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Aristotle University of essaloniki, Faculty of Forestry and Natural Environment

Slovenian Forestry Institute

(coordinating beneficiary)



Hellenic Republic -Decentralized Administration of Macedonia & Thrace neral Directorate of Forests & Rural Affairs

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LIFE FOR EUROPEAN FOREST GENETIC MONITORING SYSTEM



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# LIFEGENMON Newsletter

**LIFEGENMON Transect** 2015/2

## **ABOUT LIFEGENMON**

Conservation of biodiversity at the genetic level, which is the basis for higher levels of species, ecosystems and landscapes, is a fundamental aim of sustainable forest management. Forest genetic monitoring allows us to detect potentially harmful changes in forest adaptability before they become visible to the human eye. It can serve as an early warning system and help us prevent catastrophic events, which are becoming more and more common in today's forests.

The aim of the LIFEGENMON project is to support long-term maintenance of the adaptability of forest genetic resources to the changing environment through the development of a system for European forest genetic monitoring. The project is co-funded by European LIFE (Financial Instrument for the Environment) and local funding agencies. It combines efforts of 6 partners from 3 European countries (Germany, Greece and Slovenia); it is coordinated by Prof. Dr. Hojka Kraigher from the Slovenian Forestry Institute, and lasts from July 2014 until June 2020; the total budget is €5.484.162.



# LIFEGENMON TRANSECT

The LIFEGENMON project area spreads across the transect, ranging from southern Germany in the north west to Greece in the south east, and includes Germany (Bavaria), Austria, Slovenia, part of Hungary, Croatia, Bosnia and Herzegovina, Serbia, Montenegro, FYR of Macedonia, Albania and Greece. A large part of this area is considered to form Europe's biodiversity hotspot. Here beech, fir and mixed forests are among the main forest types and both beech and fir have been selected to become model species for the implementation of forest genetic monitoring. The transect includes 6 forest genetic monitoring plots; one for European beech (Fagus sylvatica) and one for silver fir (Abies alba/Abies borisiiregis complex) for each project country (Slovenia, Germany, Greece).

In order to familiarize all project partners with diverse environmental conditions, forests, forestry and local expert knowledge, two transect drives were organized in the first year of the project. These will also aid the preparation of guidelines and manuals on forest genetic monitoring. Another objective of the transect drives was to discuss and promote the importance of forest genetic monitoring with local national focal points (NFPs) and local government bodies.

**LIFGENMON Transect - Project area** and forest genetic monitoring sites

### TRANSECT DRIVE 1

The 1<sup>st</sup> Transect Drive lasted from 17.07.2014 to 26.07.2014 and took its participants from Germany to Greece.

17.07.2014 – The transect drive started in Germany where Dr. Monika Konnert presented a potential forest genetic monitoring plot for silver fir. The team then traveled to Slovenia, where Dr. Gregor Božič and Dr. Marjana Westergren presented a possible fir and a possible beech stand for forest genetic monitoring. Of these, a certified forest seed stand in Osankarica, Pohorje already contained some background genetic information and was a strong candidate for selection.





18.07.2014 – The second day of the 1<sup>st</sup> Transect Drive featured a long drive to Bosnia and Herzegovina, where the team first visited a forest nursery in Žepče – Logovi near Zenica and enjoyed warm local hospitality. Later that day, the participants visited the Forestry Faculty in Sarajevo under the guidance of LIFEGENMON NFP Prof. Dr. Dalibor Ballian, where they were met by the Dean and representatives from the Federal Ministry.

19.07.2014 – The 1<sup>st</sup> Transect Drive continued through Bosnia and the LIFEGENMON team visited several impressive selected seed stands for silver fir, Norway spruce and European beech in different parts of the country. The project team discussed forest reproductive material legislation, the functioning of the forestry sector in BiH, different environmental conditions, the management of forests and criteria for the selection of seed stands.

20.-21.07.2014 – The project team crossed the border and arrived in Serbia, where Prof. Dr. Saša Orlović, the Serbian NFP, took the lead. On the first day, the team first visited seed orchards and clonal archives in Vojvodina at the Institute of Lowland and Forestry Environment (ILFE) in Novi Sad. On the second day, the team visited the ICP Intensive Monitoring Plot (level 2) and Fagus sylvatica – moesiaca stands at Fruška gora, and a seed stand of Q. robur in Vinična šuma. At Fruška gora, local scientists presented their research investigating the effect of forests on human health and well-being, in addition to a variety of forest and forestry measurements.







**24.-25.07.2014** – **The LIFEGENMON team arrived in Thessaloniki in Greece**, where they were welcomed by the beneficiary partners, Prof. Dr. F. A. Aravanopoulos (AUTH), Nikitas Fragiskakis & Fotis Kiourtsis, (GDDAY-DAMT). They visited the DAMT Financial Officers Central Building and presentations were made by the local department. On **25.07.2015** visits to **potential FGM plots in Chalkidiki** and a visit to the **University Forest in Taxiarchis** were organized.

26.07.2014 - The 1<sup>st</sup> Transect Drive of the LIFEGENMON project was successfully completed. A continuation of the transect drive in 2015 was proposed.



The 2<sup>nd</sup> LIFEGENMON Transect Drive took the LIFEGENMON team from Skopje, FYR Macedonia, to Ljubljana, Slovenia from 28.07.2015 to 5.07.2015.

29.06.2015 – The LIFEGENMON NFP Prof. Dr. Vlatko Andonovski organized a visit to the Ministry of Agriculture, Forestry and Water Economy of the FYR Macedonia in Skopje. Presentations of the project were made to the highest level state forestry officials.



30.06.2015 – The team from Serbia joined the transect. The Serbian NFP Prof. Dr. Saša Orlović again organized all activities and visits to different sites in Serbia. The first stop for the project team was Kopaonik National park, where an ICP Level II Forest Monitoring Plot for Norway spruce was presented. Afterwards a visit was made to the National park HQ. In the afternoon, a scientific workshop with ten presentations by researchers from the University of Novi Sad and Institute for Lowland Forestry and Environment was organized.

**01.07.2015** – The LIFEGENMON team visited the **Tara National Park in Serbia**, which is a **typical European beech** – **silver fir mixed forest area** and one of the most valuable forest areas in Europe. The team's next stop was **Zaovine**, the *locus classicus* of the **Serbian spruce** (*Picea omorika*). After driving around the Tara Mountains and crossing the border into Bosnia and Herzegovina, the team visited a **selected seed stand of black pine near Višegrad**.

02.07.2015 – The team visited the Kopački rit National Park, a wetland area located in a corner formed by the Danube and Drava rivers, in Croatia. The Croatian NFP Prof. Dr. Davorin Kajba arranged a boat trip through the Park's canals and rivers. The project team got to know the wetland willow and poplar forest stands and other tree species present in the area. In the afternoon, the Croatian state forestry company Hrvatske šume, which manages 80 % of Croatian forests was presented by Stanko Antunović, the head of the local forest management unit.

03.07.2015 – The transect team crossed the Croatian-Hungarian border, where Dr. Sándor Bordács, the LIFEGENMON Hungarian NFP, took the lead. He arranged a field trip to the forest nursery at Tolna, where employees of the Gemenc forest enterprise presented an ex-situ clonal collection for the autochthonous *Populus nigra*. The next stop was the Mécsek forestry enterprise, with a visit to an extrazonal beech forest on a northern exposed slope, mixed with oaks and linden. The team's last stop for the day was at Boda, were a serious dieback of turkey oak (*Quercus cerris*) has been occurring since 2013.





04.07.2015 – The project team visited the Čazma forestry enterprise in Hrvatske šume. There, Prof. Dr. Davorin Kajba presented the seed orchards of pedunculate oak, narrow leaf ash and the elm conservation orchard. The team also visited an impressive oak plus tree in a forest nearby as a good practice example of *in-situ* conservation. The LIFEGENMON team concluded the transect drive with a visit to the Slovenian forest genetic monitoring plot for European beech (*Fagus sylvatica*) near Dvor in Slovenia. Domen Finžgar, a forestry engineer from the Slovenian Forestry Institute, presented the plot establishment procedures, marking and sampling.

05.07.2015 – The 2<sup>nd</sup> Transect Drive was successfully completed in Ljubljana, where the LIFEGENMON Technical Board meeting concluded the 2<sup>nd</sup> Transect Drive and a series of relevant project topics was discussed.