



Webinar on
Protecting oak trees for future generations
in Europe and Central Asia

26 November 2020
11.00 – 13.00 hrs CET

Concept note

Our forests are facing new threats from both native pest species with changing biology and behaviour, and also non-native, sometimes even invasive, pest species; the latter of which are often very difficult to manage. Non-native pathogens, plants, invertebrates and vertebrates present new challenges for forest owners and forest managers and a lack of information on such species hampers efforts to control them.

The countries of Europe and Central Asia recognized this issue and established the Forest Invasive Species Network for Europe and Central Asia (REUFIS) where scientists, managers and policy-makers can share information and experiences and coordinate forest invasive species activities and programmes within and between the regions. REUFIS has 28 member countries in the Europe and Central Asia region and is facilitated by the European Forestry Commission, a statutory body of the Food and Agriculture Organization of the United Nations (FAO). REUFIS focuses on providing training to build capacity and collaboration in the region to address the increasing risks and impacts of forest invasive species on the sustainable management of forests in the region. Further information on the network including activities can be found on the REUFIS webpage (<http://www.reufis.org/>).

REUFIS usually conducts an annual meeting back-to-back with a training to improve capacities of countries for the control and management of forest invasive species. This year is different, as the COVID-19 pandemic has affected the possibility to travel and meet in person, therefore we will meet in a virtual format via Zoom. This year's virtual event will focus on the pests and diseases threatening the oak trees across Europe and Central Asia.

Why oaks are important?

Oaks are trees or shrubs in the genus *Quercus*, which includes approximately 600 species native to the Northern Hemisphere. Both deciduous and evergreen species are found extending from cool temperate to tropical latitudes. Some of them (e.g. *Q. vulcanica*) have restricted distribution, while others like *Quercus robur* L., (pedunculate oak) and *Quercus petraea* (Matt.) Liebl., (sessile oak) are dominating tree



species in many forest types across Europe and Central Asia. Since the earliest times, these oaks have held an important role in human culture in Europe, providing wood for fuel, acorns for livestock, bark for tanning, and timber for construction. These tree species also have an important ecological role, as they support many species of insects such as leaf feeding caterpillars of moths, wood-boring beetles and gall-forming insects. The acorns provide a valuable food source for many birds and mammals, such as jays, mice, squirrels and pigs. The increasing demand for oak wood products and the reduction of natural forests have influenced the development of modern silviculture. Pedunculate and sessile oaks are amongst the most economically important deciduous forest trees in Europe, providing high quality hardwood for construction and furniture manufacture. Several cultivars have been also selected for ornamental purposes, especially from *Q. robur*, and exported all over the world. Oaks are particularly appreciated as park or roadside trees for their size and shade.

Pests and diseases threatening the oak trees

There are many pests and diseases associated with oak species. Several insect species feed on leaves of oak trees, e.g. green oak moth (*Tortrix viridana*), gypsy moth (*Lymantria dispar*), oak processionary moth, (*Thaumetopoea processionea*) or winter moth (*Operophtera brumata*). In recent years, **oak processionary moth** (*Thaumetopoea processionea*) has spread from its native habitat in southern Europe further north. This caterpillar defoliates oaks and sheds micro hairs that are a serious irritant to the human respiratory system, eyes and skin. Recently a 'new' species with north-american origin, the **oak lace bug** (*Corythuca arcuata*) causes severe damages to various oak species in the region. Introduced first to Italy (2000) and Turkey (2002), the species started a rapid range expansion northwards, causing early discoloration of the leaves, reduced growth, dropout of acorn production and limited natural regeneration potential of the oak stands.

Oak species are subject to many fungal diseases. **Sudden Oak Death** caused by the pathogen *Phytophthora ramorum* has been known to cause extensive damage and mortality in oak species of North America. Although this pathogen has been detected in Europe, reports on its impact on native European oaks are limited. Currently in Europe, there is an increased awareness and surveys are in place to look for the presence of *P. ramorum*. **Powdery mildew** (*Microsphaera alphitoides*) can infect younger leaves and soft shoots, and the leaves of seedlings.

Acute Oak Decline is a new syndrome affecting principally pedunculate and sessile oaks, and this has become a more widely recognized problem in recent years. It is a complex problem caused by a combination of insects, pathogens and other abiotic agents (such as droughts), which act together to cause serious stress and mortality to the trees.

Objectives of the webinar

- Raise regional awareness and preparedness for future pest and disease outbreaks in oak forests
- Share experiences on good practises on Integrated Pest Management for pests and diseases of oak species
- Contribute to the goals of the International Year of Plant Health (IYPH 2020)



When: 26 November 2020, 11.00-13.00 hrs CET

Where: Via Zoom

Zoom registration: https://fao.zoom.us/webinar/register/WN_jZksfFDoRu-1MIXInyJEOw

Agenda

Item	Activity	By
1	Welcome from FAO Welcome from REUFIS	Dr. Shiroma Sathyapala, Forestry Officer, FAO, moderator Prof. Ferenc Lakatos, Secretary, REUFIS
2	An overview on the status of oak species in Europe and Central Asia	Dr. Alexis Ducouso, UMR BioGeCo, INRAE, France
3	Keynote presentation – Oaks under pressure – actual health issues in oak ecosystems	Dr. György Csóka, Department of Forest Protection, NARIC Forest Research Institute, Hungary
4	Oak lace bug: Impact on future oak forests	Prof. Boris Hrašovec, Department of Forest Protection and Wildlife Management, University of Zagreb, Croatia
	Emerging pests and diseases of oaks in Russia	Uliana Chernova All-Russian Research Institute of Silviculture and Mechanization of Forestry (VNIILM), Russian Federation
	Healthy oaks for healthy cities	Dr. Dani Nurgissaevna Sarsekova, Forest Resources and Forestry Department, S.Seifullin Kazakh Agro Technical University, Kazakhstan
	Can we save dryland oak forests? An example from the OakeyLife project	Dr. Dániel Andrési OakeyLife project, Innovation Center, KEFAG Kiskunság Forestry and Woodworking PLC, Hungary
5	Questions & Answers - Interactive session with participants	All panelists and participants
6	Concluding remarks	Dr. Norbert Winkler-Ráthonyi, Forestry Officer, FAO
7	Wrap-up/Closing	Moderator