



IPSN

International Plant
Sentinel Network

IPSN NEWSLETTER

April 2023



Resources

New posters/factsheets on Agrilus, Phytophthora, Pine pests/diseases

Our new set of IPSN resources are just out and available for all of you to peruse at your leisure. As we mentioned on our previous issue, this year we have focused on:

Agrilus beetle pests [\[link\]](#)

Pine pests: Processionary moth, Pine tortoise scale, Black sawyer beetle [\[link\]](#)

Pine diseases: *Dothistroma* needle blight, Pine pitch canker, Pine rust [\[link\]](#)

Phytophthora pluvialis [\[link\]](#)

Also, we have upgraded our format and produced our posters together with factsheets that provide you with further information about the organisms under review. Also to facilitate access to both resources we have added QR codes so you can easily access the information on your favourite portable device.



Projects

ONGOING PROJECT UPDATES

General surveillance: Australia/New Zealand – Chile

Surveys for key host species of UK interest have been carried out for the third year in both Australia and New Zealand (i.e. *Quercus robur/petraea*, *Fagus sylvatica*, *Picea sitchensis*, *Pinus sylvestris*, *Rose* spp) with 2 Australian gardens and 4 New Zealand institutions taking part in the surveys. The main issues reported were not new or unusual to the UK and were generally linked to extreme environmental issues recorded during the surveying period. Gardens highlighted the usefulness of tracking progress related to pest & disease damage over the surveying years to see evolution of plant health related to recovery

Also general surveillance took place in Chile as part of the US Forest Service project focused on the following species of interest (*Quercus* spp, *Pinus* spp, *Pseudotsuga* spp). This was undertaken at Talca University Botanical Garden with a vision of having more gardens in Argentina and Chile conducting similar surveys during 2023.

Emerald Ash Borer visual surveys and trapping

Visual surveys for Emerald Ash Borer (EAB) and Ash Dieback took place for the second year, thirteen gardens in 8 countries (Bulgaria, Estonia Lithuania, Poland, Romania, Slovakia, Slovenia and Ukraine) with 488 specimens monitored of 23 *Fraxinus* species, with ADB reported in two Slovakian gardens.

A trapping pilot was carried out in 2022, four gardens in three countries went ahead and installed the traps to run the monitoring during the summer (i.e. Estonia: Tallin Botanic garden in Latvia: National Botanic Garden; Slovakia: Botanic Garden in Kosice,, Mlynany arboretum and Kysikybel Botanical Garden). The gardens reported over 10 different *Agrilus* spp. plus other jewel beetles captured in the traps (i.e. *A. convexicollis*, *A. podolica*, *latincornis*, *sulcicollis*, *graminis*,....), with fortunately, no positive samples of EAB.

This year we are looking to expand both the visual surveys and trapping and engage all partner countries in both activities and providing further training and capacity building sessions for all participating institutions (see more in the events section).



NEW PROJECTS

BeXyl – call for South American gardens to join in

As we mentioned on our December newsletter the IPSN is currently involved in the BeXyl project <https://www.bexylproject.com/>. Funded by the European Union this project will help to find new strategies to mitigate the impact of the *Xylella fastidiosa* outbreaks in the EU.

As part of this project, we are currently looking into using collections in botanic gardens in South America where *X. fastidiosa* is endemic to identify the range of host species and the different strains that might be infecting specimens.

If your garden is interested in participating in this initiative, please get in touch so we can provide further information about how to get involved (lara.salido@bgci.org).



IPSN Small Grants Update

As part of our three-year programme of activities in the UK, the IPSN offered three small grants to botanic gardens / individuals to carry out three independent studies. These are now concluded and a summary of the main findings of these studies can be found below:

Biosecurity gaps and needs in UK plant collections

This study was commissioned to the Royal Botanic Gardens Edinburgh (RBGE) to engage with UK gardens to better understand the current biosecurity processes in place and identify knowledge and practical gaps that could be addressed in future IPSN activities.

The study showed that plant health and biosecurity issues are high in the considerations of garden managers/owners (with an average score of 8/10, 10 being of extreme concern). In spite of this there is uncertainty about how best to lower the risks to sites, many of which have resource and financial limitations. Even though most sites had a plant health policy in place (61%), carried out monitoring activities (94%) and had a staff member in charge of plant health activities (74%), frequently documentation was not easily accessible to all staff and the responsible members of the team did not receive any formal training about that aspect of their role. Therefore, assistance for managers and owners is required in order to improve the plant health outcomes for all. Much more

advice could be given on how to formalise the processes so that they are being carried out in an effective way.

In this regard, it was felt a plant health certification scheme/biosecurity accreditation/guidance could be potentially useful in this area to ensure everyone is carrying out the same processes to reduce future plant health risks.

An inventory of tree species in UK collections

This study was carried out by a student at RBGE and involved the gathering of data on key tree species native to Australia and New Zealand present in UK collections. The focus was to identify the presence of these species in ex-situ collections so that opportunities for reciprocal research between the UK and Australia / New Zealand can be developed through the IPSN and its members.

The study involved 3 parts:

- 1) Taking inventory of relevant tree species present within UK collections;
- 2) Evaluating the inventory of species present in the UK and
- 3) provide a written methodology and critical analysis for similar future projects.

Currently the data gathered will be assessed, and if suitable, the gardens providing this information will be encouraged to enter it into BGCI's PlantSearch database.



Events update

Forest Protection Colloquium

The IPSN attended this year's Forest Protection Colloquium during March 21st-22nd at the Bundesforschungszentrum für Wald (BFW) in Vienna where the sessions focused on the impacts, monitoring and mitigation of different tree pests and diseases in the EU region. There were different presentations around the impacts of climate change, importance of monitoring pests and diseases, impacts of bark beetles, oak lace bug and different fungal diseases in tree health. The IPSN presented our ongoing work on the monitoring/trapping of EAB through our partners in the Eastern European region (see section above) which was very well received and commended as crucial in the identification/understanding of potential dispersal routes of

EAB from Russia/ Ukraine into the continent. So thanks to all the participating partners for your effort and commitment to this project!!!



UPCOMING EVENTS

Emerald Ash Borer workshop in Kaunas, Lithuania

We are currently putting together a 1-day Emerald Ash Borer (EAB) monitoring/trapping workshop in Kaunas, Lithuania to provide more in-depth knowledge about this beetle pest (background, impacts on *Fraxinus* population, spread, identification, etc) as well as some practical sessions on how to put traps on trees, collect samples and identify specimens.

This event will take place **4th May at Kaunas University Botanic Garden in Lithuania** with an excursion taking place on the 5th.

We encourage all partners involved in the EAB monitoring and trapping project to attend this event as it will provide really useful information to help with the activities they are involved.

“Value of botanic gardens to biosecurity” workshop

As part of the Fourth International Congress on Biological Invasions ([ICBI2023](#)) at Ōtautahi Christchurch, New Zealand, there will be a pre-conference event exploring the contributions that botanic gardens can make to biosecurity.

This will be hosted by the Christchurch Botanic Gardens, New Zealand/ Te Māra Huaota o Waipapa on Monday 1st May, 10am – 12 noon and will include a tour of the Biosecurity Trail at the garden.

For more information, get in touch with: matthewcromey@rhs.org.uk (note numbers may be limited).

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