# LIFE Freiras | LIFE Pterodromas4future

## Improving the conservation status of two Pterodroma petrels endemic to the Madeira archipelago

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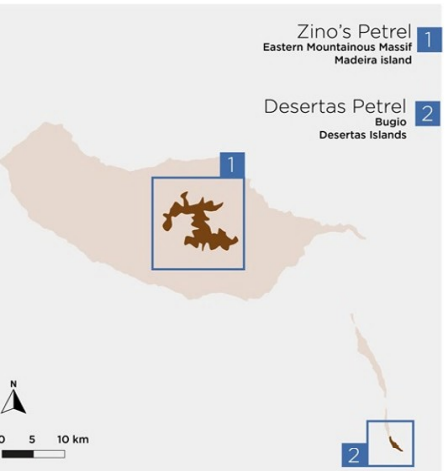
Zino's Petrel 1
*(Pterodroma madeira)*
Conservation status
**Endangered (IUCN)**
Population estimated at 65 to 80 pairs

Desertas Petrel 2
*(Pterodroma deserta)*
Conservation status
**Vulnerable (IUCN)**
Population estimated at 160 to 180 pairs




## GENERAL OBJECTIVE

**Improve and ensure the conservation status of the two Pterodroma petrels,** endemic seabirds Madeira archipelago, in their breeding areas (intervention areas).

## SPECIFIC OBJECTIVES

The improvement of the Petrel's nesting habitat conditions, the increase of knowledge about its biology and ecology, and the minimization of the impact of its threats, using new technologies to **modernize the conservation actions** of these species.

## THREATS

Predation by introduced invasive species - rats and cats, degradation and loss of nesting habitat for example, to climate change, which consequently results in natural disasters, fires, erosion and proliferation of invasive plants. Are also threats, as light pollution, disturbance by human leisure a tourism activities near nesting areas and some lack of knowledge about the biology of these bird species.

## ONGOING ACTIONS

**The monitoring of breeding birds and predator control is highly dependent on an unsustainable human and financial effor this context, this project will allow the modernisation of these monitoring with the use of non-invasive technologies, maki more effective and efficient, being the way to ensure the self-sustainability of these species. For this propose, actions has already been carried out:**

Placement of 25 automatic cameras, 15 audiomoths and the activation of 23 sensor-transmitters in the predator traps, near the in the two breeding areas.
Relative to the cameras, a system has been developed using artificial intelligence to recognise the species present in the image well as managing and organising them.
The use of drone technology for mapping and 3D characterisation of current and new nesting areas.

The necessary tests and adjustments were made to the protocols and methodologies. The equipment is currently working and first data is being analysed.

**Other actions, mostly preparatory, have been initiated, such as:**

organising databases, improving access to nesting areas, meetings with stakeholders to regulate human activities, drawing up contingency plan for disasters in the Zino's Petrel nesting area, building artificial nests, control of invasive plants around breed ledges, maps of light pollution in the Zino's Petrel passaging corridors, coastal censuses of birds and lighting at sea, training activities for target groups, drawing up good practice manuals, environmental education activities and creating dissemination materials.

**erodromas4future** (LIFE20 NAT/PT/001277)
**unded by the European Commission's LIFE programme**
**ject budget: 1 838 151, 00€**
**unning between 01-10-2021 and 30-09-2026**

Co-financing
Coordination
Partners