

FISHOWF

Effective monitoring strategies to identify and evaluate effects of offshore wind farms and their export cables on fish communities
(2021 - 2024)

NEWSLETTER #2

December 2023

A word from the project coordinator...



« In this newsletter, we wanted to present you some raw results that illustrate the interest and strength of the acoustic telemetry network deployed as part of the FISHOWF project. In the space of just one year, the data collected has already provided a wealth of information on the ecology of species that have been little studied until now. Unexpected detections of species tagged abroad have even been recorded in our network! If the monitoring continues over the longer term, there's no doubt that it will help us to understand the influence of offshore wind farms on the behaviour and movements of fish. »

Lydie Couturier | Researcher at France Energies Marines

Partners



This project receives funding from the French government, managed by the National Research Agency (ANR), as part of the France 2030 investment plan.

With financial support from Université de Bretagne Occidentale, régions SUD Provence-Alpes-Côte d'Azur and Brittany regions .

The network is expanding! * ←

+68 / Total : 301
individuals tagged

+1 / Total : 7
study sites

+6 / Total : 53
receivers deployed

+9 / Total : 40
operations at sea



New study site!
Éoliennes en mer
Îles d'Yeu et de Noirmoutier
L'ÉNERGIE DU LARGE

*Since June 2023

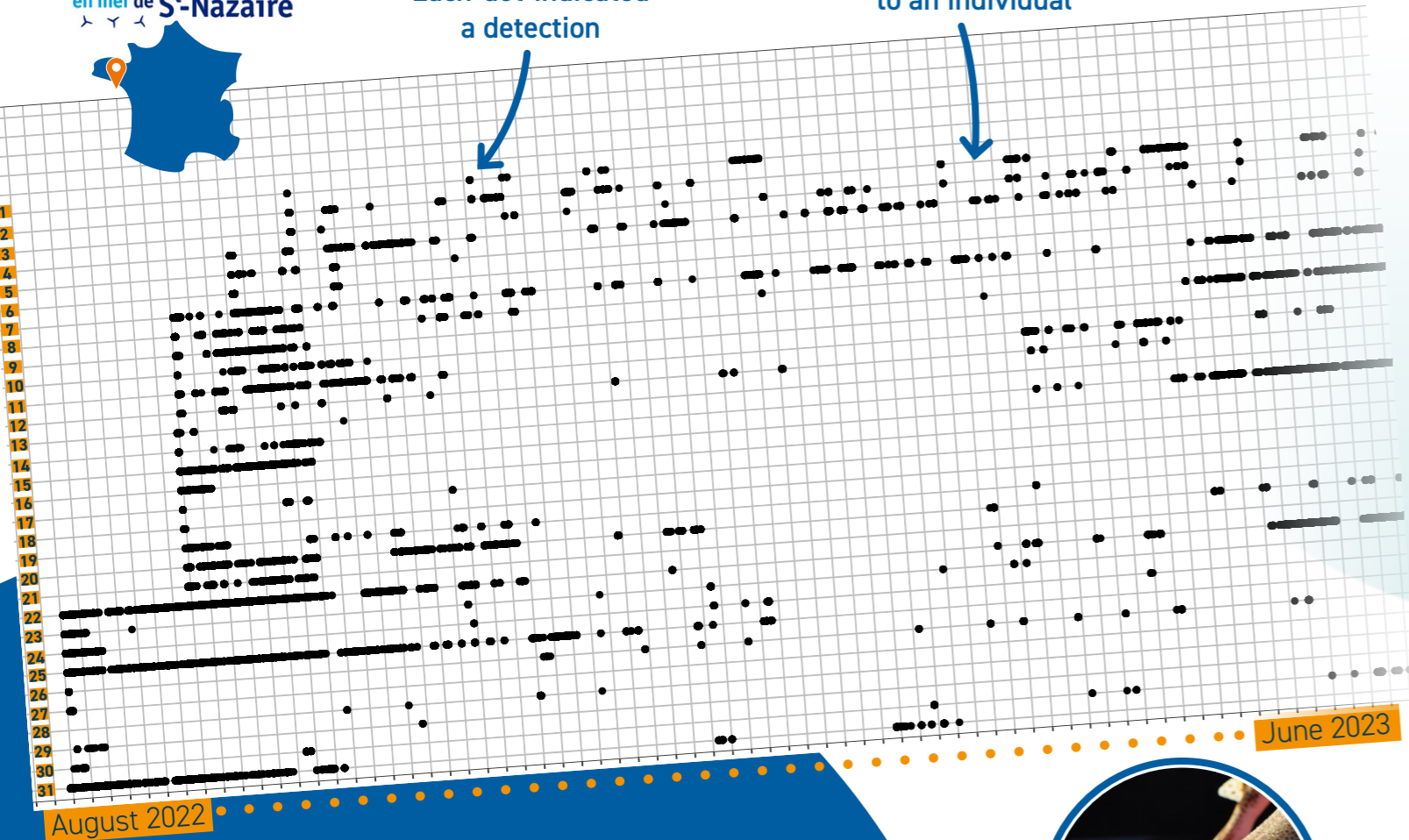
First results

Parc éolien en mer de St-Nazaire



Each dot indicated a detection

Each horizontal line corresponds to an individual



Focus on the small-spotted dogfish

Here's what the first raw data on the detection of small spotted dogfish at the Saint-Nazaire offshore wind farm look like. The graph shows all the detections of small-spotted dogfish recorded by 16 receivers over the period from August 2022 to June 2023. All 31 tagged individuals were detected at least once, and most of them were detected several times at intervals of several months. The majority of individuals were still detected at the site six months after the start of the recordings. This shows that the tagging was a success! As the individuals are equipped with acoustic tags capable of transmitting for 7 years, a large number of detections can still be recorded, making it possible to analyse in detail the movements of the small-spotted dogfish in the Saint-Nazaire wind farm. This is also the case for the other species monitored in the area: undulate ray, starry smooth-hound, nursehound and lobsters.



31
individuals monitored

157 823
detections between
August 2022
and June 2023

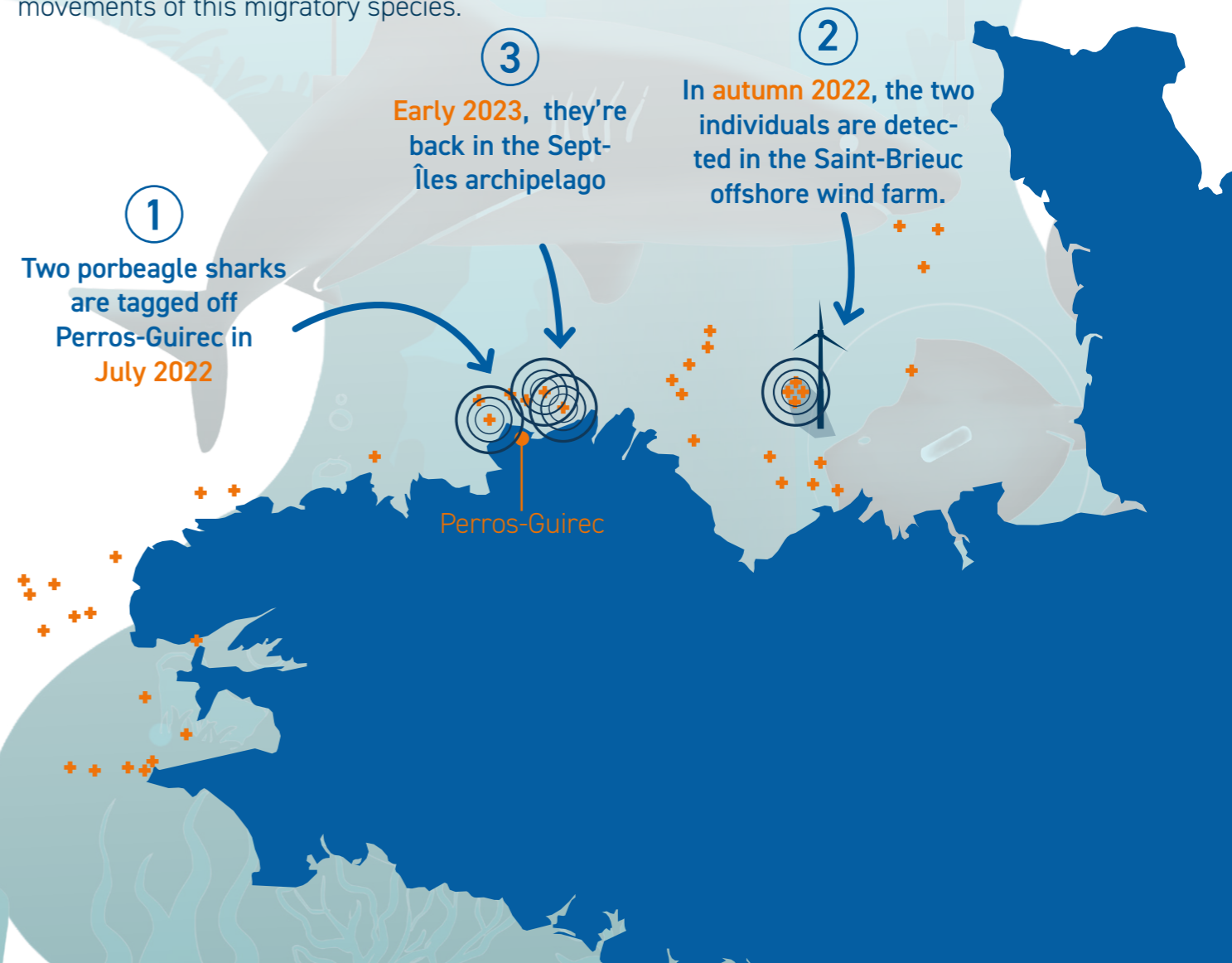
Tracking sharks



The porbeagle is a cousin of the great white shark, with which it shares a certain physical resemblance. This shark is a discreet visitor to the French coasts. The only exception is in the Côtes d'Armor, a stone's throw from Perros-Guirrec, where it is regularly spotted, sometimes even from the shore. Its presence in the area remains something of a mystery. As part of the FISHOWF project, two individuals were tagged in July 2022 to help gain a better understanding of the movements of this threatened species and its potential interactions with offshore wind farms. Thanks to the FISH INTEL and FISHOWF network receivers (in orange on the map), they were then detected on several occasions off Perros Guirec and even in the Saint-Brieuc offshore wind farm. In 2023, eight more individuals were tagged. In addition to the research already carried out by the APECS Association, this acoustic telemetry monitoring will make the most of the various existing regional networks to gain a better understanding of the movements of this migratory species.

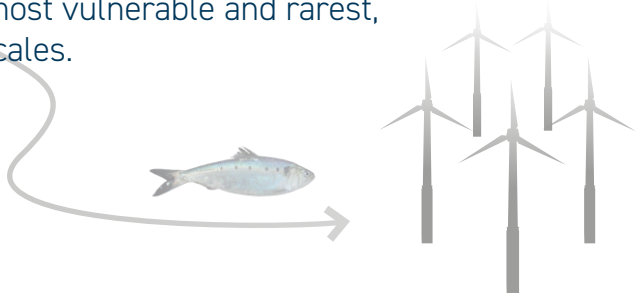
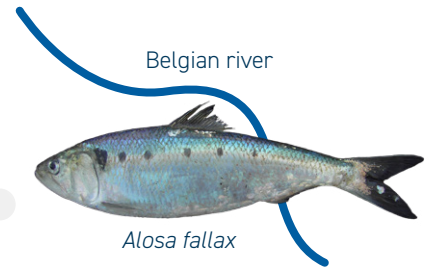
Shared data

All the data collected as part of the project is uploaded to the European Tracking Network. The aim of this platform is to centralise acoustic telemetry data on aquatic species from different European monitoring programmes, to encourage the pooling of knowledge and collaboration within the scientific community.



A network that knows no borders

Thanks to the European Tracking Network (see box on previous page), it is possible to find out whether individuals tagged as part of the FISHOWF project have been detected by other European acoustic telemetry networks, and vice versa. And this can sometimes lead to pleasant surprises! A **twait shad** tagged in April 2022 in a Belgian river, an amphihaline species whose ecology at sea remains little known, was detected in the Saint-Brieuc offshore wind farm in January 2023. The detections show that the individual frequented the farm for around two months. This illustrates the power of acoustic telemetry networks. By sharing data, they make it possible to acquire information on many mobile species, including the most vulnerable and rarest, over large spatial scales.



In pictures



Fish are not the only species being monitored as part of the FISHOWF project. Lobster movements are also being studied at the Saint-Nazaire offshore wind farm and on the islands of Yeu and Noirmoutier. 35 individuals have been fitted with an acoustic tag glued to their shell.

Agenda

Workshop FISHOWF

- 6 December 2023
- Nantes (France)

Progress meeting

- 7 December 2023
- Nantes (France)

See more!

A **public information webinar** on the project was held on 10 November. Scan the QR code to access the replay (in French).



France 3 produced a report on the monitoring of fish populations currently being carried out at the Saint Nazaire offshore wind farm.



STRICT REGULATIONS

All France Energies Marines projects involving animal handling comply with a very strict regulatory framework. They have been approved by an ethics committee and have obtained authorisation from the French Ministry of Research, which must be renewed every five years. All staff involved in these operations have attended and passed specific training courses on animal experimentation. In addition, the Institute has developed collaborations with approved partners to ensure the monitoring of protocols and their adjustment to any new practices, as well as ongoing staff training.