

## Report on the outcomes of a Virtual Mobility<sup>1</sup>

Action number: CA18201

Grantee name: Živa Fišer

### **Virtual Mobility Details**

Title: Biological resource use of threatened plant species in Europe

Start and end date: 10/03/2024 to 10/04/2024

### **Description of the work carried out during the VM**

Description of the virtual collaboration and activities carried out during the VM, with focus on the work carried out by the grantee. Any deviations from the initial working plan shall also be described in this section.

Our research focused on investigating the biological resource utilization of threatened plant species in Europe, utilizing the IUCN Red List platform as our primary source of data. By applying specific filters, we targeted vascular plants (Tracheophyta) listed under various threat categories including critically endangered, endangered, vulnerable, extinct in the wild, and extinct within the European region. We specifically selected "Biological resource use" as the identified threat.

Within the category of Extinct species, only *Viola cryana* was identified as being impacted by biological resource use. The disappearance of *Viola cryana* may be attributed in part to over-collection by botanists. Similarly, within the category of extinct in the wild, *Lysimachia minoricensis* was identified as a species affected by biological resource use. Although the precise reasons for its extinction in the wild remain uncertain, over-collection is considered a possible contributing factor.

Among the critically endangered species, our search revealed 47 taxa initially, yet upon closer examination of threat descriptions, biological resource use was confirmed in 29 species. The primary activities contributing to their endangerment included general collecting (12 species) and ornamental purposes (11 species). Other less common uses included seeking botanical rarities (4 species), research (3), trade as rare plants (2), as well as logging, genetic improvement, and other commercial uses, each occurring in one species.

<sup>1</sup> This report is submitted by the grantee to the Action MC for approval and for claiming payment of the awarded grant. The Grant Awarding Coordinator coordinates the evaluation of this report on behalf of the Action MC and instructs the GH for payment of the Grant.

In the category of Endangered species, our search initially identified 72 species, with information regarding biological uses found in 47 of them. The most prevalent utilization was for ornamental purposes (20 species), followed by general collecting (14), seeking botanical rarities (6), trade as rare plants (5), and utilization for food/drinks and medicinal purposes, both in 4 species. Logging and use for handicrafts were reported in 2 species each, while research, genetic improvement, and other purposes were identified in one species each.

### **Description of the VM main achievements and planned follow-up activities**

Description and assessment of whether the VM achieved its planned goals and expected outcomes, including specific contribution to Action objective and deliverables, or publications resulting from the VM. Agreed plans for future follow-up collaborations shall also be described in this section.

Our research showed that biological resource use may be of great importance in some endangered plants, for example in *Narcissus* spp., and has also contributed to the disappearance of some species. Among all uses, collecting plants with beautiful flowers used for ornamental purposes stands out, while for example plants used for food, drinks or medicines are infrequent.

This study represents a significant continuation of the research initiated at the beginning of the COST Action within Task 4.1 of the Memorandum of Understanding (MoU), which aims to provide an overview of both current and potential human uses of European threatened plant species. Initially, various contributors engaged in the project, offering insights into the uses of endangered plants within their respective countries. Regrettably, this study encountered a pause at a later stage.

With the implementation of the Virtual Mobility (VM), we have successfully generated a comprehensive inventory of plants threatened by biological resource utilization. This compilation stands as a initial step toward the realization of a joint publication dedicated to the exploration of the uses of threatened plants.

