



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 Spotlight issues up to October 2014 will primarily focus on the *IUFRO World Congress* that will take place on **5-11 October 2014 in Salt Lake City, Utah, USA**. The topics of individual Congress sessions will be highlighted in order to draw attention to the wide variety of themes that will be addressed at the Congress and their importance on a regional and global scale. [Link to: IUFRO 2014 World Congress Scientific Program](#)

IUFRO Spotlight #22/June 2014/IUFRO World Congress

Green cities: The benefits of the urban forest

The urban forest means different things to different people.

Many of us see only visually pleasing tree-lined streets, or enjoy the coolness afforded by shade trees on hot days.

Those more closely involved with the urban forest see that – and much, much more.

They also see the urban forest in terms of the ecosystem services and values derived from it – reduced energy use of buildings, improved air quality, stream flows, water quality, urban wildlife, human health, climate change (in terms of both mitigation and species composition) and other benefits that are environmental, social and economic.



Experiencing the floodplain forests of the city of Leipzig, Germany, from the river (photo by Matilda Annerstedt)

As an example of the economic value of urban forests, the chief economist for Canada's Toronto Dominion Bank was interviewed by CBC-TV following last winter's severe ice storm in Toronto in which many trees were damaged or destroyed. In the interview, he estimated the value of Toronto's urban forest – more than 10 million trees covering 30% (190 square kilometres) of the city – at about \$7 billion to the local economy, saying the trees „represent an important investment in environmental condition, human health and the overall quality of life.“

This fall, at the IUFRO World Forest Congress in Salt Lake City, a session entitled: *Urban forest diversity and ecosystem services* will focus on species diversity in cities across the globe, the ecosystem services provided by them, how forest composition and species diversity affect those services and values and how the composition and species diversity are changing and will continue to change going forward.

Session coordinators are Dr. David Nowak of the U.S. Forest Service and Wesley Kocher of the International Society of Arboriculture.

Urban forests provide critical services and values to residents and are under threat from various forces, Dr. Nowak says. By understanding local urban forest composition and recognizing the forces of change, management plans can be developed to sustain healthy, functional urban forests for future generations.

The biggest challenge facing urban forests, according to Dr. Nowak, is how municipalities deal with the numerous forces that have and will continue to alter them – exotic insects and diseases, invasive plant species, climate change and urban development.

All of these forces, he says, will alter tree health and species composition and consequently will alter the ecosystem services and values derived from the urban forest.

Limited understanding and awareness of those issues by the urban population, a lack of specific management guidelines on how to minimize the negative impacts of those external forces and limited financial resources are all roadblocks that have to be overcome, says Dr. Nowak.

On the upside, he says, research is being conducted and tools are being developed to assess the structure and value of urban forests, and educational outreach about the forests' values and the risks that face them is also taking place. Many cities and towns have also begun taking steps to increase species diversity.

At the Congress, the urban forest session will present data on species diversity in cities across the globe, discuss how urban forest composition and species diversity affects various ecosystem services and values and illustrate how and why composition and species diversity are likely to change.

The information out of the session can then be used to help guide future research and policies related to sustaining urban forests and the critical ecosystem services provided by them and to implementing programs and projects that will help achieve those ends.

Find out more about the activities of IUFRO's Urban Forestry Research Group at:
<http://www.iufro.org/science/divisions/division-6/60000/60700/>

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