Autonomous Region of the Azores

Regional Secretariat for the Environment and Climate Action

LIFE IP Azores Natura (LIFE17 IPE/PT/000010)

Action Report – E5

Phase I

Reporting date

31/12/2021

Project: LIFE IP AZORES NATURA

Coordinating Beneficiary: GOVERNO DOS AÇORES – Secretaria Regional do Ambiente e Alterações Climáticas

Associated beneficiaries: GOVERNO DOS AÇORES – Direção Regional do Ambiente e Alterações Climáticas; GOVERNO DOS AÇORES – Direção Regional de Políticas Marítimas; spea – Sociedade Portuguesa para o Estudo das Aves; La Palma – Reserva Mundial de la Biosfera

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1. Technical Context

Action E5 of the LIFE IP AZORES NATURA project (Public engagement and volunteering program) which includes the promotion of citizen science for conservation of flora and a volunteering program. This report aims to present the progress made in the first phase of the project, between 2019 and 2021.

This action is divided in two tasks

Task 1: Promoting Citizen Science for Conservation of Flora

Objective: Involve both local and visiting tourists in actively collecting data on the distribution of wild flora, especially those protected under the Habitats Directive (HD), to update species distribution with minimal resources.

How: Developing and deploying a mobile app similar to Invasoras (www.invasoras.pt) for both iPhone and Android, designed to facilitate the reporting and consultation of flora species within the Azores. The app includes features for reporting observations, including GPS locations, and consulting/exporting data. Awareness and training for island park staff and yearly contests for users are planned to encourage app usage.

Outcome: Enhanced detection and monitoring of invasive alien species (IAS) and support for marine Non-Indigenous Species (NIS) conservation efforts through citizen science.

Task 2: Volunteering Program

Objective: Engage stakeholders, tourists, schools, and the public in conservation tasks through volunteering, improving conservation goals and project cost-efficacy.

How: Organizing volunteer days that include introductory sessions, practical training, and execution of conservation tasks with guidance and supervision. The activities focus on controlling invasive species and collecting/seeding native species.

Target Groups: The general public, with interpretive visits and volunteer activities, and schools, through the "Parque Escola" action, ensuring an 8-year continuous program of biodiversity conservation involvement in the Azores.

Promotion and Feedback: Communication boards and flyers about the project. Social media updates and news to promote activities and events to tourists, and satisfaction surveys to gather participant feedback for potential improvements.

2. Overall progress

2.1 Task 1: Promoting Citizen Science for Conservation of Flora

Regarding the use of a mobile app for reporting and consultation of flora species within the Azores, and in a networking effort with LIFE VIDALIA project, a decision was made to utilize the iNaturalist app. This app aligns with the project's objectives and has practical applicability for citizen science initiatives. The transition to the iNaturalist app is expected to have the same practical effect as the initially planned app. This strategic shift aims to leverage an app that is already well-established and widely used in the Azores available for download on Android and iPhone versions.

Contacts have been established with the company responsible for the iNaturalist app. The team responsible for the app has agreed to allow the utilization of their app for the specific objectives of the LIFE IP AZORES NATURA project, and share information about users, species found and location. These positive interactions with the iNaturalist mark a significant step forward in the progress of this Task.

The project team is currently working on the implementation plan for incorporating the iNaturalist app into the citizen science initiative, and future efforts will focus on disseminating information through social media and the project website and providing training to island park staff and potential users to ensure effective utilization of the iNaturalist app.

This overall progress signifies a strategic shift in the approach to Task 1, emphasizing practicality, efficiency, and collaboration to achieve the objectives of promoting citizen science not only for tourists, but residents too in the general aim of the conservation of flora and important habitats within the Azores

2.2. Task 2: Volunteering Program

2.2.1. Volunteering camps

Regarding the volunteering program, an initial contact with the “Plantar uma Árvore” association was made to organize a volunteering camp in 5 islands of the Azores between 2020 and 2021, more specifically in Graciosa from July 13 to 21, Flores from August 15 to 23, Pico from September 14 to 22, Santa Maria from November 5 to 13, and Terceira from March 17 to 25.

In total, 65 volunteers participated in these camps, with 48 being Azorean or residing in the Azores, 3 from the mainland, and 14 from various European countries. It's noteworthy that one Azorean and one mainland volunteer participated in two camps, with one filling

a vacancy in the first camp and the other, part of the European Solidarity Corps in Alvão, participating in both camps due to the extended duration of their volunteer service.

During these volunteering camps there where several stakeholders involved, schools, private companies and government entities.

The works undertaken in these camps included, plant of endemic and native species in areas of intervention of the LIFE IP AZORES NATURA project, collection of seeds for the Azorean Seed Bank, prospecting for endemic flora, and removal of invasive alien species. In total there was an area of 3,84ha of invasive alien species removed, planted and relocated 498* endemic and native plants and construction of 17 seabird shelters.

Table 1 – Species planted in all volunteering camps

Species planted	**Total of individuals**
Azorina vidalii	7
Erica azorica	149
Festuca petraia	154
Frangula azorica	9
Juniperus brevifolia	9
Ilex perado	9
Morella faia	2
Prunus azorica	1
Solidago semprevirens	12
Vaccinium cylindraceum	9
Viburnum treleasei	9
Total	**370***

** The 498 plants indicated above represent also plants that were relocated to the natural habitat.

Fig. 1 - Flores Volunteer camp

Fig. 2 – Removal of invasive alien species in Flores Volunteer camp

Fig. 3 - Pico Volunteer camp

Fig. 4 – Removal of invasive alien species in Pico Volunteer camp

Fig. 5- Graciosa Volunteer camp

Fig. 6 - Terceira Volunteer camp

Fig. 7 – Santa Maria Volunteer camp

2.2.2. Other volunteering activities

Other volunteering activities are being developed in all islands, these include planting endemic and native species to restore and enhance natural habitats, removing invasive alien species that threaten the biodiversity of the region, participating in coastal cleanups to tackle the pressing issue of marine litter, and collecting seeds of endemic species which are crucial for the preservation of the Azores' unique flora.

The activities are are promoted and shared on the project's social media platforms and website.

The participants of these activities often include residents, schools and tourists directly to the conservation and restoration of habitats and pay an important role on the LIFE IP AZORES NATURA conservation works.

Table 2 – All volunteering activities between 2019 and 2021

Date	Activity description and location	Nº volunteers
2019.01.12-21	Invasive species removal action at Ponta do Castelo - Santa Maria	10

2019.06.03	Coastal cleanup of Microplastics - Porto Pim Beach (Faial)	20
2019.06.08	Coastal cleanup of Microplastics - Porto Pim Beach (Faial)	13
2020.07.10	Plantation action at Pico do Ferro - São Miguel	9
2020.07.10	Coastal cleanup of Microplastics - Porto Pim Beach (Faial)	10
2020.07.13-21	Volunteer Camp Graciosa	13
2020.08.15-23	Volunteer Camp Flores	14
2020.09.05	Coastal cleanup at Porto da Feteira	16
2020.09.14-22	Volunteer Camp Pico	13
2020.09.26	Coastal cleanup at Corvo	12
2020.10.12	Invasive species cleanup - Caldeira Graciosa	10
2020.10.17	Invasive species control action - São Miguel	3
2020.11.5-13	Volunteer Camp Santa Maria	12
2021.03.17-25	Volunteer Camp Terceira	18
2021.07.09	Invasive species removal at Turfeira da Lomba	27
2021.11.27	Chaerophyllum Plantation - Sete Cidades - São Miguel	15
Total volunteers		**215**

Fig. 8 – Coastal cleanup in Porto da Feteira – Faial island

Fig. 9 – Invasive alien species removal – Terceira Island

Fig. 10 – Endemic flora plantation – São Miguel Island