



MINISTÈRE
DE LA TRANSITION
ÉCOLOGIQUE
ET DE LA COHÉSION
DES TERRITOIRES

*Liberté
Égalité
Fraternité*



Séminaire du
plan national d'actions
en faveur du Puffin des Baléares

24 au 26 juin 2024





CARI3P

Involving French fishermen to understand their activities & to assess the risk of Balearic Shearwater bycatch

AGLIA – Elodie Etchegaray

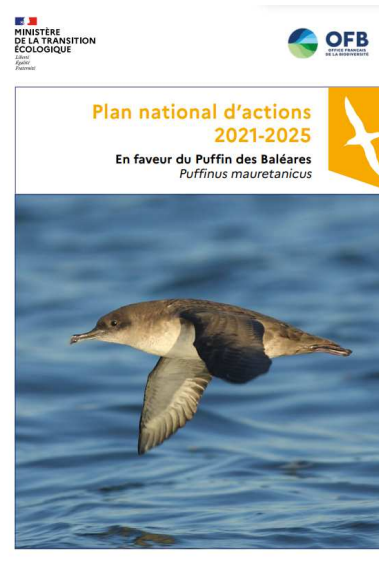
Séminaire du
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CARI3P Program

An issue : Balearic Shearwater' conservation



- **Critically Endangered in Europe**



- **French Plan to mitigate various pressures**



- **2021 : Program CARI3P focused on fisheries 'bycatch**
- **What is the ACTUAL bycatch risk in France ?**

CARI3P Program

3 projects led by AGLIA

Principle :To have ecological sustainability, the approach must be social and adjusted to local realities → Collaborate with various stakeholders, ...

- Led by the **AGLIA**, an intermediate organization →++ collaborative projects or complex topics
- with **Regional Committees of Fisheries** (CRPMEM Bretagne, COREPEM, CRPMEM Occitanie, CDPMEM 22, CRPMEM Nouvelle-Aquitaine) →+++ to find volunteers among fishermen
- With **technical support from the PNA** (OFB, DREAL)
- Budget : 522 616,68 € , funded by



CARI3P Program

3 projects led by AGLIA

... including those who are directly affected by it

- **Goal** : collect data in order to assess the bycatch risk for fisheries concerned (according to European literature, scientific observations).
- **Actions** :
- Conducting **surveys** of fishermen to understand their activities, interactions with birds & value their expertise
- Organizing scientific **observations** on-board to characterize their activities & to witness birds
- *Data Analysis : in the next project*
- **6 local areas** prioritised

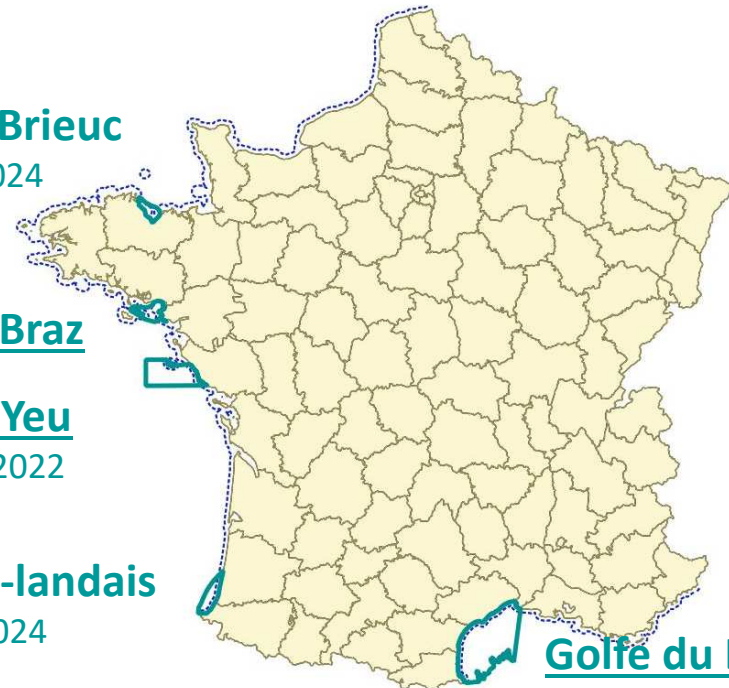
Saint-Brieuc
2022-2024

Mor Braz

Ile d'Yeu
2021-2022

Basco-landais
2022-2024

Golfe du Lion
2021-2022



CARI3P Program

→ And, get to know each location according to local context

- Each project depending on the period of **presence** of Balearic Shearwater,

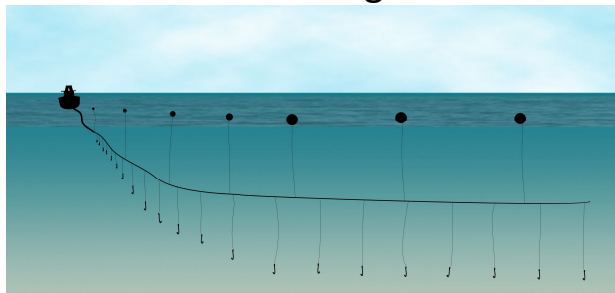
When Balearic Shearwater is there ?		April	May	June	July	August	September	October	Novem ber
Mediterranean	Golfe du Lion								
Atlantic	Ile D'Yeu, Mor Braz								
	Saint-Brieuc								
	Site Basco-landais								

Fishermen surveyed

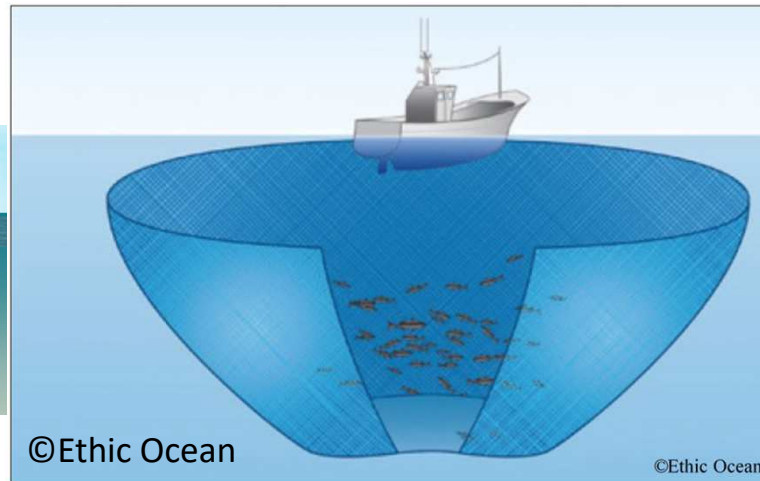
- And specific fisheries

Purse seine for small pelagic species

Demersal longlines



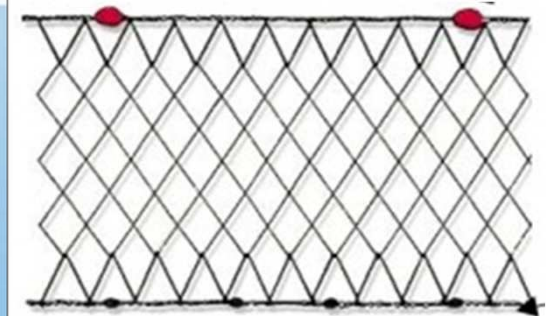
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Gillnets



©IFREMER

- **Small vessels, coastal & high-diversified fisheries** : practices may vary according to location, environmental conditions, year...

Challenges to create a network

- **To identify volunteers** : **Regional Committees** of Fisheries ; **Technical consultant** with field experience & a network
- To build **trust**, to convince fishermen to participate

Acknowledge their expertise

Co-design knowledge

Explain issues of BS'conservation

Manage the gathering of Sensitive
Data (economic activity)

Mitigation tools already used in
Europe (longlines)

Through actions of the projects

General Data Protection Regulation + Partners

Perspective of learning together to sustain
fisheries'activity

Why involving fishermen

• Benefits :

- **Empirical expertise** : They are daily observers of the oceanic environment
- **Collect relevant data** at a reasonable cost
- **Creation of a network of volunteers** (mitigation tools tests)

• Limits :

- **No trust at first.** It takes time to build it
- **Observations are based on volunteering.** Only for vessels which have approval to welcome scientist on-board. Few have it :
 - They're small
 - The request isn't automatic.



© Lucien Rey-Thibault, Mor Braz, 2022

Collecting data

- **Collaborative approach to make survey & observation supports** : 1st time in France, satisfaction of everyone
- **Observations** : scientific protocol to gather strong data & software to save it
- **Resources for awareness** : to recognize seabirds, to acknowledge Balearic Shearwater's issues & to know what to do if a seabird is wounded



Code de l'enquête (CodePE_NENQ_MBIY_date) :

Observation d'oiseaux aux alentours du navire

Temps de sensibilisation avec les supports pédagogique espèces et identification du Puffin. Remettre le support Puffin.

- Savez-vous différencier les espèces d'oiseaux (monter les espèces d'oiseaux) ? OUI NON
- Si oui, lesquelles reconnaissez-vous ?

<input type="checkbox"/> Cormoran	<input type="checkbox"/> Fou de Bassan	<input type="checkbox"/> Sternes
<input type="checkbox"/> Gouland	<input type="checkbox"/> Puffin	<input type="checkbox"/> Alouettes (Pinguin et
<input type="checkbox"/> Fulmar	<input type="checkbox"/> Puffin des Baléares	<input type="checkbox"/> Guillemot de Trol)
<input type="checkbox"/> Mouette	<input type="checkbox"/> Océanites	<input type="checkbox"/> Autre
- Savez-vous reconnaître un Puffin (monter la fiche d'identification) ? OUI NON
- Savez-vous ce qu'est un Puffin des Baléares (monter la photo) ? OUI NON
- Si oui, le désignez-vous sous un autre nom ? (préciser)
- A Québecon - Hoidic (00) et St-Quirinolé (20) : avez-vous vu l'exposition RESPECT ? OUI NON

Cocher si les réponses suivantes sont pour les oiseaux en général, les puffins ou le puffin des Baléares.

Conditions: OUI NON OUI NON OUI NON OUI NON

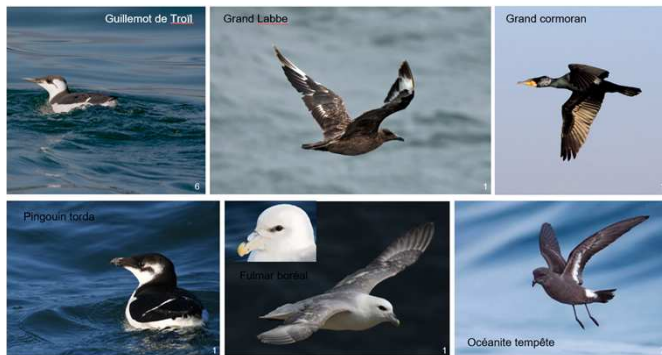
A quelle fréquence les voyez-vous autour de votre navire pendant la pêche (détection, filage, virage) ?

a. NSP : Ne sait pas
 b. NC : Non constaté
 c. TM : Toutes les marées
 d. 1S : 1 fois par semaine
 e. GM : 0-2 fois par mois (<4)
 f. 1M : 1 fois par mois
 g. QA : Quelques fois dans l'année (<12)
 h. GPA : Quelques fois en plusieurs années
 l. 1PA : Une fois en plusieurs années

Quels comportements observez-vous pendant la pêche (détection, filage, virage) ?

1. Se repose sur le navire
 2. Posé sur l'eau espacés les uns des autres
 3. Posé sur l'eau en cascade
 4. Pêche les poissons pêchés
 5. Pêche les appâts
 6. En vol
 7. NSP

A quel moment de la pêche voyez-vous le plus d'oiseaux ? Détection, Filage, Virage... à ce moment-là.



Tout savoir sur le Puffin des Baléares

L'identifier à proximité ou en main, vivant ou mort

Taille d'une mouette : 34-40 cm
 Poids : 472-565 gr

Envergure : 76-90 cm

- Plumage brun sombre assez uniforme sur le dessus, brunâtre sur les aisselles et le bas ventre.
- Fond blanchâtre plus ou moins moucheté de brun selon les individus sur le dessous

Un oiseau s'est pris dans un de vos hameçons, il est encore vivant ?

Adoptez les bons réflexes pour libérer l'oiseau en toute sécurité pour vous et pour lui, en suivant les étapes :

1. Ne touchez pas à l'oiseau. Utilisez une pince à bec pour saisir le hameçon.
2. Pour les petits oiseaux, amenez les ailes vers l'arrière, derrière le cou.
3. Tenez l'oiseau de l'autre main, dans une serviette ou un sac.
4. Tenez fermement le gilet de l'oiseau. Pour les grands oiseaux, utilisez une serviette ou un sac.
5. Coupez le filin de pêche. Utilisez une pince pour saisir le hameçon et le retirer.
6. Manipulez l'oiseau hors du sac.
7. Manipulez son aile, vérifiez qu'il ne se gêne pas. Vérifiez également que le bec n'est pas blessé et l'anneau peut s'ouvrir à une pêche, un insecte ou un autre objet.
8. L'oiseau est libre et se débarrasse de son aile. Vérifiez qu'il n'a aucune blessure.
9. Puffin libéré et remis en liberté.

A stocker avec vos engins de pêche, vous les aurez toujours à bord !

J'approche (si possible) les oiseaux par l'arrière et je me protège les yeux quand je manipule un oiseau.

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Collecting data

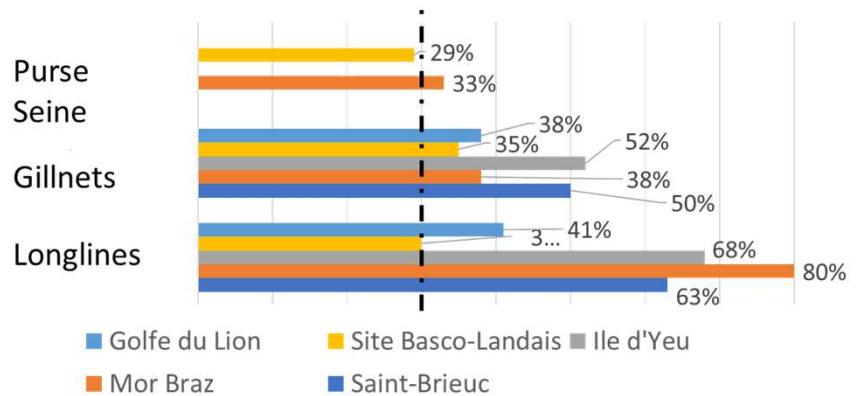
Type of data

	Survey	Observations
Fisheries' activity <ul style="list-style-type: none"> Gears, period in the area, target species Technical characteristics : baits, hooks, size, ... Practices (speed ...) Environmental conditions : light, weather... Steps of the activity 	X	X
Observations & interactions with seabirds <ul style="list-style-type: none"> Species Behaviors Consequences Context : activity, environmental conditions, distance Events of bycatch, state of birds 	X	X
Feedback <ul style="list-style-type: none"> Risk factors Ideas of solutions Variability over time Willing to be involved in other actions for this topic 	X	

Participation rate

SURVEYS

- Beyond the objective of 30%



Fisheries (all sites)	Number
Longlines	70
Gillnets	204
Purse seines	6
Sum	280

OBSERVATIONS ON-BOARD

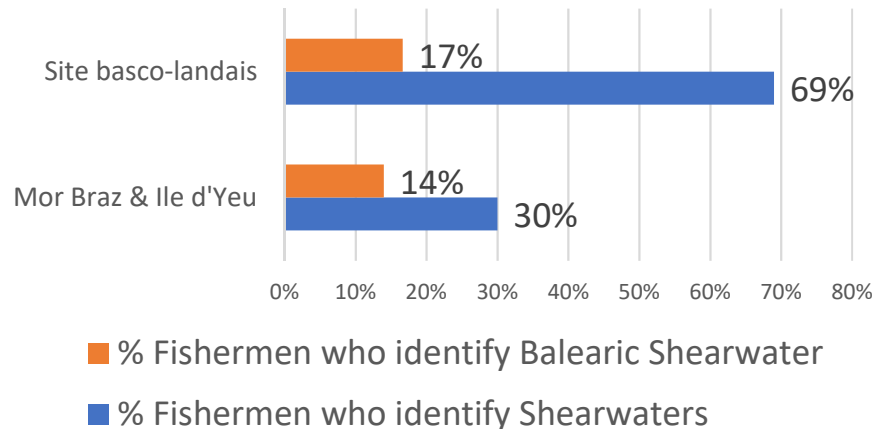
- 2 years of observations per site
- ≥ 5% declared tides.

Locations (all fisheries)	Fisheries	Amount
<i>Saint-Brieuc (ongoing)</i>	<i>Gillnets, longlines</i>	4
Mor Braz	Longlines	30
Ile d'Yeu		37
Basco-landais	Gillnets, longlines, purse seine	116
Golfe du Lion	Longlines	16
Sum		203

Participation rate - Limits

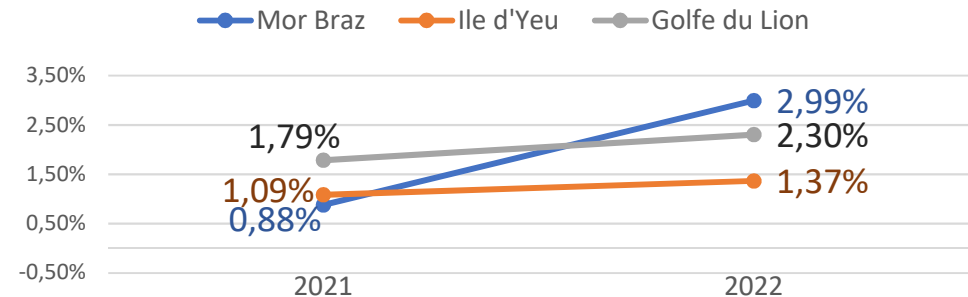
SURVEYS

- Recognizing Balearic Shearwater isn't easy ... harder than shearwaters in general
- Only **4-20%** of fishermen know how to identify Balearic Shearwater → Limited reliability for assessing capture rates



OBSERVATIONS ON-BOARD

- Probably **< 5% declared tides** (to come).
- Ex. 1st sites



- Difficult to conclude robustly on the **risk of bycatch**, knowing that these are **rare and sometimes massive events**.

How to use data collected

SURVEYS

- **After, fishermen could recognize BS** : it was a **game** (with scientific observers)
- **Qualitative** value : data could be used to :
 - **know the practices of fisheries**
 - the **presence** of species
 - the **interactions & bycatch** events
 - & if there is the **risk factors** (+ / -)

OBSERVATIONS ON-BOARD

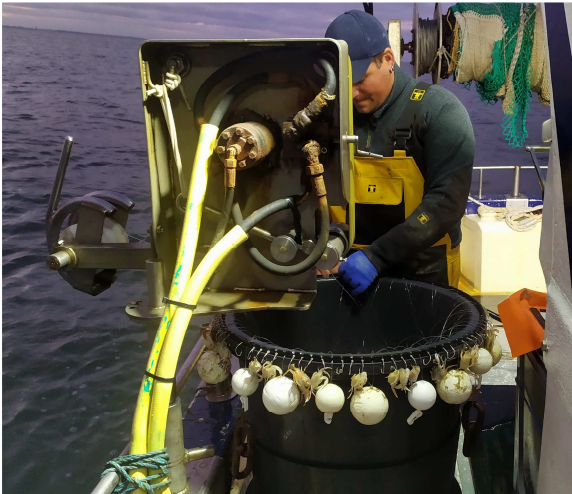
In-depth analysis to come

First results

- **Still... some precious informations**
- Some fishermen already have **practices** that mitigate risk of bycatch (bait other than sardine, setting time by night ...).
- **Not every activity generates a risk + ambassadors for others**

Setting time by night for Tuna
Longlines & sardines as baits
© Mathilde Charpentier,
2022, Golfe du Lion

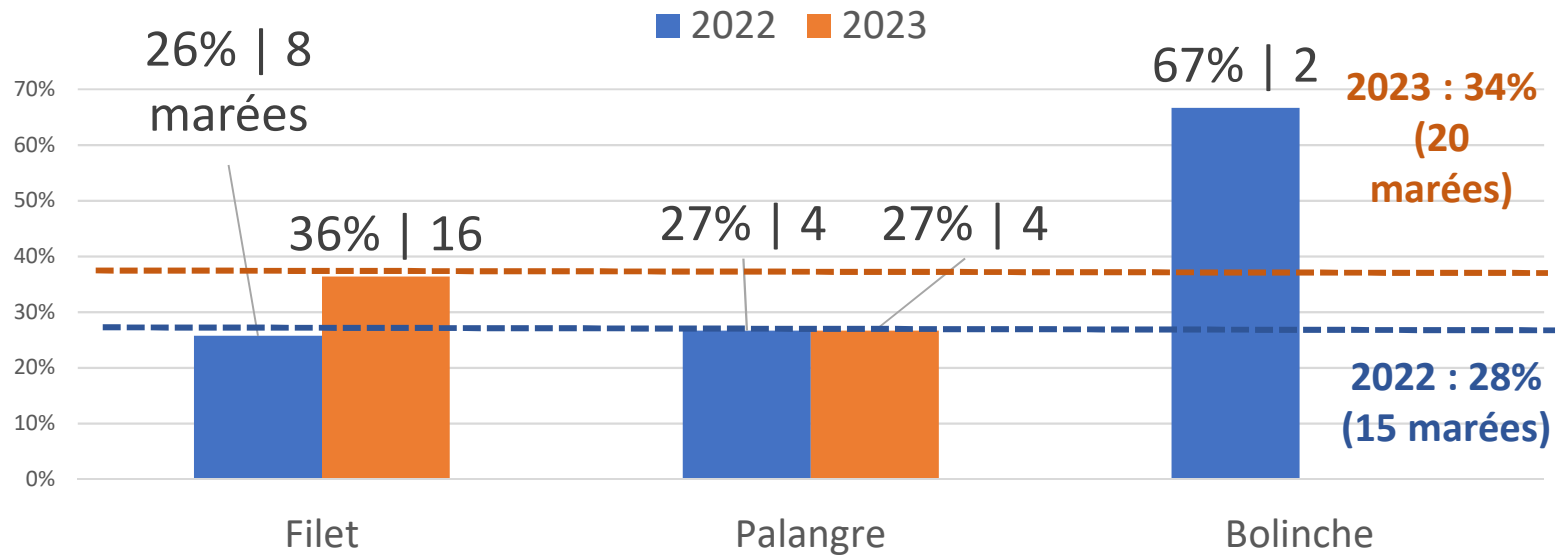
Crabs & squid as baits © Henriette Lemay, Ile d'Yeu, 2022



First results

- Balearic Shearwater observed

Basco-landais area : % tides where Balearic Shearwater where observed



First results

- Few interactions observed.

Sites	Balearic Shearwater	1st conclusions
Golfe du Lion	<ul style="list-style-type: none"> ✓ 4 observations of BS diving on baits (sardine) ✓ 1 BS eating baits 	<ul style="list-style-type: none"> • Stake with Tuna Longline fishing • In-depth analysis to know what are the risk factors
Mor Braz & Ile d'Yeu	<ul style="list-style-type: none"> ✓ Very few individuals & interactions observed 	<ul style="list-style-type: none"> • Few longliners already have mitigation practices (setting time by night, crab as baits...) • Challenge to come : dissemination best practices (survey) : <ul style="list-style-type: none"> ✓ Setting time : 65-67% vessels do it another time than during the night. ✓ Baits used by longliners : <ul style="list-style-type: none"> • Changed according to target species • Crabs : 32% /19 vessels. BUT ALSO • Sardine : 22% / 13 vessels. • Others baits (+/- palatable for BS) : 68% / 40 vessels
Basco-landais area	<ul style="list-style-type: none"> ✓ After soak time, during the day, 1 BS waiting behind the vessel 	<ul style="list-style-type: none"> • Shy Behavior, don't search vessels using them as bait • Location depending on that of their prey (sardines, anchovies). • 2023 : 50 BS seen flying ; 1 BS behind the boat to eat unused baits (sardines)

First results

- Few interactions observed.



Predation attempts to baits – Golfe du Lion
©Mathilde Charpentier, 2022, Mediterranean



Predation of discarded baits – Basco-landais
©Pep Arcos, Example of behavior

First results

- Few interactions observed

Removing unused baits (sardine) →
B.Shearwater

And eviscerating → Seagulls

- Few interactions observed.



© Lucien Rey-Thibault, 2022, Mor
Braz, Example of practices

First results

- **Few bycatch events were reported, with longlines & nets. None was observed.**
 - Exceptional events
 - Setting time during the day OR sardines as baits

Sites	Vessels	Description	Commentaries
Golfe du Lion	8 vessels (4% sample) <ul style="list-style-type: none"> - 7 trammel nets - 1 drifting longline 	Gillnets : exceptional event (in december) to 3-4 times a year Longline : 3 events in 6 years	Interactions during setting time , at the beginning of the afternoon . Yelkouan shearwater ? Unappropriated identification ?
Mor Braz 1 event per vessel	1 vessel – bottom-set longline (fish bass)	1 BS (caught by the hook to wing/paw)	By night : Unappropriate identification ?
	1 using bottom-set longline & drift net	1 shearwater a long time ago – Estuary of Vilaine (historical presence)	Setting time during the day. Baits : sardine or lançon

- **Effects** : fishermen **stop their work** to release birds (loss of time) ; they are **sad** when they didn't see it live.

What we learned

Trust & Habit of different stakeholders working together with a common knowledge

Fishermen are now

- **Familiar with stakes** about Balearic Shearwater' conservation & how to **identify** it.
- **concerned** by bycatch (sadness, loss of time)
- may be **ambassadors** to spread change if risk is proven in a local area

Knowledge

- We have data to analyze and to know the **specificity of each** area, as well as **shared aspects**.

Policy-makers :

- **Diversity** of practices & situations recognized
- **Better knowledge** about fisheries concerned by this & behaviors of birds & majoring / minoring factor of risks

Observations on-board are difficult due to the context

Small vessels

- 1 place = for the sailor

Approval to have observers on-board

- Non automatical
- Few voluntary vessels

What's next

In-depth analysis

- Portray of **fisheries & risk factors**
- Diagnosis of **interactions** and **bycatch**

Maintain the momentum

- **Study trip** with fishermen
- **Network** of fishermen
- **Diversity of perspectives** : 1 argument for 1 perspective
- Find & test **solutions** with them



Study trip with fishermen (organized by OFB – National Plan of Actions)
©Michel Ledard, 2024, Peniche

Questions or feedback ?



©Lucien Rey-Thibault, 2022, Ile d'Yeu

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