

VIRTUAL MOBILITY (VM) GRANT REPORT TEMPLATE

This report is submitted by the VM grantee to VNS Manager, who will coordinate the approval on behalf of the Action MC.

Action number: CA18201

VM grant title: Data processing Floral complexity Project - Assessing floral complexity as plant vulnerability indicator of the European flora

VM grant start and end date: 15/07/2021 to 20/10/2021

Grantee name: Anastasia Stefanaki

Description of the outcomes and achieved outputs (including any specific Action objective and deliverables, or publications resulting from the Virtual Mobility).

(max. 500 words)

Aim of this VM grant was to homogenize and revise the data received in the Floral Complexity project (activity 2.1) carried out in WG1 of action CA18201. These data comprise plant traits of all insect-pollinated red-listed species of the 35 European countries. These data were generated by COST members who participate in the project, and some non-COST members. After receiving all data from the participants I carried out during the VM grant period the tasks outlined below:

(a) I brought all data from the 38 datasets received from the original compilers in a single homogenized dataset. This dataset contains about 25.000 entries of red-listed species and plant traits for 35 European countries. The difference in the amount of countries and datasets are because Belgium provided separate data for south (Wallonie) and north (Flanders), and UK provided separate data for Great Britain, Wales and England.

(b) I revise the obtained single dataset correcting and updating traits where needed. For this I used information from floras, online databases with traits and herbarium specimens from digitized herbaria available online.

(c) I contributed to the compilation of the original datasets of Greece and the Netherlands. I have amended the Greek dataset with extra species that are not included in the Greek Red data book, but were assessed with regard to their threat status in separate publications. This way we could add about 200 more plant taxa in the Greek dataset. For the Netherlands, I took over the compilation of part of the dataset (about one third of it) after agreement with the original compilers.

(d) I also prepared a poster presentation about the Floral complexity project for the National Conference of the Greek Ecological Society, which was held online between 14 and 17 October 2021.

Besides these activities, during the VM period I also physically participated in the meeting of the COST action, which took place in Bologna in 14-15 October 2021.

Description of the benefits to the COST Action Strategy (what and how).

(max.500 words)

This virtual mobility grant was mostly about facilitating the research carried out in the Floral Complexity project. A large amount of data had been collected that needed to be homogenized, checked and corrected and this has been the focus during the grant period. A significant output from this research will be to gain a deeper knowledge of the biology of European threatened species which is the main aim of WG1 of the COST Action.

In the Floral complexity project there are more than 60 researchers collaborating under our coordination (Theodora Petanidou from the Aegan University and me). Strengthening links and promoting cooperation and networking in this network of researchers, both within COST and between COST and non-COST members, was another important benefit which is a goal of the COST Action Strategy.

The analysis of the data processed during the VM grant will lead to several publications that will significantly contribute to our knowledge of the biology and intrinsic vulnerability of European threatened plants.

Description of the virtual collaboration (including constructive reflection on activities undertaken, identified successful practices and lessons learned).

(max.500 words)

In order to homogenize and check the data we received, I was in frequent contact with the original compilers which helped create bonds with researchers from many different institutes within Europe. The data we have now gathered will constitute a very rich source of knowledge for the European threatened flora. The obtained final dataset contains about 25000 entries of red-listed species of the European flora. The compilation of these data required local botanical knowledge of the 35 participating countries, access to local floras and taxonomic publications which are often written in the national language, and/ or not internationally accessible, and often local expert opinions. Such a pan-European effort could only be possible through this large-scale collaboration of national experts. Besides collecting data on plant traits, this effort revealed interesting patterns and gaps due to the different approaches of European countries in their policies on threatened species and national red list assessments. These lessons learned are valuable not only for understanding the wider implications of our project, but they can also link to and be useful for other activities and working groups within this Cost Action, for example WG3 and the bottlenecks action of WG1. The data generated in our project are highly relevant for these activities which run in parallel and will shared within the action so that more robust research outputs are obtained. Moreover participating physically in the COST meeting in Bologna, helped strengthen bonds with the researchers that provided the original data in our project, with whom our contact so far was only online. It also helped creating links for collaboration with the researchers working on the different activities and working groups of the COST action.