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National action plan for the Balearic shearwater (*Puffinus mauretanicus*)

Inter-Island Environment Meeting – SARK 29/09/2023





1/ French National Action Plan (NAP) for the Balearic Shearwater

- Présentation of the Balearic Shearwater
- Présentation of the french National Action Plan
- Channels Islands waters : a Balearic Shearwater important area. Data and information we have in the area

2/ A collaborative and transboundary project of Balearic Shearwater monitoring at sea for the Channel Islands / Cotentin waters

Présentation of the Balearic Shearwater



General presentation and ecology

Breeding :

- Endemic of the Balearic archipelago (5 islands)
- Long-lived species (20 years+), philopatric and colonial
- Nests in cliffs or on small islets, and does not breed until the age of 3
- Egg laid in February/March, only 1 egg in a small cave, hole under rocks or burrow, breeding season ends in June

Diet :

- Depending on seasons, mainly small pelagic fish (sardines, anchovy) but also fishing discards (demersal fishes)
- Dive mainly just below surface, but in capacity to reach >25 m deep



©Xavier Rufroy - Biotope



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General presentation and ecology

Demography, population & trend :

- Most endangered seabird in Europe: IUCN status = critically endangered (CR)
- Global population estimated at 25 000 individuals
- Breeding pairs: estimated at 7000
- Extinction expected before 60 years (decrease -14% per year)
- Adult survival rate estimated at 0,80 :
 - By-catch
 - Predation on colonies (rats, cats)

	Engagements/Protection					Etat de conservation				
	Espèce protégée en France (art. 3)	Directive Oiseaux (annexe I)	Convention Oskar (annexe V)	Convention de Berne (annexe III)	Convention de Bonn (annexe I)	IUCN Monde 2013	IUCN Europe	IUCN Europe 27	IUCN France	Statut Européen
Puffin des Baléares						CR	CR	CR	VU(m)	Threatened



ANIMALIA - AVES GLOBAL

Balearic Shearwater

Puffinus mauretanicus

 Decreasing

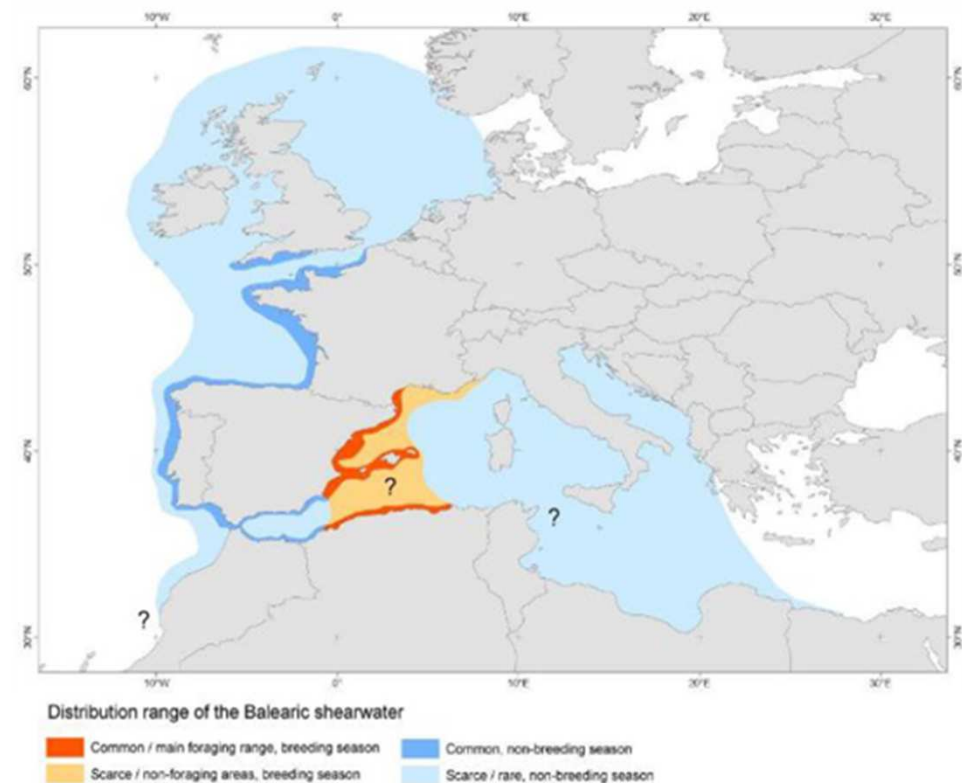
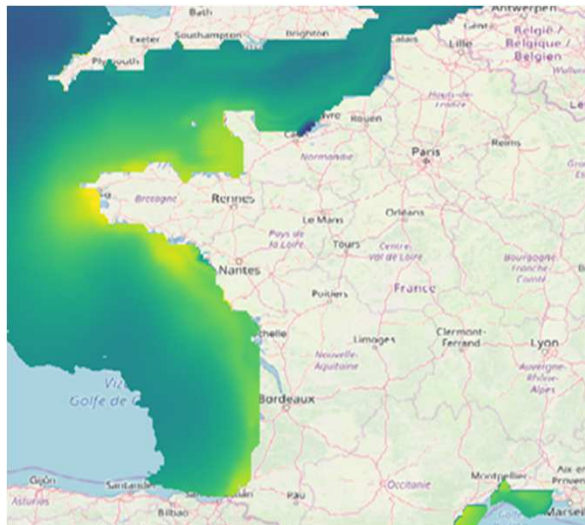


General presentation and ecology



Distribution :

- After breeding, dispersal to the Atlantic ocean between May/June and October/November
- Thousands of birds spend summer in Portugal waters (15 000?)
- Thousands (10 000+?) reach the north of the Bay of Biscay and western English Channel (continental shelf):
- Iroise, Mor Braz, **golfe normand-breton**, canyon of Capbreton... ;



The french National Action Plan



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National Action Plans : a policy led by the ministry in charge of ecology, dedicated to the most threatened species (100+ sp)

- 2021: Validation by the Ministry in charge of Ecology
 - Coordination of the Plan = Brittany DREAL
 - Running of the plan : French Office for Biodiversity
- > First marine species for metropolitan France to be selected for a NAP**

The national plan proposes a strategy based on 4 main objectives:

- 1/ A dedicated long-term monitoring strategy ;
- 2/ Implementation of coordinated concrete actions to restore the status of the species ;
- 3/ Integration of Balearic Shearwater conservation issues in public policies and human activities at sea
- 4/ Public awareness and communication

Plan national d'actions
2021-2025

En faveur du Puffin des Baléares
Puffinus mauretanicus



Monitoring strategy



Standardized monitoring of the 6 main congregation sites in France – From the shore

From 2 or 3 spots: every 10 days from June to October

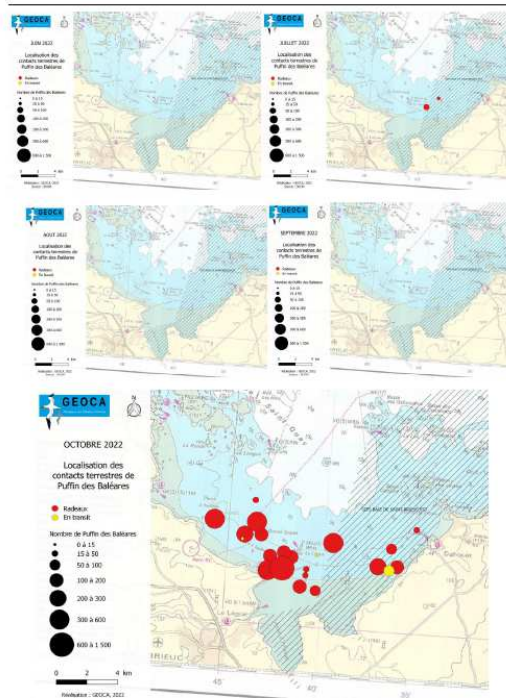
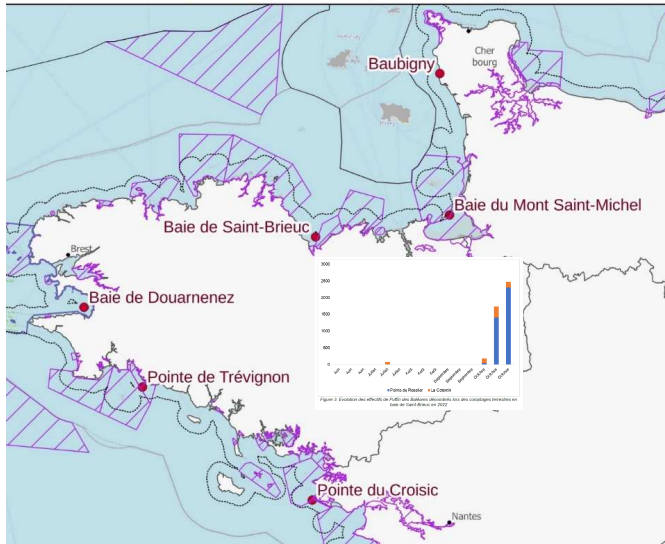


Figure 5. Distribution spatiale mensuelle des groupes de puffins observés et localisés lors des comptages terrestres réalisés en fond de baie de Saint-Brieuc en 2022 (cumul des 3 comptages mensuels)

- **Data collected:**
 - Phenology of presence (per decade)
 - Spatialization of the rafts
 - Assessment of the number of birds
 - Interaction with human activities / disturbance

- **6 sites monitored by NGO**
 - Côte des havres (Baubigny) – GONm
 - Baie du Mont St-Michel – GONm
 - Baie de Saint Brieuc – Geoca
 - Baie de Douarnenez – BV
 - Mor Braz (Pointe du Croisic) – LPO44
 - Pointe de Trévignon –BV



Standardized monitoring at sea

- Update of the habitat modelling every 3 years, gathering existing and available data (MPA, OWP etc)
- **Implementation of dedicated monitoring in the framework of the NAP**
- **Ex area of « Littoral basco-landais / Gouf de Capbreton »**
 - Boat-based survey with Distance Sampling method
 - 4 trips between June and November, from 2021 to 2025
 - Correlation with the by-catch / fisheries program (on-board observers and interviews) in this area



Figure 4 : À gauche, observateurs à bord du vecteur dédié dans le cadre du PNA ; à droite : observation d'un groupe de Puffins des Baléares (Photos © I. Castège/CMB)

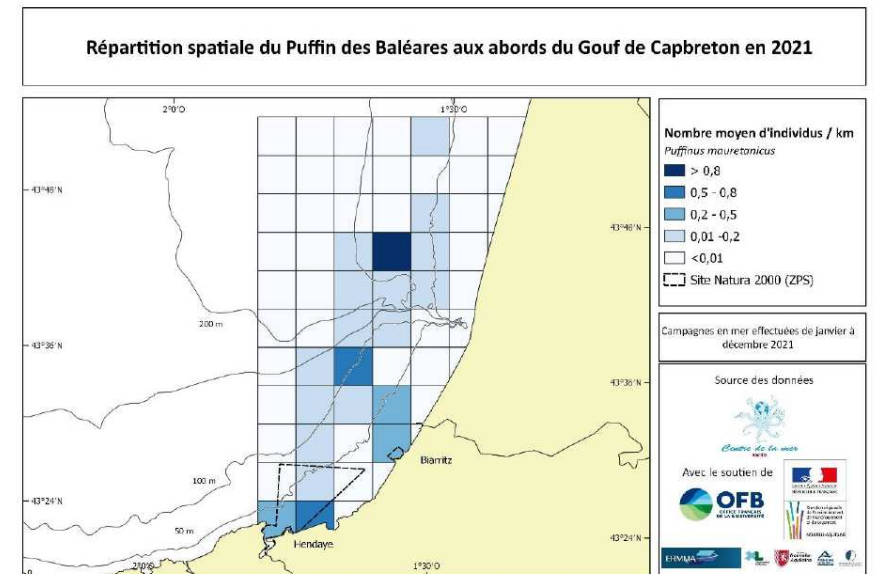


Figure 10 : Répartition spatiale des abondances relatives (nombre d'individus par kilomètres parcourus) de Puffin des Baléares en 2021. Les données incluent les campagnes dédiées au PNA et les autres observations effectuées lors de suivis scientifiques sur la base du même protocole d'observation. Les mailles mesurent 3 milles nautiques (5,5 km).

Spatial and trophic ecology : GPS bio-logging and tissu sampling 5-years programme

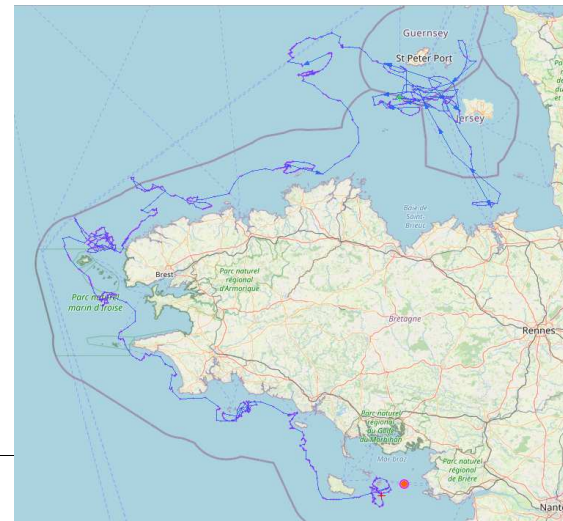
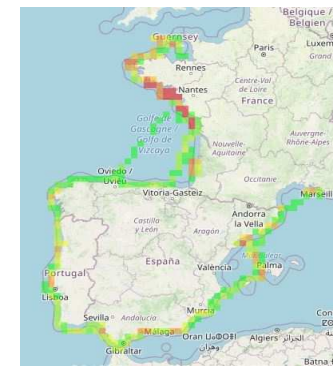
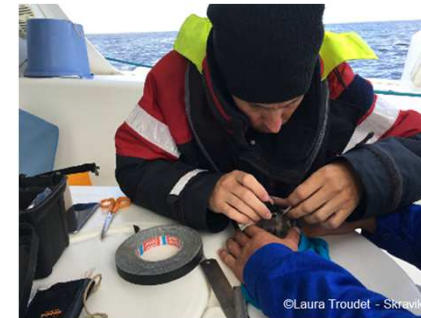
First 2 campaign carried out in August 2022 and 2023 – 60 birds caught at sea / 30 individuals fitted with GPS

Expected results for the GPS monitoring – Trophic & spatial ecology

- Spatialization of functional areas for the species during summering in atlantic waters
- Assessment of the dependence on fishing discards (correlation with fisheries activity)
- Interaction with offshore windfarms (built, under construction, planned)

Expected results for the tissues analysis – Trophic ecology & contamination

- Analysis of blood and plasma -> diet characterization
- Assessment of the contamination level by heavy metals, organic pollutants (baseline)



Actions related to fisheries and risk of by-catch



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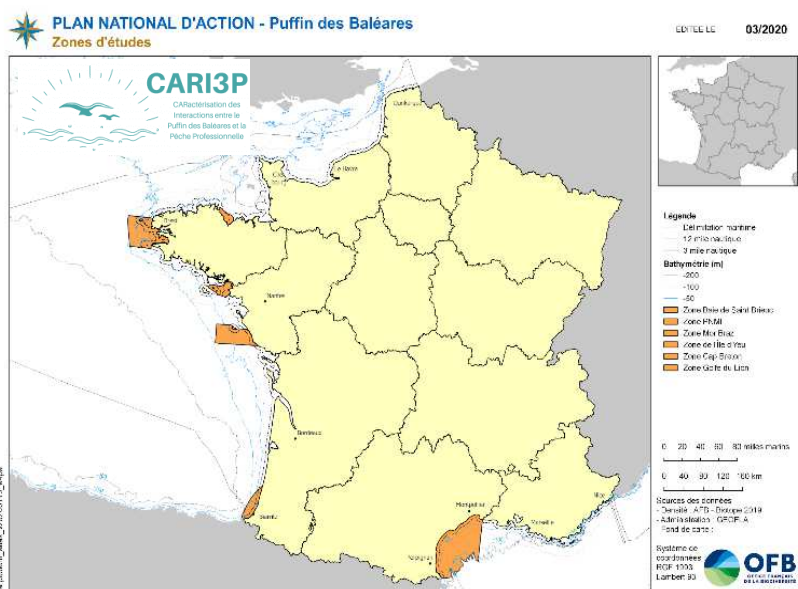
CARI3P programme: characterization of the interactions Balearic Shearwater / Fisheries



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- **CARI3P** implemented in 6 sites (see map)
- **On-board observations** (June to october)
 - Longliner fleet, gillnet fleet, purse seine fleet
 - Objective = 5% of the boat trips
 - 2 campaigns
- **Interviews/surveys** with fishermen
 - Longliner fleet, gillnet fleet, purse seine fleet
 - Objective = 30% of the fishermen



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Actions related to offshore windfarms développement



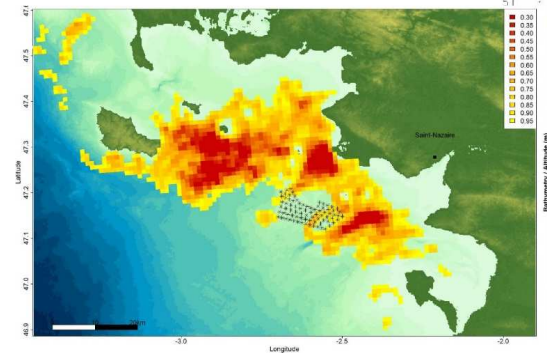
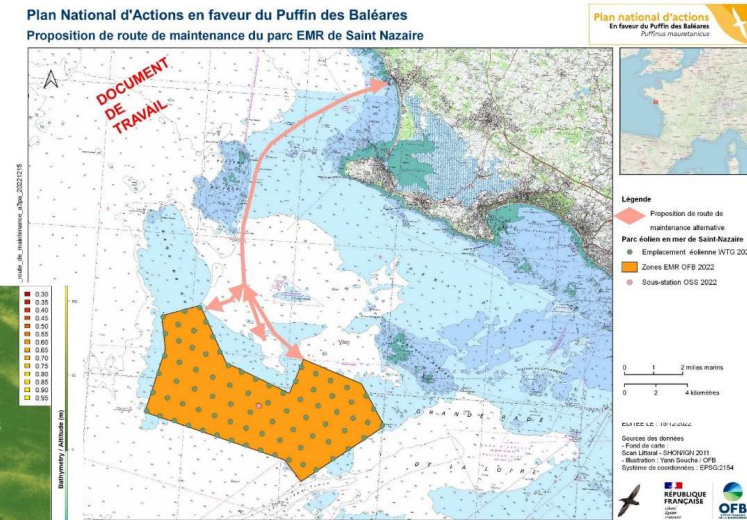
Interactions with OWF: impact assessment and mitigation hierarchy

Working group gathering OWF developpers and NGO :

- Harmonization and pooling of the mitigation measures planned by OWF
- Update the monitoring methods in relation to last technological innovation
- Propose additional measures if recognized impacts are highlighted

EXAMPLES

- Extension of measures from construction phase to exploitation phase
- Modification of the Crew Transfer Vessels routes to avoid high density areas
- Harmonisation of the training and capacity building for the Transfer Vessels crew : good practices, rafts avoidance etc



Actions related to marine leisure activities



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Reduce impacts (distrubance, by-catch) caused by nautical leisure activities (Jet-ski, sailing, kite-surf) and recreational fishing



©Antoine Chabrolle - MNHN



Groupe de Puffins des Baléares dérangé par des Jet-skis sur un site de stationnement du Mor Braz (© Franck Latraube)

- Distribution of booklets for stakeholders awareness :
 - To sport & leisure activities users
 - To recreational fishers
- Publication of articles in specialized newspapers



Communication plan





Different medias and tools are used

- Diffusion of booklets and sheets to stakeholders
- Integration in specialized apps (Nac&Co, Cmonspot)
- Website – <https://oiseaux-marins.org/accueil/projets/pna-puffin>
- Making of a film on the NAP in 2022 – Diffusion through social networks
- Translation in english of the NAP
- International workshop (Spain, Portugal, UK, CI) : planned for 2024

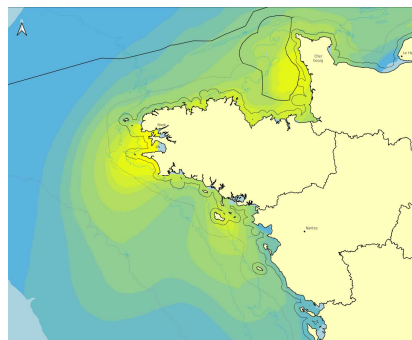
Channel Islands waters : high interest for the Balearic shearwater



Channel Islands waters – Area of high interest for the species



Data from different sources



- Habitat modelling (2019)
- Seawatch monitoring from Jersey & Alderney (Trektellen.org)
- Opportunistic observations
 - Ex/ Flying bird amongst 2200+ birds / Just north of Herm 19th July 2022 (John Horton – Alderney Bird Observatory)



©John Horton - ABO

- Raw data from one of the 10 birds fitted with GPS in Mor Braz in August 2022 (24/08 -> 12/09) :

- Data from 2003 to 2023
- « French » top 20 sites for balearic Shearwater numbers : - 5 sites from Channel Islands
 - Grosnez = 6th site (12 275 birds counted since 2003)
 - + La Coupe, Noirmont Point, La Rocque (Jersey)
 - Château à l'Etoc (Alderney)



Collaborative and transboundary project of Balearic Shearwater monitoring at sea for the Channel Islands / Cotentin waters



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Objectives

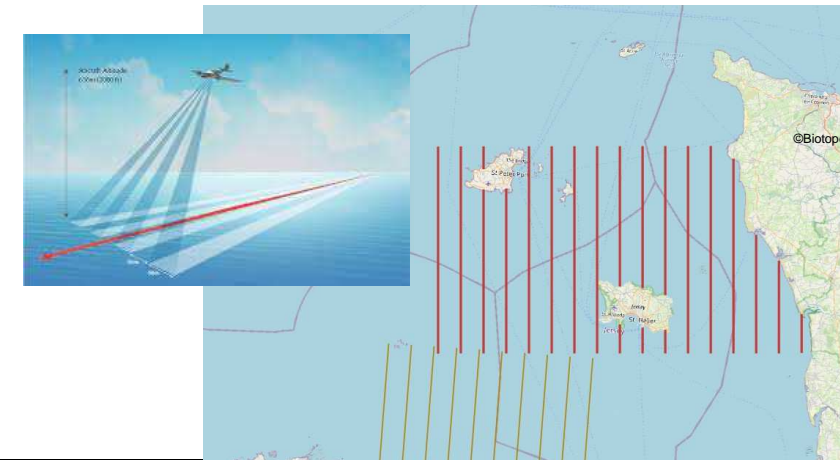
- Improve knowledge of Balearic Shearwater abundance in CI/Cotentin waters : phenology, distribution, numbers
- Basis for further programme
- Identify potential threats : by-catch, disturbance by leisure activity etc
- Interaction with fisheries studies
- Reduction of by-catch risks

Methods

- Standardized, meeting european requirements
- Boat-based survey + aerial digital survey

Fundings

- FONDS VERT : Aerial digital survey (transboundary study area) + boat-based survey for the Cotentin area
- To be found for the CI boat-based surveys





Thanks for your attention...

ANY QUESTIONS?