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21 Bld Richard Lenoir
75011 Paris

Tel: 33 1 45 20 77 94
E-mail: hq@eppo.int

Web: www.eppo.int
GD: gd.eppo.int

2018/171 EPPO has elected its new Director-General

At the last Council session, on the 25th of September 2018, EPPO member countries elected the new Director-General of EPPO.

Mr Nico Horn is a Senior Officer Plant Health of the National Plant Protection Organization (NPPO), Netherlands Food and Consumer Product Safety Authority (NVWA), Utrecht/Wageningen, the Netherlands. He has worked for more than 25 years in plant health and contributed actively to international work, both at the IPPC and EPPO level. Mr Horn will take up his duties on the 1st of January 2019.

Council delegates thanked Mr Martin Ward (current EPPO Director-General) for his dedication to the Organization and wished him a happy retirement.

Source: EPPO Secretariat (2018-09).
https://www.eppo.int/ABOUT_EPPO/special_events/election_director_general

Additional key words: EPPO

2018/172 New additions to the EPPO A1 and A2 Lists

In September 2018, the EPPO Council approved the addition of the following pests to the EPPO A1 and A2 Lists of pests recommended for regulation as quarantine pests.

Pests absent from the EPPO region (A1)

- *Rose rosette emaravirus* and its vector *Phyllocoptes fructiphilus* (Acari: Eriophyidae),
- *Massicus raddei* (Coleoptera: Cerambycidae),
- *Pomacea canaliculata* (Gastropoda: Ampullariidae),
- *Cortaderia jubata* (Poaceae),
- *Lespedeza cuneata* (Fabaceae),
- *Lygodium japonicum* (Schizaeaceae),
- *Triadica sebifera* (Euphorbiaceae).

Pests present in the EPPO region (A2)

- *Pomacea maculata* (Gastropoda: Ampullariidae),
- *Xanthomonas phaseoli* pv. *dieffenbachiae* (Bacteria)*
- *Ambrosia confertiflora* (Asteraceae),
- *Andropogon virginicus* (Poaceae),
- *Ehrharta calycina* (Poaceae),
- *Hakea sericea* (Proteaceae),
- *Humulus scandens* (Cannabaceae),
- *Prosopis juliflora* (Fabaceae).

For each individual pest, PRA documents and datasheets have been prepared (or are under development) and will be available in due course in the EPPO Global Database (https://gd.eppo.int) and in the EPPO Bulletin (datasheets only). In addition, posters to raise public awareness have been specifically prepared for most of these pests and can be downloaded from the EPPO website: https://www.eppo.int/RESOURCES/eppo_publications/pest_specific_posters

* Following changes in taxonomy, *Xanthomonas phaseoli* pv. *dieffenbachiae* is added to the EPPO A2 List, and *Xanthomonas axonopodis* pv. *dieffenbachiae* is deleted from the A2 List.

Source: EPPO Secretariat (2018-09).

Additional key words: EPPO Lists

Computer codes: ANOVI, CDTJU, EHRCA, FRSCO, HKASE, HUMJA, LESCU, LYFJA, MALLRA, PHYCFR, POMACA, POMAIN, PRCJU, RRV000, SAQSE, XANTDF

2018/173 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 Ireland, the first outbreaks of *Fusarium oxysporum* f.sp. *lactucae* (formerly EPPO Alert List) were reported in September 2018. The disease was found on glasshouse lettuce (*Lactuca sativa*) crops in 2 sites in the county of Dublin and 2 additional sites are suspected to be infected (ProMed, 2018-09). **Present, only in some areas.**

In July 2017, severe symptoms of leaf curling resembling those of tomato leaf curl disease and whiteflies (more than 50 individuals per plant) were observed on tomato (*Solanum lycopersicum*) plants in open fields and in greenhouses on the island of Praslin, Seychelles. Laboratory studies confirmed the presence of *Tomato leaf curl New Delhi virus* (Begomovirus, ToLCNDV - EPPO Alert List) and *Bemisia tabaci* (EPPO A2 List). This is the first time that ToLCNDV and its vector are reported from the Seychelles (Scussel *et al.*, 2018). **Present, only in some areas.**

Leptoglossus occidentalis (Heteroptera: Coreidae – Western conifer seed bug) is reported for the first time from Albania. A picture of the first observed specimen was taken at the end of August 2018 near Vlorë, Southern Albania. This specimen was found dead in an area of reeds surrounded by pine trees. It is not known whether the pest is established or not. Interestingly, *L. occidentalis* had been reported a few days before on the nearby Greek island of Corfu, at a distance of less than 100 km (van der Heyden, 2018).

In the USA, *Lycorma delicatula* (Hemiptera: Fulgoridae - EPPO A1 List) has been found in 2 new US states, close to Pennsylvania where the pest was first found in 2014. *L. delicatula* was reported in July 2018 from New Jersey in Warren and Mercer counties. Eradication measures are implemented (New Jersey Register, 2018). *L. delicatula* was also reported twice from New York state in September 2018: a single adult insect was collected on a private Keuka Lake property in Yates county. In addition, a single adult insect was discovered in a vehicle in the Capital District in Albany (Growing Produce, 2018). It can be recalled that in 2017, a single dead specimen was found in New York state (EPPO RS 2018/053). **Present, only in some areas, under eradication.**

- **Detailed records**

In the United Kingdom, new outbreaks of *Fusarium oxysporum* f.sp. *lactucae* (formerly EPPO Alert List) were reported on glasshouse lettuce (*Lactuca sativa*) crops in Lancashire, and in Cambridge (ProMed, 2018-09).

Maconellicoccus hirsutus (Hemiptera: Pseudococcidae – EPPO A2 List) occurs in the state of Maranhão, Brazil. Specimens were collected in Paço do Lumiar and São José de Ribamar on leaves, branches, stems and fruits of *Annona squamosa*, *Spondias tuberosa*, *Theobroma grandiflorum* and *Malpighia punicifolia*. It is noted that *S. tuberosa* and *M. punicifolia* are new host plant records for *M. hirsutus* (Ramos *et al.*, 2018).

In Australia, bacterial leaf spot was first reported in 1944 and still negatively impacts crop production of tomato (*Solanum lycopersicum*), capsicum and chilli (*Capsicum* spp.). During the 2015 growing season, surveys were conducted in tomato and capsicum crops in eastern Australia (New South Wales and Queensland). As a result, *X. euvesicatoria, X. perforans* and *X. vesicatoria* (all EPPO A2 List) were the most commonly found bacterial species associated with symptomatic plant samples. In these studies, *X. euvesicatoria* and *X. vesicatoria* were found in both New South Wales and Queensland; *X. perforans* was found only in Queensland (Roach *et al.*, 2018).

- **Epidemiology**

It has long been accepted that begomoviruses could not be transmitted by infected seeds. However, recent studies conducted in the Republic of Korea have shown that infected seeds of tomato (*Solanum tuberosum*), soybean (*Glycine max*) and of sweet pepper (*Capsicum annuum*) could transmit *Tomato yellow leaf curl virus* (EPPO A2 List) (Kil *et al.*, 2016; Kil *et al.*, 2017; Kil *et al.* 2018).

- **New pests and taxonomy**

A new thrips species, *Neohydatothrips narroi* (Thysanopera: Thripidae), has been described from Mexico. The insect was collected from leaves of avocado (*Persea americana*) trees (Cambero Campos *et al.*, 2018).

A new nematode species, *Laimaphelenchus suberensis* sp. nov. has been described. This nematode was isolated from the bark of declining *Quercus suber* trees in Portugal. It is thought that this nematode is associated with lichens, algae or mosses that are growing on the bark of declining trees (Maleita, 2018).

A new bacterial species, *Pectobacterium zantedeschiae* sp. nov., has recently been described. The bacterium was isolated from rhizomes and leaves of *Zantedeschia aethiopica* (calla lily) in Poland and Serbia. Affected plants had necrotic lesions on the leaves and soft rot on rhizomes (Waleron *et al.*, 2018).

- **Phytosanitary treatment**

Chipping infested trees during mid-winter into chips of ≤1-inch (2.54 cm) in two dimensions is considered a suitable phytosanitary treatment to destroy egg masses of *Lycorma delicatula* (Hemiptera: Fulgoridae - EPPO A1 List) according to experiments conducted in Pennsylvania (US) on infested *Ailanthus altissima* (Cooperband *et al.*, 2018).

Sources: Cambero Campos J, Retana Salazar AP, Campos Figueroa M, Robles Bermúdez A (2018) A new species of *Neohydatothrips* associated with avocado in Mexico.

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Additional key words: detailed record, epidemiology, new pest, new record, phytosanitary treatment, taxonomy

Computer codes: BEMITA, FUSALC, LAIMSU, LEPLOC, LYCMDE, NHDTNA, PECBZA, PHENHI, TOLCND, TYLCV0, XANTEU, XANTPF, XANTVE, AL, AU, BR, GB, IE, MX, PT, SC, US

2018/174 First report of *Globodera pallida* in Kenya

In Kenya, *Globodera pallida* (EPPO A2 List) was detected for the first time during a nationwide survey conducted in 2016. The nematode, identified on the basis of its morphological characteristics, was found in Nyandarua county at an altitude of 2 349 m above sea level. In February 2017, further studies were conducted, and additional soil samples were collected from the field (crop not specified) in Nyandarua county. Molecular and inoculation tests to potted potato plants (*Solanum tuberosum* cv. Shangi) confirmed the identity of *G. pallida*. This is the first time that *G. pallida* is reported from Kenya. It is recalled that *G. rostochiensis* also occurs in Kenya where it was first found in 2014 (see EPPO RS 2015/129).
The situation of *Globodera pallida* in Kenya can be described as follows: **Present, only in some areas (first found in 2016 in Nyandarua county).**

Source: Mburu H, Cortada L, Mwangi G, Gitau K, Kiriga A, Kinyua Z, Ngundo G, Ronno W, Coyne D, Holgado R, Haukeland S (2018) First report of potato cyst nematode *Globodera pallida* infecting potato (*Solanum tuberosum*) in Kenya. *Plant Disease* **102**(8), p 1671.

Pictures: *Globodera pallida*. https://gd.eppo.int/taxon/HETDPA/photos

Additional key words: new record **Computer codes:** HETDPA, KE

2018/175 *Agrilus planipennis* found in Nova Scotia, Canada

In Canada, *Agrilus planipennis* (Coleoptera: Buprestidae – EPPO A2 List) is reported for the first time from the province of Nova Scotia. Prior to this new detection, the pest was known to be present only in certain areas of New Brunswick, Manitoba, Ontario and Quebec. In September 2018, the Canadian Food Inspection Agency (CFIA) confirmed the presence of *A. planipennis* in Bedford. Surveys are being conducted to determine whether the pest is established in the area, and if so, what is the extent of the infestation. Phytosanitary measures are being implemented to prevent any further spread. The movement of all ash (*Fraxinus* spp.) material, such as logs, branches, and woodchips, as well as firewood of all species from the affected site, is restricted. The property owners in the affected area have been notified of these restrictions.

Source: Canadian Food Inspection Agency. News release (2018-09-21). Emerald ash borer confirmed in Bedford, Nova Scotia. https://www.canada.ca/en/food-inspection-agency/news/2018/09/emerald-ash-borer-confirmed-in-bedford-nova-scotia.html

Pictures: *Agrilus planipennis*. https://gd.eppo.int/taxon/AGRLPL/photos

Additional key words: detailed record **Computer codes:** AGRLPL, CA

2018/176 *Fiorinia phantasma*, an emerging scale in the USA: addition to the EPPO Alert List

Why: The attention of the EPPO Secretariat was attracted by colleagues from USDA-PPQ-APHIS to the emergence of *Fiorinia phantasma* (=*Fiorinia coronata* - Hemiptera: Diaspididae) in the USA. *F. phantasma* is a polyphagous pest of ornamental plants, with a preference for

palm tree species. It was initially described from specimens collected in 1914 on *Neolitsea* sp. in the Philippines (Mount Makiling, Luzon Island). It was found in 2004 in Hawaii (US), first on the island of Oahu infesting landscape palm trees, and then on other ornamentals (in nurseries and the landscape) on the island of Maui. A recent taxonomic review of this scale species concluded that *Fiorinia coronata* was a synonym of *F. phantasma*, and that this scale was present in more than 20 countries, thus suggesting that it is spreading. Finally, heavy infestations *F. phantasma* were discovered in March 2018 in continental USA, in Florida (Miami-Dade county) on *Phoenix canariensis*. Considering the polyphagy of *F. phantasma* and its capacity to be moved between continents on plant material, the EPPO Secretariat felt that it could usefully be added to the EPPO Alert List.

Where: *F. phantasma* is thought to originate from South-East Asia.
EPPO region: Absent. However, incursions have been reported on glasshouse plants in France (a 'crocodile farm' glasshouse) and the Netherlands (a nursery), as well as in the United Kingdom on a potted bamboo plant in a restaurant. These incursions have not led to the establishment of the pest.
Africa: Reunion.
North America: USA (Florida, Hawaii).
Central America and the Caribbean: Grenada, Saint Martin.
Asia: China (Hong Kong), Indonesia (Irian Jaya), Malaysia (West), Maldives, Philippines, Singapore. Infested plants have been intercepted by several countries (e.g. the Republic of Korea, USA) on imported plant material from Thailand, Taiwan and Vietnam, but the presence of the pest in these countries could not be confirmed by other sources.
Oceania: American Samoa, French Polynesia, Guam, Micronesia, Nauru, New Caledonia, Papua New Guinea, Solomon Islands.

On which plants: *F. phantasma* is polyphagous and has been recorded on more than 20 plant families, however it has a marked preference for palm species (Arecaceae) such as: areca-nut palm (*Areca catechu*), coconut (*Cocos nucifera*), date palm (*Phoenix dactylifera*), raffia palm (*Raphia farinifera*), and ornamental palm trees (e.g. *Areca, Dypsis, Hyophorbe, Nypa, Phoenix sylvestris, Veitchia merrillii, Wallichia, Wodyetia bifurcata)*. Its host range includes a wide range of ornamentals (e.g. *Cassia, Ficus benjamina, Heliconia caribaea, Ligustrum japonicum, Monstera deliciosa, Murraya paniculata, M. koeningi, Osmanthus, Pandanus, Pittosporum tobira, Plumeria, Ravenala madagascariensis*) and some fruiting species such as: *Artocarpus altilis* (breadfruit), *Litchi chinensis* (litchi), and *Mangifera indica* (mango).

Damage: *F. phantasma* infests the undersides of leaves of its host plants. However, when populations reach high densities, crawlers begin to colonize the upper leaf sides. Feeding damage by *F. phantasma* causes yellow blotches on the upper leaf surfaces of host plants. As the scale population increases, intense feeding damage to the foliage causes leaf drop, loss of plant vigour and stunting. Heavy infestations and damage have been reported from palm trees in Hawaii, Grenada and Maldives. Adult females of *F. phantasma* are approximately 1.25 mm long, 'mussel-shaped' and inconsistently show red stripes, running across their width. Females are pupillarial (as is the case for other *Fiorinia* species), which means that they shrink in size, encased in their second shed skin. Male scales are white.
Pictures of *F. phantasma* can be viewed on the Internet:
http://ucnfanews.ucanr.edu/Articles/Insect_Hot_Topics/INSECT_HOT_TOPICS__New_scale_insect_in_Hawaii/
https://hdoa.hawaii.gov/pi/files/2013/01/Fiorinia-phantasma-NPA.pdf
https://www.freshfromflorida.com/content/download/79840/2332158/Pest_Alert_-_Fiorinia_phantasma.pdf

Dissemination: Crawlers can move over short distances and wind can facilitate species dispersal (but no detailed data could be found). Over long distances, trade of infested plants

is suspected to play an important role in the pest spread. In particular, several countries have intercepted *F. phantasma* on imported ornamentals.

Pathways: Plants for planting, cut foliage? of host plants from countries where *F. phantasma* occurs.

Possible risks: *F. phantasma* is a polyphagous pest which can feed on many species that are grown for ornamental purposes in the EPPO region. In addition, its host range includes date palm (*P. dactylifera*) which is an economically important crop in parts of the EPPO region. In Hawaii, *F. phantasma* is considered to be a major pest of ornamental and landscape plants and has negative impacts on the local nursery and landscape industry. Its recent introduction into Florida is also considered as a serious threat, in particular for palm trees that are widely planted. Chemical control of scales is usually difficult. Biological control might be an option, as in Hawaii parasitoids (*Aphytis* sp., Aphelinidae) and predators (*Telsimia nitida* (Coccinellidae), *Cybocephalus nipponicus* (Cybocephalidae), *Chrysoperla comanche* (Chrysopidae), and *Aleurodothrips fasciapennis* (Phlaeothripidae)) have been observed attacking *F. phantasma*, but their efficacy remains to be studied. The recent spread of *F. phantasma* to different countries, its interceptions on imported plant material, and its recent incursions demonstrate that it has the potential to enter the EPPO region. However, more studies would be needed on its potential of establishment in the EPPO region. Considering that it is a 'tropical' pest, it is probably not able to survive winter conditions in most parts of the EPPO region, but it could still be a threat to many glasshouse ornamentals that are high value crops.

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Panel review date – Entry date 2018-09

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

2018/177 Review of the distribution of *Zeugodacus cucumis* in Australia

The cucumber fruit fly, *Zeugodacus cucumis* (=*Bactrocera cucumis* – EPPO A1 List) is a native species from Australia which does not occur in other parts of the world. As adult flies are not attracted by lures that are generally used for other fruit flies (e.g. cue-lure, methyl eugenol), surveillance of *Z. cucumis* in the field is difficult. A review of past records of *Z. cucumis* in Australia has recently been published and concluded that its geographical range is predominantly coastal (coasts of New South Wales, Northern Territory, and Queensland), and that the 29°S latitude is most probably the Southern limit under which the pest is not able to establish. In Western Australia, some specimens have been occasionally detected in Kununurra (north of 29°S latitude) during a period from 1997 to 2001, but surveillance data is lacking to verify the current situation. According to the authors, detections of *Z. cucumis* below the latitude of 29°S should be considered as incursions which have not been followed by establishment. They also concluded that Victoria and South Australia are most likely to be free from the pest.

Source: Dominiak BC, Worsley P (2018) Review of cucumber fruit fly, *Bactrocera cucumis* (French) (Diptera: Tephritidae: Dacinae) in Australia: Part 1, host range, surveillance and distribution. *Crop Protection* **106**, 79-85.

Additional key words: detailed record **Computer codes:** DACUCM, AU

2018/178 Beech leaf disease: a disease of unknown aetiology emerging in North America

Since 2012, a new disease of beech trees (*Fagus* spp.) called 'Beech leaf disease' (BLD) has increasingly been observed in North America. The disease mainly affects *F. grandifolia* (American beech) but also several other beech species including *F. sylvatica* (European beech), *F. orientalis* (Oriental beech). It could possibly affect *F. engleriana* (Chinese beech) and *F. crenata* (Korean beech). Early symptoms include dark striped bands between lateral veins of leaves and reduced leaf size. As symptoms progress, aborted buds, reduced leaf production, and premature leaf drop lead to an overall reduction in canopy cover, ultimately resulting in death of sapling-sized trees within 2-5 years. In areas where the disease is established, the proportion of symptomatic trees can reach more than 90%. Beech leaf disease was first observed in the USA, in Ohio (Lake county) in 2012 on *F. grandifolia*. The disease appears to be spreading rapidly, as it has been subsequently found in other counties in Ohio, in Northwestern Pennsylvania and Southwestern New York; as well as in Canada, along the north shore of Lake Erie in Ontario. In some infested areas (e.g. Ohio and Pennsylvania), citizens are invited to report diseased beech trees, and landowners are urged to avoid moving beech trees or tree parts to prevent disease spread.
So far, the aetiology of Beech leaf disease remains unknown. Research looking at the DNA of diseased trees for bacteria, viruses and phytoplasmas has not been able to identify a possible cause. More recently, attention has been focused on the possible role of nematodes, as a previously undescribed nematode species (*Litylenchus* sp.) has been observed in association with diseased beech leaves. Research is continuing to try to identify the causal agent(s), to document the impact of Beech leaf disease and develop management strategies.

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USDA. We need your help. Look for signs of Beech Leaf Disease. http://files.constantcontact.com/3eb6bf61101/a51df273-005c-4330-88eb-e4ea5294ea0d.pdf

Additional key words: new pest **Computer codes:** CA, US

2018/179 First report of *Phyllosticta citricarpa* in India

In December 2016, symptoms of citrus black spot were observed for the first time in India. The disease was found on mandarins (*Citrus reticulata*) and sweet oranges (*C. sinensis*) in 2 orchards located in Mohpa and Kachimet (Nagpur district, Maharashtra). Citrus black spot symptoms were then also observed on mandarins and oranges at the fresh fruit market of

Nagpur. Laboratory studies (molecular and pathogenicity tests) of single-spore cultures obtained from citrus fruit lesions confirmed the presence of *Phyllosticta citricarpa* (EPPO A1 list). This is the first time that citrus black spot is reported from India.
The situation of *Phyllosticta citricarpa* in India can be described as follows: **Present, only in some areas (first found in 2016 in Maharashtra).**

Source: Das AK, Nerkar S, Kumar A (2018) First report of *Phyllosticta citricarpa* causing citrus black spot on *Citrus sinensis* and *C. reticulata* in India. *Plant Disease* **102**(8), p 1661. https://apsjournals.apsnet.org/doi/full/10.1094/PDIS-08-17-1248-PDN

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

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

2018/180 First report of *Sirococcus tsugae* in Belgium

In Belgium, a group of approximately 10 Atlas cedar trees (*Cedrus atlantica*) showing severe shoot blight symptoms was observed in June 2018, in the province of Luxembourg. These affected trees presented a light brown to pink discolouration of the needles, as well as premature defoliation. A closer examination of the branches revealed necrosis of phloem tissues. Affected trees were growing in a forest environment and their diameter at breast height ranged from 45 to 55 cm. A fungus could be isolated from the margin of necrotic plant tissues. Laboratory studies (PCR, ITS sequencing, pathogenicity tests) confirmed the presence of *Sirococcus tsugae* (EPPO Alert List) in diseased cedar trees. This is the first time that *S. tsugae* is reported from Belgium. It is noted that the distribution of *S. tsugae* within Belgian forests and nurseries, as well as on amenity trees, requires further investigation and that surveys should also consider other host plants, such as other *Cedrus* or *Tsuga* species.

Source: Schmitz S, Charlier A, Chandelier A (2018) First report of *Sirococcus tsugae* causing shoot blight on *Cedrus atlantica* in Belgium. *New Disease Reports* **38**, 16. http://dx.doi.org/10.5197/j.2044-0588.2018.038.016

Pictures: *Sirococcus tsugae*. https://gd.eppo.int/taxon/SIROTS/photos

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

2018/181 *Dothistroma pini* does not occur in Germany

In August 2018, the presence *Dothistroma pini* was reported in 3 *Pinus* plants in Thiessow, Germany (EPPO RS 2018/164). The NPPO of Germany recently informed the EPPO Secretariat that due to a communication problem, a wrong test result was communicated by the laboratory. In fact, the pathogen was identified as *Dothistroma septosporum* (EU Annexes). *D. pini* is still absent from Germany.
The pest status of *Dothistroma septosporum* in Germany is officially declared as: **Present, only in some parts of the Member State concerned.**
The pest status of *Dothistroma pini* in Germany is officially declared as: **Absent, no pest records.**

Source: NPPO of Germany (2018-09).

Pictures: *Dothistroma septosporum*. https://gd.eppo.int/taxon/SCIRPI/photos

Additional key words: detailed record, invalid record **Computer codes:** SCIRPI, DE

2018/182 Biological control of *Crassula helmsii*

Crassula helmsii is an aquatic plant species which can grow in a number of forms (submerged, emergent or semi-terrestrial) depending on environmental conditions. The species is native to Australia and has been introduced into the USA and the EPPO region as an ornamental water plant. Since being introduced to the UK in 1911 as an oxygenating plant for garden ponds, it has been gradually increasing its range both in the UK and parts of Europe by escaping gardens and through incorrect disposal by aquarium and pond owners. It has now spread to at least 2000 sites in the UK, particularly threatening conservation sites that are home to rare and endangered organisms. A biological control programme has been conducted against the species in the United Kingdom which has seen surveys conducted in the plants' native range to identify natural enemies which could potentially be utilised as biocontrol agents. Most of the natural enemies collected during these surveys were rejected as potential agents due to their wide host range. However, one species an eriophyid mite species (*Aculus crassulae*) has been shown to be host specific to *C. helmsii* and approval has been given for its release in the UK. The mite will be released on reservoirs and in wetlands in England and it will be monitored to evaluate if it can reduce populations of this invasive plant species.

Source: CABI website: https://www.cabi.org/news-and-media/2018/

Pictures *Crassula helmsii*. https://gd.eppo.int/taxon/CSBHE/photos

Additional key words: invasive alien plants **Computer codes:** CSBHE, GB

2018/183 New records of the alien plants in the Canary Islands (ES)

New records and distributions are presented for species and hybrids that are either new to the Canary Islands as a whole or new to the island of Gran Canaria. The authors highlight that although several of the species are only ephemerals at present, almost all of them have the potential to naturalise and become invasive in the future as such behaviour has been observed in areas with similar climatic conditions.

Table 1. New records of plant species for the Canary Islands and Gran Canaria

Species	Family	Native range	New record
Acokanthera oblongifolia	Apocynaceae	South Africa	Canary Islands
Alstroemeria ligtu	Liliaceae	Chile	Canary Islands
Capsicum annuum	Solanaceae	North America	Canary Islands
Chasmanthe bicolor	Iridaceae	South Africa	Canary Islands
Chasmanthe floribunda	Iridaceae	South Africa	Gran Canaria
Cotyledon orbiculata var. *spuria*	Crassulaceae	South Africa	Canary Islands
Crassula multicava	Crassulaceae	South Africa	Gran Canaria
Cupressus sempervirens	Cupressaceae	Mediterranean	Gran Canaria
Digitaria setigera	Poaceae		Canary Islands
Ficus rubiginosa	Moraceae	Australia	Gran Canaria
Galinsoga quadriradiata	Asteraceae	North America	Gran Canaria
Jacaranda mimosifolia	Bignoniaceae		Gran Canaria

Species	Family	Native range	New record
Kalanchoe × *houghtonii*	Crassulaceae		Gran Canaria
Merremia tuberosa	Convolvulaceae	North/Central America	Gran Canaria
Nerium oleander	Apocynaceae	Asia	Gran Canaria
Passiflora morifolia	Passifloraceae	Central/South America	Gran Canaria
Phlomis purpurea	Lamiaceae	Mediterranean	Canary Islands
Phytolacca dioica	Phytolaccaceae	South America	Gran Canaria
Salvia hispanica	Lamiaceae	Central/South America	Gran Canaria
Setaria pumila subsp. *pallide-fusca*	Poaceae		Canary Islands
Solanum betaceum	Solanaceae	South America	Canary Islands
Solanum seaforthianum	Solanaceae	South America	Canary Islands
Tecoma × *smithii*	Bignoniaceae		Canary Islands
Tradescantia spathacea	Commelinaceae	North/Central America	Canary Islands

Source: Verloove F, Salas-Pascual M, Rodriguez AM (2018) New records of alien plants for the flora of Gran Canaria (Canary Islands, Spain). *Flora Mediterranea* **28**, 119-135.

Additional key words: new record, invasive alien plants **Computer codes:** CISSP, ALTLI, CPSAN, CSHBI, CSHFL, CSBMC, CVBSE, DIGMB, FIURU, GASCI, IACMI, MRRTU, NEROL, PAQMR, PLMPU, PHTDI, CYJBE, SOLSE, REOSP, ES

2018/184 Assessing the impact of alien plants in Turkey

Invasive alien plants can have a wide range of negative impacts on the environment, economy and human well-being. Identify the species which have the highest negative impacts is important to prioritise these species for management and regulation. Using the Generic Impact Scoring System which was originally developed in a study on invasive mammals alien to Europe but has also been applied to other taxonomic groups, 51 invasive alien plants to Turkey were assessed. Data on each species was collected from a number of resources including ISI Web of Knowledge and a number of online databases. In total, 12 questions on impacts were scored (0-5 rating with 0 being no impact) where each question addressed impacts on the environment (for example impact through competition or impact due to hybridization) or socio-economic impacts (for example impacts on human health or impacts on forestry production). Environmental impacts were recorded for 80 % of the species assessed and were typically associated with impacts on ecosystem processes. Socio-economic impacts were identified for 78 % of the species and were typically associated with agricultural production or human health. Such exercises are useful when evaluating a large number of species and can provide a basis for more in-depth risk analysis.

Source: Yazlik A, Pergl J, Pyšek P (2018) Impact of alien plants in Turkey assessed by the Generic Impact Scoring System. *Neobiota* **39**, 31-51.

Additional key words: invasive alien plants **Computer codes:** TR

2018/185 Allelopathic effects of three invasive alien plants on oilseed rape

Allelopathic effects of *Ailanthus altissima* (Simaroubaceae: EPPO List of Invasive Alien Plants), *Asclepias syriaca* (Apocynaceae) and *Heracleum sosnowsky* (Apiales: EPPO A2 List) were studied on oilseed rape in a bioassay under laboratory conditions in Hungary. All three species are invasive alien plants in Hungary. *A. syriaca* continuously causes damage on crop production in agricultural fields. *A. altissima* is frequently found on the margins of fields or along roadsides and has a strong allelopathic effect on the plants in its near vicinity. *H. sosnowsky* can have human health impacts as it produces not only allelochemicals, but contains furanocoumarins which can cause human phytophotodermatitis. During the experiments, the allelopathic effect of aqueous extracts prepared from shoots of the alien plants in three concentrations: 2.5, 5 and 7.5 m/m was evaluated on the germination and early growth of oilseed rape. Extracts of *A. altissima* decreased germination of oilseed rape by 20%. Furthermore, growth of shoots decreased continuously with concentration and at 7.5 m/m concentration, oilseed rape was 20% lower compared to the control. *A. syriaca* shoot extracts hindered germination the most strongly, with almost a 50 % reduction at the highest concentration. All three concentrations reduced growth of oilseed rape seedlings. *H. sosnowsky* inhibited germination of seeds, where the strongest concentration reduced germination by 25%. Again, the growth of shoots decreased continuously with concentration and at 7.5 m/m concentration, oilseed rape was approximately 50% lower compared to the control. The results indicate that extracts from the shoots of the invasive plants reduced germination as well as shoot and root growth of oilseed rape. Therefore, all three species should be managed when populations encroach into agricultural land.

Source: Nadasy E, Pasztor G, Takacs A, Kovacs A (2018) Allelophatic effect of *Ailanthus altissima, Asclepias syriaca* and *Heracleum sosnowskyi* on germination and early growth of oilseed rape. NeoBiota conference, Oral Presentation, (Dun Maoghaire, Dublin, IE, 2018-09-03/07).

Additional key words: invasive alien plants **Computer codes:** AILAL, ASCSY, HERSO, HR

2018/186 Can native grass species outcompete invasive goldenrods?

Invasive goldenrods (*Euthamia graminifolia, Solidago altissima, Solidago canadensis* and *Solidago gigantea*: Asteraceae) have similar competitive abilities and can outcompete native plant species when they invade natural and semi-natural habitats. Often invasive plant species can produce substantially more biomass than native species of similar form and function. As a result, these invasive species can suppress the regeneration of native plant communities. In the present study, the interactions between the alien goldenrods and native grass species (*Festuca pratensis*, *Lolium perenne*: Poaceae) were studied to test the hypothesis that native grasses are able to outcompete invasive goldenrods. Two types of *L. perenne* were used in the study, a forage variety (Temprano) and a turf variety (Talgo). Seeds from invasive goldenrods were collected from near Wroclaw, Poland and stored over winter. The seeds of the grasses were obtained from the Plant Breeding and Acclimatization Institute (PL). The species were grown in pots and each goldenrod species was grown with one grass species and a control where the grass and goldenrod species were grown individually. Total plant biomass was higher when the species were grown in combination compared to individually. When grown in combination, both grass species and goldenrods generally produced more above-ground biomass compared to when grown individually. The higher biomass of the goldenrod species when grown in combination with the grasses could be attributed to reduced intraspecific competition as the grass species are relatively small and there is more free space for the goldenrods to occupy. Therefore, the results of the experiment suggest that the two-grass species used in this study do not appear to be successful at competing with the invasive goldenrods.

Source: Szymura M, Szymura TH, Wolski K, Swierszcz S (2018) Can native grass species outcompete invasive goldenrods? Results of a replacement series experiment. *Weed Research* **58**, 304-317

Pictures *Solidago canadensis*. https://gd.eppo.int/taxon/SOOCA/photos

Additional key words: invasive alien plants

Computer codes: ETIGR, FESPR, LOLPE, SOOAL, SOOCA, SOOGI, SOOVI, PL