





LIFE FOR EUROPEAN FOREST GENETIC MONITORING SYSTEM

	22/09/2020	Tuesday schedule of lectures 09:00 am - 19:15 pm						
	OVERALL SESSION 2	6 Key Notes 5 Oral presentations 18 Poster presentations						
	OVERALL SESSION 3	2 Key Notes 2 Oral presentations 0 Poster presentations						
Time CET			Presenters	Short title				
09:00 09:30	LECTURE SESSION 2	2 Keynote speaker presentations = 60 minutes	Hojka Kraigher	Forest genetic monitoring - where from and where to				
09:30 10:00			FA (Phil) Aravanopoulos	The utility of gene-linked SNPs as a marker of choice for forest genetic monitoring				
10:00 10:15		2 Voluntary oral presentations = 30 minutes	Philip Brailey-Jones	Introducing a web-based population genetics analysis platform for use in the LIFEGENMON project and beyond				
10:15 10:30			FA (Phil) Aravanopoulos	What constitutes a biologically significant difference in the frame of forest genetic monitoring temporal assessments?				
11:00 11:30	LECTURE SESSION 2	2 Keynote speaker presentations = 60 minutes	Paraskevi Alizoti	Monitoring tree phenology: a simple early warning system on climate change impacts in forest ecosystems				
11:30 12:00			Barbara Fussi & Darius Kavaliauskas	The indicator "gene flow / mating system" to monitor genetic changes over time in European beech and Silver fir				
12:00 12:15		2 Voluntary oral presentations = 30 minutes	Ermioni Malliarou	Genetic monitoring in beech populations with genetic and epigenetic markers				
12:15 12:30			Nikolaos Tourvas	Genetic monitoring in the hybridogenous fir (<i>Abies borisii-regis</i>): Interpretation of the first temporal and intergenerational comparison using SSR genetic markers				

14:00 14:15		1 Voluntary oral presentation = 15 minutes	Marko Bajc	Lifegenmon Forest Genetic Monitoring Manual
14:15 14:45	LECTURE SESSION 2	1 Keynote speaker presentation = 30 minutes	Darius Kavaliauskas & Gregor Božič	Guidelines for conducting forest genetic monitoring of the seven tree species – Abies alba/Abies barisii-regis complex, Fagus sylvatica, Fraxinus excelsior, Pinus nigra, Populus nigra, Prunus avium, Quercus petraea/Quercus robur complex
14:45 14:50		7 Poster presentations = 35 minutes	Marjana Westergren	Guidelines for conducting genetic monitoring in the field: Fagus sylvatica L.
14:50 14:55			Darius Kavaliauskas	Guidelines for conducting genetic monitoring in the field: Abies alba/Abies borisii-regis
14:55 15:00			Gregor Bozič	Guidelines for conducting genetic monitoring in the field: <i>Populus nigra</i> L.
15:00 15:05	POSTER SESSION 2		Marjana Westergren	Guidelines for conducting genetic monitoring in the field: <i>Fraxinus</i> excelsior L.
15:05 15:10			Paraskevi Alizoti	Technical Guidelines for the genetic monitoring of Pinus nigra Arn.
15:10 15:15			Darius Kavaliauskas	Guidelines for conducting genetic monitoring in the field: Wild cherry (<i>Prunus avium</i> L.)
15:15 15:20			Kristina Sever	Guidelines Quercus
15:20 15:50	LECTURE SESSION 2	1 Keynote speaker presentation = 30 minutes	Marko Bajc	"What's the damage?" The assessment of cost of forest genetic monitoring based on the Lifegenmon project activities
16:20 16:25		11 Poster presentations = 55 minutes	FA (Phil) Aravanopoulos	Delineation of regions for forest genetic monitoring on a transect from Bavaria to Greece
16:25 16:30			Natalija Dovč	Development of the sampling design within the LIFEGENMON project
16:30 16:35			Rok Damjanić	The implementation of a database system for forest genetic monitoring (FGM) within the LIFEGENMON project
16:35 16:40			Natalija Dovč	Phenological observations within the LIFEGENMON project in Slovenia
16:40 16:45			Paraskevi Alizoti	Monitoring phenology to assess the response and adaptive potential of a Hellenic <i>Abies borisii-regis</i> population to inter- annual climate variability
16:45 16:50	POSTER SESSION 2		Paraskevi Alizoti	Assessing the response of a Hellenic <i>Fagus sylvatica</i> population to interannual climate variability via monitoring the phenology of various biological traits
16:50 16:55			Maria Cristina Monteverdi	Traditional monitoring of foliar phenology concerns in situ observations on single trees
16:55 17:00			Marko Bajc	Interlaboratory comparison of microsatellite data. An approach used in the Lifegenmon project
17:00 17:05			Nikolaos Tourvas	Minimum Requirements for Genetic Monitoring: A Proposed Workflow
17:05 17:10			Domen Finžgar	Genetic monitoring of the products of the British Sitka spruce (Picea sitchensis (Bong.) Carr) breeding programme
17:10 17:15			Barbara Fussi	The joint research project GENMON: Implementation of long-term genetic monitoring in beech and spruce stands in Germany
17:45 18:15		2 Keynote speaker presentations = 60 minutes	Ivan Scotti	Conservation of forest genetic resources, adaptation, and resilience: what do we know and what do we still need to know?
18:15 18:45	LECTURE SESSION 3		Cristina Vettori	Genetic and genomic landscape approach for adaptative forestry in climate change
18:45 19:00		2 Voluntary oral presentations = 30 minutes	Kristina Sever	Forest tending of the seed stands with the I+ Trainer virtual tool
19:00 19:15			Laura Guillardin	Genetic effects of applying Continuous Cover Forestry in non-native conifer UK populations







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Slovenia Forest Service



REPUBLIC OF SLOVENIA MINISTRY OF AGRICULTURE, FORESTRY AND FOOD

EU GREEN WEEK

GENETIC AND GENOMIC LANDSCAPE APPROACH FOR ADAPTATIVE FORESTRY IN CLIMATE CHANGE

Cristina Vettori¹, Tjaša Baloh², Fabio Ciabatti³, Hojka Kraigher², Francesca Logli⁴, Marcello Miozzo⁵, Susanna Nocentini⁶, Miran Lanšćak⁷, Boris Rantasa⁸, Davide Travaglini⁶, Marjana Westergren², Donatella Paffetti^{6*}

¹ Institute of Biosciences and BioResources (IBBR) – CNR, Research Division Florence, Via Madonna del piano 10, 50019 Sesto Fiorentino (FI) (Italy)

² Slovenian Forestry Institute, Večna pot 2, 1000 Ljubljana (Slovenia)

³ Unione dei Comuni Montani del Casentino, Via Roma 203, 52014 Ponte a Poppi (AR, Italia)

⁴ Ente Parco Regionale Migliarino, San Rossore, Massaciuccoli, Tenuta San Rossore, 56122 Pisa (Italia)

⁵ D.R.E.AM. Italia sco. coop. agricolo forestale, Via Garibaldi 3, 52015 Pratovecchio-Stia (AR, Italia)

- ⁶ Dipartimento Scienze e Tecnologie Agrarie, Alimentari, Ambientali e Forestali (DAGRI), Università degli Studi di Firenze, Via Maragliano 77, 50144 FIRENZE (Italia)
- ⁷ Croatian Forest Research Institute, Cvjetno naselje 41, 10450 Jastrebarsko (Croatia)

⁸ Slovenia Forest Service, večna pot, 2, Ljubljana (Slovenia)

*Corresponding author: Donatella Paffetti

The functioning of ecosystems depends on the adaptation of living organisms to their environment. Forests will need to respond within a few generations to more frequent extreme climate events, modified average climate parameters and other related changes. Consequently, forest services will depend on the intensity and speed of the evolution of tree populations response to climate change. Genetic adaptation, the genetic change of a population in response to natural selection, can be rapid and contribute to the ecological success of species facing climate change. The European Environment Agency stated that "genetic variety in regionally adapted forests is essential for adapting to new environmental conditions such as climate change". The State of the World's Forest Genetic Resources reported that roughly half of the forest species were threatened or subject to genetic erosion.

The adaptability of forest tree populations is enormous but not unlimited. It is extremely important to provide a sustainable forest management approach to local and rural community for sustainable use of forest products while preserving forest genetic resources.

The potential of using a genetic (neutral markers) and genomic (adaptive markers) landscape approach to study the adaptation of trees to the environment and the potential of local populations to cope with climate change appears to be the most suitable tool to address silvicultural practices for better adaptive forestry. Therefore, LIFE SySTEMiC's principal aim is to apply the landscape genetic and genomic approach for examining best close-to-nature forest management regarding FGR in different European Forest Types for diverse forest management systems.