

EPPO data on pests: what we collect, what you can do with it



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IPRRG, 2024-09-14

EPPO data on pests

- » EPPO Codes
- » Identity (scientific name, synonyms, common names)
- » Distribution (at country level + states for larger countries)
- » Host plants
- » Categorization
- » Associated documents (Standards, PRA, datasheet)



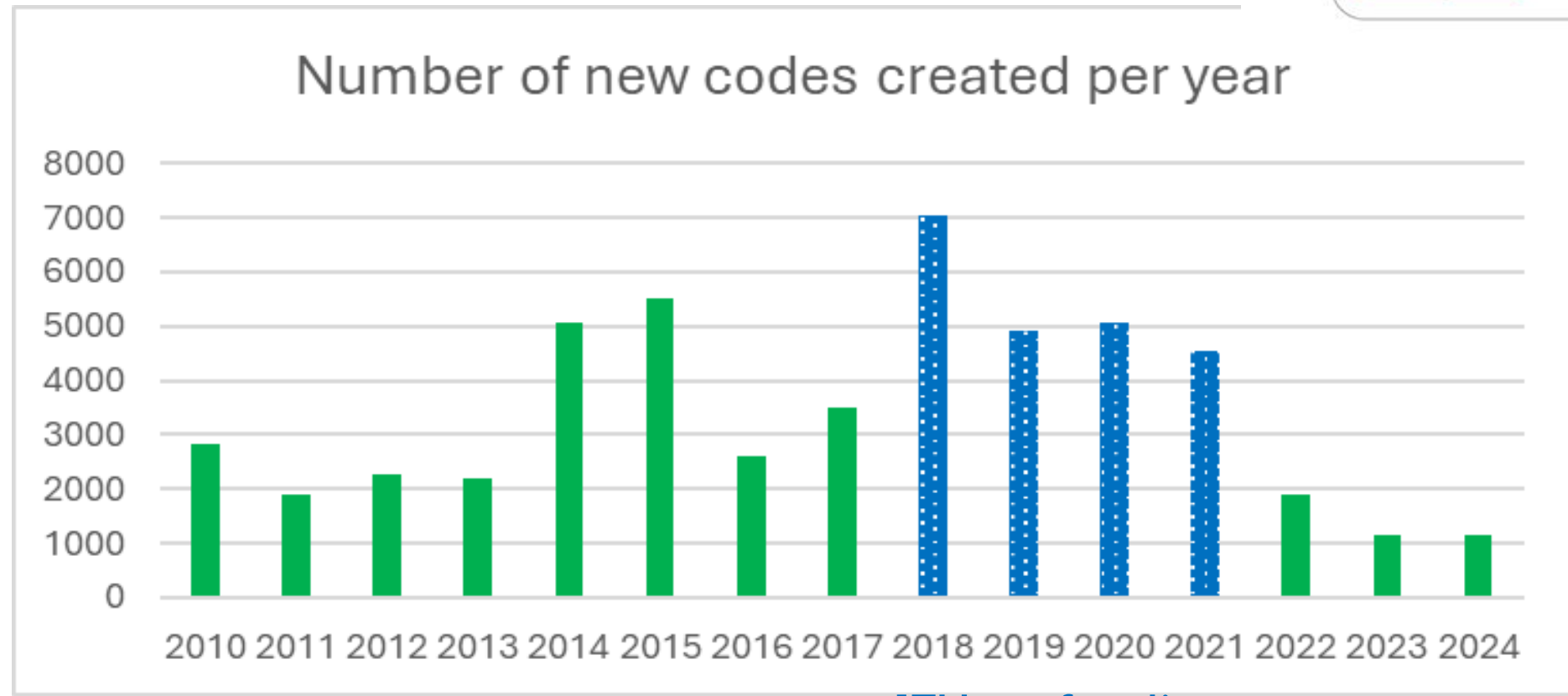


1 biological entity = 1 unique code

EPPO Codes

- Over 120 000 codes (incl. 97700 species)

B E M I T A	<i>Bemisia tabaci</i>
S O L T U	<i>Solanum tuberosum</i>
P P V 0 0 0	<i>Plum pox virus</i>



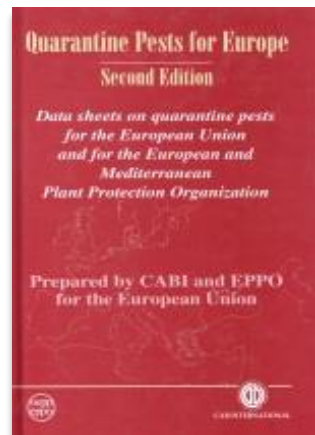
[EU co-funding]



EPPO Information project (2020-2024)



- **Update the contents** of the EPPO datasheets on regulated pests
- Transform static documents into **dynamic datasheets** displayed in the EPPO Global Database



The screenshot shows a web interface for the EPPO Global Database. The title is "Trirachys sartus (AELSSA)". On the left, there is a "MENU" with options: Overview, Distribution, Host plants, Host commodities, Categorization, Reporting, Documents, and Datasheet. Below the menu are "TOOLS" for "Save as word file", "Save as PDF file", and "Custom word...". The main content area includes "IDENTITY" with fields for preferred name, authority, taxonomic position, and common names. It also lists "EPPO Categorization: A2 list" and "EPPO Code: AELSSA". A "HOSTS" section is visible. The "GEOGRAPHICAL DISTRIBUTION" section contains a world map with a highlighted area in Central Asia and a text description of the pest's origin and distribution. The page is dated "Last updated: 2020-06-10".



EPPO Information project

- 4 year-project co-financed by the EU (Grant agreement SANTE/2020/G1/EPPO/SI2.823766)
- 321 datasheets (incl. 82 new)
- >120 experts involved
- EPPO team (7 reviewers, 1 consultant, 1 English editor, 3 administrative support)



MENU

- Overview
- Distribution
- Host plants
- Host commodities
- Categorization
- Reporting
- Photos
- Documents
- Datasheet →

TOOLS

- 📄 Save as word file
- 📄 Save as PDF file
- ⚙️ Custom word...

IDENTITY

Preferred name: *Agrilus anxius*
Authority: Gory
Taxonomic position: Animalia: Arthropoda: Hexapoda: Insecta: Coleoptera: Buprestidae
Other scientific names: *Agrilus gravis* LeConte, *Agrilus torpidus* LeConte
Common names in English: bronze birch borer
[view more common names online...](#)

Notes on taxonomy and nomenclature

The original 1841 description of *A. anxius* by H. L. Gory included a second species that was first described by Barter and Brown (1949) as *A. liragus* Barter & Brown, and later as the subspecies *A. granulatus liragus* Barter & Brown by Carlson and Knight (1969). The larval host plants of *A. liragus* (or *A. granulatus liragus*) include several species of *Populus*, whereas *A. anxius* is a specialist on *Betula*. Therefore, care must be taken when reading the literature on *A. anxius* prior to 1950 because it may include data for both *Agrilus* species. Although, if the host plant is given, readers can ascertain which *Agrilus* species is being discussed.

Eppo Categorization: A1 list
EU Categorization: A1 Quarantine pest (Annex II A)
[view more categorizations online...](#)
Eppo Code: AGRLAX

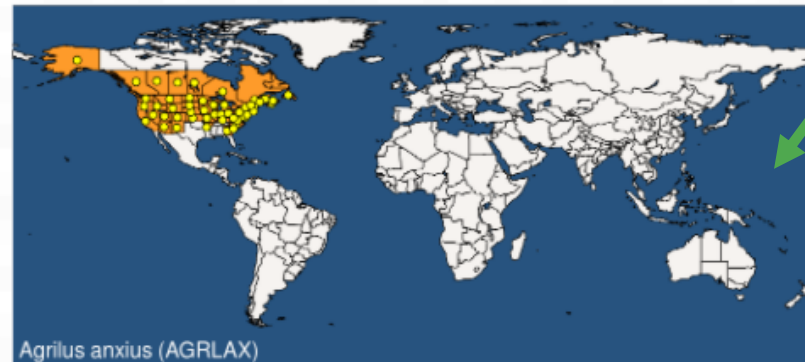
+ HOSTS

© 2020-07-01

- GEOGRAPHICAL DISTRIBUTION

© 2020-07-01

Agrilus anxius is native to much of the boreal and north temperate regions of North America where birch occurs (Bright, 1987; Muilenburg & Herms, 2012). Its current range has expanded into the Southern and Western United States as a result of widespread planting of birch species as ornamental trees (Duckles & Svihra, 1995; Muilenburg & Herms, 2012).



Agrilus anxius (AGRLAX)

● Present ● Transient

Dynamic parts:
automatically
generated by GD



Host plants: adding references

Tobamovirus fructirugosum (TOBRFV)



MENU

- Overview
- Distribution
- Host plants →
- Host commodities
- Pathways
- Categorization
- Reporting
- Photos
- Documents
- Datasheet
- EPPO links

TOOLS

Save list as excel file

Save list as csv file

Hosts

[Important note about the classification of host plants in GD:](#)

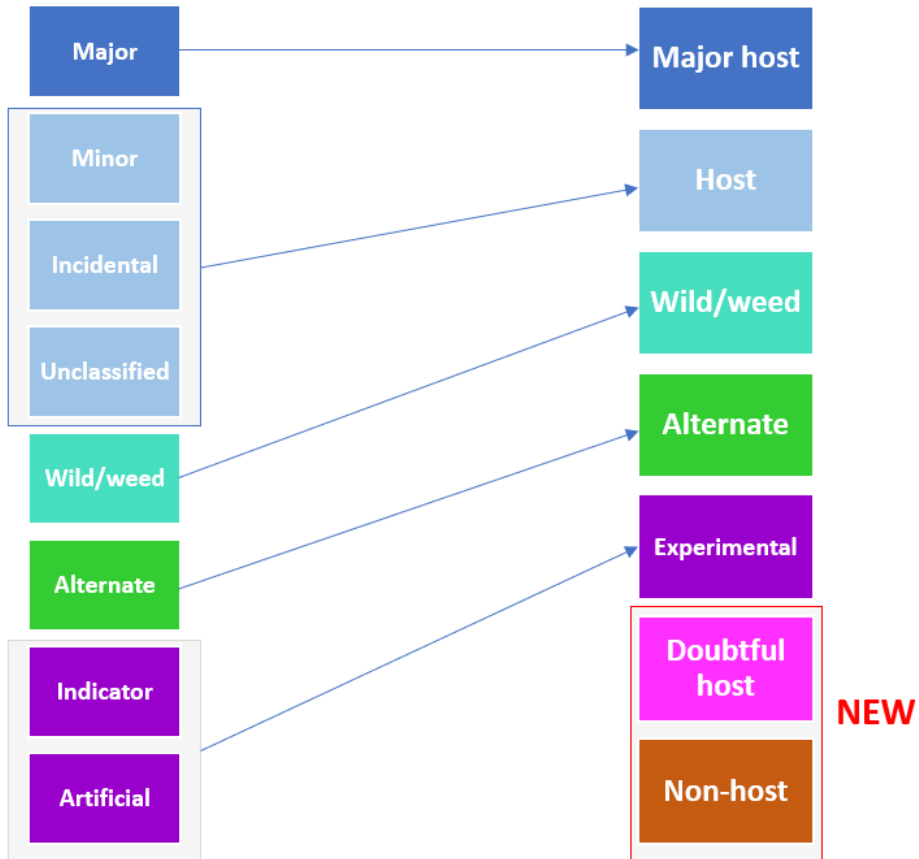
Categories have been assigned by the EPPO Secretariat on the basis of available data at the time of entry. They correspond to a qualitative evaluation of the importance of the host plant for the pest concerned and remain indicative only.

Further explanation of categories is available in the guide.

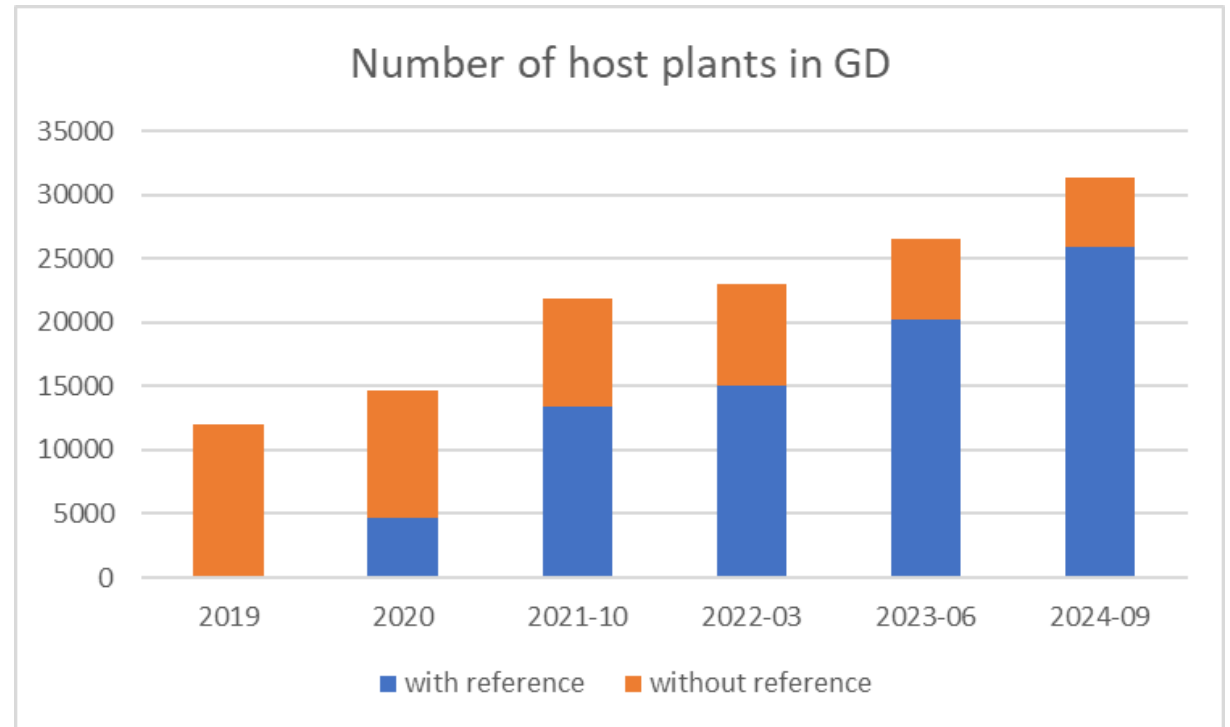
Organism	Type
<input type="text" value="Search..."/>	- select -
Amaranthus hybridus (AMACH)	Experimental
<p>* Vasquez Gutierrez U, López López H, Frías Treviño GA, Delgado Ortiz JC, Flores Olivas A, Aguirre Uribe LA, Hernández Juarez A (2024) Biological exploration and physicochemical characteristics of Tomato Brown Rugose Fruit Virus in several host crops. <i>Agronomy</i> 14(2), 388. https://doi.org/10.3390/agronomy14020388 ----- asymptomatic in inoculation trials in field conditions.</p>	
Amaranthus retroflexus (AMARE)	Wild/Weed
Amaranthus viridis (AMAVI)	Experimental
Beta vulgaris subsp. maritima (BEAVM)	Wild/Weed
Bidens pilosa (BIDPI)	Experimental



Host plants



Simplifying categories



More exhaustive



Geographical distributions in GD

EPPO Global Database

Search by name or EPPO code... Go! advanced search...

Login Register

Home Standards Photos Reporting Service Explore by

Parthenium hysterophorus (PTNHY) Last updated: 2015-09-03

MENU

- Overview
- Distribution →
- Pathways
- Categorization
- Reporting
- Photos

TOOLS

- Save map as png
- Save map as svg
- Save list as excel file
- Save list as csv file

Distribution

Continent	Country	State	Status	
- select	- select	- select	- select	
Africa	Comoros		Present, no details	view...
Africa	Egypt		Present, no details [Invasive]	view...
Africa	Eritrea		Present, no details	view...
Africa	Ethiopia		Present, no details	view...
Africa	Kenya		Present, no details	view...
Africa	Madagascar		Present, no details	view...
Africa	Mauritius		Present, widespread	view...

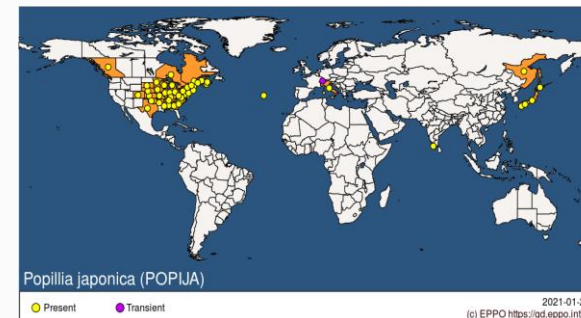
1918 pests are
'documented' in GD
(corresponding to more
than **31000 records**)




Fixed categories

In order to ensure consistency within the database, a small number of presence/absence categories are being used. The distribution categories are as follows:

- Present, no details
- Present, widespread
- Present, restricted distribution
- Present, few occurrences
- Transient, under eradication
- Absent, no pest record
- Absent, pest no longer present
- Absent, pest eradicated
- Absent, confirmed by survey
- Absent, intercepted only
- Absent, invalid record
- Absent, unreliable record





EPPO
Global
Database

Search by name or EPPO Code.. [advanced search...](#)

Login
Register

Home Standards Photos Reporting Service Explore by EPPO GD Desktop Download user guide

Popillia japonica (POPIJA)

MENU

- Overview
- Distribution
- Host plants
- Host commodities
- Categorization
- Reporting
- Photos
- Documents
- Datasheet

Distribution details in Italy

Situation

Current pest situation evaluated by EPPO on the basis of information dated 2020: Present, restricted distribution

First recorded in: 2014

Pest status declared by NPPO: Present, only in some parts of the Member State concerned, under containment, in case eradication is impossible (2020-07)

Comments

EPPO Reporting Service (2014/179) : first found by a naturalist in July 2014 along the river Ticino, within the Ticino Valley Natural Park, on wild plants (Rubus, Ulmus, Rosa, Populus, Vitis) and soybean crops (Glycine max). Under official control.

EPPO Reporting Service (2020/116) : infested area of 7550 km2, still contained in the Ticino Valley Natural Park. Under official control.

EPPO Reporting Service (2020/166) : 2 adults trapped in Parma province (Emilia-Romagna Region). Considered as an incursion without any establishment to date.

References

* NPPO of Italy (2014-10 2020-05, 2020-07).

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

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



Fixed categories

Text field

Comments

Sources

Vectors in GD

- Lists of vectors for regulated plant pathogens
- Bibliographic sources
- Work continues

Xylella fastidiosa (XYLEFA)

Menus: Overview, Distribution, Host plants, Host commodities, Vectors →, Categorization, Reporting, Photos, Documents, Datasheet, EPPO links

Tools: Save list as excel file, Save list as csv file

Vectors

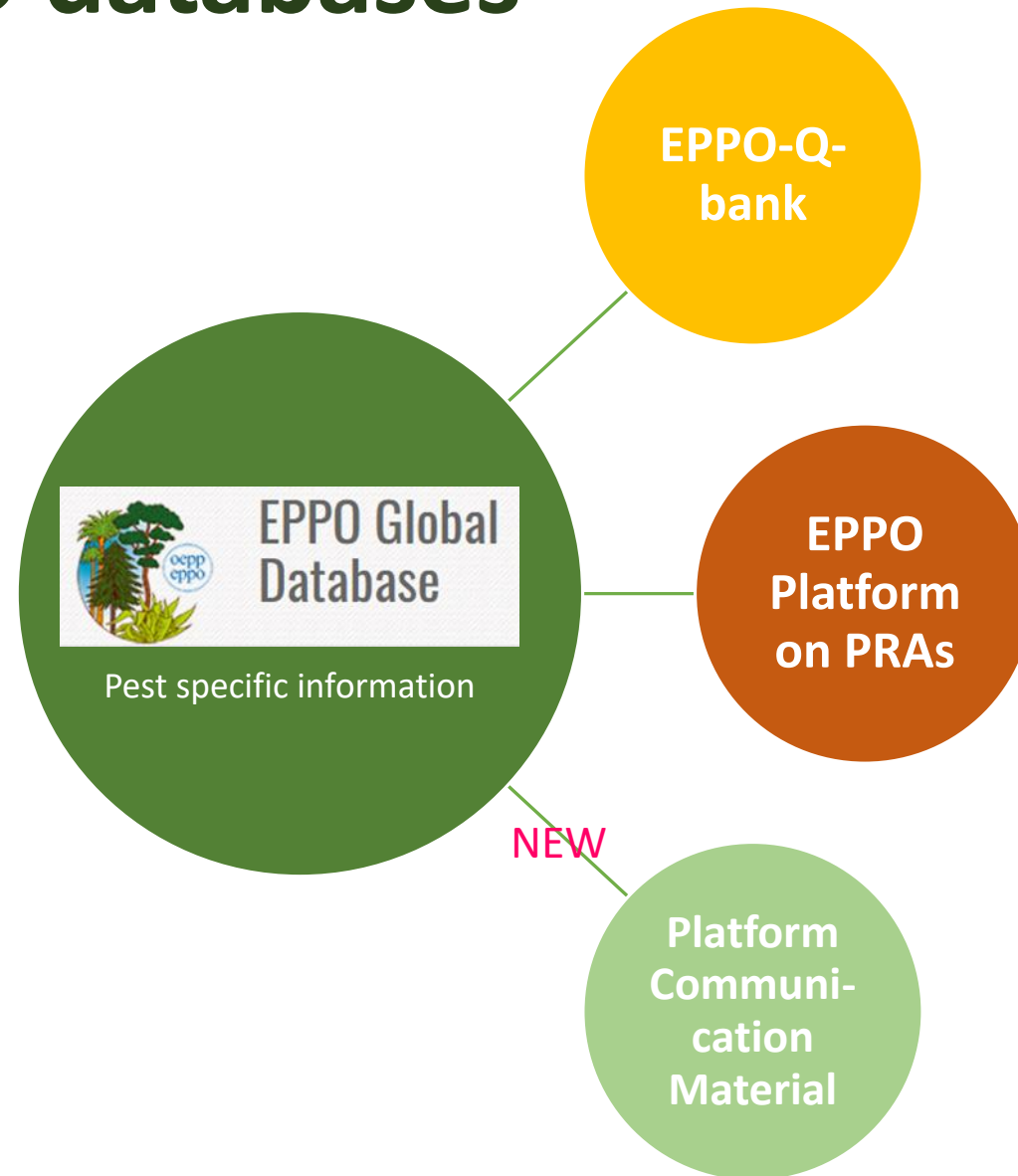
[Important note on vectors:](#)
Information on vectors and their associated pathogens is a new feature of the database (April 2023). Data will gradually be entered by the EPPO Secretariat and will focus on regulated (quarantine) pests.

	Organism	Type
	<input type="text" value="Search..."/>	<input type="text" value="- select -"/>
	Acrogonia citrina (ACRGCI)	Potential vector
	Acrogonia virescens (ACRGVI)	Known vector
	Aphrophora angulata (APHRAN)	Potential vector
	Aphrophora permutata (APHRPE)	Known vector
	Bucephalogonia xanthophis (BUCLXA)	Potential vector
	Clastoptera achatina (CLASAC)	Potential vector
	Clastoptera brunnea (CLASBR)	Potential vector
	Cuernia costalis (CUERCO)	Known vector



Links to other EPPO databases

- Increased visibility of all databases
- Good feedback from users



Links



MENU

- Overview
- Distribution
- Host plants
- Host commodities
- Categorization
- Reporting
- Photos
- Documents
- Datasheet
- EPPO links →

Links to other EPPO databases

Important note about this page:

Below are external links to pest-specific information included in other EPPO databases. For the moment, links have been established with EPPO-Q-Bank (specimens and sequences for diagnosis), the EPPO PRA Platform (Pest Risk Analysis documents), the EPPO Platform on Communication Material.

Found in EPPO PRA Platform

EPPO documents

🔗 [EPPO PRA for *Agrilus planipennis*](#) [EPPO, 2013-09-30]

non-EPPO documents

🔗 [Agrilus planipennis—Pest Report and Datasheet to support ranking of EU candidate priority pests](#) [EU, 2019-06-03]

🔗 [Commodity risk assessment of ash logs from the US treated with sulfuryl fluoride to prevent the entry of the emerald ash borer *Agrilus planipennis*](#) [EU, 2023-01-26]

🔗 [Summary of the Express Pest Risk Analysis for *Agrilus planipennis* Fairmaire, 1888](#) [Poland, 2017-10-13]

Found in EPPO Q-Bank

🔗 [Nb specimens: 8 - Nb sequences: 8](#)

Found in EPPO Platform on Communication Material

🔗 [Link to communication campaigns referring to *Agrilus planipennis*](#)



Using EPPO data



Simple tools on your dashboard

The screenshot shows the EPPO Global Database user dashboard. The browser address bar displays `gd.eppo.int/user/dashboard`. The dashboard is titled "Dashboard" and contains several sections:

- Last consulted pages:** A list of recently viewed pages, including "World distribution of *Litylenchus crenatae mccannii* (LITYMC)", "General information about *Litylenchus crenatae mccannii* (LITYMC)", "Photos of *Phylloctes fructiphilus* (PHYCFR)", "General information about *Phylloctes fructiphilus* (PHYCFR)", "Vectors for *Emaravirus rosae* (RRV000)", "Photos of *Emaravirus rosae* (RRV000)", "General information about *Emaravirus rosae* (RRV000)", "Vector of *Phylloctes fructiphilus* (PHYCFR)", "Datasheet of *Phylloctes fructiphilus* (PHYCFR)", and "Article 2024/098 - New and revised dynamic EPPO datasheets are available in the EPPO Global Database".
- Help us to collect photos:** A section encouraging users to propose new photos on pests, diseases, and invasive alien plants. It includes buttons for "View my submitted photos" and "Read the practical guide (PDF)".
- Request new EPPO Codes:** A section explaining that the creation of new EPPO Codes is subject to fees (50 euros per code). It includes buttons for "Buy credits / view invoices", "Request new codes", and "View my requests".
- Online tools:** A section highlighted with a red box, containing buttons for "Excel" and "Quick search". A red arrow points to this section.
- About me:** A section displaying user information: "Full name: Suffert", "Email: ms@eppo.int", and "Institute: EPPO".
- My account:** A section with options to "Change my email", "Change my password", and "Change my personal information".
- Special rights:** A section indicating that the user has 98 credits left for asking new EPPO Codes to be created, with a link to "Buy more credits...".
- Newsletters:** A section with checkboxes for "EPPO Standards", "EPPO Reporting Service (English)", "Service d'Information OEPP (français)", and "EPPO Codes". A "Save" button is located at the bottom right of this section.





EPPO Global Database

Search by name or EPPO Code... [Go!](#) [advanced search...](#)

Quick search

Function

- Get a preferred name from an EPPOCode (one code per line)
- Get a preferred name from an EPPOCode (one code per line)
- Get an EPPOCode from a preferred name (one name per line)
- Get an EPPOCode from a name (preferred or synonym) (one name per line)

Process

- 1) Choose the function you need in "Function" combobox.
- 2) Paste your short list of codes or names in the box "input text"
- 3) Click on the Process button.

Output result

Empty text box for output results

[Back to dashboard](#)



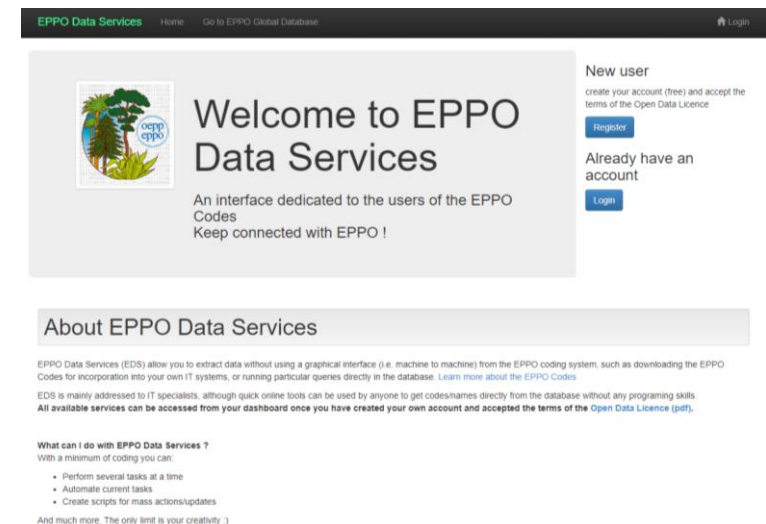
Work on Excel files

- EPPO codes → preferred names
- preferred names → EPPO codes
- preferred names or synonyms → EPPO codes
- EPPO codes → main category
- EPPO codes → taxonomy
- EPPO codes → hosts
- EPPO codes → categorization



Data services <https://data.eppo.int/>

- Need to create an account and accept the terms of the Open Data Licence
- Extract data without using a graphical interface (i.e. machine to machine) from the EPPO coding system, such as
 - downloading the EPPO Codes for incorporation into your own IT systems, or
 - running particular queries directly in the database.
- With a minimum of coding you can:
 - Perform several tasks at a time
 - Automate current tasks
 - Create scripts for mass actions/updates



The screenshot shows the homepage of the EPPO Data Services website. The header includes the site name 'EPPO Data Services' and navigation links for 'Home' and 'Go to EPPO Global Database'. A 'Login' link is visible in the top right corner. The main content area features a large welcome message: 'Welcome to EPPO Data Services' with a sub-headline 'An interface dedicated to the users of the EPPO Codes' and the tagline 'Keep connected with EPPO !'. To the right of this message are two buttons: 'Register' for new users and 'Login' for existing users. Below the main content is a section titled 'About EPPO Data Services' which provides a brief description of the service and its capabilities, including a link to learn more about EPPO Codes and a PDF for the Open Data Licence. At the bottom, there is a section titled 'What can I do with EPPO Data Services ?' which lists the key features: performing several tasks at a time, automating current tasks, and creating scripts for mass actions/updates. The page concludes with the phrase 'And much more. The only limit is your creativity !'.

Download EPPPO codes

Format name	File type	Documentation
Bayer flat file	TXT	read more
XML Datapacket	XML	read more
XML Access	XML	read more
XML Full	XML	read more
SQLite database	SQLite3	in preparation
SQL queries	TXT	in preparation
LogShipping method	ZIP	read more



https://data.eppo.int/api/rest/1.0/taxon/BEMITA?authToken=xxxxxxxxxxxxxxxxxxxx

/taxon

- GET** /taxon/{EPPOCODE} Get basic informations about {EPPOCODE}
- GET** /taxon/{EPPOCODE}/names Get all names about {EPPOCODE}
- GET** /taxon/{EPPOCODE}/taxonomy Get taxonomy about {EPPOCODE}
- GET** /taxon/{EPPOCODE}/categorization Get categorization about {EPPOCODE}
- GET** /taxon/{EPPOCODE}/hosts Get hosts about {EPPOCODE}
- GET** /taxon/{EPPOCODE}/pests Get pests about {EPPOCODE}
- GET** /taxon/{EPPOCODE}/kingdom Get the {EPPOCODE} kingdom

/country

- GET** /country/{ISOCODE} Get basic informations about {ISOCODE}

/tools

- POST** /tools/codes2prefnames Search preferred names from EPPOCodes list
- POST** /tools/prefnames2codes Search EPPOCodes from preferred names list
- POST** /tools/names2codes Search EPPOCodes from scientific names, synonyms or common names list
- GET** /tools/search Search name or code

In Progress: pest distribution



European Union funding: For a one-year period (2017-12-16 to 2018-12-15), EPPO has been awarded an EU grant for the further development of the EPPO code system (agreement n°...

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<https://www.eppo.int/>

