#### ORGANISATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES PLANTES

EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

Web: www.eppo.int

GD: gd.eppo.int

# **EPPO** Reporting Service

# No. 4 Paris, 2024-04

General		
2024/075 2024/076 2024/077 2024/078	New data on quarantine pests and pests of the EPPO Alert List New and revised dynamic EPPO datasheets are available in the EPPO Global Database Special Issue of the EPPO Bulletin on Climate Change and Pest Risk Analysis EPPO is recruiting a Scientific Officer to work on Information Services including Horizon Scanning EPPO is recruiting a Scientific Officer to work on Diagnostics	
2024/080	Online survey about the use of EPPO-Q-bank	
Pests		
2024/081 2024/082 2024/083 2024/084 2024/085 2024/086	First report of Euwallacea fornicatus in Brazil First report and eradication of Callidiellum villosulum in Germany Agrilus pseudocoryli can be a pest of hybrid hazels First report of Zaprionus tuberculatus in mainland France Update on the situation of Zaprionus tuberculatus in Brazil Eutetranychus banksi (Acari: Tetranychidae, Texas citrus mite): addition to the EPPO Alert List	
Diseases		
2024/087 2024/088 2024/089 2024/090 2024/091	First report of Tomato brown rugose fruit virus in Ireland First report of Ralstonia pseudosolanacearum on Rosa sp. in Greece Phytophthora ramorum on larch and chestnut in Western France Update on the situation of Phyllosticta citricarpa in Tunisia First report of Cryptostroma corticale in Russia	
<b>Invasive Plants</b>		
2024/092 2024/093 2024/094 2024/095 2024/096	First report of Melaleuca williamsii subsp. synoriensis in Italy First report of Aeonium haworthii and Crassula ovata in Algeria First reports of alien plants in the Balearic Islands (Spain) Pistia stratiotes in China Ecosystem impacts of Impatiens glandulifera	

Tel: 33 1 45 20 77 94

E-mail: hq@eppo.int

#### 2024/075 New data on quarantine pests and pests of the EPPO Alert List

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

#### New records

Beet necrotic yellow vein virus (*Benyvirus*, EPPO A2 List - rhizomania) is reported for the first time from Tunisia. The virus was detected in a commercial beet (*Beta vulgaris*) field located in Bousalem, Jendouba Governorate (Nahdi *et al.*, 2022). **Present, no details.** 

Erysiphe corylacearum is reported for the first time in Israel. In May 2022, powdery mildew symptoms were observed on hazelnut (*Corylus avellana*) plants in several locations in the northern Golan region: a truffle plantation in Ein-Zivan, gardens in Merom-Golan, and a garden adjacent to the 'Pri-Beresheet' packing house (Gur, 2024).

*Nysius huttoni* (Hemiptera: Lygaeidae - formerly EPPO Alert List) is reported for the first time from Ireland. The first specimens were found in April 2023 in county Carlow (DAFM, 2024).

Phytophthora macrochlamydospora is reported for the first time in Brazil causing tree decline in Pinus taeda. This disease has been observed since 2014 in some plantations in Santa Catarina and Paraná states. Affected P. taeda trees showed needle chlorosis and shortening, reduced plant growth, reduced volume of fine roots and absence of ectomycorrhiza. It is noted that in Brazil, the presence of this pathogen had been detected earlier in irrigation water from streams. P. macrochlamydospora had initially been reported to cause root and stem rot in soybean (Glycine max) in Australia and the USA (Brumat et al., 2023).

Spodoptera frugiperda (Lepidoptera: Noctuidae - EPPO A2 List) occurs in Lebanon. Its presence was recorded (no further details) during studies conducted in 2021 in maize fields on beneficial insects associated with the pest (Moussa, 2022). **Present, no details.** 

#### Detailed records

In China, *Heterodera zeae* (formerly EPPO Alert List) was first found in Guanxi province in a maize (*Zea mays*) field in 2015 (EPPO RS 2017/145). More recently, it was also found in maize fields in the provinces of Henan (Cui *et al.*, 2020) and Sichuan (Xu *et al.*, 2024).

In the USA, *Stenocarpella macrospora* (EPPO A2 List) occurs in Kentucky. During surveys conducted in maize fields in 2019 and 2020, both *S. macrospora* and *S. maydis* were detected. *S. macrospora* was identified in 33.8% of inspected ears in 2019 and 36.9% in 2020. *S. maydis* was confirmed in 66.2% of inspected ears in 2019 and 63.1% in 2020 (Anderson and Wise, 2024).

In Russia, *Stephanitis pyrioides* (Heteroptera: Tingidae - formerly EPPO Alert List) was found in July 2020 on *Rhododendron* x *hybridum* in a single location in Sochi (Krasnodar). It is suspected that it was introduced with imports of infested plants for planting from Italy. This is the first time that *S. pyrioides* is reported from the European part of Russia, previously it was only recorded in the Far East (Zhuravleva *et al.*, 2023).

In the USA, tomato spotted wilt virus (*Orthotospovirus tomatomaculae* - EPPO A2 List) is reported for the first time in Arizona. The virus was detected on lettuce (*Lactuca sativa* var. *longifolia*) in three areas of Yuma county, in mixed infections with impatiens necrotic spot virus (*Orthotospovirus impatiensnecromaculae* - EPPO A2 List) (Rodriguez *et al.*, 2024).

#### Denied record

The presence of *Polygraphus proximus* (Coleoptera: Curculionidae: Scolytinae - EPPO A2 List) in Kazakhstan had been reported during scientific studies (EPPO RS 2024/006). However, the NPPO of Kazakhstan recently informed the EPPO Secretariat that annual official surveys are conducted for this quarantine pest and have not detected it. It is planned to inspect forest plantations in the Eastern regions of Kazakhstan in 2024. The NPPO of Kazakhstan considers that *P. proximus* is absent from its territory (NPPO of Kazakhstan, 2024).

#### Host plants

During a survey conducted in an outdoor nursery in York (United Kingdom), the nematode *Aphelenchoides fragariae* (EU RNQP) was detected in *Darmera peltata* (Saxifragaceae). Affected plants showed interveinal leaf chlorosis, necrosis and malformation. *D. peltata* is grown for ornamental purposes, often near ponds as it prefers moist soils (Singh *et al.*, 2024).

#### Sources:

- Anderson NR, Wise KA (2024) Prevalence of Stenocarpella maydis and Stenocarpella macrospora causing Diplodia ear rot in Kentucky. Plant Health Progress 25(1), 27-32.
- Brumat ACL, Auer CG, Tessmann DJ, Duarte HSS, dos Santos ÁF (2023) First report of *Phytophthora macrochlamydospora* associated with tree decline in *Pinus taeda* in Brazil. *Forest Pathology* **53**, e12840. https://doi.org/10.1111/efp.12840
- Cui J, Zhou B, Jiao Y, Lv Y, Lu J, Meng H, Jiang S (2020) First report of *Heterodera zeae* on maize (*Zea mays*) in Henan province, China. *Plant Disease* **107**(7), p 2031. <a href="https://doi.org/10.1094/PDIS-02-20-0227-PDN">https://doi.org/10.1094/PDIS-02-20-0227-PDN</a>
- DAFM. Department of Agriculture, Food and the Marine of Ireland. Plant Pest Factsheet. *Nysius huttoni*. Wheat bug. <a href="https://www.gov.ie/pdf/?file=https://assets.gov.ie/278017/7606b731-01d5-4276-9e52-e859c102b54d.pdf">https://www.gov.ie/pdf/?file=https://assets.gov.ie/278017/7606b731-01d5-4276-9e52-e859c102b54d.pdf</a> (last accessed in 2024-04).
- Gur L (2024) Occurrence of powdery mildew caused by *Erysiphe corylacearum* on hazelnuts in Israel. *Plant Disease* (early view). <a href="https://doi.org/10.1094/PDIS-11-23-2386-PDN">https://doi.org/10.1094/PDIS-11-23-2386-PDN</a>
- Moussa Z (2022) Beneficial insects associated with fall army worm in Lebanon. Abstract of a paper presented at the 13th Arab Congress of Plant Protection (Hammamet, TN, 2022-10-16/21).
- Nahdi S, Khemissi A, Souissi R, Abou Kubaa R, Boukhris-Bouhachem (2022) First survey of beet viruses and their relative vectors on beet (*Beta vulgaris*) species in Tunisia. Abstract of a paper presented at the 13th Arab Congress of Plant Protection (Hammamet, TN, 2022-10-16/21).
- NPPO of Kazakhstan (2024-04).
- Rodriguez SD, Allan C, Discua Duarte S, Matzkin LM, Palumbo J, Carrière Y (2024) First report of tomato spotted wilt virus infecting lettuce in Yuma, Arizona. *Plant Disease* **108**(3), 823. https://doi.org/10.1094/PDIS-04-23-0629-PDN
- Singh PR, Correia M, Orlando V, Macey C, Rotifa J, Kershaw Z, Dawes J, Lawson R (2024) First report of *Aphelenchoides fragariae* infecting the ornamental plant *Darmera peltata* in the United Kingdom. *New Disease Reports* **49**, e12267. <a href="https://doi.org/10.1002/ndr2.12267">https://doi.org/10.1002/ndr2.12267</a>
- Xu X, Li R, Ren H, Zhou Y, Jiang S, Tang J, Cui J (2024) First report of the maize cyst nematode *Heterodera zeae* in Sichuan province of Southwest China. *Plant Disease* **108**(3), 820. https://doi.org/10.1094/PDIS-11-23-2469-PDN

Zhuravleva EN, Golub VB, Kirichenko NI, Shoshina EI, Soboleva VA, Karpun NN, Musolin DL (2023) First record of the azalea lace bug *Stephanitis pyrioides* (Scott, 1874) (Hemiptera: Heteroptera: Tingidae) in the European part of Russia: Molecular genetics and taxonomy of an alien pest. *EPPO Bulletin* **53**(3), 643-651.

**Additional key words:** absence, denied record, detailed record, host plant, new record,

Computer codes: APLOFR, BNYVVO, DIPDMC, ERYSCY, HETDZE, LAPHFR, NYSIHU, POLGPR, STEPPY, TSWV00, CN, GB, IE, IL, KZ, LB, RU, TN, US

# 2024/076 New and revised dynamic EPPO datasheets are available in the EPPO Global Database

The EPPO Secretariat is in the process of revising the EPPO datasheets on pests recommended for regulation and creating new datasheets. This project is also supported by an EU grant agreement. This revision provides the opportunity to create dynamic datasheets in the EPPO Global Database in which the sections on pest identity, host range and geographical distribution are automatically generated by the database. It is planned that these dynamic datasheets will progressively replace the PDF documents that are currently stored in the database. Since the previous report (EPPO RS 2024/050), the following new and revised EPPO datasheets have been published in the EPPO Global Database:

- Diaporthe vaccinii. <a href="https://gd.eppo.int/taxon/DIAPVA/datasheet">https://gd.eppo.int/taxon/DIAPVA/datasheet</a>
- Puccinia horiana. <a href="https://gd.eppo.int/taxon/PUCCHN/datasheet">https://gd.eppo.int/taxon/PUCCHN/datasheet</a>

**Source:** EPPO Secretariat (2024-04).

Additional key words: publication Computer codes: DIAPVA, PUCCHN

## 2024/077 Special Issue of the EPPO Bulletin on Climate Change and Pest Risk Analysis

A Special Issue of the EPPO Bulletin on Climate Change and Pest Risk Analysis has just been published. This issue draws attention to the importance of the effects of climate change on pests which can affect our food security and natural environments. The different papers provide examples of how pests have been observed changing their global distribution in response to climate change, modelling tools incorporating climate change, and an overview of current practices and tools for horizon scanning, and raising awareness. They provide information and guidance on interpreting climate change projections, including interpretating uncertainties, and appropriate communication of projected future pest risks due to climate change, and the importance of integrating climate change into the overall PRA.

The issue is online only, and all papers are Open Access and can be found at the following link: https://onlinelibrary.wiley.com/toc/13652338/2024/54/S1

**Source:** EPPO Secretariat (2024-04).

Additional key words: climate change, PRA, publication

# 2024/078 EPPO is recruiting a Scientific Officer to work on Information Services including Horizon Scanning

EPPO is recruiting a full time Scientific Officer to work on Information Services including Horizon Scanning. The preparation of articles for the future issues of the EPPO Reporting Service will indeed be part of the tasks of the Scientific Officer.

The appointment will be for a fixed term of 3 years, starting on the 6<sup>th</sup> of January 2025, with possibility of extension and a permanent contract after 5 years of satisfactory service. The post will be based at the EPPO headquarters in Paris. The starting salary will be based on the UNESCO P2 salary scale.

Applications should be sent to the EPPO Secretariat before the 10<sup>th</sup> of June 2024.

For more information and to submit your application: https://jobs.eppo.int/p2info

**Source:** EPPO Secretariat (2024-04).

Additional key words: job opportunity, EPPO, information

#### 2024/079 EPPO is recruiting a Scientific Officer to work on Diagnostics

EPPO is recruiting a full time Scientific Officer to work on Diagnostics. The appointment will be for a fixed term of 11 months, starting on the 1<sup>st</sup> of September 2024. The post will be based at the EPPO headquarters in Paris. The starting salary will be based on the UNESCO P1 salary scale.

Applications should be sent to the EPPO Secretariat before the 10<sup>th</sup> of May 2024. For more information and to submit your application: <a href="https://jobs.eppo.int/p1diag">https://jobs.eppo.int/p1diag</a>

**Source:** EPPO Secretariat (2024-04).

Additional key words: job opportunity, EPPO, diagnostics

# 2024/080 Online survey about the use of EPPO-Q-bank

The aim of EPPO-Q-bank (<a href="https://qbank.eppo.int">https://qbank.eppo.int</a>) is to support species identification of quarantine pests based on barcodes/sequences. EPPO-Q-bank is composed of curated databases for arthropods, bacteria, fungi, nematodes, phytoplasmas, plants, viruses and viroids. Most specimens, strains or isolates, from which sequences included in the databases have been obtained, are from physical collections. EPPO-Q-bank also provides valuable information about these specimens, strains or isolates, information about barcoding and sequencing methodologies, and tools to perform single and multi-locus blast searches.

EPPO-Q-bank has been hosted by EPPO for the past five years, and the EPPO Secretariat is now organizing a survey to better understand how it is used and to gather suggestions for its improvement.

Link to the survey: <a href="https://forms.office.com/e/4mDkWZ4CcD">https://forms.office.com/e/4mDkWZ4CcD</a>
Estimated time for completion of the survey: 10 to 15 minutes

End of the survey: 31st of May 2024

**Source:** EPPO Secretariat (2024-04).

Additional key words: database, diagnostics

#### 2024/081 First report of Euwallacea fornicatus in Brazil

Euwallacea fornicatus sensu stricto (Coleoptera: Curculionidae: Scolytinae - EPPO A2 List as E. fornicatus sensu lato) is reported for the first time from Brazil. The first specimens were caught during an ongoing survey which has been ongoing since 1982. In March 2019, specimens of E. fornicatus were caught in a stand of Khaya grandifoliola in Capinópolis (Minas Gerais). Shortly after, more samples were received from Arquiraz (Ceará), where beetles were attacking trees of Acacia mangium. Additional surveys were carried out in other areas of Brazil and in particular in avocado (Persea americana) orchards. As a result of these studies, the presence of E. fornicatus was confirmed in several localities in the states of Ceará, Minas Gerais, Paraná, Santa Catarina, and São Paulo. The identity of the pest was determined on the basis of its morphological characteristics and confirmed by molecular tests on several specimens. It is noted that, E. fornicatus has been found attacking and breeding in Acacia mangium, Persea americana, Solanum mauritianum and Toona ciliata. The occurrence of E. fornicatus in Brazil raises concerns, in particular as it could threaten avocado production.

The situation of *Euwallacea fornicatus sensu stricto* in Brazil could be described as follows: **Present**, **not widely distributed**.

Source: Covre LS, Atkinson TH, Johnson AJ, Flechtmann CAH (2024) Introduction and

establishment of Euwallacea fornicatus (Coleoptera: Curculionidae: Scolytinae) in

Brazil. Journal of Economic Entomology (early view).

https://doi.org/10.1093/jee/toae081

Pictures Euwallacea fornicatus sensu lato. https://gd.eppo.int/taxon/XYLBFO

Additional key words: new record Computer codes: EUWAWH, BR

#### 2024/082 First report and eradication of Callidiellum villosulum in Germany

The NPPO of Germany recently informed the EPPO Secretariat of the first finding of *Callidiellum villosulum* (Coleoptera: Cerambycidae - brown fir long-horned beetle) on its territory. In February 2024, employees of a wholesaler for pet supplies located in Schleswig-Holstein discovered beetles in shelters for chinchillas (rodents) made of cypress wood. The wholesaler contacted the Plant Protection Service and the beetles present in the wood were identified as *C. villosulum* using molecular tests (DNA sequencing). As a precautionary measure, all infested wooden products were incinerated at the initiative of the wholesaler. The outbreak is therefore considered eradicated. An Express PRA was carried out and concluded that *C. villosulum* cannot establish in Germany but could present significant risks to the Southern part of the European Union and that phytosanitary measures in accordance with Art. 29 of Regulation (EU) 2016/2031 had to be taken to prevent any further spread of this pest. Finally, it is noted that all wooden items recently found infested by *C. villosulum* in Poland (2019, cages in pet stores), Ireland (2022, shelters for guinea pig) and Germany (2024, shelters for chinchillas) originated from the same German supplier who had imported these commodities from China.

The pest status of *Callidiellum villosulum* in Germany is officially declared as: **Absent, pest eradicated.** 

Computer codes: CLLLVI, DE

EPPO note: C. villosulum is native to South-Eastern China and is known to infest conifers in the families Taxodiaceae (Cunninghamia lanceolata, Cryptomeria japonica, Taiwania cryptomerioides), Cupressaceae (Chamaecyparis formosensis) and Pinaceae (Pinus taiwanensis). This insect has repeatedly been intercepted from different parts of the world (Australia, Canada, France, Japan, Ireland, Malta, Poland, USA) on wooden commodities imported from China (e.g. artificial Christmas trees with a wooden trunk, pet cages) (EPPO RS 2005/180, 2014/162, 2020/075). Interestingly, a live beetle was also found in an apartment in Reykjavík (Iceland) in March 2021, probably emerging from recently acquired furniture. Information on the biology of this insect and its potential impacts on conifer trees is lacking. A world distribution of C. villosulum is available from the EPPO Global Database: https://gd.eppo.int/taxon/CLLLVI/distribution

Source: NPPO of Germany (2024-04).

Express PRA zu Callidiellum villosulum. JKI. https://pflanzengesundheit.julius-

kuehn.de/dokumente/upload/Callidiellum-villosulum\_exprPRA.pdf

Additional key words: incursion, new record, eradication, absence

# 2024/083 Agrilus pseudocoryli can be a pest of hybrid hazels

In the Great Lakes region of the USA, cultivation of hybrid hazels (*Corylus americana* × *Corylus avellana*) for nut production is a growing industry. In this area, growers have reported damage by stem-boring buprestid beetles (resembling *Agrilus* sp.) which appeared when hybrid hazel plantations were approximately 10 years-old. Infested plants showed stem dieback, gall-like swellings, and D-shaped emergence holes. In 2021, studies were conducted in Minnesota in 2 plantations of hybrid hazels affected by stem borers to determine which *Agrilus* species might be involved. In these plantations, 50% of the plants showed damage, with a third showing 25% (or more) of stem dieback. Buprestid adults and larvae were collected and identified by morphological and molecular methods as *Agrilus pseudocoryli* (Coleoptera: Buprestidae - hazel stem borer). *A. pseudocoryli* is native to North America, and occurs throughout Eastern and Central USA and Canada, and only uses *Corylus* species as larval hosts. In the studied plantations, no other buprestid species were found.

These findings suggest that A. pseudocoryli has the potential to negatively impact hybrid hazelnut yield. It is also supposed that drought which has prevailed in Minnesota may have favoured the increase of A. pseudocoryli populations, as native Agrilus species are often secondary pests that become problematic when their host plants are stressed. It is noted that further research is needed to characterize the ecological and economical impacts of A. pseudocoryli on hazelnut production in North America. In addition, the invasion potential of A. pseudocoryli to other parts of the world growing hazelnuts (e.g. the EPPO region) might also need to be investigated.

Source: Perish PK, Shanovich HN, Koch AN, Lindsey ARI, Aukema BH (2023) The hazel stem

borer, Agrilus pseudocoryli (Coleoptera: Buprestidae), as a pest of hybrid hazelnuts.

Journal of Economic Entomology 116(2), 496-504.

https://doi.org/10.1093/jee/toad023

Additional key words: detailed record Computer codes: AGRLPS, US

#### 2024/084 First report of Zaprionus tuberculatus in mainland France

Zaprionus tuberculatus (Diptera: Drosophilidae - formerly EPPO Alert List) is reported for the first time from mainland France\*. The pest was found during a research project which was conducted from March 2022 to February 2023 to better understand the population dynamics of *Drosophila suzukii* and survey drosophilid communities. The first specimens of Z. tuberculatus were caught in a fig (*Ficus carica*) orchard in Salses-le-Château (Pyrénées-Orientales department, Occitanie region) in July 2022. During the whole monitoring period, a total of 111 specimens of Z. tuberculatus were caught in this fig orchard and a nearby hedgerow. As the presence of Z. tuberculatus has been observed during 2 consecutive years, it is considered that the species is established. The identity of the pest was confirmed by examination of its morphological characteristics.

Although the pest status and the potential risks *Z. tuberculatus* may present to agriculture remain to be clarified, it is noted that attention to this species should paid. Further surveys and studies will be conducted to better understand its biology and the potential damage it may cause to fruit crops, such as figs, citrus and strawberries.

Source: Georges R, Yassin A, Colinet H (2024) First record of *Zaprionus tuberculatus* 

(Diptera: Drosophilidae) in mainland France. Entomological Research 54, e12725.

https://doi.org/10.1111/1748-5967.12725

**Pictures** Zaprionus tuberculatus. <a href="https://gd.eppo.int/taxon/ZAPRTU/photos">https://gd.eppo.int/taxon/ZAPRTU/photos</a>

Additional key words: new record Computer codes: ZAPRTU, FR

#### <u>2024/085</u> Update on the situation of Zaprionus tuberculatus in Brazil

In Brazil, Zaprionus tuberculatus (Diptera: Drosophilidae - formerly EPPO Alert List) was first found in 2020 in urban parks in Brasília (EPPO RS 2022/096). In 2022 and 2023, it was also recorded in São Paulo, Rio de Janeiro, Rio Grande do Sul, and Minas Gerais states. New host records were also made on fruit species, such as Butia capitata (jelly palm), Eugenia uniflora (pitanga), Psidium cattleyanum (strawberry guava), and Vitis labrusca (fox grape) (EPPO RS 2024/001).

In March 2023, *Z. tuberculatus* was recorded for the first time in Santa Catarina state in fruits of *Acca sellowiana* (feijoa), and *Psidium cattleyanum* (both red and yellow strawberry guavas) collected in the municipalities of Caçador and Videira. This is also the first time that *A. sellowiana* is recorded as a host of *Z. tuberculatus*. In these studies conducted from January to April 2023 on different fruit species (*A. sellowiana*, *Campomanesia xanthocarpa*, and *P. cattleyanum*), a total of 3 447 Drosophilidae specimens were collected and included: *Z. indianus* (24.1%), *Drosophila suzukii* (4.1%), and *Z. tuberculatus* (2.3%); the remaining specimens (69.5%) were unidentified drosophilids.

The authors noted that the establishment of *Z. tuberculatus* in Brazil raises concerns, as it occupies niches similar to those of *Z. indianus* and *D. suzukii*, and that their interactions on the same crops could potentially increase damage to fruit production. They concluded that more studies are needed on *Z. tuberculatus* to assess its impacts and distribution, and establish management programs.

<sup>\*</sup> Zaprionus tuberculatus occurs in Réunion and Mayotte.

Source: dos Santos JP, Fiedler M, Menezes-Netto AC, Carissimi Boff MI, Mello Garcia FR

(2023) First record of Zaprionus tuberculatus (Diptera: Drosophilidae) in Santa

Catarina State, Brazil. Agropecuária Catarinense Journal 36(3), 22-25.

https://doi.org/10.52945/rac.v36i3.1755

Pictures Zaprionus tuberculatus. https://gd.eppo.int/taxon/ZAPRTU/photos

Additional key words: detailed record Computer codes: ZAPRTU, BR

# 2024/086 Eutetranychus banksi (Acari: Tetranychidae, Texas citrus mite): addition to the EPPO Alert List

Why: Eutetranychus banksi (Acari: Tetranychidae - Texas citrus mite) is a polyphagous species which has been present in Portugal on citrus since 1999. It has spread within the Iberian Peninsula (Portugal and Spain) and become more damaging in recent years, becoming the most common and abundant spider mite on citrus there. The EPPO Secretariat considered it useful to add it to the Alert List to raise awareness of other Southern EPPO countries.

Where: E. banksi is widely distributed in North, Central and South America. It was first recorded in Europe in 1999 but remained in a restricted area up to 2013. It was recently found in Madeira (2020) and in India (2021).

EPPO Region: Portugal (mainland, Madeira), Spain (mainland).

Asia: India (Uttar Pradesh).

**North America:** Mexico, United States of America (Arizona, California, Florida, Hawaii, Texas).

**Central America and Caribbean:** Costa Rica, Cuba, Dominican Republic, El Salvador, Guadeloupe, Guatemala, Honduras, Martinique, Nicaragua, Panama.

**South America:** Argentina, Brazil (Bahia, Ceara, Distrito Federal, Goias, Mato Grosso, Minas Gerais, Pernambuco, Rio Grande do Sul, Sao Paulo), Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela.

On which plants: E. banksi is a very polyphagous species, known to be able to develop on over 100 species from over 30 families with a preference for Fabaceae and Rutaceae. It has been recorded as causing economic damage on citrus.

**Damage:** *E. banksi* feeds by consuming the contents of mesophyll plant cells, reducing the leaf's photosynthetic capacity, and promoting defoliation, which may result in a decrease in yield. In addition, it may cause aesthetic damage to the fruits (e.g. on citrus), resulting in a lack of pigmentation, which reduce their economic value.

E. banksi is very similar morphologically to Eutetranychus orientalis (Acari: Tetranychidae - EPPO A2 List) and also lives on the upper side of leaves.

Control relies mainly on acaricides and biocontrol. However, native biological control agents efficient against other mites such as *Panonychus citri* are not very efficient against *E. banski*. *E. banski* is more resistant to high temperatures than *P. citri* and *E. orientalis*.

Photos are available at <a href="https://gd.eppo.int/taxon/EUTEBA/photos">https://gd.eppo.int/taxon/EUTEBA/photos</a>

**Dissemination:** Spider mites mainly disperse by wind currents. In international trade, they might be carried on host plants. It has been suggested that *E. banksi* spread from Portugal to Spain via contaminated fruit containers.

Pathways: Plants for planting, cut foliage, fruit?, fruit containers?

**Possible risks:** *E. banksi* is a very polyphagous species, causing economic damage in citrus production. It has already established in parts of the EPPO region and may carry on spreading. As it is very polyphagous, it could also cause damage in other crops.

#### **Sources**

- Ferragut F, Navia D, Ochoa R (2013) New mite invasions in citrus in the early years of the 21st century. Experimental and Applied Acarology **59**, 145-164.
- López-Olmos S, Ferragut F (2023) The newcomer takes it all: the invader Texas citrus mite, *Eutetranychus banksi* (Acari: Tetranychidae), displaces the resident relatives in citrus agrosystems. *Biological Invasions* 25, 3171-3192. https://doi.org/10.1007/s10530-023-03099-z
- Migeon A & Dorkeld F (2024) Spider Mites Web: a comprehensive database for the Tetranychidae. Available from <a href="https://www1.montpellier.inrae.fr/CBGP/spmweb">https://www1.montpellier.inrae.fr/CBGP/spmweb</a> (Accessed 2024/04/23)
- Naves P, Aguiar AF, Santosa M, Nóbrega F, Varela AR, Silvaa MJ, Migeon A, Navia D, Auger P (2023) Two new alien *Eutetranychus* mites (Prostigmata, Tetranychidae) for Madeira Island, Portugal. *Acarologia* 63(4), 1154-1162. https://doi.org/10.24349/t82c-9sz9
- Yadav RS, Painkra GP, Kerketta D, Kumar D, Raghuraman M (2021) First record of Texas citrus mite, Eutetranychus banksi (McGregor) infesting neem (Azadirachta indica A. Juss) from India. Journal of Entomological Research 45(suppl), 1098-1102.

EPPO RS 2024/086

Panel review date - Entry date 2014-04

Additional key words: Alert List Computer codes: EUTEBA

### 2024/087 First report of Tomato brown rugose fruit virus in Ireland

The NPPO of Ireland recently informed the EPPO Secretariat of the occurrence of tomato brown rugose fruit virus (*Tobamovirus*, ToBRFV - EPPO A2 List) on its territory. ToBRFV was first detected in March 2024. A sample had been sent by an Irish grower to a Dutch laboratory which reported back to the NPPO of Ireland.

The outbreak was detected in a greenhouse of 10 000 m<sup>2</sup> where tomato (*Solanum lycopersicum*) are grown for fruit production. Phytosanitary measures according to EU Regulation 2023/1032 are applied.

The pest status of *Tomato brown rugose fruit virus* in Ireland is officially declared as follows: Present, crop contained within a site with physical protection, under eradication.

Source: NPPO of Ireland (2024-03).

Commission Implementing Regulation (EU) 2023/1032 of 25 May 2023 establishing measures to prevent the introduction into and the spread within the Union territory of Tomato brown rugose fruit virus (ToBRFV) and amending Implementing Regulation (EU) 2020/1191, OJ L 139. http://data.europa.eu/eli/reg\_impl/2023/1032/oj

Pictures Tomato brown rugose fruit virus. <a href="https://gd.eppo.int/taxon/TOBRFV/photos">https://gd.eppo.int/taxon/TOBRFV/photos</a>

Additional key words: new record Computer codes: ToBRFV, IE

#### 2024/088 First report of Ralstonia pseudosolanacearum on Rosa sp. in Greece

In March 2021, a sample of diseased *Rosa* sp. plants was sent by a grower to the Benaki Phytopathological Institute, Greece for diagnosis. This sample had been collected from a commercial greenhouse producing rose cut flowers in the municipality of Troizinia-Methana (Attica), where 10% of the plants were affected. Sampled plants displayed dieback with black necrosis of pruned shoots, brown discoloration of shoot and root vascular tissues, and whitish slime exudation when cutting shoots. Laboratory analysis (immunofluorescence, biochemical, molecular and pathogenicity tests) confirmed the presence of *Ralstonia pseudosolanacearum* (EPPO A2 List) in the symptomatic sample. This is the first time that *R. pseudosolanacearum* is detected in Greece. Official phytosanitary measures will be implemented to prevent any further spread of the disease.

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

Source: Holeva MC, Glynos PE, Reppa CI, Karafla CD (2024) First report of Ralstonia

pseudosolanacearum causing bacterial wilt on Rosa sp. in Greece. Plant Disease

(early view). https://doi.org/10.1094/PDIS-11-23-2279-PDN

Pictures Ralstonia pseudosolanacearum. https://gd.eppo.int/taxon/RALSPS/photos

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

#### 2024/089 Phytophthora ramorum on larch and chestnut in Western France

In France, *Phytophthora ramorum* (EPPO A2 List) was first detected in 2002 and was then only found in nurseries on *Rhododendron* spp. and *Viburnum* spp. Outbreaks in forest stands were first detected in May 2017 in two sites (Saint-Cadou and Hanvec) on *Larix kaempferi* (Japanese larch) in Finistère (Bretagne region, North-Western France) Eradication measures were applied (EPPO RS 2017/129). Surveys were conducted in 2018-2021 to assess the presence of *P. ramorum* in an area of 18 km radius around those outbreaks, as well as in the vicinity of seven ornamental nurseries that had been infected by *P. ramorum* in the past. Overall, a limited presence of *P. ramorum* was detected in 2018-2021. Only two new stands of infected *L. kaempferi* were found close to the main initial outbreak, in Saint-Cadou and Saint-Rivoal. The pathogen was only detected on rhododendrons and chestnut trees (*Castanea sativa*) in the vicinity of the outbreaks. In the Saint-Cadou forest, eradication measures were applied including the felling of all mature larch trees, however an outbreak of *P. ramorum* was found on chestnut trees. *P. ramorum* was also detected near two of the formerly infected ornamental nurseries, on *C. sativa* and on rhododendrons. The authors consider that the impact on chestnuts is the major risk of *P. ramorum* in France.

Source: Beltran A, Laubray S, loos R, Husson C, Marçais B (2024) Low persistence of

Phytophthora ramorum (Werres, De Cock, and Man in 't Veld) in western France after implementation of eradication measures. Annals of Forest Science 81(1), 7.

https://doi.org/10.1186/s13595-024-01222-1

Pictures Phytophthora ramorum. <a href="https://gd.eppo.int/taxon/PHYTRA/photos">https://gd.eppo.int/taxon/PHYTRA/photos</a>\*

Additional key words: detailed record, host plant Computer codes: PHYTRA, FR

#### 2024/090 Update on the situation of *Phyllosticta citricarpa* in Tunisia

Phyllosticta citricarpa (citrus black spot - EPPO A1 List) was first confirmed in Tunisia in 2019 in the Governorate of Nabeul. Official measures have been applied (EPPO RS 2019/141). A survey was conducted from January to July 2021 to assess the presence of P. citricarpa in 11 citrus production regions in the north-eastern part of Tunisia. The survey was conducted in 50 citrus orchards (12 orange (Citrus x aurantium var. sinensis) orchards and 38 lemon (C. x limon) orchards) located in the area of Nabeul, and in the area of Sousse (Bouficha, Sidi Bou Ali and Chott Mariem). The surveyed orchards were not selected randomly by the extension officers but based on the likelihood of disease presence. Symptoms of citrus black spot were observed in 29 orchards in the area of Nabeul in all regions visited (3 in Menzel Bouzalfa, 4 in Benikhaled, 1 in Soliman, 14 in Bouargoub, 2 in Grombalia, 2 in Nabeul, and 1 in Dar Chaben El Fehri), and 2 in the area of Sousse (only in Chott Mariem). Symptoms were observed on fruits, twigs, and leaves in the most affected region, Bouargoub, while only fruit and leaf symptoms were observed elsewhere. Affected fruits showed symptoms resembling hard spot and false melanose lesions. Symptoms mainly affected mature fruits but were also observed on immature fruits.

The results of the survey showed a high disease incidence in the region of Bouargoub, the main lemon production area in Tunisia. Moderate disease incidence was observed in the neighbouring regions, whereas low disease incidence was detected in the region of Soliman.

The situation of *Phyllosticta citricarpa* in Tunisia can be described as follows: **Present, not widely distributed.** 

## **EPPO Reporting Service 2024 no. 4** – *Diseases*

Source: Benfradj N, Mannai S, Jeandel C, Boughalleb-M'Hamdi N (2024) Geographic

distribution, prevalence, and incidence of citrus black spot caused by *Phyllosticta* 

citricarpa in Tunisia. Journal of Phytopathology 172(2), e13292.

Pictures Phyllosticta citricarpa. <a href="https://gd.eppo.int/taxon/GUIGCI/photos">https://gd.eppo.int/taxon/GUIGCI/photos</a>

Additional key words: detailed record Computer codes: GUIGCI, TN

#### 2024/091 First report of Cryptostroma corticale in Russia

Cryptostroma corticale, the causal agent of sooty bark disease of sycamore, is reported for the first time from Russia. Several dying Acer pseudoplatanus trees were observed in September 2021 in the Kislovodsk National Park (Stavropol krai, Southern European Russia), but no further action was taken considering that the disease was not sufficiently severe. However, in 2022, as the number of dead sycamore trees had increased in the park, investigations were initiated. Samples of wood and bark were collected from 5 dead A. pseudoplatanus trees in the Kislovodsk National Park, and the presence of C. corticale was confirmed in the laboratory (morphological characteristics and molecular tests). The authors also mentioned that in 2020, symptoms of C. corticale had been observed on A. platanoides trees intended to be planted along city streets in European Russia (locality not indicated), although the identity of the fungus could not be confirmed at that time.

It can be recalled that *C. corticale* originates from Eastern North America and was first observed in Europe in 1945 in the United Kingdom. This fungus then slowly spread to several other countries in the EPPO region causing sporadic outbreaks (see EPPO RS 2023/211). *C. corticale* is a plant pathogen which can also be threat to human health, causing allergies and respiratory diseases.

Source: Gninenko YI, Chilakhsaeva EA, Seraya LG, Larina GE, Yufereva VV, Bondareva EV,

Yarylchenko TN (2024) First report of *Cryptostroma corticale*, a causative agent of the sooty bark disease of maples, in Russia. *Russian Journal of Biological Invasions* 

**15**(1), 26-31.

**Pictures** Cryptostroma corticale. https://gd.eppo.int/taxon/CRPSCO/photos

Additional key words: new record Computer codes: CRPSCO, RU

#### 2024/092 First report of Melaleuca williamsii subsp. synoriensis in Itlay

In Italy, *Melaleuca williamsii* subsp. *synoriensis* (Myrtaceae) was first found in Rome along the banks of the river Tevere in February 2023. This is the first discovery of the taxa outside its native range (East Australia). *M. williamsii* subsp. *synoriensis* was found growing among the cracks in a quay. The specimen was observed flowering and fruiting. For Italy, *M. williamsii* subsp. *synoriensis* is considered a casual alien species.

Source: Iamonico D, Nicolella G (2024) First record of the woody Melaleuca williamsii s.l.

(Myrtaceae) out of its native range. Acta Botanica Croatica 83(2), 8 pp.

https://doi.org/10.37427/botcro-2024-019

Additional key words: invasive alien plants, new record Computer codes: MLAWL, IT

#### 2024/093 First report of Aeonium haworthii and Crassula ovata in Algeria

Aeonium haworthii and Crassula ovata (Crassulaceae) are both reported as new records of alien plant species in Algeria. Both species were discovered in the Skikda region (North Eastern Algeria) where they are widely cultivated succulent plants in gardens and nurseries. Both species were recorded between 2021 and 2023.

Aeonium haworthii is native to the Canary Islands (Spain) and was found at a single rock cliff location near the port of Stora. In this location, dozens of individuals were observed varying in size from 25 cm to 1 m in diameter. Stem fragments, or leaves which readily root when detached from the mother plant are likely to have been discarded into the natural environment from potted plants which are grown on balconies and terraces in the area. A. haworthii can be considered as naturalised in the region, since it has been growing in this habitat for several years (according to local information).

Crassula ovata is native to Southern Africa and was found in five locations in the Skikda region. Only a few individuals were recorded spontaneously growing in urban areas and therefore it should be considered as a casual alien species. Individuals were up to 90 cm in height.

Source: Sakhraoui N, Boudries A, Hadef A, Verloove F, Essl F (2023) Aeonium haworthii

Webb & Berthel. and Crassula ovata (Mill.) Druce (Crassulaceae): New records for

the Algerian alien flora. BioInvasions Records 12(4), 919-930.

https://doi.org/10.3391/bir.2023.12.4.05

Additional key words: invasive alien plants, new record Computer codes: AEJHA, CSBOV, DZ

#### 2024/094 First reports of alien plants in the Balearic Islands (Spain)

Twelve new records of plant taxa are reported for the Balearic Islands (Mallorca, Ibiza and Formentera). The recorded were collected during a field survey between 2021-2022.

Table 1. New records of alien plants in the Balearic Islands.

Taxa	Family	Native range	Notes
Aloe x delaetii	Asphodelaceae		Reports of individuals outside of cultivation - Spain
Aloiampelos ciliaris	Asphodelaceae	South Africa	Transient and established populations reported in Mediterranean region
Buddleia madagascariensis	Scrophulariaceae	Madagascar	Invasive behaviour reported in Mediterranean region
Caesalpinia gilliesii	Fabaceae	South America	Invasive sub-tropical islands
Cylindropuntia tunicata	Cactaceae	Central America	Invasive behaviour in Australia and South Africa
Dracaena draco	Asparagaceae	Canary Islands	Established in Mediterranean region
Euphorbia canariensis	Euphorbiaceae	Canary Islands	First record outside native range
Justicia adhatoda	Acanthaceae	Asia	Unknown invasive capacity
Portulacaria afra	Didiereaceae	Africa	Reported as a transient species Mediterranean region
Salpichroa origanifolia	Solanaceae	South America	No seed set - transient behaviour
Sedum multiceps	Crassulaceae	Algeria	Few records outside native range
Tradescantia fluminensis	Commelinaceae	South America	Reported as an invasive species in a number of regions globally

Source:

Cerrato MD, Ribas-Serra A, Mir-Rosselló PM, Ametller CVC, Cortés-Fernández I, Perelló-Suau S, Fernández SP, Vives LG (2023) Records of alien plants new for the Flora of The Balearic Islands (West-Mediterranean). *BioInvasions Records* **12**(4), 887-898. https://doi.org/10.3391/bir.2023.12.4.0

Additional key words: invasive alien plants, new record

Computer codes: ALFCI, BUDMA, CAEGI, DRNDR, EPHKN,
OPUTU, PUAAF, IUIAD, SAPOR, SEDMU, TRAFL, ES

#### <u>2024/095 Pistia stratiotes in China</u>

Pistia stratiotes (Araceae: EPPO A2 List) is a free-floating perennial freshwater macrophyte native to South America. The species is invasive in many regions of the world including Africa, Asia, Central America and the Caribbean, North America, and Oceania. P. stratiotes was introduced into China over 500 years ago. It was originally utilised as a medicinal plant for an array of ailments, and more recently has been used as a food plant for livestock and as a plant for water purification. It can now be found in 21 provinces in China and occurs in a broad range of aquatic habitats including slow-moving rivers, ponds, reservoirs, lakes and paddy fields. In these habitats, P. stratiotes forms dense monocultures which can have a negative impact by reducing native submerged plants by blocking light and oxygen exchange. It can also have negative impacts on ecosystem services in China, by threatening food production (e.g. in rice paddies) and water movement and quality. Regions where P. stratiotes is most invasive in China support over 70 % of the countries agriculture production.

#### **EPPO Reporting Service 2024 no. 4** – *Invasive Plants*

Computer codes: PIIST, CN

In addition, *P. stratiotes* can act to reduce fisheries catches and increase the abundance of infectious mosquito-borne diseases by forming suitable resting habitats.

Source: Xiong W, Zhang Y, Xie D, Liu J, Liu Y, Yu Y, Huang Y, Liu S, Wang H, Xiao K, Bowler

PA, Feng Y (2023) Water lettuce (Pistia stratiotes L.) (Araceae) in China:

distribution, introduction pathway, and impacts. BioInvasions Records 12(4), 1089-

1097. https://doi.org/10.3391/bir.2023.12.4.21

Pictures Pistia stratiotes. https://gd.eppo.int/taxon/PIIST/photos

Additional key words: invasive alien plants, detailed record

# 2024/096 Ecosystem impacts of Impatiens glandulifera

Impatiens glandulifera (Balsaminaceae: EPPO List of Invasive Alien Plants) is an invasive, annual species native to the Western Himalayas. It was originally introduced into the EPPO region as a garden ornamental and has spread throughout Europe. I. glandulifera can produce allelopathic chemicals which contain the main compound 2-methoxy-1,4naphthoguinone (2-MNQ), which has been shown to inhibit the germination of common native European plants, and ectomycorrhizal fungi. As I. glandulifera often forms monocultures along riverbanks, there is the potential for allelopathic chemicals to be leached into waterbodies. Mesocosm experiments were conducted to test the impact of I. glandulifera on the population growth of Daphnia magna (Daphniidae) and the green alga Acutodesmus obliquus (Chlorophyceae). Six I. glandulifera potted plants were positioned over water tanks filled with water which contained a known amount of D. magna and A. obliquus at the start of the experiment. Natural rainfall acted to leach chemicals from the soil into the water tank. The experiment was replicated 12 times and a control (potted soil but no I. glandulifera) was used. The population growth of D. magna was lower in the mesocosms with *I. glandulifera* after a period of strong precipitation compared to the control. Separate laboratory experiments using the main allelochemical released by I. glandulifera, 2-MNQ, showed negative effects on the population growth of A. obliquus and the growth of D. magna. These results suggest that allelochemicals leached from I. glandulifera can have negative impacts on organisms at an ecosystem level.

Source: Diller JGP, Drescher S, Hofmann M, Rabus M, Feldhaar H, Laforsch C (2022) The

Beauty is a beast: Does leachate from the invasive terrestrial plant *Impatiens* 

glandulifera affect aquatic food webs? Ecology and Evolution 12,

https://doi.org/10.1002/ece3.8781

Pictures Impatiens glandulifera. <a href="https://gd.eppo.int/taxon/IPAGL/photos">https://gd.eppo.int/taxon/IPAGL/photos</a>

Additional key words: invasive alien plants

Computer codes: DAPHMA, IPAGL