

## **Progressive Report IV**

**Title of Application:** Reviving Oriental (Anatolian) Sweetgum Forest by implementing Action

Plan in Southwestern Turkey

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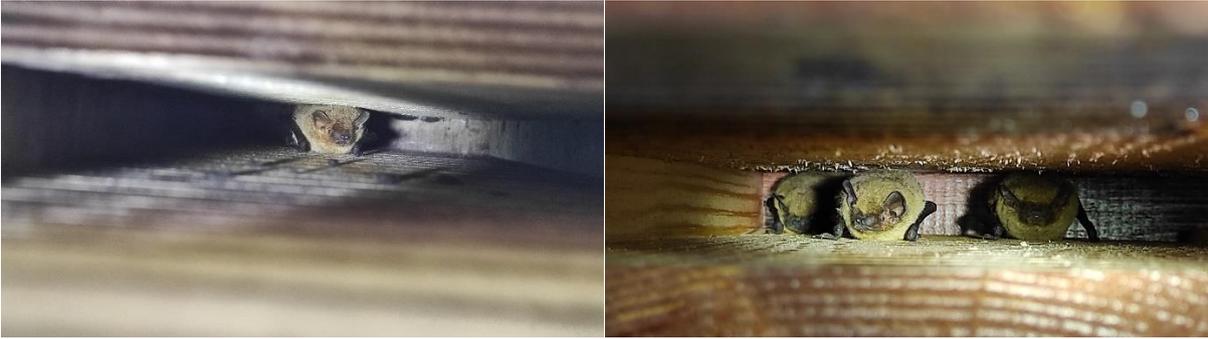
**Place:** Koycegiz-TURKEY

We have continued our new term studies for the protection of Oriental (Anatolian) sweetgum forests under pandemic conditions within the scope of Rufford Foundation's financial support. During the fourth phase studies, the latest status of afforestation we carried out with the Köycegiz Forest Management Directorate in previous years and new afforestation areas have been controlled, autumn period data from bat boxes and photo/camera traps were checked.

In addition, we have submitted to the articles of IDENTIFYING PRIORITY AREAS OF AN ENDANGERED SWEETGUM TREE SPECIES (*Liquidambar orientalis* MILL.) FOR POTENTIAL PLANTATIONS AS IN-SITU CONSERVATION APPROACH and HISTORICAL AND CURRENT BIOGEOGRAPHY PATTERNS OF ORIENTAL SWEETGUM FORESTS (*Liquidambar orientalis* MILL. - ALTINGIACEAE) to the international peer-reviewed journals. We have finished the rearrangements for the reviewer comments and resubmitted to the journals. We have also finished our herpetology studies in the field and related analyses (identification, mapping, modelling etc.). We will submit the results to an international peer-reviewed journal at the end of December.

In order to implement the corridor methodology in the deed lands located in the fragmented forests and / or on the edges of our study area, a comprehensive real estate analysis report is continuing to be prepared in cooperation with our project assistant and local real estate agencies. While the real estate analysis report is being prepared on the one hand, but the fluctuation due to the economic crisis in Turkey makes this budgeting very difficult. It is very difficult to determine the precedent and fair value at the moment. This leads us to alternative strategies, from the option of buying land with the government to plant sweetgum trees in burned areas, on forest edges and open areas, on field lines, etc. leads to sweetgum tree planting. We are developing a strategy that will focus on planting and plantation processes at these points, taking into account the potential distribution map of sweetgum (and the results of our articles now in peer reviewed process related with this topic) that we have created for 2022.

At the end of October, 31 new bat boxes were placed, and autumn data continued to be collected between September and December. Observations in the field continue with a total of 47 bat boxes as of now, and more boxes have been placed around the boxes where we have regularly recorded bat roosting in the past years, in order to improve the colonization behavior.



During summer period, we had to spend our time to help fire fighters and watch out the forests. After fires, we have controlled all the sweetgum forest areas. Luckily, there are not any burned sweetgum forests, but we observed that sweetgum trees have been indirectly affected from the fires. We encountered eco-physiological effects such as yellowing of the leaves or shedding before the period. When we examined the sweetgum trees and riparian habitats in the burned areas in the autumn period, it was observed that the burnt sweetgum trees started to shoot rapidly from the roots and stems. It has also been determined that sweetgum trees in riparian habitats in the red pine forest also play a major role in reducing the speed and severity of fire. For this reason, as NATURA, we encourage and direct the authorized institutions to plant sweetgum afforestation on the edge of temporary and permanent streams in all relevant burned areas.



In addition, we have started various awareness studies (especially in terms of policy changes and restoration studies) in order to draw attention to the potential to benefit from sweetgum forests in creating fire resistant forests. First of all, we co-organized the sweetgum planting of saplings in Köyceğiz and Marmaris Districts (where both are the main study areas of our project and the most affected districts by the megafires) on the 11th of November 2021, within the "Tree Planting Day" in the suitable places of the burned areas.



We gave an interview on the subject to a national radio called Açık Radyo, which broadcasts on the environmental awareness in Turkey.

(<https://open.spotify.com/episode/37iyhqhFSuizHqRRsovsc5?si=JndJMQNHREueCfpOBxFWrw>)

At the end of December, we will give an online symposium to the City Council of Marmaris Municipality, open to the local public, to clarify the ecological concerns on the related subject.

A cooperation protocol has been continued to develop with the officials of the General Directorate of Conservation of Natural Assets and the General Directorate of Forestry regarding the conversion of eucalyptus plantations, which are an invasive species, into sweetgum forests, as well as the afforestation of oriental sweetgum in suitable areas and openings in the forest, whose ecological assessments have been made by us. Due to the mega fires in Turkey this summer, we, as NATURA, as well as both institutions (which are the main institutions responsible for the conservation and development of forests in Turkey), have turned our main focus on the ecological and socio-economic effects of these fires in recent months. In our strategies for the conservation of sweetgum forests, it has become necessary to make some revisions at the point of benefiting from a riverine and riparian habitat representative species such as sweetgum at the point of building fire resistant and fire compatible forests, especially in the restoration of these burned areas.

In the light of the new conditions created by these developments, at the beginning of 2022, we will subject our Sweetgum Action Plan, which was severely disrupted last year due to the pandemic conditions and this year due to mega fires, with the cooperation of all institutions and organizations responsible for the operation of the plan.