

Progress Report III

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

Plan in Southwestern Turkey

Name of leader: Okan Urker

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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 third 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, summer period data from bat boxes and photo/camera traps were checked.

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.

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.

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 are waiting for the reviewer comments. We have also finished our herpetology studies in the field. Nowadays some analyses (identification, mapping, modelling etc.) are still going on. At the end of those works are done, we will submit the results as **2 different scientific publications**.

On the other hand, some works such as a cooperation protocol and a comprehensive real estate analysis report, placing new bat boxes that were planned to be completed during the summer period could not be completed due to the catastrophic fires in the study region. We have 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 ecophysiological effects such as yellowing of the leaves or shedding before the period.



New afforestation areas have been checked during summer 2021.

The study of the survival rate on those and previous afforested places will be done between this autumn period.



The bat boxes were checked for summer activities. No bat individuals were recorded in any of the bat boxes during the summer period. Autumn activities will be checked during this autumn season too.



The effects of the catastrophic fires had been observed in and around the sweetgum forests.

In the next 3 months, it is planned to finalize the cooperation protocol, to submit the herpetofauna studies as 2 different scientific publications, to take results (or to revise) about the other 2 scientific publications that have been already submitted related with the priority areas for the plantation and natural history properties of the oriental sweetgum tree, to continue the preparing of a comprehensive real estate analysis report, to continue bat boxes and photo/camera-trap controls and new bat boxes to be placed on the field. Moreover, the study of the survival rate on the previous afforested places will be continued during autumn season.

Apart from all these, we will organize a series of online discussion programs in the region in partnership with the Sweetgum Working Group, with a perspective on forest fires, forest ecosystem and sweetgum forest, in order to manage the negative perception on society caused by the catastrophic fires that took place this summer in the geography of the study area.

Although our study area is located in the Mediterranean ecosystems adapted to fire, fires have not been an ecological or anthropological problem in terms of sweetgum forests until today. However, considering the existence of catastrophic fires that have started to be observed in recent times, it can be predicted that this situation will pose a negative risk for sweetgum forests in the near future, especially in terms of regeneration capacity. In response to this risk, we will develop new revisions to our action plans, starting next year.