

International Union of Forest Research Organizations

IUFRO Meeting Report Form

Organizers of IUFRO meetings and IUFRO focal persons at IUFRO co-sponsored meetings, respectively, are kindly requested to fill in and return this form within two weeks after the meeting or by a given deadline by email (wolfrum@iufro.org). This information will be posted at the relevant IUFRO web pages and may be used for IUFRO News and the IUFRO Annual Report.
(Note: Save this file under a new name and write directly into the form.)

1) IUFRO focal person/meeting organizer:

Name: IUFRO conference: "Global challenges and innovative management of bark and wood borers in planted and natural forests".

Function in IUFRO: Hervé JACTEL

Email: herve.jactel@inrae.fr

2) Meeting data:

Full title of the meeting: IUFRO conference: "Global challenges and innovative management of bark and wood borers in planted and natural forests".

Date and venue: 29-31 AUGUST 2023

Meeting website: <https://www.plantedforests.org/iufro-conference-bordeaux-29-31-august-2023/>

Number of participants: 50

Countries represented: 15

3) Organization of the meeting:

All IUFRO Units involved:

IUFRO WP 7.03.05 Ecology and management of bark and wood boring beetles

IUFRO WP 7.03.07 Population dynamics of forest insects

IUFRO WP 7.03.16 Behavioral and Chemical Ecology of forest insects

IUFRO Task Force Precision Pest Management in Forest Ecosystems

IUFRO Task Force Sustainable Planted forests for greener future

Host organization(s) and sponsor(s): IEFEC, INRAE, IUFRO

Donors : ONF, LUTHYL project (Ecophyto, France Bois Forêt)

Study tour(s) to Lugos (France) to visit an experiment on mark-release-recapture of the insect vector of the pinewood nematode and to La Teste (France) to visit a close-to-nature forest experiencing a bark beetle outbreak and salvage harvesting operations.

4) Meeting report (max. 100 words per paragraph)

a) Background information (meeting context)

Global changes, including climate change and economic globalisation, pose serious threats to the health of the world's forests by favouring the emergence or invasion of an increasing number of forest pests. Wood and bark beetles play a prominent role in this context due to the spatial extent and

intensity of their damage, with long or chronic outbreaks, causing the mortality of a considerable number of trees or forest areas. Many methodologies can be applied to the monitoring and control of these insects, which justified the gathering of knowledge and skills of many IUFRO working groups and task forces. This joint conference aimed to provide knowledge and tools for action for forest scientists and practitioners searching for solutions to mitigate the risk of wood and bark beetle attacks.

b) Key issues discussed/latest findings in the field (bullet points or text)

- Monitoring and management of the large pine weevil
- Population dynamics of the spruce bark beetle
- Molecular and physiological studies of wood boring insects
- Drought and heat related host tree – bark beetle interactions
- Invasions of bark beetles and wood borers
- Precision pest management of bark and wood borers
- Novel monitoring and modelling tools for the management of bark beetles
- Biotic interactions in bark and wood beetles

c) Conclusions (if possible, summarize key conclusions across presentations):

The use of attractive molecules from trees or congeners is proving a useful and effective method for trapping native and invasive bark beetles and estimating their infestation levels. These semiochemicals are also important for understanding the interactions between the different species of bark beetles attacking the same trees and eventually manipulate their behavior. This approach could be complemented by visual lures, as shown by cutting-edge research into insect vision. Innovative detection methods are being developed, such as smart traps and trained sniffer dogs.

Climate change, and more particularly warmer temperature and more severe droughts have been confirmed as a major factor in increasing tree vulnerability to bark and wood borer attacks, and must be incorporated into predictive models.

Invasive bark beetle species continue to spread worldwide, taking advantage of bridgeheads to spread from country to country. They can carry pathogenic fungi, increasing the risks to forest health.

d) Outlook to future activities (proceedings, future meetings, other):

Participants will meet again in Stockholm next year at the IUFRO World Congress to continue discussing these issues.

4) Photos

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Credit (not protected by copyright): Christophe Orazio

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*Caption: Presentation of a mark-release-recapture experiment with *Monochamus galloprovincialis*, the insect vector of the pinewood nematode.*

Credit (not protected by copyright): Christophe Orazio

5) Other information:

a) Communication activities (dissemination of information about the meeting; promotion of IUFRO)

Our communication activities were executed to ensure the success of the IUFRO Conference in Bordeaux. Leading up to the event, we included it in the event section of our quarterly January, May and August newsletters, allowing our subscribers to mark their calendars well in advance. We created an event page on our website, to provide easy access to event details. The event was prominently featured in the events calendar on our website and appeared in the home page carousel. Across our social media platforms, we maintained an active presence, disseminating multiple informative posts and reminders.

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We took a proactive approach by sending out emails and reminders to our newsletter subscribers, those who had pre-registered and registered for the event. These personalized communications ensured that everyone received up-to-date information about the event schedule and activities.

In addition, we also developed a range of essential materials to enhance the event experience for attendees. These materials included an informative agenda detailing the schedule and key activities, a practical information document to guide participants through the logistics and details of the event, and a comprehensive Book of Abstracts that provided valuable insights into the content and topics to be covered during the conference. These resources were thoughtfully crafted to ensure that all participants had access to the information and resources they needed to make the most of the event.

Suzanne AFANOU, IEFC, Head of Communication

b) Related publications /websites:

- <https://populus.eu/en/two-essential-events/>
- <https://medforest.net/2023/07/28/conference-on-management-of-bark-and-wood-borers-in-planted-and-natural-forests/>

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