

# LIA IFOPE- URZF INRAE & BEIJING FORESTRY UNIVERSITY

*Invasive Forest Pests affecting biodiversity and forest Ecosystems in Eurasia)*

## Aims: Definition of tools to predict and early detect insect invasions

- ❑ **Sentinel planting strategy** with crossed plantations (Chinese trees in France and European trees in China) to survey colonization by native insects susceptible to be introduced in both countries with large impact
- ❑ Tests of **multi-component attractive blends with generic attractivity for early detection** of xylophagous insects at ports- of- entry: **375 species already trapped** in both countries
- ❑ **Genetic tracking of the invasion routes of major insect pests for woody plants** : European woodwasp and bark beetles invaders in China and Chinese boxtree moth invader in Europe- Several joint papers already published
- ❑ **The first list of exotic insects affecting woody plants in China jointly published** with comparative analysis to European situation (Frontiers For. Glob. Change, 2020)



# IFOPE- MAIN 2022 RESULTS

## Joint communications at major world entomology congresses:

- ❑ 26th International Congress of Entomology, Helsinki, Finland, July 2022 (*Worldwide tests of generic attractants, a promising tool for early detection of non-native cerambycid species at arrival on other continents* (URZF, BFU, CAS))
- ❑ 31st USDA Interagency Research Forum on Invasive Species, Annapolis, USA, January 2023 (*Results of a worldwide trapping program using generic lures to detect cerambycid invaders at arrival on other continents*)

## Papers in international and Chinese journals:

- Annual Review of Entomology 2023 (*Early Monitoring of Forest Wood-Boring Pests with Remote Sensing*; Luo You-qiao et al.)
- Neobiota 2023 (*Worldwide tests of generic attractants, a promising tool for early detection of non-native cerambycid species*; Roques et al.)
- RIO (submitted) Towards a global sentinel plants research strategy to prevent new invasive forest pest and pathogen introductions. The experience of HOMED. (Migliori et al.)
- Scientia Silvae Sinicae (submitted) Checklist and introduction characteristics of invasive insect pests in forest and grassland ecosystems of the Chinese mainland
- Scientia Silvae Sinicae (submitted) Screening and assessment of global forest insect pests based on horizon scanning Xu Qingwang et al.
- International Journal of Biological Macromolecules (to be submitted) Seven mitochondrial genomes of Tribe Hylurgini (Coleoptera: Curculionidae: Scolytinae) in Eurasia and their phylogenetic analysis An Na et al.

## Joint Phd (Yuan Yuan) since January 2022 hosted at INRAE