



A Webinar  
of the European And Mediterranean  
Plant Protection Organization (EPPO)

**‘Emerald ash borer (*Agrilus planipennis*)  
in the EPPO region: preparedness of countries  
for its further spread’**

(5 December 2024, 10.00-13.00 CET, online)

**Program and Summaries of Presentations**

[EPPO Network of experts working on surveillance, monitoring,  
and control of the Emerald ash borer, \*Agrilus planipennis\*](#)





## P R O G R A M

Link to attend the webinar: <https://zoom.us/j/94071242677>

Time: 5 December 2024 10.00-13.00 (CET).

Underlined: presenting authors.

**Timing**: 15 min per presentation and 5-10 min to answer questions. Approximate timings are given below.

**Questions from attendees** can be asked in written in the 'Q&A' box at any time during the presentations and they will be answered by presenters after the end of their presentations or at the end of the webinar. **Please note** that we have over 600 participants registered so far. Therefore, please **do not** use this 'Q&A' box to introduce yourself or to thank the presenters. **It is solely for questions for the presenters.**

**10.00: Nico Horn, Dmitrii Musolin (EPPO).** European and Mediterranean Plant Protection Organization (EPPO/OEPP) and its Network of experts working on surveillance, monitoring, and control of *Agrilus planipennis* (Emerald ash borer) [page 3]

**10.25: Oleg Kulinich, Dmitry Ryaskin (Russia).** Emerald ash borer, *Agrilus planipennis* in the Russian Federation: its spread, damage and control [page 4]

**10.50: Darya Straltsova, Tatsiana Yerchyk, Tatsiana Balashova (Belarus).** Prevention of the Emerald ash borer (*Agrilus planipennis*) in the Republic of Belarus: Safeguarding Belarusian ash trees [page 5]

**11.15-11.25: a coffee break**

**11.25: Mart Kinkar (Estonia).** Survey of *Agrilus planipennis* in Estonia [page 6]

**11.50: Liisa Vihervuori (Finland).** *Agrilus planipennis*: preparedness of Finland for its possible arrival [page 7]

**12.15: Sandra Zandere (Latvia).** Preparedness of Latvia for a potential outbreak of the Emerald ash borer, *Agrilus planipennis* [page 8]

**12.40: Nico Horn (EPPO).** Concluding remarks.



## EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

### Webinar on

### Emerald ash borer (*Agrilus planipennis*) in the EPPO region: preparedness of countries for its further spread

5 December 2024

### The European and Mediterranean Plant Protection Organization and its Network of experts working on surveillance, monitoring, and control of the Emerald ash borer, *Agrilus planipennis*

**Nico Horn, Dmitrii Musolin**

European and Mediterranean Plant Protection Organization (EPPO/OEPP),  
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The European and Mediterranean Plant Protection Organization is a intergovernmental organization for Europe, the Mediterranean and Central Asia working in the field of plant protection. EPPO works for and with national plant protection organizations (NPPOs). EPPO is one of ten regional plant protection organizations established under the International Plant Protection Convention (IPPC; <https://www.ippc.int/en/>). It was created in 1951 by 15 countries and now includes 52 member countries. In the field of plant quarantine, EPPO manages an early warning system (Alert List; [https://www.eppo.int/ACTIVITIES/plant\\_quarantine/alert\\_list](https://www.eppo.int/ACTIVITIES/plant_quarantine/alert_list)), evaluates the risks presented by emerging pests (Pest Risk Analysis; [https://www.eppo.int/ACTIVITIES/plant\\_quarantine/pr\\_a\\_activities](https://www.eppo.int/ACTIVITIES/plant_quarantine/pr_a_activities)), prepares phytosanitary recommendations on pests which should be regulated in the EPPO region (A1 and A2 Lists; [https://www.eppo.int/ACTIVITIES/quarantine\\_activities](https://www.eppo.int/ACTIVITIES/quarantine_activities)), and prepares associated regional Standards (e.g., on diagnostics and phytosanitary measures; [https://www.eppo.int/RESOURCES/eppo\\_standards](https://www.eppo.int/RESOURCES/eppo_standards)). EPPO also works on biological control agents and some other topics.

In 2022, the EPPO Panel on Quarantine Pests for Forestry decided to organize a Network of experts working on surveillance, monitoring, and control of the Emerald ash borer, *Agrilus planipennis*. Following this decision, the Network was established ([https://www.eppo.int/RESOURCES/special\\_projects/agrilus\\_planipennis\\_network](https://www.eppo.int/RESOURCES/special_projects/agrilus_planipennis_network)). More than 280 experts from NPPOs, academia and industry of 50+ countries from Europe, Asia, Africa, Americas, and Oceania have joined it (<http://meeting.eppo.int/index.php/V8542>). The objective of the Network is to exchange data on monitoring and to get a better understanding of the current distribution and spread of *A. planipennis* in the EPPO region. The Network focuses on the EPPO region, however members from other regions are also welcome as significant knowledge on the pest biology, as well as experience on monitoring and control have been gathered in other parts of the world. In 2023-2024, six issues of the Network's Newsletter were published.

The webinar organized by EPPO on 5 December 2024 will allow NPPOs of countries in which *A. planipennis* is present and countries located near the current limits of the distribution of this species in the EPPO region to share information on distribution of this pest and their preparedness for its further spread.



**Emerald ash borer, *Agrilus planipennis* in the Russian Federation: its spread,  
damage and control**

**Oleg Kulinich<sup>1</sup>, Dmitry Ryaskin<sup>2</sup>**

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The native range of the Emerald ash borer in Russia is the Russian Far East (Primorsky and Khabarovsk Krai), however, the pest does not cause significant damage there to the native ash species, *Fraxinus mandshurica* (Manchurian ash) and *F. chinensis* (Chinese ash).

The area of forests in Russia where ash predominates is 6 012 km<sup>2</sup>, including about 2 000 km<sup>2</sup> in the European part. The total volume of ash in stands in Russia is 71.6 million m<sup>3</sup>.

The first information about spread of the Emerald ash borer to the European part of Russia became available in the early 2000s during research into mass die-off of ash trees in Moscow. *Agrilus planipennis* primarily attacked *F. pennsylvanica* (green ash) and, to a lesser extent - *F. excelsior* (European ash), however later almost all ash trees were killed in Moscow. Further, the beetle spread rapidly to the territories which surround Moscow.

Over a 20-year period, the Emerald ash borer spread over 600 km to the southwest and reached the territory of Ukraine. To the south, *A. planipennis* spread over 1300 km, reaching the Astrakhan Region, and in 2024 the pest was detected in the Altai Territory, which is more than 3000 km east of Moscow.

In the invasive range, death of ash trees infested by *A. planipennis* occurs within 2-3 years, but after 3-4 years the pest population rapidly decreases as a result of the activity of larval parasitoids, and new shoots of surviving ash trees are not infested by *A. planipennis*. The most widespread parasitoid of the *A. planipennis* in the European part of Russia is *Spathius polonicus* (Hymenoptera: Braconidae).

The spread of *A. planipennis* can occur by flying adults (primarily in forest belts along roads and railways), movement of infested wood or wood material, and hitchhiking.

According to the Russian NPPO, in 2024, elimination of outbreaks of *A. planipennis* is being carried out in 20 regions of Russia.



**Preventing entry of the Emerald ash borer (*Agrilus planipennis*)  
into the Republic of Belarus: Safeguarding Belarusian ash trees**

**Darya Straltsova<sup>1</sup>, Tatsiana Yerchyk<sup>2</sup>, Tatsiana Balashova<sup>3</sup>**

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The Emerald ash borer (*Agrilus planipennis*) poses a significant threat to ash trees in various countries, including Belarus. In Belarus, the ash trees comprise several native species, with the most common being the European ash (*Fraxinus excelsior*). Ash trees are found in settlements, along roads, and in forests (in total, 13 482 ha, i.e. 0.16 % of the total forested area).

Systematic specific surveys have been conducted for the Emerald ash borer since 2019. Currently, *A. planipennis* has not been found in Belarus. However, the potential arrival of this invasive species has raised concern among forest managers and scientists.

Belarus has implemented several proactive measures aimed at monitoring for the Emerald ash borer and, if it arrives, preventing its spread. These measures include conducting regular surveys to detect early signs of infestation and educating the public about the potential risks of transporting ash wood.

Collaboration between governmental agencies, forestry departments, and other organizations is essential, and while the current cooperation is acknowledged, further enhancement of these efforts would benefit the overall strategy against this pest.

Public information campaigns are being conducted to raise awareness about the Emerald ash borer and its potential impact on local ecosystems. These campaigns include distribution of information materials and preparation of online resources to inform the population of Belarus about prevention and identification measures. Overall, proactive steps are crucial to protect Belarusian forests from the threat posed by the Emerald ash borer.



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**Survey of *Agrilus planipennis* in Estonia**

**Mart Kinkar**

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The presentation gives an overview of the history of survey activities for *Agrilus planipennis* in Estonia.

The first survey for *A. planipennis* in Estonia was conducted in 2015 in the form of a visual inspection of ash trees for presence of symptoms. After the outbreak of *A. planipennis* in St. Petersburg in 2020, the risk areas of the survey in Estonia were re-evaluated and, since 2021, the survey of *A. planipennis* has mainly been focused in the areas close to the border with Russia.

In 2024, the survey was carried out in 91 survey sites in areas surrounding high-risk locations, e.g. border posts, stops along the main highways, importers of ash wood. Sticky traps baited with pheromone and kairomone are used that have been shown to be effective in catching different local *Agrilus* species (e.g. *A. convexicollis*). The main difficulty is locating the target hosts as the ash population has already been reduced due to ash bark beetles and ash dieback.

Awareness raising among the public about this pest is very important as part of the survey activities. In 2024, two colleagues from the Estonian NPPO went on a study visit to Oregon, USA to learn first-hand about dealing with an *A. planipennis* outbreak. Collaboration such as this is highly recommended.



***Agrilus planipennis*: preparedness of Finland for its possible arrival**

**Liisa Vihervuori**

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*Agrilus planipennis* is a priority pest harmful to ash trees, listed in Commission delegated regulation (EU) 2019/1702. Surveys must be carried out for this beetle, and a contingency plan prepared.

The first surveys for *A. planipennis* were conducted in 2016 in Finland and since then repeated annually. There were no positive findings. Green prism traps and funnel traps were used, and these were baited with pheromone and leaf volatiles. Yearly, about 20-30 traps are installed in high-risk sites for the arrival of this pest, such as seaports, airports, parks, and wood storage areas.

The closest outbreak of *A. planipennis* to Finland is situated in 130 km from the south-eastern border of Finland (in Russia). Intensive surveys have been conducted in the south-eastern area of the country since 2021.

Only one native *Fraxinus* species grows in Finland, namely *Fraxinus excelsior*. Trees of this species grow in cities, parks, and forests. *Fraxinus excelsior* spreads in the wild but is partly of cultivated origin. *Fraxinus* spp. trees are mainly found in south-west Finland. The area covered by ash is not known, but there are about 5000 observations in [Laji.fi](http://Laji.fi). Non-native *Fraxinus* species (*F. pennsylvanica* and *F. mandshurica*) are also present in Finland, but they are not numerous.

It is difficult to find the host trees because no official distribution data is available. We started a campaign called *#bongaasaarni* in social media, newspapers, and radio. New observations of ash trees were collected in [Laji.fi](http://Laji.fi). Following this, a national risk map for *A. planipennis* was created.

We have prepared a contingency plan for *A. planipennis* comprising a general plan and a species-specific annex. The general plan includes, e.g. establishment of an emergency group, functioning of competent authorities, decision making processes, protocols, and actions.





**Preparedness of Latvia for a potential outbreak of the Emerald ash borer,  
*Agrilus planipennis***

**Sandra Zandere**

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Emerald ash borer, *Agrilus planipennis* is a European Union priority pest which originates in East Asia. Known outbreaks in Russia, in Smolensk Region and St. Petersburg, are situated 300 km from Latvian border. Host plants of the Emerald ash borer are found throughout Latvia.

European ash (*Fraxinus excelsior*) is a native species distributed sparsely across Latvia and constitutes 0.5 % of all tree species in forests. Ash trees have been planted in urban plantations, along roads, and in parks. In addition, introduced host plant species (other *Fraxinus* spp. and *Chionanthus virginicus*) are present, although rare, in settlements in Latvia.

*Agrilus planipennis* specific detection surveys in Latvia have been conducted by the State Plant Protection Service (SPPS) since 2015. As of 2024, the pest has not been detected in the country.

Inspections are performed at high-risk areas, as well as at different inspection sites throughout the country. In recent years, SPPS has intensified surveys aimed at early detection of *A. planipennis*.

Territory of Latvia adjacent to the border with Estonia, Russia and Belarus has been designated as a high-risk area where ash trees in forests and parks are monitored. Sites where ash wood imported from the countries affected by *A. planipennis* is stored have been defined as high-risk locations. Visual inspections are performed and at selected sites traps are set.

SPPS has prepared a contingency plan for *A. planipennis* and has prepared information campaigns and handout materials aimed to raise public awareness.

During preparation for a potential outbreak, several challenges have been indicated. Lack of readily available financial and human resources could present a serious problem if an extensive outbreak of *A. planipennis* occurs.