo	France	1
	Ocimum basilicum	Vegetables (leaves)	Kenya	United Kingdom	1
	Ocimum basilicum	Vegetables (leaves)	Thailand	Sweden	1
	Ocimum basilicum, Persicaria odorata	Vegetables (leaves)	Vietnam	Netherlands	1
	Persicaria	Vegetables (leaves)	Thailand	United Kingdom	1
	Piper	Vegetables	Thailand	Sweden	1
	Rumex	Vegetables (leaves)	Nigeria	United Kingdom	1
	Scabiosa	Cuttings	Israel	Netherlands	1
	Solanum macrocarpon	Vegetables	Togo	Switzerland	1
	Solanum melongena	Vegetables	South Africa	Netherlands	1
	Syngonium	Aquatic plants	Malaysia	United Kingdom	1
	Telfairia occidentalis	Vegetables (leaves)	Nigeria	United Kingdom	1
Chrysanthemum stunt viroid	*Argyranthemum frutescens*	Cuttings	Kenya*	Greece	1
Curculio	*Acer, Quercus lyrata, Quercus nigra*	Seeds	USA	Germany	1
Elasmopalpus lignosellus	*Asparagus*	Vegetables	Peru	United Kingdom	1
Elsinoë fawcettii	*Citrus*	Fruit	Bangladesh	United Kingdom	1
	Citrus latifolia	Fruit	Mexico	Netherlands	1
Hirschmanniella	*Hygrophila, Nymphoides aquatica*	Aquatic plants	Singapore	Germany	1
Hirschmanniella caudacrena	*Vallisneria*	Aquatic plants	Singapore	Germany	1
Lepidoptera	*Capsicum chinense*	Vegetables	Dominican Rep.	Spain	1
Leucinodes	*Solanum aethiopicum*	Vegetables	Togo	Belgium	1
	Solanum aethiopicum	Vegetables	Uganda	Belgium	2
	Solanum aethiopicum	Vegetables	Uganda	Italy	1
	Solanum aethiopicum	Vegetables	Uganda	Netherlands	1
	Solanum aethiopicum	Vegetables	Uganda	United Kingdom	1
	Solanum melongena	Vegetables	Sri Lanka	Italy	1
Leucinodes orbonalis	*Solanum aethiopicum*	Vegetables	Uganda	Belgium	1
	Solanum stramoniifolium	Vegetables	Thailand	Belgium	1
	Solanum torvum	Vegetables	Laos	France	1

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Liriomyza	*Amaranthus*	Vegetables (leaves)	Sri Lanka	United Kingdom	1
	Chrysanthemum	Cut flowers	Colombia	United Kingdom	3
	Dendranthema	Vegetables	Colombia	United Kingdom	1
	Dendranthema x grandiflorum	Cut flowers	Colombia	United Kingdom	4
	Ipomoea aquatica	Vegetables (leaves)	Malaysia	United Kingdom	1
	Moringa oleifera	Vegetables (leaves)	India	United Kingdom	1
	Ocimum basilicum	Vegetables (leaves)	Ethiopia	United Kingdom	1
	Ocimum basilicum	Vegetables (leaves)	South Africa	United Kingdom	1
Liriomyza sativae	*Apium graveolens*	Vegetables	Suriname	Netherlands	1
	Ocimum	Vegetables (leaves)	Thailand	Denmark	1
Neoleucinodes	*Solanum melongena*	Vegetables	Suriname	Netherlands	2
Neoleucinodes elegantalis	*Solanum betaceum*	Vegetables	Colombia	Belgium	1
	Solanum melongena	Vegetables	Suriname	Netherlands	3
Pepino mosaic virus, Potato spindle tuber viroid, Xanthomonas euvesicatoria* pv. *euvesicatoria	*Capsicum annuum, Solanum lycopersicum*	Seeds	China	Italy	1
Phyllosticta citricarpa, Xanthomonas citri* pv. *citri	*Citrus aurantiifolia*	Fruit	Mauritius	France	1
Potato spindle tuber viroid	*Capsicum annuum*	Plants for planting	China	Italy	1
Potato virus Y	*Capsicum*	Vegetables	Kenya	United Kingdom	1
	Capsicum	Vegetables	Rwanda	United Kingdom	1
	Capsicum annuum	Vegetables	Uganda	United Kingdom	1
Ralstonia solanacearum	*Solanum tuberosum*	Seed potatoes	Netherlands	Germany	2
	Solanum tuberosum	Ware potatoes	Egypt	Greece	1
Scirtothrips dorsalis	*Asparagus officinalis*	Vegetables	Thailand	Netherlands	1
	Ocimum basilicum	Vegetables (leaves)	Vietnam	Netherlands	1
Spodoptera eridania	*Apium graveolens*	Vegetables	Suriname	Netherlands	1
Spodoptera frugiperda	*Capsicum*	Vegetables	Suriname	Netherlands	1
	Diospyros kaki	Fruit	Brazil	Germany	1
	Eryngium	Cut flowers	Zimbabwe	Netherlands	1
	Solidago	Cut flowers	Zimbabwe	Netherlands	1
	Xanthosoma sagittifolium	Vegetables	Suriname	Netherlands	1
	Zea mays	Vegetables	Senegal	Netherlands	1
Spodoptera ornithogalli	*Asparagus officinalis*	Vegetables	Mexico	Netherlands	1
Thaumatotibia leucotreta	*Capsicum*	Vegetables	Rwanda	Belgium	1
	Capsicum	Vegetables	Uganda	United Kingdom	1
	Capsicum annuum	Vegetables	Tanzania	Netherlands	1
	Capsicum annuum	Vegetables	Uganda	Netherlands	1
	Capsicum annuum	Vegetables	Uganda	United Kingdom	1
	Rosa	Cut flowers	Kenya	Netherlands	6
	Rosa	Cut flowers	Tanzania	Netherlands	1
	Rosa	Cut flowers	Uganda	Netherlands	41

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Thripidae	*Capsicum*	Vegetables	India	United Kingdom	1
	Solanum melongena	Vegetables	Dominican Rep.	United Kingdom	1
	Solanum melongena	Vegetables	Mexico	United Kingdom	2
Thrips palmi	*Dendrobium*	Cut flowers	Thailand	Netherlands	1
	Momordica charantia	Vegetables	Cambodia	Netherlands	1
	Momordica charantia	Vegetables	Mexico	Netherlands	1
	Rosa	Cut flowers	Thailand	Switzerland	1
	Solanum macrocarpon	Vegetables	Suriname	Netherlands	1
	Solanum melongena	Vegetables	Cuba	Netherlands	1
	Solanum melongena	Vegetables	India	Switzerland	1
	Solanum melongena	Vegetables	Mexico	Netherlands	1
	Solanum melongena	Vegetables	Mexico	Switzerland	1
	Solanum melongena	Vegetables	Sri Lanka	Sweden	1
Tomato brown rugose fruit virus	*Capsicum annuum*	Seeds	China	United Kingdom	1
	Capsicum annuum	Seeds	Israel	Netherlands	3
	Capsicum annuum	Seeds	Jordan	Netherlands	1
	Solanum lycopersicum	Seeds	India*	Italy	1
	Solanum lycopersicum	Seeds	Israel	Italy	1
	Solanum lycopersicum	Seeds	Israel	United Kingdom	6
	Solanum lycopersicum	Seeds	Jordan	Hungary	1
	Solanum lycopersicum	Seeds	Jordan	Netherlands	1
	Solanum lycopersicum	Seeds	Thailand*	United Kingdom	1
	Solanum pimpinellifolium	Seeds	USA*	United Kingdom	1
Tomato mosaic virus	*Solanum lycopersicum*	Seeds	Vietnam	Greece	1
Tortricidae	*Rosa*	Cut flowers	Uganda	United Kingdom	1
	Solanum melongena	Vegetables	Kenya	United Kingdom	2
Tuta absoluta	*Solanum lycopersicum*	Vegetables	Tunisia	Italy	1
Xanthomonas citri* pv. *citri	*Citrus latifolia*	Fruit	Brazil	Italy	1
Xiphinema incognitum	*Zelkova*	Plants for planting	China	Netherlands	1

- **Fruit flies**

Pest	Consignment	Country of origin	Destination	nb
Bactrocera	*Annona squamosa*	Cambodia	France	1
	Capsicum	Vietnam	Switzerland	1
	Capsicum frutescens	Cambodia	Netherlands	1
	Capsicum frutescens	Vietnam	Switzerland	1
	Psidium guajava	Bangladesh	United Kingdom	1
	Psidium guajava	Sri Lanka	France	1
Bactrocera correcta	*Pithecellobium*	Thailand	Switzerland	1
Bactrocera latifrons	*Solanum melongena*	Cambodia*	France	1
Bactrocera latifrons, Liriomyza sativae	*Capsicum, Ocimum basilicum*	Laos	Netherlands	1

Pest	Consignment	Country of origin	Destination	nb
Tephritidae (non-European)	*Capsicum*	Gambia	United Kingdom	1
	Feijoa	Colombia	Belgium	1
	Mangifera indica	France	France	1
Zeugodacus	*Trichosanthes dioica*	India	United Kingdom	1

- **Wood**

Pest	Consignment	Type of commodity	Country of origin	Destination	nb
Ahasverus advena, Heteroptera, Sinoxylon anale, Sinoxylon unidentatum, Typhaea stercorea	Unspecified	Wood packaging material	Vietnam	Germany	1
Anoplophora	Unspecified	Wood packaging material	China	Germany	1
Anoplophora glabripennis, Trichoferus campestris	Unspecified	Wood packaging material	China	Germany	1
Bostrichidae, Dinoderus, Minthea	*Tabebuia serratifolia*	Wood packaging material	Brazil	Italy	1
Bursaphelenchus mucronatus	Unspecified	Wood packaging material (pallets)	Belarus	Latvia	1
Bursaphelenchus mucronatus, Tylenchus	Unspecified	Wood packaging material (pallets)	Belarus	Germany	1
Cerambycidae	*Juglans nigra*	Wood and bark	USA	Germany	1
	Unspecified	Wood packaging material	China	Germany	1
Harmonia axyridis, Polistes carolina	*Quercus alba*	Wood and bark	USA	Spain	1
Insecta	Unspecified	Wood packaging material	Indonesia	Switzerland	2
Lamprodila provosti, Mesosa myops	Unspecified	Wood packaging material	China	Germany	1
Megopis scabricornis, Rusticoclytus	Unspecified	Wood packaging material (pallets)	China	Austria	1
Monochamus galloprovincialis	*Pinus sylvestris*	Wood and bark	Ukraine	Cyprus	1
Rhabditis	Unspecified	Wood packaging material (pallets)	Belarus	Germany	1
Sinoxylon	Unspecified	Wood packaging material	India	Germany	1
	Unspecified	Wood packaging material (pallets)	India	Germany	1

Source: EPPO Secretariat (2020-06).

INTERNET
EUROPHYT. Annual and monthly reports of interceptions of harmful organisms in imported plants and other objects.
http://ec.europa.eu/food/plant/plant_health_biosecurity/europhyt/interceptions/index_en.htm

Additional key words: interceptions

2020/115 *Anoplophora glabripennis* found in South Carolina (US)

In South Carolina (US), *Anoplophora glabripennis* (Coleoptera: Cerambycidae – EPPO A1 List) was detected for the first time in May 2020. A dead beetle was found in a private garden in Hollywood on May 29 and 2 infested trees were found following further surveys. Surveys are continuing and eradication measures will be applied (USDA-APHIS, 2020). South Carolina is the sixth state to detect an Asian longhorned beetle infestation. The beetle has previously been found in New York, New Jersey, Illinois, Massachusetts, and Ohio. Infestations have been eradicated in New Jersey and Illinois, and eradication efforts continue in New York, Massachusetts and Ohio.

Source: USDA-APHIS (2020-06-15) Tree surveys are underway in South Carolina to detect Asian longhorned beetle. https://www.aphis.usda.gov/aphis/newsroom/stakeholder-info/sa_by_date/sa-2020/sa-06/alb-sc

Pictures: *Anoplophora glabripennis*. https://gd.eppo.int/taxon/ANOLGL/photos

Additional key words: detailed record **Computer codes:** ANOLGL, US

2020/116 Update on the situation of *Popillia japonica* in Italy

Popillia japonica (Coleoptera: Scarabaeidae, EPPO A1 List) was first found in Italy in July 2014 (EPPO RS 2014/179) in the Ticino Valley Natural Park, along the Ticino river, in the two contiguous Italian regions of Lombardia and Piemonte. Phytosanitary measures were applied to contain the pest. Annual official monitoring is carried out using pheromone/kairomones traps, soil coring and visual inspections. As a result, in May 2020, the demarcated area was composed of an infested zone (7550 km^2) and a buffer zone of 10 km around the infested zone. The following phytosanitary measures have been taken in the demarcated area:

- against adults: mass capture traps, attract and kill traps, attract and release (autodissemination traps charged with the entomopathogenic fungus *Metarhizium anisopliae*);
- meadow treatments with entomopathogenic nematodes (*Heterorabditis bacteriophora, Steinernema carpocapsae*) and fungi (*Metarhizium anisopliae, M. brunneum*) against the pest larvae;
- identification and monitoring of at risk sites for the potential passive spread of adults, in order to take control measures including insecticide treatments;
- restrictions on movement of rooted plants with soil attached and lawn turf;

In addition, actions are conducted to raise public awareness.

Damage was observed in irrigated meadows, as well as on maize (*Zea mays*) and soybean (*Glycine max*) crops, although it generally did not exceed the economic damage threshold. In private gardens, severe defoliation was recorded on fruit trees, in particular cherry trees (*Prunus avium*), and vines (*Vitis vinifera*), as well as on ornamental trees and shrubs (*Tilia, Betula, Wisteria, Rosa*). Damage on leaves, flowers and fruits were also observed in some crops of small fruits (raspberry, blackberry, cranberry), bordering lawns. The pest was also found in a viticultural area, with the presence of many adult beetles in June and July causing leaf damage from feeding on grapevine plants.

The pest status of *Popillia japonica* in Italy is officially declared as: **Present, under containment, in case eradication is impossible**.

Source: NPPO of Italy (2020-05).

Benvenuti C, Barzanti GP, Marianelli L, Peverieri GS, Paoli F, Bosio G, Venanzio D, Giacometto E, Roversi PF (2019) A new device for auto-disseminating entomopathogenic fungi against *Popillia japonica*: a study case. *Bulletin of Insectology* **72(**2), 219-225.

Marianelli L, Paoli F, Sabbatini Peverieri G, Benvenuti C, Barzanti GP, Bosio G, Venanzio D, Giacometto E, Roversi PF (2019) Long-lasting insecticide-treated nets: A new integrated pest management approach for *Popillia japonica* (Coleoptera: Scarabaeidae). *Integrated Environmental Assessment and Management* **15,** 259-265. https://doi.org/10.1002/ieam.4107

Marianelli L, Paoli F, Torrini G, Mazza G, Benvenuti C, Binazzi F, Sabbatini Peverieri G, Bosio G, Venanzio D, Giacometto E, Priori S, Koppenhöfer AM, Roversi PF (2018) Entomopathogenic nematodes as potential biological control agents of *Popillia japonica* (Coleoptera, Scarabaeidae) in Piedmont Region (Italy). *Journal of Applied Entomology* **142,** 311-318.

Pictures: *Popillia japonica*. https://gd.eppo.int/taxon/POPIJA/photos

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

2020/117 Update of the situation of *Tecia solanivora* in Spain

In Spain, *Tecia solanivora* (Lepidoptera: Gelechiidae – EPPO A2 List) was first found in Islas Canarias (EPPO RS 2001/129) in 1999. In 2015, it was observed in mainland Spain in Galicia (EPPO RS 2015/202, 2016/031) and later in Asturias (EPPO RS 2017/080, 2018/054). An eradication programme has been implemented and includes the prohibition of growing potatoes in the demarcated areas. The NPPO of Spain recently informed the Secretariat that *T. solanivora* is considered eradicated in part of Asturias and Galicia, where it has not been detected for at least 2 consecutive years. The buffer zone has been amended accordingly.

- In Asturias, *T. solanivora* is considered eradicated in the following municipalities: Tapia de Casariego, El Franco, Coaña, Muros de Nalón and Gijón. Eradication measures continue in the municipalities of Castropol, Cudillero, Navia, Pravia, San Tirso de Abres, Taramundi, Valdés, Vegadeo.
- In Galicia, *T. solanivora* is considered eradicated in the following municipalities: Ares, Cabanas, A Capela, Fene, Ferrol, Mugardos, As Pontes de García Rodríguez, Abadí and Ourol. However, *T. solanivora* was detected in November 2019 in two warehouses in the municipality of A Laracha and in one trap in the municipality of Carballo.

The eradication programme continues in the remaining infested areas.
The pest status of *Tecia solanivora* in Spain is officially declared as: **Present, under eradication, only in some parts of the Member State concerned.**

Source: NPPO of Spain (2020-02, 2020-06).

Resolución de 31 de enero de 2020, de la Consejería de Desarrollo Rural, Agroganadería y Pesca, por la que se actualiza la delimitación de las zonas demarcadas establecidas en la Resolución de 13 de noviembre de 2017 dentro del programa de erradicación de *Tecia* (*scrobipalpopsis*) solanivora *(Povolny*) o polilla guatemalteca de la patata en el Principado de Asturias (BOPA nº 23, de 05-feb-2020) https://sede.asturias.es/bopa/2020/02/05/2020-01023.pdf

Pictures: *Tecia solanivora*. https://gd.eppo.int/taxon/TECASO/photos

Additional key words: detailed record, eradication **Computer codes:** TECASO, ES

2020/118 *Dryocosmus kuriphilus* found again in the Czech Republic

In the Czech Republic, *Dryocosmus kuriphilus* (Hymenoptera: Cynipidae – EPPO A2 List) had first been found for the first time in 2012 on 2 chestnut trees (*Castanea sativa*) in a private garden and then in 3 potted plants in a garden centre (EPPO RS 2012/141). Infested plants were destroyed, and the results of a subsequent intensive survey were all negative. However, in May 2020, the presence of *D. kuriphilus* was officially confirmed in samples taken from a *C. sativa* tree in a private garden in Prague. Another confirmed finding was made on a *Castanea* plant which had been bought in a shop in Jihlava (Vysočina region). As the pest is no longer regulated in the EU (except for certain protected zones), no official measures have been taken.
The pest status of *Dryocosmus kuriphilus* in the Czech Republic is officially declared as: **Present, restricted distribution.**

Source: NPPO of the Czech Republic (2020-06).

Pictures: *Dryocosmus kuriphilus*. https://gd.eppo.int/taxon/DRYCKU/photos

Additional key words: detailed record **Computer codes:** DRYCKU, CZ

2020/119 Eradication of *Paysandisia archon* from Switzerland

In Switzerland, *Paysandisia archon* (Lepidoptera: Castniidae – EPPO A2 List) had been detected on imported palm trees (*Trachycarpus fortunei*) in a garden centre in July 2010 (EPPO RS 2010/145). Eradication measures were immediately applied, and the pest was no longer detected during a specific survey conducted during the same year. Random official checks were also performed in the succeeding years without any detection of the pest.
The pest status of *Paysandisia archon* in Switzerland is officially declared as: **Absent, pest eradicated.**

Source: NPPO of Switzerland (2020-06).

Pictures: *Paysandisia archon*. https://gd.eppo.int/taxon/PAYSAR/photos

Additional key words: absence, eradication **Computer codes:** PAYSAR, CH

2020/120 Eradication of *Comstockaspis perniciosa* from Poland

In Poland, *Comstockaspis perniciosa* (Hemiptera: Diaspididae – EPPO A2 List) had been found in an orchard of *Malus domestica* in October 2015. All infested plants were removed and destroyed, and insecticides applied in the orchard. In 2016-2019, visual inspections of plants at the infested place of production confirmed the absence of the pest.
The pest status of *Comstockaspis perniciosa* in Poland is officially declared as: **Absent, pest eradicated.**

Source: NPPO of Poland 2020-02.

Pictures: *Comstockaspis perniciosa*. https://gd.eppo.int/taxon/QUADPE/photos

Additional key words: absence, eradication **Computer codes:** QUADPE, PL

2020/121 First report of *Globodera rostochiensis* in Uganda

Globodera rostochiensis (EPPO A2 List) has been found for the first time in Uganda. From November 2018 to April 2019, soil samples were collected from 124 potato (*Solanum tuberosum*) fields in areas neighbouring Kenya and Rwanda, both countries in which the nematode has been detected previously (EPPO RS 2015/129 and RS 2019/177 respectively). Cysts were found in 17 fields in the districts of Kapchorwa, Kween, Mbale (in the East) and in Kabale, Kisora and Rubanda (in South West). The identity of the nematode was confirmed using morphological and molecular tests.
The situation of *Globodera rostochiensis* in Uganda can be described as: **Present, first found in 2019**.

Source: Cortada L, Omagwa J, Kisitu J, Adhiambo M, Haukeland S, Mburu H, Orr J, Jones J, Wasukira A, Kisingiri JB, Tugume J, Birenge J, Okonya J, Coyne DL (2020) First report of potato cyst nematodes, *Globodera rostochiensis* (Wollenweber, 1923), infecting potato (*Solanum tuberosum* L.) in Uganda. *Plant Disease*. https://doi.org/10.1094/PDIS-10-19-2110-PDN

Pictures: *Globodera rostochiensis*. https://gd.eppo.int/taxon/HETDRO/photos

Additional key words: new record **Computer codes:** HETDRO, UG

2020/122 First report of tomato brown rugose fruit virus in Poland

The NPPO of Poland recently informed the EPPO Secretariat of the first detection of tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO Alert List) on its territory. A sample of tomato (*Solanum lycopersicum)* grown in a greenhouse (1 ha) in the municipality of Barczewo (province of Warmińsko-Mazurskie) was sent by the grower to a Dutch private laboratory at the end of March 2020. The identity of the pathogen was confirmed at the end of April.
The pest status of *Tomato brown rugose fruit virus* in Poland is officially declared as: **Present**.

Source: NPPO of Poland (2020-06).

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

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

2020/123 Update of the situation of tomato brown rugose fruit virus in the United Kingdom

In the United Kingdom, tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO Alert List) was first detected in July 2019 in a tomato greenhouse in Kent (South East England) (EPPO RS 2019/163) and later in Worcestershire (West Midlands, England) (EPPO RS 2020/078). The NPPO of the United Kingdom recently informed the EPPO Secretariat of the eradication of the outbreak in Kent. Eradication measures included the removal of all plants from the affected glasshouse and its disinfection, followed by a 14-week period of the glasshouse being kept clear of plants.

Three new outbreaks have been reported recently as part of the official surveillance programme:

- in West Midlands (England), the presence of ToBRFV was confirmed in two greenhouses producing tomato (*Solanum lycopersicum*) fruit on 2020-03-31 and 2020-05-15 respectively.
- -in the East of England, the presence of ToBRFV was confirmed in one greenhouse producing tomato fruit on 2020-03-31.

For these three cases, containment measures are being applied to prevent further spread of the virus during fruit production. Once fruit had been harvested, eradication measures will be applied (destruction of plants, disinfection of the glasshouse).

The pest status of *Tomato brown rugose fruit virus* in the United Kingdom is officially declared as: **Transient, actionable, under eradication**.

Source: NPPO of the United Kingdom (2020-06).

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

Additional key words: detailed record, eradication **Computer codes:** TOBRFV, GB

2020/124 Update of the situation of tomato brown rugose fruit virus in the USA

In the USA, tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO Alert List) was first detected in September 2018 in a tomato greenhouse in California (EPPO RS 2019/027) and declared eradicated. USDA-APHIS recently announced that they will conduct a survey in glasshouses producing tomatoes after the confirmation of several isolated detections of ToBRFV in commercial greenhouses during the winter 2019-2020. The location of these findings was not given. It may be noted that seed of *Solanum pimpinellifolium* from the USA have been recently intercepted in the United-Kingdom as they tested positive for ToBRFV (EPPO RS 2020/114). *S. pimpinellifolium* has not been recorded as a host plant so far.

Import requirements of tomato and pepper fruit to the USA were extended to fruit from the Dominican Republic after detection of ToBRFV in imported fruit. The EPPO Secretariat had no previous indication of the presence of ToBRFV in Dominican Republic.

The situation of *Tomato brown rugose fruit virus* in the USA can be described as: **Present, few occurrences**.

Source: USDA-APHIS (2020-06-12) APHIS takes additional actions to safeguard US agriculture against *Tomato brown rugose fruit virus*. https://www.aphis.usda.gov/aphis/newsroom/stakeholder-info/sa_by_date/sa-2020/sa-06/tobrfv-safeguards

USDA-APHIS (2020-06-03) APHIS amends Federal Order for US imports of tomato (*Solanum lycopersicum*) and pepper (*Capsicum* spp.) hosts of *Tomato brown rugose fruit virus* (ToBRFV). https://www.aphis.usda.gov/import_export/plants/plant_imports/federal_order/downloads/2020/DA-2020-12.pdf

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

Additional key words: new record **Computer codes:** TOBRFV, LYPPI, US

2020/125 Tomato brown rugose fruit virus does not occur in Egypt

In the EPPO RS 2020/102, it was reported that tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV – EPPO Alert List) had been detected for the first time in tomato samples from Egypt during a research study. After further investigations, the NPPO of Egypt considered that the results of this research study were not reliable and therefore could not be used to indicate the presence of the virus in Egypt.

The situation of Tomato brown rugose fruit virus in Egypt can be described as: **Absent**.

Source: NPPO of Egypt (2020-05).

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

Additional key words: absence, denied record **Computer codes:** TOBRFV, EG

2020/126 Eradication of tomato chlorosis virus from the United Kingdom

In the United-Kingdom, tomato chlorosis virus *(Crinivirus*, ToCV - EPPO A2 List) was first detected in 2018 in a tomato (*Solanum lycopersicum*) production glasshouse in Kent (EPPO RS 2018/129). Eradication measures were applied in the infected glasshouse and in another glasshouse which was suspected to be infected. They included prevention of movement of staff and equipment to other glasshouses with ToCV hosts, biological control against whitefly vectors, destruction of all plant material at the end of the growing season, removal of host weeds around the glasshouses. Further testing on the subsequent host plants after replanting were negative for tomato chlorosis virus and it is therefore declared eradicated.
The pest status of *Tomato chlorosis virus* in the United-Kingdom is officially declared as: **Absent, pest eradicated.**

Source: NPPO of the United Kingdom (2020-06).

Pictures: *Tomato chlorosis virus*. https://gd.eppo.int/taxon/TOCV00/photos

Additional key words: absence, eradication **Computer codes:** TOCV00, GB

2020/127 Tomato spotted wilt virus found in Romania

In Romania, two outbreaks of tomato spotted wilt virus (*Tospovirus*, TSWV – EPPO A2 List) were found in May 2020. The virus was detected in *Capsicum annuum* plants grown outdoors in the municipality of Tinca and of Oras Targu Frumos. Eradication measures are applied.
The pest status of *Tomato spotted wilt virus* in Romania is officially declared as: **Present, only in some parts of the Member State concerned.**

Source: NPPO of Romania (2020-06).

Pictures: *Tomato spotted wilt virus*. https://gd.eppo.int/taxon/TSWV/photos

Additional key words: detailed record **Computer codes:** TSWV, RO

2020/128 First report of High Plains wheat mosaic virus in Ukraine

In 2018, more than 40 wheat (*Triticum aestivum*) samples showing symptoms of leaf streak were collected in the Ukraine and tested for the presence of wheat streak mosaic virus (*Tritimovirus*, WSMV). Despite the presence of symptoms and of the mite vector (*Aceria tosichella*), WSMV was not found, but transmission electron microscopy revealed the presence of an emaravirus. Further studies confirmed the occurrence High Plains wheat mosaic virus (*Emaravirus*, HPWMoV - formerly EPPO Alert List) in commercial wheat fields in 4 regions of the Ukraine (Dnipropetrovsk, Donetsk, Zaporizhia and Kharkiv), where 56% of symptomatic samples (24 samples out of 43 tested samples) were HPWMoV-positive and approximately 50% were infected by both HPWMoV and WSMV. Subsequently, HPWMoV was also detected in the Vinnytsia region, in 12 samples of maize (*Zea mays*) plants showing leaf streaking and mosaic. This is the first time that HPWMoV is reported from Ukraine and from the EPPO region.

EPPO note: HPWMoV was first initially found in the USA on wheat and maize in the 1990s (EPPO RS 1999/134), and then also reported from Argentina and Australia. It is transmitted by *Aceria tosichella*. Seed transmission has been observed at a low rate in sweet maize (EPPO RS 2002/163).

Source: Snihur H, Pozhylov I, Budzanivska I, Shevchenko O (2020) First report of High Plains wheat mosaic virus on different hosts in Ukraine. *Journal of Plant Pathology* **102**, 545–546. https://doi.org/10.1007/s42161-019-00435-y

Additional key words: new record **Computer codes:** WHPV00, UA

2020/129 Update on the situation of *Pantoea stewartii* subsp. *stewartii* in Slovenia

In Slovenia, the bacterial wilt of maize caused by *Pantoea stewartii* subsp. *stewartii* (EPPO A2 List) was first found in 2018 in 2 maize (*Zea mays*) fields near Nova Gorica (RS 2018/224). The infected crops were removed, and no further findings occurred in the same fields and their surroundings. However, in 2019, the bacterium was found again in one maize field for forage production in the same region (Zahodna Slovenija – Western Slovenia). Only a few plants were symptomatic. Official phytosanitary measures were applied.
The pest status of *Pantoea stewartii* subsp. *stewartii* in Slovenia is officially declared as: **Transient, actionable, under eradication**.

Source: NPPO of Slovenia (2020-05).

Pictures: *Pantoea stewartii* subsp. *stewartii*. https://gd.eppo.int/taxon/ERWIST/photos

Additional key words: detailed record **Computer codes:** ERWIST, SI

2020/130 Update on the situation of *Pantoea stewartii* subsp. *stewartii* in Italy

In Italy, the bacterial wilt of maize caused by *Pantoea stewartii* subsp. *stewartii* (EPPO A2 List) was first found in 2017 in maize (*Zea mays*) fields grown for forage in Friuli-Venezia Giulia region (EPPO RS 2018/038), and again in 2018 in the regions of Emilia-Romagna (1 field in Parma province, 2 in Bologna province) and of Lombardia (2 fields in Cremona province). Eradication measures were applied.
The NPPO of Italy recently informed the EPPO Secretariat that the first outbreak in Friuli-Venezia Giulia as well as those in Emilia-Romagna and Lombardia are now considered eradicated. Surveys conducted in the following years did not detect any symptomatic plants. As part of official monitoring, the bacterium was detected again in 2019 in Friuli-Venezia Giulia, in five maize fields grown for forage, located in five different municipalities (Bagnaria Arsa, Coseano, Pagnacco, Romans d'Isonzo, San Pier d'Insonzo). As was the case in 2017, very few plants were symptomatic, and the infection did not result in economic damage. The outbreaks of 2019 are now also considered eradicated. The absence of *Chaetocnema pulicaria*, which is the insect vector in USA, was also confirmed in Italy.
The pest status of *Pantoea stewartii subsp. stewartii* in Italy is officially declared as: **Absent, pest eradicated**.

Source: NPPO of Italy (2020-04).

Pictures: *Pantoea stewartii* subsp. *stewartii*. https://gd.eppo.int/taxon/ERWIST/photos

Additional key words: detailed record, eradication **Computer codes:** CHAEPU, ERWIST, IT,

2020/131 First report of *Peronospora aquilegiicola*, the downy mildew of columbines in Germany

The NPPO of Germany recently informed the EPPO Secretariat of the first occurrence of *Peronospora aquilegiicola* on its territory. In Spring 2020, a private garden owner submitted a plant sample of diseased *Aquilegia* sp. to the plant protection service of Lower Saxony. The owner had observed heavy symptoms of downy mildew on *Aquilegia* sp. in 2019 which recurred in 2020. The pathogen species was identified via morphological and molecular methods. About 400 plants on an area of 200 m^2 were affected. The plants showed varying degrees of symptoms ranging from chlorotic necrosis and slight twisted growth to the death of whole plants. A preliminary PRA was performed, which concluded that *P. aquilegiicola* may fulfil the criteria of a quarantine pest. Officially measures were taken to eradicate the pest. As the plants were not planted in the garden by the owner but appeared spontaneously, the source of the outbreak is unknown.
The pest status of *Peronospora aquilegiicola* in Germany is officially declared as: **Present, under eradication**.

EPPO note: *Aquilegia* spp. includes both native and ornamental plants in the EPPO region. *Peronospora aquilegiicola* was first reported in the United Kingdom in 2013. As it was considered established and widespread in England and Wales, no statutory action was taken. The report in Germany is the first for continental Europe. *P. aquilegiicola* can be spread via the movement of infected seed or host plants for planting. A recent article showed that *P. aquilegiicola* is an indigenous species in northeast Asia and it was first found on *Semiaquilegia adoxoides* in China. *Semiaquilegia* is an Asian plant genus closely related to *Aquilegia*. The genetic similarity of *P. aquilegiicola* collections from South Korea and the United Kingdom suggests that this pathogen has been quite recently introduced to the United Kingdom, presumably by trade with infected plants or seeds from East Asia. Finally, several risk assessments have been recently conducted in the EPPO region and are available in the EPPO PRA Platform: https://pra.eppo.int/organism/PEROAQ

Source: NPPO of Germany (2020-06).

Denton GJ, Beal EJ, Kilty A, Denton JO, Choi YJ, Thines M (2015) Characterisation and risk assessment of the emerging *Peronospora* disease on *Aquilegia*. *Mycological Progress* **14**, 69. https://doi.org/10.1007/s11557-015-1092-5
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Additional key words: new record **Computer codes:** PEROAQ, DE

2020/132 *Lycium ferocissimum* in the EPPO region: addition to the EPPO Alert List

Why
Lycium ferocissimum has recently been identified as naturalised in France (2019) in the coastal area of Aude. The species is native to South Africa and is reported as invasive in Australia and New Zealand. The species poses a risk to natural plant communities and associated ecosystem services. The species seems to be adapted to the Mediterranean climate and therefore, there is the potential for further spread and establishment.

Geographical distribution
EPPO region: Cyprus, France, Morocco, Spain, Tunisia.
Asia: Indonesia.
Africa: Namibia
North America: Mexico, United States (California).
South America: Bolivia.
Oceania: Australia, New Zealand.

Morphology
Thorny shrub 2 – 3 m in height though it can reach 5 m.

Stems: highly branched with twigs which have strong terminal and lateral spines 3-8 cm.

Leaves: alternate, bunched in clusters by (2)3-6(10), sometimes isolated on young stems, subsessile or with a very short (1 mm) petiole. The blade is fleshy, bright green and often glossy, (6)12-30(35) mm long by (3)4-8(10) mm wide; it is entire, obovate to elliptic, with obtuse or suboblate tips.

Inflorescences: inflorescence is reduced to a single, solitary, axillary flower. The flowers are borne by a (5)6-12(15) mm pedicel, densely glandular with very short hairs visible under magnification. The calyx forms a 5-7(8) mm bilabiate bell with a 3.5-5 (6.5) mm tube, longer than the 1-1.5 mm triangular lobes, which are obtuse or slight obtuse. The corolla is 8.5-11.5(13) mm, white or pink with purple throat, fused into a (5)7-8 mm tube at the base, hairless on the outside, hairy at the stamen insertion. The tube is longer than the oval lobes, obtuse, 3-4.7(6) × 2.5-4.5(5) mm, 3 are slightly wider than the other 2, hairless or with a few scattered lashes.

Fruits: more or less spherical berries and measure 5.5-13 × 4.5-12 mm, they are orange-red, turning reddish-pink when dry. Seeds are 2.2-3 × 1.7-2.5 mm, kidney-shaped to almost spherical, brown.

Biology and Ecology
L. ferocissimum reproduces by sexual reproduction, with seeds being dispersed by birds when feeding on the fruits. In addition, the seeds can also be spread by other small mammals. Seed can be spread by water movement and by human activities.

Habitats
Coastal dune systems, inland sandy soil habitats, ruderal habitats (roadsides, railway lines, embankments, water courses).

Pathways for movement
The species has been utilised in Australia as a hedge plant. In the EPPO region, the species may be moved as a plant for planting and potentially as a contaminant of used machinery and equipment. Natural spread via movement of birds is also a potential pathway for entry.

Impacts
L. ferocissimum can invade natural habitats and have a negative impact on native plant species and higher trophic levels. The species can form dense stands outcompeting native plants. The thick sharp spines can be injurious to humans and act to restrict access to land for recreation and other uses.

Control
Physical control methods can be adopted against *L. ferocissimum* including removal. However, protective clothing should be used to avoid harm from the thorns. Chemical control options include foliar spraying, basal bark treatment and cut stump treatment. Repeated applications may be needed to kill the rootstock.

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

2020/133 First report of *Amaranthus tuberculatus* in Croatia

Amaranthus tuberculatus (Amaranthaceae) 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 make management of the species difficult. In North America, it is a competitive annual weed in maize, soybean and cotton. At present, transient and established occurrences of the species are known from a number of EPPO countries, mainly on ruderal sites and along riverbanks, and to a lesser extent in crop fields (e.g. EPPO RS 2020/107). Pathways for entry into the EPPO region include contaminant of grain and seeds for planting. In 2019, a botanical survey was conducted in the Pannonian part of Croatia. *A. tuberculatus* was recorded in a total of 19 locations. Twelve were situated on the banks of the Sava River, distributed along a 76 km long river section, while the remaining locations were close to the river. *A. tuberculatus* was also recorded on the edges of alluvial forests along the Sava River. Flowering male and female individuals were recorded at all locations. At present, *A. tuberculatus* has not been detected in agricultural habitats in Croatia. The species should be monitored and controlled to avoid further spread.

Source: Rimac A, Doboš M, Šegota V (2020) *Amaranthus tuberculatus* (Moq.) J.D. Sauer – a new alien pigweed in Croatia. *BioInvasions Records* **9**, In Press.

Additional key words: new record, invasive alien plants **Computer codes:** AMATU, HR

2020/134 First report of *Microstegium vimineum* in Canada

The Canadian Food Inspection Agency (CFIA) has confirmed the presence of *Microstegium vimineum* (Poaceae: EPPO A2 List) in Short Hills Provincial Park (Niagara region of Ontario, Canada). The species was detected in September 2019. *M. vimineum*, commonly known as Japanese stiltgrass is regulated as a pest under the CFIA's Plant Protection Act. The site where this first record for Canada was detected is under official control and delimitating surveys are being conducted to determine the extent of the species in the region. The species is classified as transient, actionable, and under eradication. *M. vimineum* is an annual C4 grass native to China, India, Japan and Nepal. Within the EPPO region the species is present in in Turkey and the Southern Caucasus. It invades habitats that have been disturbed by natural (e.g. flood) and anthropogenic (e.g. mowing, tilling) events. It is also capable of invading natural areas and swiftly replacing natural communities with nearly monospecific stands. In North America, *M. vimineum* can have negative impacts on native plant communities by reducing species richness, plant diversity, and overall groundcover. Potential pathways for the introduction of the species into the EPPO region include seeds contaminating clothes and shoes, used machinery, bird seed and growing media adherent to plants for planting.

Source: NAPPO Phytosanitary Alert System. Official Pest Reports (2020-05-26) Canada international preliminary pest report: Japanese stiltgrass Detection in Canada https://www.pestalerts.org/official-pest-report/international-preliminary-pest-report-japanese-stiltgrass-detection-canada

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

2020/135 Disposal methods for invasive alien plants

In order to prevent the escape of ornamental plants from gardens, education and awareness raising about the problems of invasive species in the natural environment is essential. Safe and effective disposal methods for garden waste is an important aspect to educate the public on. Many invasive alien plants can be spread via dumping of garden waste into the natural environment. In the first experiment, 8 ornamental invasive alien plants were selected that either disperse by growing from cut stem pieces (*Cornus sericea** (Cornaceae), *Buddleja davidii** (Scrophulariaceae), *Parthenocissus quinquefolia* (Vitaceae)) or through subterranean parts, such as rhizomes and tubers (*Solidago canadensis**, *Solidago gigantea** (both Asteraceae:), *Rudbeckia laciniata* (Asteraceae), *Helianthus tuberosus** (Asteraceae), *Symphyotrichum novae-angliae*). Three storage treatments available to gardeners were used: drying, composting and storage in black bin bags. After five months of storage, the plant material was planted and observed for growth. Drying and composting were highly efficient for disposal, as the conditions destroyed the majority of the plant material. However, storage in a black bin bag was inefficient because it did not kill any of the plant species tested. In the second experiment, 5 invasive woody species (*C. sericea*, *B. davidii*, *Acer negundo* (Sapindaceae), *P. quinquefolia*, *Forsythia* x *intermedia* (Olaceae)) were used

to evaluate if shredding is a good disposal method. The shredded material (ranging from < 1 cm up to 3 cm) was stored either fresh or dried. In the case of the latter, there was no regeneration of fragments for any of the species. For fragments stored as fresh material, all species developed green shoots, though these were in small numbers for *A. negundo*, *B. davidii* and *C. sericea*. For *Forsythia* x *intermedia* and *P. quinquefolia*, some fragments > 1 cm showed rooting. Therefore, the study could propose some solutions to gardeners to dispose of some plant material in a safe way.

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* EPPO List of Invasive Alien Plants

Source: Krajšek SS, Bahčič E, Čoko U, Koce JD (2020) Disposal methods for selected invasive plant species used as ornamental garden plants. *Management of Biological Invasions* **11**, 293-305.

Additional key words: invasive alien plants **Computer codes**: ACRNE, ASTNA, BUDDA, CRWSR, FOSIN, HELTU, PRTQU, RUDLA, SOOGI, SOOCA

2020/136 EPPO Alert List species prioritised

During the 2020 meeting of the Panel on Invasive Alien Plants, five species currently included in the EPPO Alert List (Table 1.) were assessed using PM 5/6 EPPO Prioritization Process for invasive alien plants to decide whether a Pest Risk Analysis should be conducted in the short term.

Alternanthera sessilis (Amaranthaceae): was assessed as having a high spread rate. The potential impact of the species was considered medium for the EPPO region based on the current literature. For the majority of the EPPO region, the climatic conditions are not suitable for the establishment of the species. However, the species can establish in the Mediterranean region. The species is now included on the Observation List.

Bidens subalternans (Asteraceae): was assessed as having a high rate of spread, seeds can be spread by wind. The potential impact of the species in the EPPO region was considered as high. Observations in France have highlighted that the species can be problematic in agricultural systems. The species is abundant in crop fields but currently, within the EPPO region, there is no quantitative data on yield losses. A PRA may be conducted on the species in the future if further studies are published on impacts. *B. subalternans* will be transferred to the EPPO List of Invasive Alien Plants.

Prosopis chilensis, P. glandulosa, P. velutina (Fabaceae): all three species were assessed as having a high rate of spread and high levels of impact on ecosystems and biodiversity (e.g. strong competitors for water that outcompete native species). However, the Panel highlighted that there was a lot of uncertainty of the exact species composition of invasive populations in the EPPO region, and on the potential of establishment based on eco-climatic variables. All three species will be transferred to the EPPO List of Invasive Alien Plants.

Species	Form	Occurrence in EPPO region	New listing
Alternanthera sessilis	Perennial herb	Algeria, Belgium, Israel, Italy, Jordan, Russia, Spain, Turkey	Observation List
Bidens subalternans	Annual herb	Belgium, Croatia, France, Italy, Russia, Serbia, Spain, Switzerland	List Invasive Alien Plants
Prosopis chilensis	Tree/shrub	Israel, Jordan and Spain	List Invasive Alien Plants
Prosopis glandulosa	Tree/shrub	Israel, Jordan	List Invasive Alien Plants
Prosopis velutina	Tree/shrub	Israel, Jordan, Morocco and Spain	List Invasive Alien Plants

Source: EPPO Secretariat (2020-06).

Additional key words: new record, invasive alien plants **Computer codes:** ALRSE, BIDSU, PRCCH, PRCJG, PRCJV