

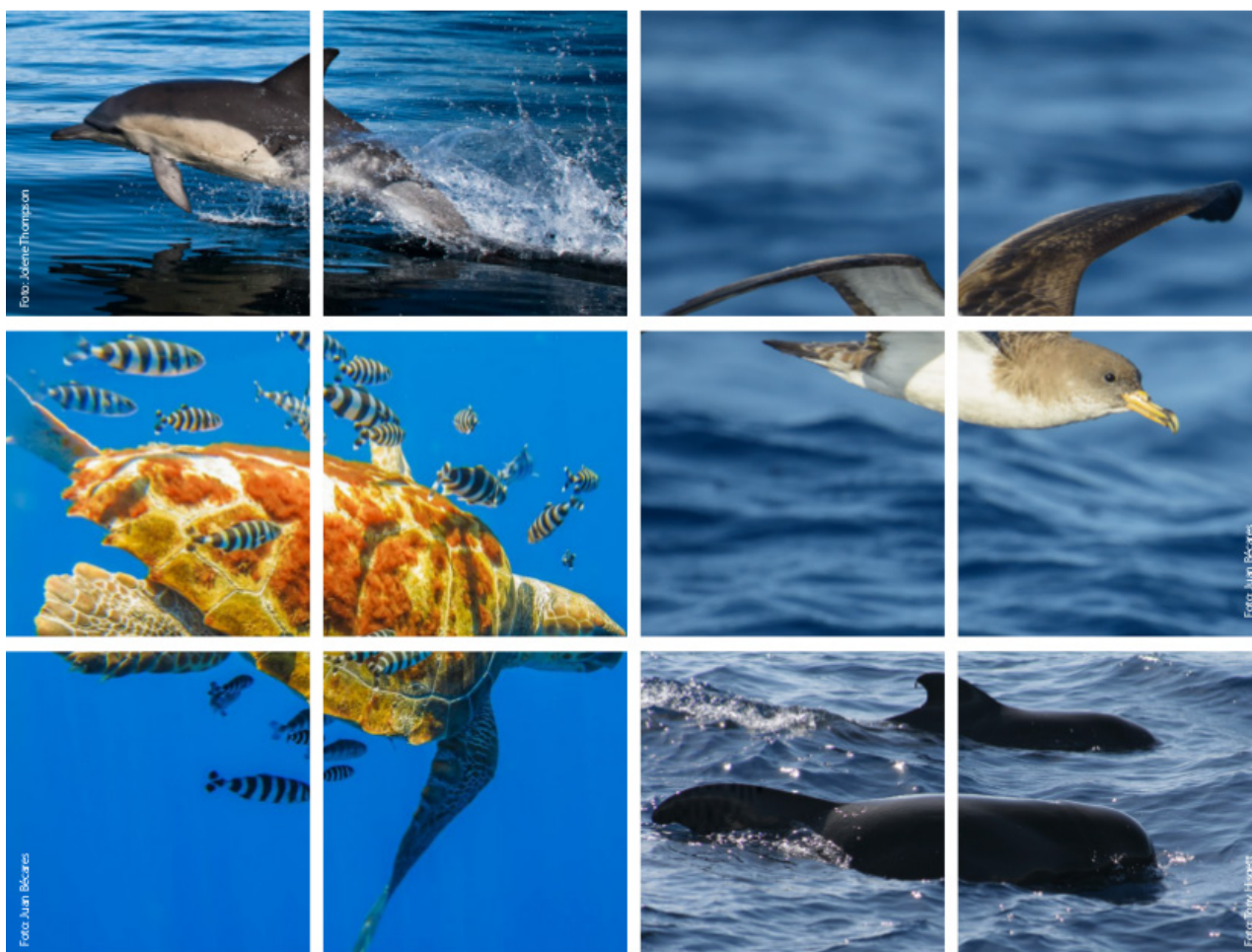
MISTIC SEAS II



MACARONESIA

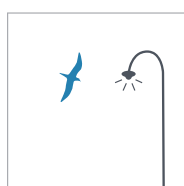
MACARONESIAN ROOF REPORT 2018

MAIN RESULTS

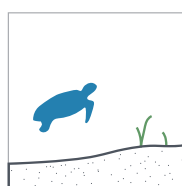


MACARONESIAN ROOF REPORT. MAIN RESULTS

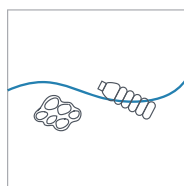
Icon legend



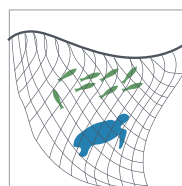
Input of forms of energy (light from land)



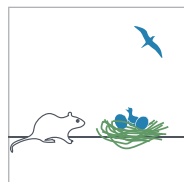
Physical loss of seabed habitat



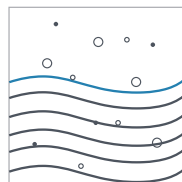
Marine litter



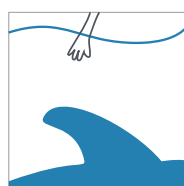
Extraction or mortality/
injury to wild species



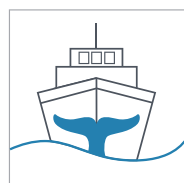
Input or spread of NIS (terrestrial)



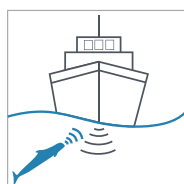
Input of contaminants



Disturbance due to human presence



Death of injury by collision



Anthropogenic sound

Management Unit (MU)

Element or subelement (e.g. population/subgroup/subpopulation of a particular indicator species) of a given geographical area to which assessment of the Good Environmental Status and management of human activities are applied.

D1: Descriptor 1 – Biodiversity

D4: Descriptor 4 – Food webs

D10: Descriptor 10 – Marine litter

GES DEFINITIONS

SEA BIRDS

Criteria	Indicator	GES definitions
Criteria D1C1 Bycatch	Bycatch	Bycatch of seabirds does not increase and/or is infrequent.
Criteria D1C2 Abundance	Population abundance	The average population size in a 6-year-period do not show significant decrease compared to the previous 6-year-period (taken into account natural oscillations).
Criteria D1C3 Demographic characteristics	Breeding success	The breeding success cannot be significantly lower compared to the average of the last 10 years, at least in 3 out of 5 years.
	Survival rate	The average survivals rate is not significantly lower than 0.9.
Criteria D1C4 Distributional Range	Range	The distribution range (number of colonies) is maintained.

MARINE MAMMALS

Criteria	Indicator	GES definitions
Criteria D1C1 Mortality rate	Mortality rate (collisions)	Number of bycaught marine mammals is under a limit of 1% of the best abundance estimate. For sperm whales, mortality from boat collisions is close to zero.
Criteria D1C2 Abundance	Abundance	The population size of marine mammals is maintained at or above the baseline (i.e. current) levels, with no observed, estimated or project reduction $\geq 10\%$ over a 20-year period.
Criteria D1C3 Demographic characteristics	Survival rate	Population survival rate, calf survival, etc., are not adversely affected by human activities and ensure the long-term viability of the populations.

REPTILES

Criteria	Indicator	GES definitions
Criteria D1C1 Mortality rate	Bycatch rate	The mortality level due to bycatch does not achieve rates that compromise the viability of the populations.
Criteria D1C2 Abundance	Abundance	Abundance of sea turtles is kept at a level that ensures their sustainability within the subregion.
Criteria D1C3 Demographic characteristics	Body condition	The body condition index of sea turtles is consistent with a population in GES.

ASSESSMENT RESULTS

■ GES
 □ Not assessed
 ■ No GES
 ■ Not enough data to evaluate

SEA BIRDS

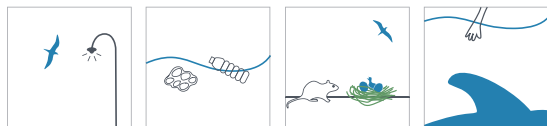
Pelagic feeding birds:

Bulwer's petrel – *Bulweria bulwerii*

CRITERIA	AZORES (1MU)	MADEIRA (1MU)	CANARIAS (2MU)
D1C1			
D1C2	- TREND		
D1C3			
D1C4			
D1C5			

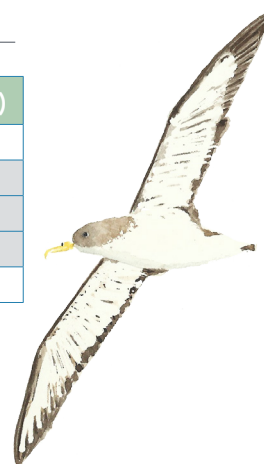


Main pressures in the Macaronesian subregion:

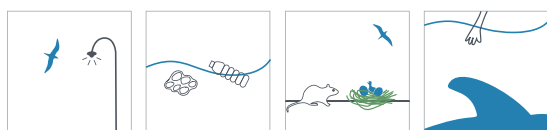


Cory's shearwater – *Calonectris borealis*

CRITERIA	AZORES (7MU)	MADEIRA (1MU)	CANARIAS (2MU)
D1C1			
D1C2			
D1C3			
D1C4			
D1C5			



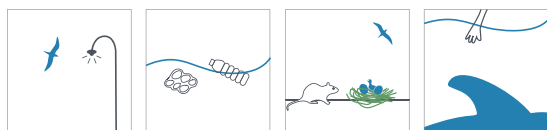
Main pressures in the Macaronesian subregion:



Desertas petrel – *Pterodroma desertas*

CRITERIA	MADEIRA (1MU)
D1C1	
D1C2	
D1C3	
D1C4	
D1C5	

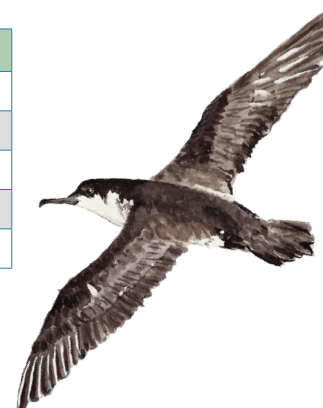
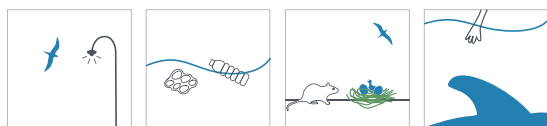
Main pressures in Madeira:



Macaronesian shearwater – *Puffinus lherminieri*

CRITERIA	AZORES (2MU)	MADEIRA (1MU)	CANARIAS (2MU)
D1C1			
D1C2			
D1C3			
D1C4			
D1C5			

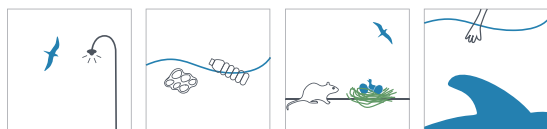
Main pressures in the Macaronesian subregion:



Zino's petrel – *Pterodroma madeira*

CRITERIA	MADEIRA (1MU)
D1C1	
D1C2	
D1C3	
D1C4	
D1C5	

Main pressures in Madeira:

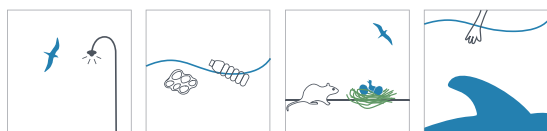


Surface feeding birds

Band rumped storm petrels – *Hydrobates castro*

CRITERIA	AZORES (4MU)	MADEIRA (1MU)	CANARIAS (3MU)
D1C1			
D1C2			
D1C3			
D1C4			
D1C5			

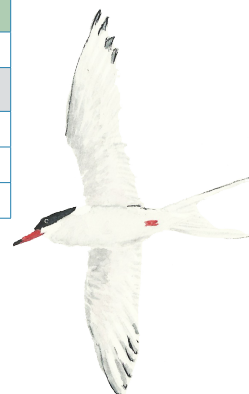
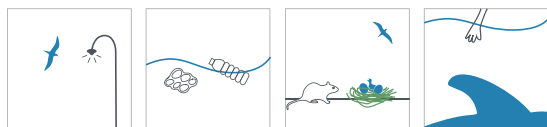
Main pressures in the Macaronesian subregion:



Common tern – *Sterna hirundo*

CRITERIA	AZORES (all Azorean islands)	CANARIAS (occ. islands)
D1C1		
D1C2		
D1C3		
D1C4		
D1C5		

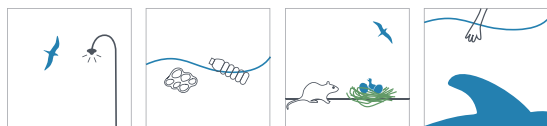
Main pressures in the Macaronesian subregion:



Monteiro's storm petrel – *Hydrobates montei*

CRITERIA	AZORES (3MU)
D1C1	
D1C2	
D1C3	
D1C4	
D1C5	

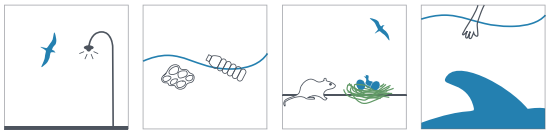
Main pressures in Azores:



Roseate tern – Sterna dougallii

Table with 2 columns: CRITERIA, AZORES (all islands). Rows include D1C1, D1C2, D1C3, D1C4, and D1C5.

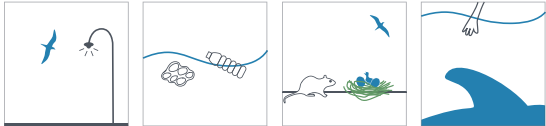
Main pressures in Azores:



White faced strom petrel – Pelagodroma marina

Table with 3 columns: CRITERIA, MADEIRA (1MU), CANARIAS (2MU). Rows include D1C1, D1C2, D1C3, D1C4, and D1C5. D1C2 and D1C4 contain specific regional data.

Main pressures in the Macaronesian subregion:



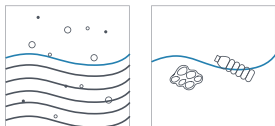
MARINE MAMMALS

Small toothed cetaceans

Atlantic spotted dolphin – *Stenella frontalis*

CRITERIA	AZORES (1MU)	MADEIRA (1MU)	CANARIAS (1MU)
D1C1			
D1C2			
D1C3			
D1C4			
D1C5			

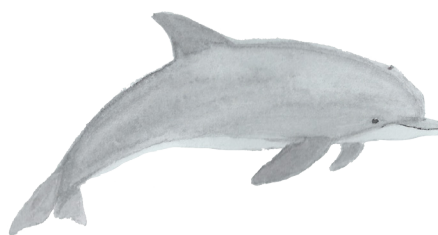
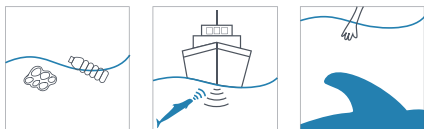
Main pressures in the Macaronesian subregion:



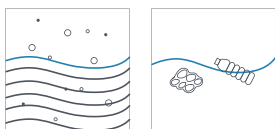
Bottlenose dolphin – *Tursiops truncatus*

CRITERIA	AZORES (1MU)	MADEIRA (1MU)	CANARIAS (1MU)
D1C1			
D1C2			
D1C3			
D1C4			
D1C5			

Main pressures in the Macaronesian subregion for costal MUs:



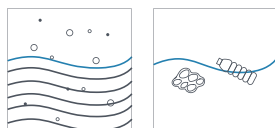
Main pressures in the Macaronesian subregion for oceanic MUs:



Common dolphin – *Delphinus delphis*

CRITERIA	MADEIRA (1MU)
D1C1	
D1C2	
D1C3	
D1C4	
D1C5	

Main pressures in Madeira:



Baleen whales

Bryde's Whale – *Balaenoptera edeni*

CRITERIA	MADEIRA (1MU)	CANARIAS (1MU)
D1C1		
D1C2		
D1C3		
D1C4		
D1C5		

Main pressures in Madeira:



Fin Whale – *Balaenoptera physalus*

CRITERIA	AZORES (1MU)
D1C1	
D1C2	
D1C3	
D1C4	
D1C5	



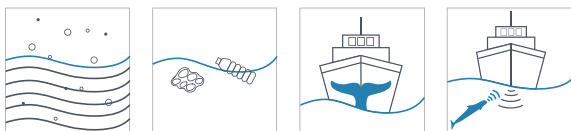
Deep diving toothed cetaceans

Cuviers' beaked whale – *Ziphius cavirostris*

CRITERIA	CANARIAS (1MU)
D1C1	
D1C2	
D1C3	
D1C4	
D1C5	



Main pressures in Canary Islands:

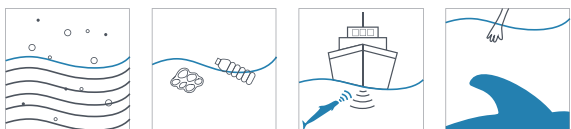


Risso's dolphin – *Grampus griseus*

CRITERIA	AZORES (1MU)
D1C1	
D1C2	
D1C3	
D1C4	
D1C5	



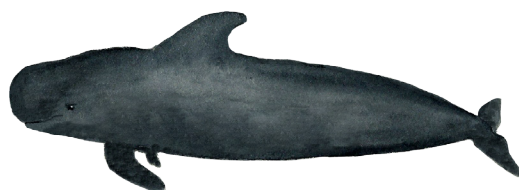
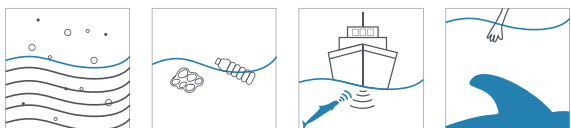
Main pressures in Azores:



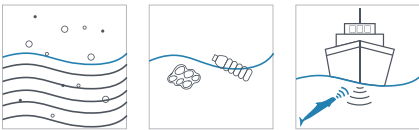
Short-finned pilot whale – *Globicephala macrorhynchus*

CRITERIA	MADEIRA (1MU)	CANARIAS (1MU)
D1C1		
D1C2		
D1C3		
D1C4		
D1C5		

Main pressures in the Macaronesian subregion for costal MUs:



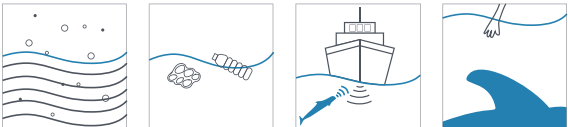
Main pressures in the Macaronesian subregion for oceanic MUs:



Sperm Whale – *Physeter macrocephalus*

CRITERIA	AZORES (1MU)	MADEIRA (1MU)	CANARIAS (1MU)
D1C1			
D1C2			
D1C3			
D1C4			
D1C5			

Main pressures in the Macaronesian subregion:



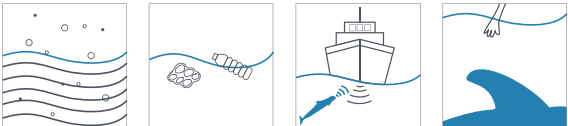
Seals

Monk seal – *Monachus monachus*

CRITERIA	MADEIRA (1MU)
D1C1	
D1C2	
D1C3	
D1C4	
D1C5	



Main pressures in Madeira:



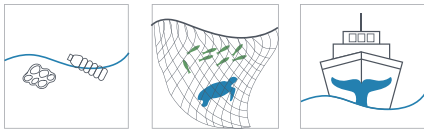
REPTILES

Sea turtles

Loggerhead turtle – *Caretta caretta*

CRITERIA	AZORES (1MU)	MADEIRA (1MU)	CANARIAS (1MU)
D1C1			
D1C2			
D1C3			
D1C4			
D1C5			

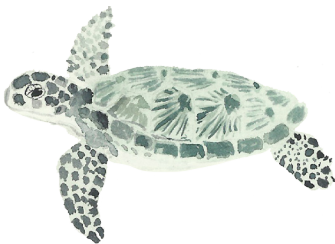
Main pressures in the Macaronesian subregion:



Green turtle – *Chelonia mydas*

CRITERIA	CANARIAS (1MU)
D1C1	
D1C2	
D1C3	
D1C4	
D1C5	

Main pressures in Canary Islands:



Initial assessment results:

- The lack of previous information in Macaronesia limited the number of populations that could be assessed.
- However, the project has provided baselines and thresholds (agreed by the experts) for the different archipiélagos and MUs. These values would facilitate the next assessment cycle
- It was considered that integrating the different criteria/indicators/assessments would have been premature due to the current lack of information

GENERAL ENVIRONMENTAL TARGETS (ET)

General - ET	Type	Related criteria
Establish a Macaronesian international group involving scientists, technicians and policy makers, to coordinate the monitoring programs for the assessment of seabirds, marine mammals and sea turtles.	Operative	All D1
Develop management plans (when necessary) to minimise the impact of marine recreational activities, and/or uses derived from these activities, such as boat anchorage, diving, recreational fishing, water sports, etc. on marine mammals, seabirds and turtles.	Operative	All D1
Implement the monitoring programs necessary for assessing the criteria of all MUs proposed for seabirds, marine mammals and sea turtles.	Operative	All D1
Maintain viable populations of key species and apical predators (marine mammals, reptiles, seabirds and fish), keep them within safe biological limits.	State	All D1
Keep updated the lists of threatened species as well as the evaluation of their populations	Operative	All D1
Encourage international cooperation in the study and monitoring of the populations of those groups with a wide geographic distribution (e.g. ICES, OSPAR)	Operative	All D1
Increase knowledge of trophic networks including the study of apex predators, with a view to developing new indicators to evaluate the status of marine trophic networks.	Operative	D4C1
Take the necessary actions to maintain or improve the demographic parameters of seabirds, marine mammals and sea turtles (e.g. breeding rate and survival rate) in order to increase their numbers.	State	D1C3
Reduce marine litter to reduce the risk of ingestion and entanglement of seabirds, marine mammals and sea turtles.	Pressure	D10C3-4

SEA BIRDS

Sea birds - ET	Type	Related criteria
Reduce light intensity near colonies affected by this pressure, at least during the most sensitive periods (i.e. when fledglings leave the nest and/or migration, depending on the species and location).	Pressure	D1C1
Maintain seabird colonies without introduced predators (e.g. cats and rats) permanently free of them.	Pressure	D1C1
Eradicate predators (e.g. cats and rats) in priority colonies of all islets and reduce the impact in major islands in 10 years, and in 25% of medium priority colonies in 20 years.	Pressure	D1C1
Increase the number of breeding pairs and the area occupied by them in relevant protected areas for nesting seabirds, by installing artificial nests and habitat restoration (invasive species) and predator control.	State	D1C5

MARINE MAMMALS

Marine mammals - ET	Type	Related criteria
Mortality of sperm whales due to boat strikes (i.e. from fast ferries) to be kept close to zero.	Pressure	D1C1
Mortality of cetaceans caused by bycatch must be maintained below the recommended inter-national values (no more than 1% of the population abundance).	Pressure	D1C1
Population size should be at or above the baseline levels with no observed estimated or projected reduction $\geq 10\%$ over a 20- year period.	State	D1C2
The survival rates of marine mammals should not suffer statistically significant decreases with respect to reference values.	State	D1C3
Ensure proper management of whale watching companies and ensure compliance with national and international legislation.	Operative	D1C3

REPTILES

Sea turtles - ET	Type	Related criteria
Reduce the main causes of anthropogenic turtle mortality such as accidental catch in fishing gear, entanglements and collisions with vessels.	Pressure	D1C1
Increase the monitoring of sea turtles' bycatch in fishing vessel.	Operative	D1C1



MISTIC SEAS II



MACARONESIA

Coordinated by:



Partners:



Supported by the:



Grant Agreement
11.966/2017/759679/SUB/ENV/C2