



DELIVERABLE: Minutes of the 1st SC meeting
(Action F.3 - Scientific Committee)



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Project Partners



Improving the conservation status of the priority habitat types *1520 and *5220 at the Rizoelia National Forest Park

LIFE12 NAT/CY/000758



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ACTION F.3: Scientific Committee (SC)

DELIVERABLE F.3: Minutes of the 1st SC meeting

The **first Scientific Committee (SC) meeting** of the project LIFE-RIZOELIA (LIFE12 NAT/CY/000758), was organised according to the relevant provisions set out in the project's proposal (Action F.3). The meeting was held at the premises of the Department of Forests (Coordinating Beneficiary) on **February 6th 2014** (see Appendix I for the agenda), with the participation of the members of the SC, as well as the personnel from associated beneficiaries directly involved in the project. This report summarises the main issues presented and discussed during the meeting (see Appendix I for the Agenda).

Participants included the following:

Participants in the SC:

1. Dr. Marios Andreou, Project Manager, Plant-Habitat Conservation, Frederick University
2. Mr. Takis Tsintides, Beneficiary coordinator, Department of Forests
3. Mr. Charalambos Christodoulou, Forest Officer, Department of Forests
4. Assoc. Prof. Ioannis Vogiatzakis, Scientific Coordinator, Landscape ecologist, Beneficiary Coordinator, Open University of Cyprus
5. Dr. Paraskevi Manolaki, Ecologist, Open University of Cyprus
6. Mrs. Louise Sutherland, Ecologist, Open University of Cyprus
7. Prof. Panayotis Dimopoulos, Scientific Committee Expert, Department of Environmental and Natural Resources Management, University of Patras, Greece
8. Dr. Jean-Marc Dufour-Dror, Scientific Committee Expert, Ecologist, External Consultant
9. Assoc. Prof Costas Kadis, Plant-Habitat Conservation Expert, Beneficiary Coordinator, Frederick University
10. Mrs. Iro Kouzali, Plant Ecologist, Field Assistant, Frederick University
11. Mr. Constantinos Kounnamas, Plant Ecologist, GIS analysis, Field Assistant, Frederick University
12. Mrs. Anna Savvidou, Environment Officer, Department of Environment
13. Dr. Katerina Raftopoulou, Representative of External Monitoring Team

A. Welcome

Mr. Takis Tsintides, Department of Forests, welcomed the Scientific Committee and the external experts and he informed the 'assembly' that it was not possible for the 3rd external expert Dr. Reyes Tirado to attend the meeting due to other commitments. He gave a short description of the project objectives as well

as some broad information about the Rizoelia National Forest Park (see Appendix II for Mr Tsintidis presentation).

B. Description and Progress of Actions

Following this short welcome a detailed overview of the project's Actions (A,B,C,D,E, and F) was given by the project manager Dr. Marios Andreou. The power-point presentation is included in the present document in Appendix III.

C. Open discussion

An open discussion followed Dr. Andreou's presentation. The first speaker Assoc. Prof. Vogiatzakis highlighted that Dr. Dufour-Dror will provide useful advises, due to his experience on invasive species management. He also noted that Dr. Dufour-Dror was invited to participate to the SC as an external scientific expert in this project due to his experience. Assoc. Prof. Vogiatzakis also informed the participants that Dr. Tirado, the 3rd member of the external experts, could not make it for health reasons but will follow the project and will comment on issues related to her expertise i.e. *Ziziphus lotus* ecology. Thereafter, Dr. Raftopoulou asked whether the removal of the invasive species could be followed by restoration. Mr. Tsintides answered positively to Dr. Raftopoulou question and he also added that it will start this year and it will continue into next year. Also, Mr. Tsintides mentioned that the main problem of the project is that the Department of Forests does not have experience in regeneration of either of these habitat types in the project area. The Department of Forests plans to disperse seeds *in situ* for habitat type *1520 Gypsum steppes (*Gypsophiletalia*) and to plant saplings for *5220 Arborescent matorral with *Ziziphus*. He also said that *Ziziphus lotus* grows in very open form and the individual plants develop in a distance from each other. Mr. Tsintides recognizing the lack of technical experiences of Department of Forests he asked the contribution of the external experts.

Assoc. Prof. Kadis said that for habitat type *1520 Gypsum steppes (*Gypsophiletalia*) we can try both methods (sowing seeds *in situ* and germinating seeds in the lab and then planting them) during the first year of the project. Then, according to the results, we will apply the best method during the second year of the project.

Prof. Dimopoulos thanked the Project Management Team for inviting him to participate in the project as external scientific expert and he expressed his agreement with the general project structure. He also mentioned that the project is well related to the assessment of the conservation status of the Annex II (Directive 92/43/EEC) habitat types of Cyprus. He pointed out that considering the priority habitat type *1520 gypsum vegetation (*Gypsophiletalia*), the problem is not focused on the extent of the habitat because according to national assessment it is in favourable condition. However, the national assessment

also highlighted the need to address the threats affecting the species, e.g. alien species. Therefore, the project's actions to remove these threats are important. He added that the monitoring is very important. The project needs to increase the number of plots (6 are not enough), because it is important that all different aspects of the ecosystem to be represented in the monitoring plots. Also, the Preparatory Actions of the project are very important to ensure the proper implementation of concrete conservation actions.

Dr. Dufour-Dror said that *Oxalis pes-caprae* is difficult to control because glyphosate is very effective since it is not species specific (it kills all species, including *Oxalis pes-caprae*). Glyphosate kills aerial parts of the plant, but because this is a deep rooted species which spreads vegetatively, the plant recovers from spraying within two years. In Israel top soil removal has been used to deal with this plant, but this is not ideal here as it also removes the seed bank of native flora. It could be used here on small plots no larger than 1000 m². Prof. Dimopoulos also disagreed with this method as it is too drastic.

Dr. Dufour-Dror noted that in his field visit the day before, he was showed areas of the site with 100% coverage of *Oxalis* sp. – in those areas the removal of top soil would not damage the native flora.

Prof. Dimopoulos proposed that a soil seed bank analysis could be worthwhile in order to compare the soil seed bank with the existing, above ground, vegetation. He suggest to identify 20 x plots of 1 m², remove soil to the depth of 25 cm and germinate seeds in laboratory conditions to compare with above ground flora and get an idea of the future management that will be required for the site, e.g. whether there are high numbers of acacia seeds or more natural vegetation will reappear.

Prof. Dimopoulos stated that although the project aims to restore 0.4 ha – the ultimate goal should be that all *Acacia saligna* individuals are removed from the park, since the area is not very extended. Follow up work needs to be done in order to control regeneration of *Acacia saligna* from seed bank.

Assoc. Prof. Vogiatzakis informed the other members that he tried to contact with the Spanish scientists, as a part of the Networking Action (F5), and eventually he tracked down a person who worked on previous LIFE projects and has experience restoring these vegetation types. They are planning some exchange visits to facilitate working together.

D. Field trip to Rizoelia National Forest Park 7/02/2014

During the second day of the meeting, the participants had the opportunity to visit the Rizoelia National Forest Park where they had the chance to see the study area. The questions of the participant were answered by the representatives of the Department of Forests and the Department of Environment.

Participants in the SC:

1. Mr. Charalambos Christodoulou, Forest Officer, Department of Forests
2. Mr. Stavros Mouchlis Forest officer at Rizoelia Forest Station

3. Assoc. Prof. Ioannis Vogiatzakis, Scientific Coordinator, Landscape ecologist, Beneficiary Coordinator, Open University of Cyprus
4. Mrs. Louise Sutherland, Ecologist, Open University of Cyprus
5. Prof. Panayotis Dimopoulos, Scientific Committee Expert, Department of Environmental and Natural Resources Management, University of Patras, Greece
6. Dr. Jean-Marc Dufour-Dror, Scientific Committee Expert, Ecologist, External Consultant
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Assoc. Prof. Vogiatzakis asked about the number of visitors and school visits in the Park. Mr. Mouchlis answered that no official statistics are kept but on average 15 schools per year visit the Park. Some surveys have taken place regarding visitors during summer months (from 7 am to 7 pm) and on average 40 visitors per day visit the Park. In addition, on public holidays approximately 1500 people visit for recreational activities, while 3 schools have visited the Park from September to December 2013.

Assoc. Prof. Vogiatzakis mentioned that there are some areas mapped as agricultural land and he asked if they are still cultivated. Mr. Christodoulou said that currently there is no agricultural area in the Park.

Dr Dufour-Dror asked whether the potential vegetation of the area could have been tree-scattered since many authors state that in historical years there has been timber extraction in the surrounding area which is evidenced also in old house constructions.

Ms Sutherland asked whether the area was as dry in the past as in the present. Mr. Mouchlis answered that the area is very dry and in 2008, trees not close to the streams died since rainfall dropped by 100 mm. Mr. Christodoulou said that grazing is the hindering factor in addition to drought for the regeneration.

Assoc. Prof. Vogiatzakis asked when the pine trees were planted in the area and Mr. Mouchlis said that pines were planted in 1974 (planted with a spacing of three meters) however some of them have not developed well due to soil conditions and some others due to climate conditions especially drought. Mr. Christodoulou pointed to the group various *Ziziphus lotus* isolated individuals in cultivated land surrounding the park.

Assoc. Prof. Vogiatzakis asked about previous attempts to plant *Ziziphus lotus* in the park. Mr. Mouchlis said that the plants were planted 2 years ago but they have not developed properly, in comparison to the individuals planted in another area of the island (Cavo Greko) possibly due to poor soil conditions. Mr. Christodoulou added that despite the fact that they were irrigated 2-3 times a year, according to rainfall

patterns, planting has failed. There is a need to compare this attempt with Cape Greko where they fared better.

Prof. Dimopoulos mentioned that this time there is a need to evaluate the soil prior to planting (synthesis of organic matter, nutrients, etc.).

The participants have visited also an area in the park with *Ziziphus lotus* individuals (*5220 habitat type) mixed with habitat type 5420. Succession follows the pathway: *Hypparhenia hirta* grassland - phrygana - *Ziziphus lotus* thickets. After that Mr. Christodoulou led the group to an area of the park where *Acacia saligna* had been treated in 3 ways:

- 1) frilling, where for small stems (BD <5cm), incisions were made and then sprayed
- 2) for larger diameters (BD =5 cm), the stems were cut and the trunk was sprayed
- 3) for diameters larger than 5 cm, holes were drilled and sprayed inside