IUFRO Spotlight is an initiative of the International Union of Forest Research Organizations. Its aim is to introduce, in a timely fashion, significant findings in forest research from IUFRO officeholders and member organizations to a worldwide network of decision makers, policy makers and researchers. IUFRO will encapsulate, and distribute in plain language, brief, topical and policy-relevant highlights of those findings, along with information on where/how to access the full documents.

IUFRO Spotlight also aims to present activities such as sessions at major IUFRO congresses or the work of IUFRO Task Forces with a focus on emerging key issues that are of great interest to policy makers and groups inside and outside the forest sector, and contribute to international processes and activities. The **IUFRO Spotlight** findings will be distributed in a periodic series of emails as well as blog postings.

IUFRO Spotlight #40 / October 2016

Biological Invasions: An Undesired Effect of Globalization

Increasingly, the trend of globalization causes many species to be moved around the world and into areas in which they have never before existed.

Unfortunately, when organisms are moved out of the regions where they evolved and transported to new regions where there are few or no natural limiting factors – predators, as an example – populations can sometimes explode with profound impacts on the new and vulnerable territory.

This is particularly true in forest ecosystems that generally receive little human intervention over long time periods.

As a consequence, forests around the world are increasingly being altered by invasions of alien plants, insects, tree pathogens (such as fungi) and other types of organisms.

The impacts on the ecological, economic and sociological aspects of affected ecosystems are often severe, widespread and long-term.

A IUFRO Task Force on Forests and Biological Invasions has been established to gain new insight into this issue by synthesizing information across a range of scientific disciplines.



Sign on a tree warning of emerald ash borer damage (SBSArtDept)

"IUFRO is the premier international organization that facilitates networking and the exchange of information among scientists working on forests," said Dr. Andrew Liebhold of the U.S. Forest Service and coordinator of the Task Force.

"As such, IUFRO offers a fantastic resource for reaching out to scientists worldwide. This Task Force will tap into that by both facilitating the synthesis of scientific information and by disseminating that scientific knowledge," he said.

Biological invasions are problems in forests of virtually all forested regions worldwide, regardless of whether these regions are economically developed. The IUFRO network provides an excellent infrastructure for sharing knowledge among regions and in particular in countries that lack access to much of the scientific literature, he said.

The Task Force is expected to provide opportunities to minimize the number of new invasions. In part, it is hoped this will be accomplished through information sharing. Dr. Liebhold feels this will allow countries around the world to reduce the chances of species inadvertently being transported through trade or human travel.

"It can also make it possible for forest managers to learn to manage or adjust to the presence of biological invasions and minimize negative outcomes," he added.

Since there is no expectation that globalization will stop and, in fact, it is expected to expand in future, the Task Force will contribute by gaining new insight into the issue and thus help institutions guide their research efforts internally and to coordinate among various countries.

The Forests and Biological Invasions Task Force is one of several established by IUFRO to advance knowledge under five research themes in accordance with the IUFRO 2015-19 Strategy.

The five themes are:

- Forests, Soil and Water Interactions;
- Forests for People;
- Forests and Climate Change;
- Forests and Forest-based Products for a Greener Future;
- and Biodiversity, Ecosystem Services and Biological Invasions.



Hemlock killed by hemlock woolly adelgid (Photo by Laura Blackburn/US Forest Service)

Find out more about the Task Force at: http://www.iufro.org/science/task-forces/biological-invasions/

The findings reported in IUFRO Spotlight are submitted by IUFRO officeholders and member organizations. IUFRO is pleased to highlight and circulate these findings to a broad audience but, in doing so, acts only as a conduit. The quality and accuracy of the reports are the responsibility of the member organization and the authors.

Suggestions for reports and findings that could be promoted through IUFRO Spotlight are encouraged. To be considered, reports should be fresh, have policy implications and be applicable to more than one country. If you would like to have a publication highlighted by Spotlight, contact:

Gerda Wolfrum, IUFRO Communications Coordinator, wolfrum(at)iufro.org

The International Union of Forest Research Organizations (IUFRO) is the only worldwide organization devoted to forest research and related sciences. Its members are research institutions, universities, and individual scientists as well as decision-making authorities and other stakeholders with a focus on forests and trees. Visit: http://www.iufro.org/

IUFRO Spotlight #40, published in October 2016, by IUFRO Headquarters, Vienna, Austria. Available for download at: http://www.iufro.org/media/iufro-spotlights/

If you do not wish to receive IUFRO Spotlight publications, please email us at: office(at)iufro.org
Imprint: http://www.iufro.org/legal/#c18944