

Online Advanced Course

MEDITERRANEAN FOREST HEALTH IN THE CONTEXT OF GLOBAL CHANGE, 22 November – 1 December 2021

Premeeting class 0: Checking the facilities with participants and lecturers

Class 0: Videos from the organizers, Video technological tools, Programme presentation

Hour	Monday 22	Tuesday 23	Wednesday 24	Thursday 25	Friday 26	Monday 29	Tuesday 30	Wednesday 1
9:15-10:15	Introduction of participants and networking	Biotic drivers Climate envelope/ expansion/regression  Prediction based on species distribution models (SDM) – The case of <i>Phytophthora cinnamomic</i> <b>B. Marçais</b>	Biotic drivers Drought/parasites interaction  The case of <i>Diplodia sapinea</i> <b>B. Marçais</b>	Tree decline – The case of oaks <b>A. Solla</b>	Non-native pests Case studies  Pathogens: <i>Phytophthora cinnamomi</i> , <i>Cryphonectria parasitica</i> , <i>Fusarium circinatum</i> <b>B. Marçais</b>	Forest health surveillance  Principles and methods of existing monitoring and surveillance programmes <b>M. Ferretti</b>	Forest health surveillance Need of improved surveillance and methods  Diagnosis of invasive species / Surveillance of nurseries and pathways <b>A. Pérez-Sierra</b>	Management strategies to cope with global change effects on forest health  The case of pine wood nematode in Portugal <b>J.M. Rodrigues</b>
10:15-11:15	Mediterranean forest and global change <b>I. Martínez de Arano</b>	Biotic drivers Climate envelope/ expansion/regression  Mechanistic models – The case of <i>Thaumetopoea pityocampa</i> <b>A. Battisti</b>	Biotic drivers Drought/parasites interaction  The case of wood borers and bark beetles <b>M. Branco</b>	Non-native pests  History and pathways <b>A. Roques</b>	Non-native pests Case studies  Invasive plant species <b>H. Marchante</b>		Forest health surveillance Need of improved surveillance and methods  New tools for surveillance <b>D. Rassati</b>	Management strategies to cope with global change effects on forest health  The case of evergreen oak decline in Spain <b>A. Solla</b>
<b>Coffee break</b>								
11:45-12:45	- Climate change scenarios for Mediterranean forests  - Abiotic drivers <b>J.J. Camarero</b>	Biotic drivers Climate envelope/ expansion/regression  <b>Demonstration</b> exercise using SDM and degree-days <b>A. Battisti</b>	Biotic drivers Drought/parasites interaction  Phenological shifts – The case of gypsy moth in Sardinia <b>A. Battisti</b>	Non-native pests Case studies  - Insects: <i>Leptoglossus</i> seed bugs, <i>Xylosandrus</i> spp. ambrosia beetles, recent changes in eucalypt insect invaders <b>M. Branco, A. Roques</b>	Non-native pests  Methods for predicting new invaders / <b>Demonstration</b> exercise on horizon scanning for predicting biological invasions <b>A. Roques</b>	Forest health surveillance  <b>Practical work</b>  - Tree defoliation - Visible foliar symptoms due to ozone <b>M. Ferretti, N. Potočić, E. Gottardini</b>	Forest health surveillance  <b>Demonstration</b> exercise on the use of online tools and databases <b>D. Rassati</b>	Management strategies to cope with global change effects on forest health  The case of chestnut gall wasp in Turkey / <b>Demonstration</b> on biological control effectiveness simulations <b>K. Ipekdal</b>
12:45-13:45		Biotic drivers  Response of natural enemies <b>A. Farinha</b>	Non-native pests  - Nematodes: Pine wood nematodes <b>P. Naves</b>	Non-native pests  Detection and management <b>M. Faccoli</b>	Management strategies to cope with global change effects on forest health  Introduction to management strategies <b>A. Solla, M. Ferretti, K. Ipekdal</b>		Management strategies to cope with global change effects on forest health  <b>Debate</b> on current issues in forest health strategies <b>I. Martínez de Arano, A. Solla, M. Ferretti, K. Ipekdal</b>	