Autonomous Region of the Azores

Regional Secretariat for the Environment and Climate Action

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

Progress Report

covering the project activities of action C8.2 in 2022/2023

Reporting Date

31/12/2023

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; La Palma Reserva Mundial de la Biosfera

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IAS Invasive Alien Species

SAAC Environment and Climate Action Service (*Serviço de Ambiente e Ação Climática*)

1. Technical part

Action C8 of the LIFE IP Azores Natura project (Implementation of IAS control works in terrestrial restored habitats) includes the implementation of works to control invasive species of plants (sub-action C8.1) and animals (sub-action C8.2). This report presents the works carried out within the frame of sub-action C8.2 in 2022 and 2023.

Sub-action C8.2 – Control and eradication of IAS animal species in terrestrial restored habitats

This sub-action focuses on the control or eradication of the main invasive alien animal species encountered in restored habitat areas, including the islets subject to action C6.1 (Praia and Baixo Islet, off Graciosa Island, Vila Islet off Santa Maria Island, and Topo Islet off São Jorge Island), where the implementation of this sub-action is meant to improve nesting success of seabird species.

The present report describes the activities carried out in 2022 and 2023. In the original proposal of the project, sub-action C8.2 foresaw the eradication of lizards from the islets subject to action C6.1. During the Phase Amendment in the end of Phase I of the project, however, sub-action C8.2 underwent technical modifications, given that the feasibility of lizard control and eradication from the islets was re-evaluated. Lizard eradication was replaced with the establishment of pilot exclusion areas on Praia Islet, to ensure "predation safe" areas for seabirds. A complete report on the works carried out regarding the installation of lizard exclusion zones has been elaborated by SPEA (Martins et al., 2024), wherefore the present report will not go into detail regarding this part of sub-action C8.2.

On the islets subject of action C6.1, the main target is the prevention of a rodent invasion, which is an existing risk given the proximity of the islets to the main islands. Therefore, concrete biosecurity measures were put in place in compliance with the islets' Biosecurity Plans, to reduce the risk of an invasion, and to increase the probability of a rapid detection in case of an invasion, before the IAS can establish itself on the islets, thereby reducing the necessity of a full eradication operation.

Multiple barriers were installed along the potential entry pathways, which act as a safety net to prevent accidental introduction of invasive alien animal species and to rapidly detect their presence, should they nevertheless invade the islets (Table 1). Two types of traps were installed, both at the main ports used by the boats travelling to the islets, and on the islet coastline closest to the main island.

Table 1. Summary of monitoring devices installed on each islet.

	Graciosa Island			Santa Maria Island		São Jorge Island
Monitoring device	**Praia Islet**	**Baixo Islet**	**Port**	**Vila Islet**	**Port**	**Port**
Snap traps	23	17	5	2	-	3
Goodnature A24	1	-	-	-	-	-
Rodent motels	12	7	-	7	-	-
Bait stations	27	17	-	-	-	-

On Praia and Baixo Islets, data on trap monitoring events was registered in 2022, and there was no need to change baits as the baits remained always intact. In 2023, no data registry took place; however, the traps were checked on all visits to the islets - every time a box or trap was passed, its contents were verified. No signs of rodents were found in 2022 and 2023. The rodent motels, however, are

frequently used as anthills. Five traps were installed at the harbour in Vila da Praia, but no rodents have been trapped.

Figure 1. Wax bait being monitored on Praia Islet, Graciosa, in September 2022.

Figure 2. Rodent motel being monitored on Praia Islet, Graciosa, in September 2022.

Figure 3. Goodnature A24 trap being monitored on Praia Islet, Graciosa, in September 2022.

In May 2022, two boxes with snap traps were installed on Vila Islet: one on the plateau, in the area closest to the main island, and the other in the landing area. The remaining devices were not installed due to the limited availability of the operational team and the lack of evidence of rodents on Vila Islet (SAAC Santa Maria, personal communication). Seven rodent motels were placed on the islet. The snap-traps are monitored every time that tasks are carried out on the islet, but so far, only lizards and one starling have been caught. Despite having been ready for a long time, the wax baits have never been set out in the bait stations; this is because they would have to be set out at the end of the day and collected at the start of the next day to avoid exposure to heat. In other words, this would ideally be on an occasion when workers spend the night on the islet, which has not happened in a long time. No traps have been installed in Vila do Porto harbour, given that the harbour authority *Portos dos Açores* already carries out rodent control (SAAC Santa Maria, personal communication).

A contingency kit has been prepared on Graciosa Island, with the aim to be ready for immediate action, should signs of rodents be recorded on the islets. On Santa Maria, however, the preparation of the contingency kit has been postponed continuously due to the lack of evidence of rodents and more urgent matters to attend to (SAAC Santa Maria, personal communication). The contingency kit includes bait stations that can be equipped either with flavoured wax or with rodenticide, depending on whether the presence of rodents is suspected or confirmed. A detailed description of the biosecurity measures being implemented on the islets can be found in the Biosecurity Plans elaborated for each island.

No biosecurity measures have been installed on Topo Islet given the dispute with the former leaseholder over the ownership of the land and the respective expropriation process. In March 2023, three traps were installed at Topo harbour on the main island of São Jorge.

Rodent control in restoration areas of the responsibility of SPEA in São Miguel

Although not foreseen in the project, rodent control targeting *Rattus rattus* and *Mus musculus* is being implemented in the Mata dos Bispos intervention area. Rodent control started in 01/2021 through the installation of 7 multi-kill automatic traps (Goodnature, model E2). Traps are maintained and inspected on a monthly basis, given the limited number of traps, in order to maximise their effect, they have been moved around, following the proximity of the areas that are being intervened at that moment. In total, more than 120 rats have been killed so far. The goal is to reduce the densities of these introduced species and reduce the negative impact they represent to avifauna through nest predation, verified by SPEA in previous studies. Additionally, according to Santos et al. (2020) habitat restoration operations cause an increase in rodent density due to their attraction to human presence in these areas.

2. Overall progress

Overall progress of the implementation of sub-action C8.2 is lagging behind the timeframe defined in the project, and the first two due milestones (placement of control measures in all island areas and on all islets) have not yet been achieved (Table 2).

This is mainly due to the dispute with the former leaseholder of Topo Islet in the Court of Appeal in Lisbon. Only as of 8 March 2024 has the project management been informed of a judicial analysis of the situation, which determines that even with the current trial in the Court of Appeal, the government has the authority to proceed with the implementation of the project tasks on Topo Islet. Therefore, the planning and execution of the project tasks on the islet will continue, and the project team will try to identify ways to implement the project task despite the continued presence of sheep on the islet.

Table 2. Milestones for sub-action C8.2.

Milestone	Due date	Achieved
Placement of control measures in all island areas	31/12/2020	✗
Placement of control measures on all islets	31/12/2020	✗
Interventions in 50% of the project areas affected by IAS accomplished	31/12/2025	
Eradication of animal IAS (rats, mice, rabbits, and reptiles) on all islets	31/12/2027	

All due deliverables have been achieved, and the present report constitutes the second intermediate report describing the developments in the implementation of this sub-action and the associated results in 2022 and 2023 (deliverable D155).

Table 3. Deliverables for sub-action C8.2.

Deliverable	ID		
Photos and maps evidencing control measure placement	D32	31/12/2020	✓
Sub-action report to be delivered together with Phase I report	D96	31/12/2021	✓
Sub-action report to be delivered together with Phase II report	D155	31/12/2023	✓
Sub-action report to be delivered together with Phase III report	D198	31/12/2025	
Sub-action report to be delivered together with Phase IV report	D253	31/12/2027	

Figure 4 illustrates the actual progress of the implementation of sub-action C8.2 in relation to the proposed timeframe.

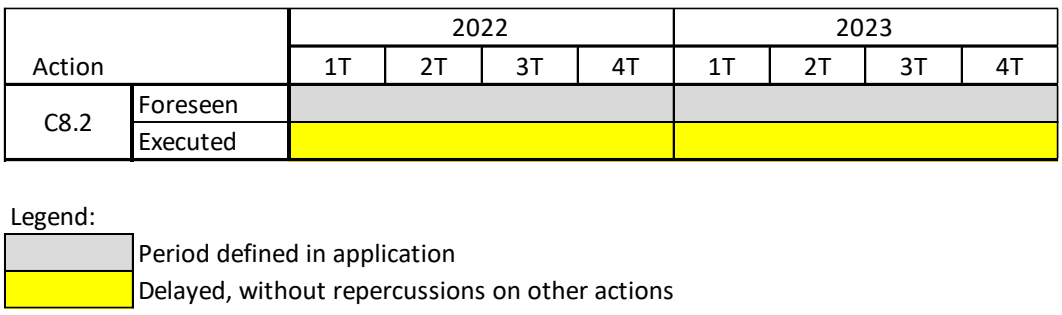

Figure 4. Gantt-chart illustrating overall progress of sub-action C8.2.

3. Bibliography

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