



ORGANISATION EUROPEENNE
ET MEDITERRANEENNE
POUR LA PROTECTION DES PLANTES

EUROPEAN AND MEDITERRANEAN
PLANT PROTECTION
ORGANIZATION

EPPO Reporting Service

No. 7 PARIS, 2024-07

General

[2024/145](#) New data on quarantine pests and pests of the EPPO Alert List

Pests

[2024/146](#) First report of *Dacus ciliatus* in Cyprus
[2024/147](#) First report of *Dacus ciliatus* in Italy
[2024/148](#) First report of *Bactrocera dorsalis* in Greece
[2024/149](#) First report of *Popillia japonica* in Slovenia
[2024/150](#) First report of *Spodoptera frugiperda* in Iran

Diseases

[2024/151](#) First report of citrus yellow vein clearing virus in Italy
[2024/152](#) First official report of tobacco ringspot virus in Poland
[2024/153](#) Incursion of tobacco ringspot virus in Italy
[2024/154](#) First report of *Xylella fastidiosa* subsp. *fastidiosa* in Extremadura (mainland Spain)
[2024/155](#) '*Candidatus* Phytoplasma phoenicium' is no longer present in Italy
[2024/156](#) Update on the situation of '*Candidatus* Liberibacter solanacearum' in Italy
[2024/157](#) First report of *Plenodomus tracheiphilus* in Canada and first report on elm

Biological Control Agents

[2024/158](#) New biological control agent added to PM 6/3(5) in 2024
[2024/159](#) Effect of temperature on egg parasitoids of *Halyomorpha halys*
[2024/160](#) Assessment of *Cyanopterus ninghais* as a biological control agent for *Monochamus alternatus*

Invasive Plants

[2024/161](#) *Aponogeton distachyos* in the EPPO region: addition to the EPPO Alert List
[2024/162](#) First confirmed report of *Crassula helmsii* in Spain
[2024/163](#) Potential distribution of *Ulex europaeus* in Colombia due to climate change

2024/145 New data on quarantine pests and pests of the EPP0 Alert List

By searching through the literature, the EPP0 Secretariat has extracted the following new data concerning quarantine pests and pests included (or formerly included) on the EPP0 Alert List, and indicated in bold the situation of the pest concerned using the terms of ISPM 8.

- **Detailed records**

In Japan, apple fruit crinkle viroid (AFCVd, EU A1 pest) was known to occur on apple in Iwate and Aomori Prefectures (Northern part of Honshu). AFCVd was detected in fruits of persimmon (*Diospyros kaki*) from private gardens in Hyogo, Osaka, Kyoto, and Shiga Prefectures (southern part of Honshu) (Hataya, 2024).

In China, *Xanthomonas fragariae* (EPP0 A2 List) is reported for the first time from the province of Hebei. Chinese strains induce severe cavity rot symptoms in strawberries, which are not observed in other countries. Pan-genomic analysis suggests that these strains correspond to a new subspecies of *X. fragariae* (Wei *et al.*, 2024).

In Japan, in addition to Honshu and Kyushu, *Xylotrechus pyrrhoderus* (Coleoptera: Cerambycidae - EPP0 Alert List) also occurs in Shikoku (Ashihara, 1982; Yoshitomi *et al.*, 2012).

- **Interceptions**

In Hungary, *Cylas puncticollis* (Coleoptera: Apionidae - African sweet potato weevil) was found in January 2024 in sweet potato (*Ipomoea batatas*) tubers in a commercial chain store. Sweet potato tubers showed severe damage, as their surface and inner parts were affected. As the infested consignment originated from Spain, a notification has been sent to the Spanish NPPO, as this pest is not known to occur in this country. The pest status of *Cylas puncticollis* in Hungary is officially declared as: **Absent, intercepted only** (NPPO of Hungary, 2024-05).

- Sources:**
- Ashihara W (1982) [Seasonal life history of the grape tiger borer *Xylotrechus pyrrhoderus*]. *Bulletin of the Fruit Tree Research Station Series E* 4, 91-112 (in Japanese).
 - Hataya T (2024) Genetic diversity of apple fruit crinkle viroid populations in Japanese persimmons and the infectivity of a predominant sequence variant to tomato plants. *European Journal of Plant Pathology* 169(2), 273-285.
 - NPPO of Hungary (2024-05).
 - Wei F, Liang X, Shi JC, Luo JN, Qiu LJ, Li XX, Lu LJ, Wen YQ, Feng JY (2024) Pan-genomic analysis identifies the Chinese strain as a new subspecies of *Xanthomonas fragariae*. *Plant Disease* 108(1), 45-49.
 - Yoshitomi H, Matsuno S, Sakai M (2012) [List of the species of the order Coleoptera in Matsuyama City, Ehime Prefecture, Shikoku, Japan]. In: Ishikawa K (ed) Checklist of the Wild Animals, Fungi, and Plants of Matsuyama City. Committee for Surveys of Natural Environment of Matsuyama City, 105-166 (in Japanese).

Additional key words: detailed record, interception

Computer codes: AFCVD0, CYLAPU, XANTFR, XYLOPY, CN, HU, JP

2024/146 First report of *Dacus ciliatus* in Cyprus

The NPPO of Cyprus recently informed the EPPO Secretariat of the first finding of *Dacus ciliatus* (Diptera: Tephritidae - EPPO A2 List) on its territory. This is the first record for the European Union, but in the EPPO region, the species is already present in Israel and Türkiye.

In June 2023, suspicious symptoms were observed by a private agronomist on cucumbers (*Cucumis sativus*). Samples were immediately collected by the NPPO and sent to the EURL laboratory (AGES for molecular analysis). The molecular analysis of larvae samples identified the insect as *Dacus ciliatus*. Surveys were conducted on the island and the pest was detected in several sites in Larnaca district and in one field in Ammochostos district (south coastal area of Cyprus). The crops which were found to be infested were cucumber (*Cucumis sativus*), zucchini (*Cucurbita pepo*), watermelon (*Citrullus lanatus*) and melon (*Cucumis melo*). The pest was also detected in the weed *Ecballium elaterium*. The total infested area is 6.11 ha. Surveys are continuing throughout the island and a poster has been prepared to increase awareness amongst producers.

The pest status of *Dacus ciliatus* in Cyprus is officially declared as: **Present, under eradication.**

Source: NPPO of Cyprus (2024-07).

Pictures *Dacus ciliatus*. <https://gd.eppo.int/taxon/DACUCI/photos>
Poster available at https://media.eppo.int/index?id_gallery=159

Additional key words: new record

Computer codes: DACUCI, CY

2024/147 First report of *Dacus ciliatus* in Italy

The NPPO of Italy recently informed the EPPO Secretariat of the first finding of *Dacus ciliatus* (Diptera: Tephritidae - EPPO A2 List) on its territory. In July 2023, two male specimens of *D. ciliatus* were caught in two traps (about 500 m away from each other) in the municipality of Palma Campania (province of Napoli, region of Campania). The identity of the pest was confirmed by morphological and molecular tests. The traps were baited with methyl eugenol. Both traps are located in the area infested with *Bactrocera dorsalis* (Diptera: Tephritidae - EPPO A1 List) (EPPO RS 2024/034). It is noted that one of the traps is located near a warehouse that imports and processes pumpkins from South Africa (where *D. ciliatus* occurs). An insecticide treatment has been applied in the two trapping sites. Surveillance will carry on with an increased number of traps baited with torula or ammonium salts.

The pest status of *Dacus ciliatus* in Italy has not yet been determined.

Source: NPPO of Italy (2024-07).

Pictures *Dacus ciliatus*. <https://gd.eppo.int/taxon/DACUCI/photos>

Additional key words: new record, incursion

Computer codes: DACUCI, IT

2024/148 First report of *Bactrocera dorsalis* in Greece

Bactrocera dorsalis (Diptera: Tephritidae - EPPO A1 List) is reported for the first time from Greece. It was trapped at the end of June 2024 in the area of the Central Athens (Attica Region) as part of the official monitoring for fruit flies. A leaflet has been prepared to raise awareness and encourage reporting by all stakeholders.

The situation of *Bactrocera dorsalis* in Greece can be described as follows as: **Present, not widely distributed.**

Source: Region of Attica (press release 2024-06-27) Ενημέρωση σχετικά με την εμφάνιση του επιβλαβούς οργανισμού καραντίνας και προτεραιότητας για την Ε.Ε., *Bactrocera dorsalis*.
https://www.patt.gov.gr/category/koinonia/agrotiki_ktiniatriki_alieia/agrotiki_ktiniatriki_anakoinoseis/

Pictures *Bactrocera dorsalis*. <https://gd.eppo.int/taxon/DACUDO/photos>

Additional key words: new record

Computer codes: DACUDO, GR

2024/149 First report of *Popillia japonica* in Slovenia

The NPPO of Slovenia recently informed the EPPO Secretariat of the first finding of *Popillia japonica* (Coleoptera: Rutelidae - EPPO A2 List) on its territory. During the official survey programme for *P. japonica* carried out in 2024, one adult was found in a trap at a highway petrol station in Lukovica (Central Slovenia) on July 10th 2024. There is no production of plants for planting or garden centres in the vicinity (1 km) of the trap. Five additional traps were placed in the vicinity of the first finding, and visual inspections will be intensified. Public awareness will be carried out.

The pest status of *Popillia japonica* in Slovenia is officially declared as: **Transient, actionable, under eradication.**

Source: NPPO of Slovenia (2024-07).

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

Additional key words: new record, incursion

Computer codes: POPIJA, SI

2024/150 First report of *Spodoptera frugiperda* in Iran

Fall armyworm, *Spodoptera frugiperda* (Lepidoptera: Noctuidae - EPPO A2 List), is reported for the first time from Iran. In October 2023, during monitoring surveys of maize fields in the Orzuiye region (Kerman province), larvae were observed feeding on maize leaves and cobs. Several larvae were collected, reared in the laboratory, and emerging adults were identified as *S. frugiperda*.

The situation of *Spodoptera frugiperda* in Iran can be described as follows: **Present, not widely distributed.**

Source: Naseri M, Bemani M, Alipanah H, Noorbakhsh S, Zohdi H (2024) [First report of the fall armyworm, *Spodoptera frugiperda* (Lepidoptera, Noctuidae: Noctuidae) from Iran]. *Journal of the Entomological Society of Iran* 44(1), 111-116 (in Persian). <https://doi.org/10.61186/JESI.44.1.9>

Pictures *Spodoptera frugiperda*. <https://gd.eppo.int/taxon/LAPHFR/photos>

Additional key words: new record

Computer codes: LAPHFR, IR

2024/151 First report of citrus yellow vein clearing virus in Italy

The NPPO of Italy recently informed the EPPO Secretariat of the first finding of citrus yellow vein clearing virus (*Potexvirus citriflavivenae*, CYVCV, EPPO Alert list) on its territory, in the Campania region.

In May 2024, symptoms of leaf vein clearing were observed on lemon (*Citrus x limon*) trees in a private garden located in the municipality of Palma Campania (province of Napoli). Seven plants were sampled (6 symptomatic lemon trees and 1 asymptomatic sweet orange tree, *Citrus x aurantium* var. *sinensis*) and tested by RT-PCR. CYVCV was detected in all tested plants. A BLAST analysis of the sequence obtained from a lemon plant confirmed the virus identity. An express pest risk analysis was conducted and supported the implementation of phytosanitary measures, including intensified surveys in the lemon-growing areas of the region.

The pest status of citrus yellow vein clearing virus in Italy is officially declared as: **Transient, actionable, under surveillance.**

Source: NPPO of Italy (2024-07).

Pictures *Potexvirus citriflavivenae*. <https://gd.eppo.int/taxon/CSYV00/photos>

Additional key words: new record

Computer codes: CSYV00, IT

2024/152 First official report of tobacco ringspot virus in Poland

The NPPO of Poland recently informed the EPPO Secretariat of the first official finding of tobacco ringspot virus (*Nepovirus nicotianae*, TRSV, EPPO A2 List) on its territory. TRSV was detected in 4 varieties of *Iris pumila* plants and 1 variety of *Iris germanica* in the municipality of Rogowo (Kujawsko-Pomorskie province) grown in an open field for the production of plants for planting. The infested lot comprised 14380 plants. Official measures are applied to eradicate the virus in this place of production.

The pest status of tobacco ringspot virus in Poland is officially declared as: **Present.**

EPPO note: some scientific articles had already reported the presence of the virus in other crops (e.g. Korbecka-Glinka *et al.*, 2021).

Source: NPPO of Poland (2024-07).

Korbecka-Glinka G, Przybyś M, Feledyn-Szewczyk B (2021) A survey of five plant viruses in weeds and tobacco in Poland. *Agronomy* 11(8), 1667.

Pictures *Nepovirus nicotianae*. <https://gd.eppo.int/taxon/TRSV00/photos>

Additional key words: new record

Computer codes: TRSV00, PL

2024/153 Incursion of tobacco ringspot virus in Italy

Tobacco ringspot virus (*Nepovirus nicotianae*, TRSV, EPPO A2 List) was detected in a *Malus domestica* plant conserved in the nuclear stock of mother plants at the Laimburg Research Centre (Alto Adige) in May 2023 during a routine phytosanitary inspection for the presence of quarantine viruses. The scion had been imported from North America in 2021, grafted on a *Malus domestica* rootstock and kept into post-entry quarantine facility until May 2023. It remained asymptomatic during this period.

Source: Gallmetzer A, Springeth C, Domínguez YR (2024) First report of tobacco ringspot virus infecting apple plants in South Tyrol. *Laimburg Journal* 6, 004.
<https://doi.org/10.23796/LJ/2024.004>

Pictures *Nepovirus nicotianae*. <https://gd.eppo.int/taxon/TRSV00/photos>

Additional key words: incursion

Computer codes: TRSV00, IT

2024/154 First report of *Xylella fastidiosa* subsp. *fastidiosa* in Extremadura (mainland Spain)

In Spain, *Xylella fastidiosa* (EPPO A2 List) is present in Baleares islands (*X. fastidiosa* subsp. *fastidiosa*) where it is under containment and *X. fastidiosa* subsp. *multiplex* occurs in Comunidad Valenciana where it is under eradication (EPPO RS 2022/112).

Xylella fastidiosa subsp. *fastidiosa* was recently detected in Extremadura, as part of the official surveys. This outbreak is located in the municipality of Valencia de Alcántara (province of Cáceres), which is located close to a demarcated area in Portugal. *X. fastidiosa* subsp. *fastidiosa* was detected in 2 rockroses (*Cistus* sp.), 1 common broom (*Cytisus scoparius*), 1 black broom (*Cytisus villosus*), and 1 Spanish lavender (*Lavandula stoechas*). A demarcated area has been established consisting of a 50-metre infested zone around each infected plant and a 2.5 km-wide buffer zone around each infested zone. An eradication program will be carried out in the demarcated area according to EU Implementing Regulation 2020/1201. The total surface of the infected area is 3.92 ha and the demarcated area covers 1366 ha.

The pest status of *Xylella fastidiosa* subsp. *fastidiosa* in Spain is officially declared as: **Transient, actionable, under eradication.**

Source: NPPO of Spain (2024-07).

EU (2020) Commission Implementing Regulation (EU) 2020/1201 of 14 August 2020 as regards measures to prevent the introduction into and the spread within the Union of *Xylella fastidiosa* (Wells *et al.*).
http://data.europa.eu/eli/reg_impl/2020/1201/2024-06-05 (consolidated text)

Pictures *Xylella fastidiosa*. <https://gd.eppo.int/XYLEFA/>

Additional key words: detailed record

Computer codes: XYLEFF, ES

2024/155 'Candidatus Phytoplasma phoenicium' is no longer present in Italy

In Italy, 'Candidatus Phytoplasma phoenicium' (EPPO A1 List) was first detected in 2017 in a commercial orchard of almond (*Prunus dulcis*) near Grottaglie (province of Taranto, Puglia region, South-East Italy) (EPPO RS 2020/076). The plants that tested positive were uprooted. An update of the situation of this pest was presented to the EPPO Panel on Phytosanitary Measures in March 2024.

In March 2020, the University of Bari reported to the Osservatorio fitosanitario the presence of symptomatic almond trees, in another location near Grottaglie, along with the discovery of gene sequences of 'Candidatus Phytoplasma phoenicium' on other *Prunus* species [peach (*P. persica*), apricot (*P. armeniaca*) and plum (*P. domestica*)] and on quince (*Cydonia oblonga*). Samples of leaves and green cortical tissue, taken both from the previously known field located in the countryside of Grottaglie and from other fields located in Francavilla Fontana (province of Brindisi, Puglia region) were tested. The plants showed symptoms similar to those described for almond trees, and the plants that tested positive were all voluntarily uprooted.

In 2021, phytosanitary inspectors took samples in *Prunus* plants adjacent to the outbreak areas in Puglia and none tested positive. The survey activities carried on in 2022 and 2023 and the pest was also included in the National Survey Plan which included sampling and testing in orchards and nurseries in other parts of Italy. In Puglia in 2022 and 2023, 60 and 63 sites were surveyed respectively, and no samples tested positive.

The situation of 'Candidatus Phytoplasma phoenicium' in Italy can be described as: **Absent, pest no longer found.**

Source: Personal communication of Dr Boscia to the EPPO Panel on Phytosanitary Measures (2024-03).
Regione Puglia (2022) *Candidatus Phytoplasma phoenicium* in Puglia. Report intermedio. 7 pp

Pictures 'Candidatus Phytoplasma phoenicium'. <https://gd.eppo.int/taxon/PHYPPH/photos>

Additional key words: detailed record, absence

Computer codes: PHYPPH, IT

2024/156 Update on the situation of 'Candidatus Liberibacter solanacearum' in Italy

'Candidatus Liberibacter solanacearum' is a bacteria that can infect plants of Solanaceae and Apiaceae families. Only Solanaceae haplotypes of 'Ca. Liberibacter solanacearum' are listed in the EPPO A1 List. In Europe, 'Ca. Liberibacter solanacearum' is only known to occur on Apiaceae.

The bacterium was first found in Italy in 2016 in Sicilia in a few carrot (*Daucus carota*) fields (EPPO RS 2018/036). In 2022, it was detected in specimens of the psyllid vector *Bactericera trigonica* (Hemiptera: Trioizidae) in the Abruzzo region. Both haplotypes D and E were detected. *B. trigonica* was also trapped in an adjacent potato field, although at a lower incidence. In 2023, carrots were sampled in one of the fields where the psyllids had been collected. The presence of 'Ca. Liberibacter solanacearum' was confirmed in samples of both symptomatic and asymptomatic carrots. To date, the bacterium does not seem to cause notable damage to the crops in the surveyed area.

The situation of 'Candidatus Liberibacter solanacearum' in Italy can be described as follows: **Present, only in some areas on carrot crops.**

Source: Bertinelli G, Tizzani L, Mosconi F, Ilardi V, Bertin S (2024) First report of the association of the psyllid vector *Bactericera trigonica* (Hemiptera: Trioziidae) with ‘*Candidatus Liberibacter solanacearum*’ in Italy. *Insects* 15(2), 117. <https://doi.org/10.3390/insects15020117>

Tizzani L, Bertinelli G, Bertin S, Ilardi V (2024) First report of ‘*Candidatus Liberibacter solanacearum*’ in carrot plants in mainland Italy. *Journal of Plant Pathology* (early view) <https://doi.org/10.1007/s42161-024-01698-w>

Pictures ‘*Candidatus Liberibacter solanacearum*’. <https://gd.eppo.int/taxon/LIBEPS/photos>
Bactericera trigonica. <https://gd.eppo.int/taxon/BCTCTR/photos>

Additional key words: detailed record

Computer codes: BCTCTR, LIBEPS, IT

2024/157 First report of *Plenodomus tracheiphilus* in Canada and first report on elm

Plenodomus tracheiphilus (EPPO A2 list) is known as the causal agent of mal secco of citrus trees in EPPO region. This fungus was recently isolated from wilting elms (*Ulmus* sp.) in the province of Alberta in Canada. This is the first report of *P. tracheiphilus* on elms anywhere in the world, and the first report of *P. tracheiphilus* in Canada.

The identity of the fungus was confirmed by morphological analysis and sequencing. Pathogenicity tests were conducted on elm trees to fulfil Koch’s postulates. The fungus had been initially confused with *Dothiorella ulmi*. It is considered that the introduction of *P. tracheiphilus* in Canada is quite recent as regular monitoring has been conducted for Dutch elm disease (caused by *Ophiostoma ulmi* and *Ophiostoma novo-ulmi*) and symptoms of wilting were only observed after 2016.

The situation of *Plenodomus tracheiphilus* in Canada can be described as: **Present, not widely distributed.**

Source: Yang Y, Fu H, Zahr K, Xue S, Calpas J, Demilliano K, Harding MW, Feindel D, Feng J (2024) *Plenodomus tracheiphilus*, but not *Dothiorella ulmi*, causes wilt disease on elm trees in Alberta, Canada. *European Journal of Plant Pathology* 169(2), 409-420.

Pictures *Plenodomus tracheiphilus*. <https://gd.eppo.int/taxon/DEUTTR/photos/>

Additional key words: new record, new host plant

Computer codes: DEUTTR, CA

2024/158 New biological control agent added to PM 6/3(5) in 2024

In 2023, *Tamarixia dryi* (Hymenoptera: Eulophidae) was added to the EPPO Standard PM 6/3(5) Biological control agents safely used in the EPPO region, Appendix 2-classical BCAs successfully established in the EPPO region. *T. dryi* is a biological control agent for species of *Trioxa erytreae* (Hemiptera: Triozidae) a vector of ‘*Candidatus Liberibacter africanus*’, ‘*Candidatus Liberibacter americanus*’ and ‘*Candidatus Liberibacter asiaticus*’ (EPPO A1 pest). *T. dryi* is utilised as a classical biological control agent in the EPPO region. It is indigenous to South Africa, it has been successfully established in the EPPO region for five years and there are no previous reports of adverse effects.

Source: EPPO (2021) PM 6/3(5) Biological control agents safely used in the EPPO region. *EPPO Bulletin* 51, 452-454.

Pictures *Tamarixia dryi*. <https://gd.eppo.int/taxon/TAMRDR/photos>

Additional key words: biological control

Computer codes: TAMRDR, TRIZER, LIBEAF, LIBEAM, LIBEAS

2024/159 Effect of temperature on egg parasitoids of *Halyomorpha halys*

Halyomorpha halys (Hemiptera: Pentatomidae - formerly EPPO Alert List) originates from Asia and has emerged as an invasive pest in North America and Europe in the 1990s and 2000s, respectively. Two scelionid egg parasitoids were considered the most effective natural enemies of *H. halys* in Asia: *Trissolcus japonicus* (Hymenoptera: Scelionidae) and *Trissolcus mitsukurii* (Hymenoptera: Scelionidae). The temperature related development of the two parasitoids, was assessed under four constant temperatures (16, 21, 26 and 31 °C). Laboratory colonies of *T. japonicus*, *T. mitsukurii* and *H. halys* were established from field collected insects in Veneto region, North-East Italy. Before the temperature experiment, the parasitoids were reared on *H. halys* egg masses at 25 °C. 10 males and 10 females of *T. mitsukurii* and the same numbers of *T. japonicus* were placed in a constant temperature chamber with a fresh *H. halys* egg mass for 24 hours. Following this, the egg mass was removed and placed into a separate chamber with the same temperature. Parasitoid couples and parasitised egg masses were observed daily to check parasitoid emergence and survival. The longevity of *T. japonicus* was higher than *T. mitsukurii* for all temperatures. The reproductive rate of *T. japonicus* was higher than that of *T. mitsukurii* at 26 and 31 °C. Both parasitoid species completed their development at 16 °C, but with low performance. Results showed that *T. mitsukurii* had a higher population increase when mean temperatures are 21 °C, while *T. japonicus* population increase was favoured by higher temperatures.

Source: Mele A, AvaniGadda DS, Ceccato E, Olawuyi GB, Simoni F, Duso C, Scaccini D, Pozzebon A (2024) Comparative life tables of *Trissolcus japonicus* and *Trissolcus mitsukurii*, egg parasitoids of *Halyomorpha halys*. *Biological Control* 195 105548.

Pictures *Trissolcus japonicus*. <https://gd.eppo.int/taxon/TRSSJP/photos>

Additional key words: biological control

Computer codes: HALYHA, TRSSJP, TRSSMI, IT

2024/160 **Assessment of *Cyanopterus ninghais* as a biological control agent for *Monochamus alternatus***

Monochamus alternatus (Coleoptera: Cerambycidae - EPPO A1 List, vector of *Bursaphelenchus xylophilus*) is native to northeast Asia and is primarily a pest of pine trees, though it can also attack other plants in the family Pinaceae and Cupressaceae. It has been detected in wood packaging material imported to Europe. In Asia, the pest inflicts economic damage in China, Korea and Japan. The ecto-parasitoid, *Cyanopterus ninghais* (Hymenoptera: Braconidae) was first identified in Zhejiang Province. It has 6-7 generations per year and overwinters inside a cocoon in the hosts gallery. Host range no-choice testing was carried out on 22 species (including the target) of wood boring insects. *C. ninghais* parasitized *Spondylis buprestoides* (Coleoptera: Cerambycidae) and *M. saltuarius* larvae, where eggs were observed to develop to adults on these two non-target species. None of the other non-target species were attacked. Further choice tests were conducted using the target and the two non-target species which were attacked in the no-choice experiments. *C. ninghais* showed a preference to *M. alternatus* larvae compared to *S. buprestoides* and *M. saltuarius*. The results suggest that *C. ninghais* is strongly host specific to *M. alternatus* and can be used in both argumentative and classical biological control programmes.

Source: Wang S, Han M, Li H, Xie J, Wei K, Wang X (2024) Testing the host range of *Cyanopterus ninghais* (Hymenoptera: Braconidae), a candidate for the biological control of *Monochamus alternatus*, the vector of pine wilt disease in Asia. *Biological Control* **195**, 105547.

Pictures *Monochamus alternatus*. <https://gd.eppo.int/taxon/MONCAL/photos>

Additional key words: biological control

Computer codes: CYAPNI, MONCAL, CN

2024/161 *Aponogeton distachyos* in the EPP0 region: addition to the EPP0 Alert List**Why**

Aponogeton distachyos (Aponogetonaceae) is recorded as an escaped plant species in the EPP0 region. The EPP0 Panel on Invasive Alien Plants are seeking further information on any additional occurrences of *A. distachyos* in the EPP0 region and reports of environmental and economic impacts.

Geographical distribution

EPP0 region: Belgium, France, Ireland, Netherlands, United Kingdom.

Africa: South Africa (native).

North America: USA (California).

South America: Chile.

Oceania: Australia, New Zealand.

Morphology

Aponogeton distachyos is a hairless, aquatic perennial, with elongated stems rooted in mud at its tuberous base. Its leaves float, and are oblong-elliptic, up to 25 x 7 cm. It flowers in a forked spike at the water's surface on a long stalk, with a deciduous sheath at the base of each spike. Each spike up to 6 cm, each with up to 10 flowers; sepals 10-20 mm.

Biology and Ecology

Aponogeton distachyos is a freshwater, tuberous-rooted perennial plant with submerged and floating leaves. It can grow in water bodies up to 2 m deep. Ripe fruits can float for a short period of time before releasing negatively buoyant seeds.

Habitats

Slow moving water bodies including rivers, irrigation channels, ponds, lakes, canals and damp ditches.

Pathways for movement

Aquarium and horticultural trade, and more specifically as a pond plant. *A. distachyos* is utilised as an ornamental plant both outdoors and inside in aquaria. The species is a popular ornamental as it grows and flowers in the autumn and winter months. It may also be spread locally as a contaminant of recreational equipment. The plant may enter the natural environment as discarded plant waste. Natural spread is facilitated by seed production and ripe fruit can float.

Impacts

Dense mats of *A. distachyos* could block waterways. It can form floating mats which can reduce light transmission and may alter the quality of the water body by reducing oxygen levels. Ecosystem services can be negatively affected, for example by reducing access to the water body or blocking irrigation channels.

Control

Control is difficult due to the habitat where *A. distachyos* occurs. Chemical control methods are largely not applied on or near water bodies in Europe. Mechanical control can be attempted though it is difficult to remove all material from a waterbody.

Sources:

- Chabrol L, Guerbaa K, Raynard P (2007) Espèces nouvelles et remarquables observées en Limousin depuis 2000. *Bulletin de la Société Botanique du Centre-Ouest* **38**, 53-72.
- Gunasekera L (2003) Cape pond lily (*Aponogeton distachyos*): South African food plant-emerging aquatic weed in Victoria. *Weedwatch* **2**, 6.
- Millane M, Caffrey J (2014) Risk assessment of *Aponogeton distachyos*. Non-native species Ireland.
- Patinet M, Branquart E, Monty A (2023) Invasive alien aquatic and riparian plant species - Best management practice guide. LIFE RIPARIAS project, 188 pp. <https://www.riparias.be/359/>

Additional key words: invasive alien plant, alert list

Computer codes: APGDI

2024/162 First confirmed report of *Crassula helmsii* in Spain

Crassula helmsii (Crassulaceae) is a semi-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 New Zealand and has been introduced into the EPP0 region as an oxygenating plant for aquaria and ponds. In Spain and Portugal, there are previous reports of the presence of *C. helmsii*, though these reports are uncertain, and in the case of Portugal, considered erroneous by experts. In 2023, floating mats of *C. helmsii* were detected in a freshwater reservoir (Abegondo-Cecebre) in Galicia, North-West Spain. Further surveys of the reservoir found *C. helmsii* in its emergent form at ten locations and the submerged form at one site. A number of management methods are available to control *C. helmsii*, including physical and biological control. Chemical control options are limited in or around waterbodies.

Source: Fagúndez J, Fernández MA, Balado A, Martínez-Veiga E, Servia MJ (2024) First record of the semi-aquatic invasive plant *Crassula helmsii* in the Iberian Peninsula and its link to potential dispersal drivers. *Biological Invasions* **26**, 1997-2004.

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

Additional key words: invasive alien plants

Computer codes: CSBHE, ES

2024/163 Potential distribution of *Ulex europaeus* in Colombia due to climate change

Ulex europaeus (Fabaceae) is native to the EPP0 region but a non-native invasive plant species in many other regions in the world. Its high phenotypic plasticity and the high germination capacity of its seeds allow the species to establish in a wide range of climates and habitat types. It can be found at different latitudes and at altitudes ranging from zero to 4 000 m above sea level. In Colombia, *U. europaeus* was introduced in the 1950s and utilised as a living fence and has since spread to occupy extensive areas of the Cordillera Central and Cordillera Oriental. It has negative impacts on the environment and high economic costs for control and restoration of degraded land. An ecological niche model was developed to predict the potential future distribution of the species in Colombia for the years 2041-2060. Data from the Global Biodiversity Information Facility portal, and records obtained through field trips and bioclimatic variables from Worldclim2 were used in the model. The model showed that under future climate change, the area for new establishment is less than 1%, and there is a reduction in area compared to the current distribution of 12 to 31%. This is due to unsuitable climatic conditions that would affect the germination

capacity of seed. However, at higher altitudes, it is likely that *U. europaeus* will find optimal temperatures for seed germination and establishment.

Source: Ángel-Vallejo MC, Aguirre-Acosta N, Rodríguez-Rey GT, García-Marín EJ, Álvarez-Mejía LM, Feuillet-Hurtado C (2024) Distribution models in invasive plants with climatic niche expansion: a case study of *Ulex europaeus* L. in Colombian Andes *Biological Invasions* **26**, 1919-1930.

Pictures *Ulex europaeus*. <https://gd.eppo.int/taxon/ULEEU>

Additional key words: invasive alien plants

Computer codes: ULEEU, CO