

# Safesea



## *Sustainable local fisheries and promotion of a safe sea for cetaceans*

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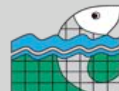
Universidade do Minho



INSTITUTE OF MARINE RESEARCH



VIANAPESCA - OP



CENTRO LITORAL O. P.



SOCIEDADE PORTUGUESA DE VIDA SELVAGEM

[www.safeseaproject.org](http://www.safeseaproject.org)

# The situation pré Safesea



The conservation status of cetaceans is based on scarce and scattered data.

The number of protected areas for the conservation of cetaceans is insufficient.

By-catch evaluation is based on the analysis of strandings and it is done only in the centre of Portugal.

Fishermen have few intervention in decision-making with respect to conservation issues and management of natural resources.

The use of a code of best practices and mitigation measures is almost absent from the Portuguese fisheries.

# The Consequences



Some cetacean species are potentially declining.

The designation of protected areas for cetaceans is insufficient and residual.

The by-catch of cetaceans may be reaching critical levels.

The interactions between cetaceans and fisheries have consequences to the cetaceans but also to the fisheries' economy.

Fishermen do not know how to solve this problem.

Fishermen are suspicious of research activities involving cetaceans; they are also suspicious of the implementation of conservation measures.

# Safesea contribution



Evaluation of the level of interactions between fisheries and cetaceans.

Evaluation of distribution and abundances of small cetaceans in the centre and north of coastal Portuguese waters.

Essay of mitigation measures toward the reduction of cetacean by-catch.

Promotion of environmental awareness focusing on the use of mitigation measures and on a sustainable exploitation of natural resources.

Diffusion of the objectives, actions and results produced by the project.



# Interactions fisheries/cetaceans

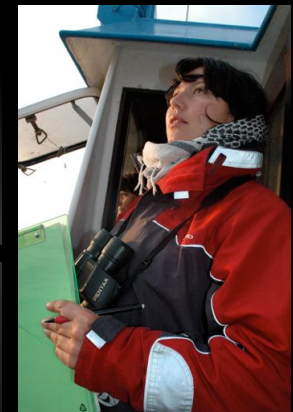
Interviews to captains, on-board observers, voluntary declaration log-books and detailed analysis of strandings



In 2008 we attended to 103 strandings and in the first 6 months of 2009 we have already recorded 125 strandings.

By-catch estimates based on strandings since 2000 varies annually between 19 and 55 % of all collected animals

Fishermen interviews, on-board observers and voluntary log-books were well accepted by fishermen.



Purse-seine fishery - 30 boats declared the capture of 140 cetaceans with a mortality rate of 30%

Gill-net fishery - 76 boats declared the capture of 166 cetaceans with a mortality rate of > 90%

Trawlers - 14 boats declared the capture of 72 cetaceans (100% mortality)

# Interactions fisheries/cetaceans

Some evidences from different fishing gears

 Beach seiners



Significant effects on the population of harbor porpoise with special incidence upon females and juveniles.



# Interactions fisheries/cetaceans

Some evidences from different fishing gears

 Purse-seiners



Frequent interaction with cetaceans during the fishery. Frequent captures of cetaceans specially during the night and foggy days. Common dolphin is the most captured species but with low mortality (affecting specially juveniles).

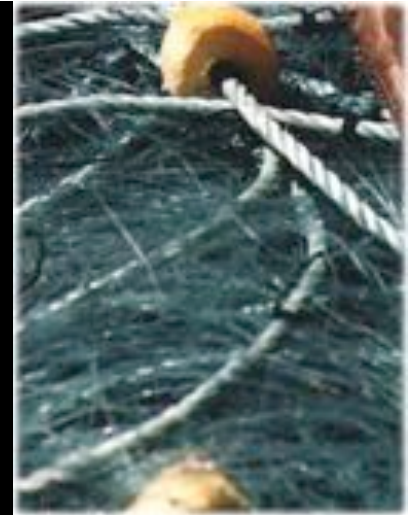
Fishermen make efforts to release the captured dolphins.

Common dolphins interaction with a purse-seiner

# Interactions fisheries/cetaceans

Some evidences from different fishing gears

## Gill-nets



Gill-netters are the most abundant gear in the area.

There is a high number of captures of common dolphins, but there are also records of other captured species (eg seals and whales)

The highest risk periods occur during hauling of nets.

High mortality rates, but in some cases fishermen were able to release by-caught cetaceans.

# Stranding data



Evolution of the strandings in the study area since 2000.

# Stranding data



Evolution of the percentage of by-catch estimated from strandings in the study area since 2000.

The extra effort put on collecting stranding animals and the voluntary declaration by fishermen has contributed to a significant increment in the number of necropsies and lab analysis.



# Abundance and distribution

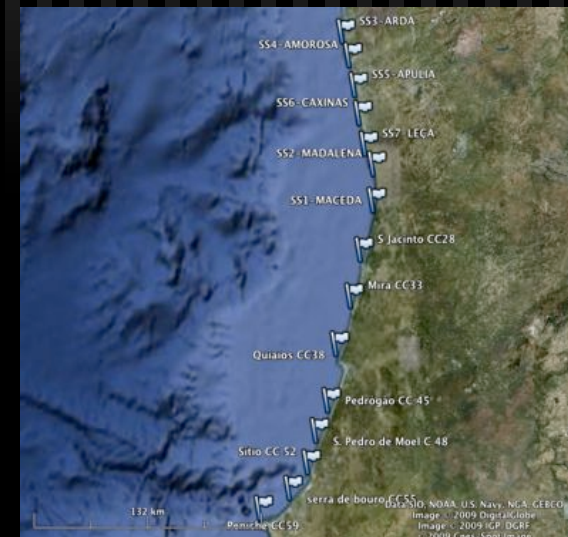
Aerial census, census in opportunity platforms and census from vantage points on the coast.



3 100 km of aerial census

6 800 km in opportunity platforms (research and fishing vessels)

15 coastal vantage points with monthly monitoring effort



# Abundance and distribution

Aerial census, census in opportunity platforms and census from vantage points on the coast.

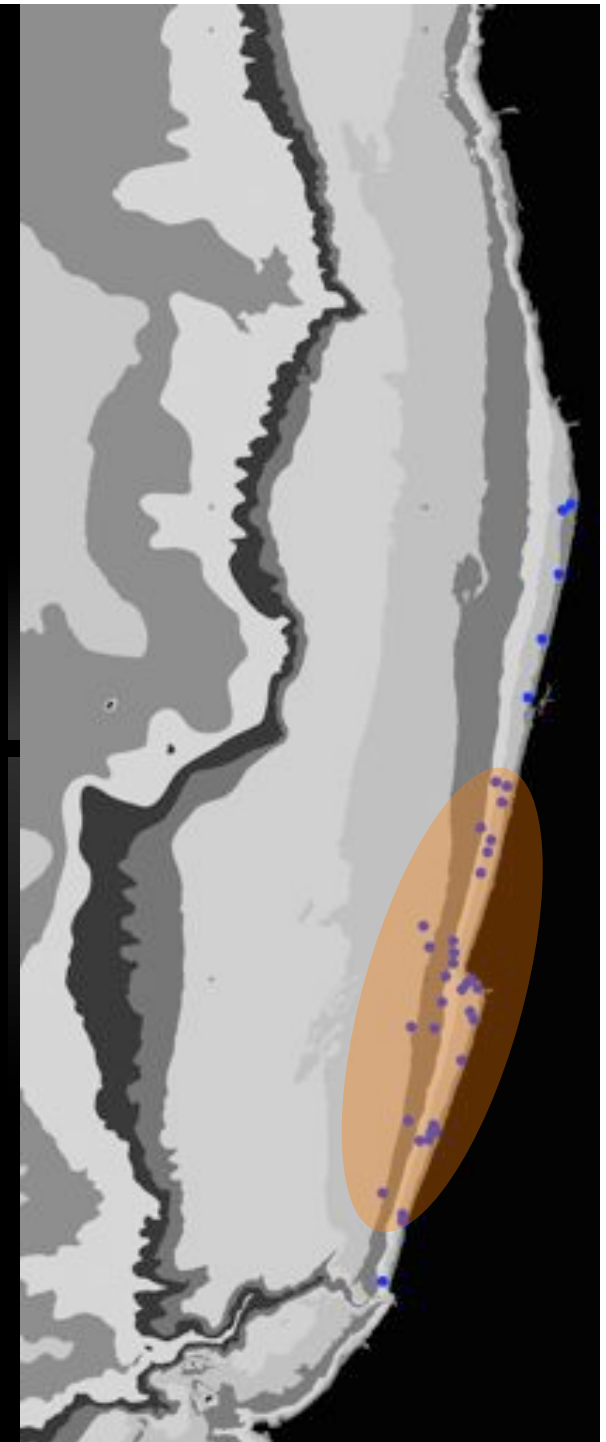
Some results for the most critical species: harbor porpoise

It is a species with clear coastal habits with a concentration of sightings between 5 and 20 meters.

Concentration of sightings between Mira and S. Pedro de Moel.



The area with higher occurrence of porpoises is an important fishing ground for purse-seiners and gill-netters.



# Essay of mitigation measures

Training, use of pingers and development of codes of best practices.



An agreement was established with Fumunda to use and essay pingers.

Two models are being essayed. One commercial (10 kHz) and a new model (operating at 70 kHz). The new model is being tested in Portugal, Australia and South America.

Presently, we are performing essays in purse-seiners and gill-netters



Fumunda pingers can be re-used simply by changing the battery (this is a long-term advantage for the fishermen).

# Essay of mitigation measures

Training, use of pingers and development of codes of best practices.



Training and discussion with the boat captains and gear operator specialists



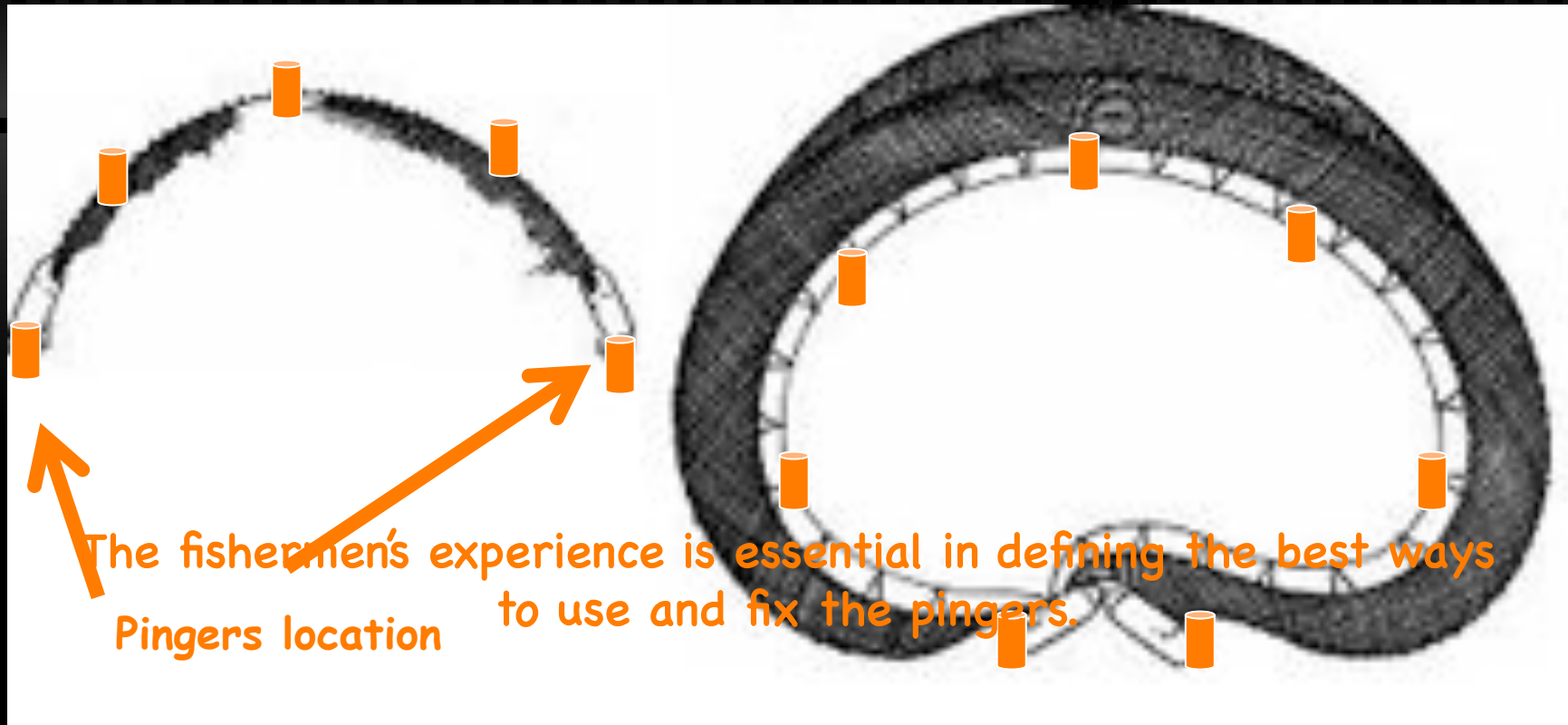
The fishermen's experience is essential in defining the best ways to use and fix the pingers.

# Essay of mitigation measures

Training, use of pingers and development of codes of best practices.



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Pingers location

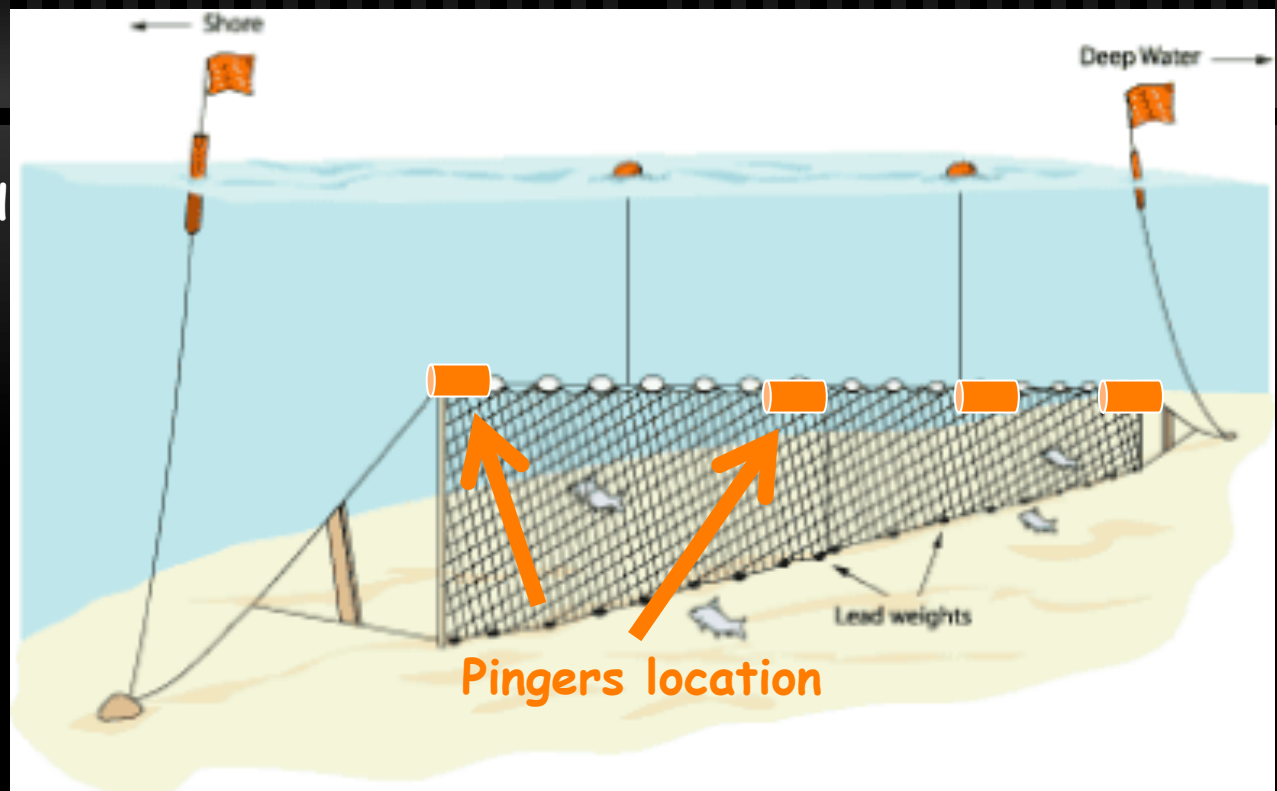
# Essay of mitigation measures

Training, use of pingers and development of codes of best practices.

In the gill-netters we are using two experimental designs:

Pingers are located in the rope with floaters (spaced at 100-meter intervals).

Pingers are always active during the time that the nets are in the water.



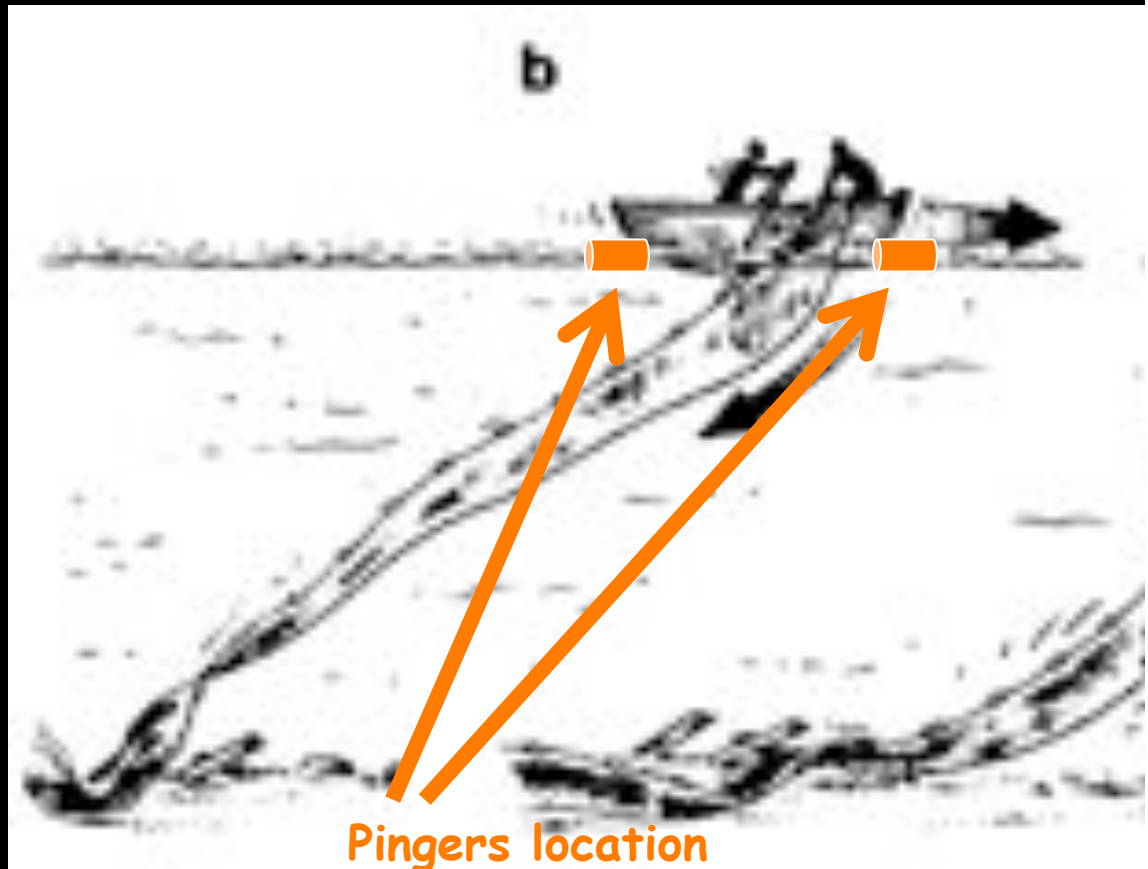
# Essay of mitigation measures

Training, use of pingers and development of codes of best practices.



Pingers are attached on a floating rope on the surface and pulled by the boat.

Pingers are only active during the hauling of nets to create an exclusion area around the boats and nets



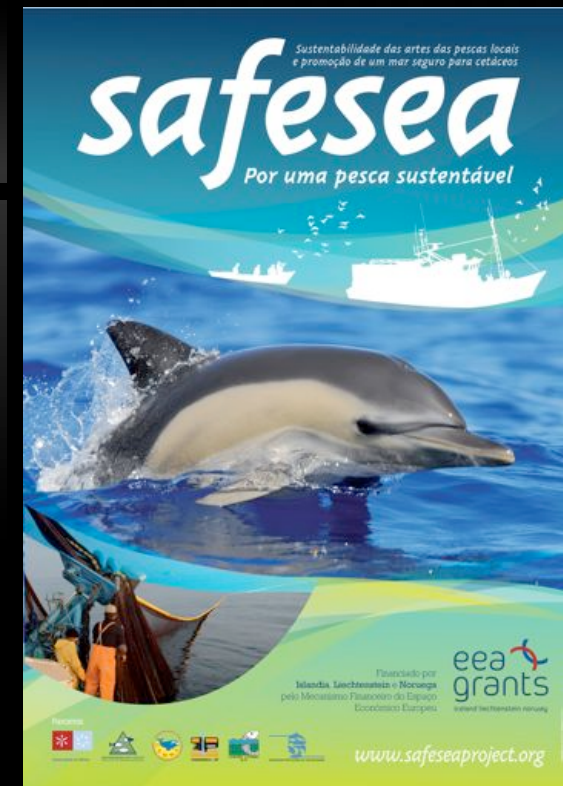
# Dissemination and environmental awareness

Fishermen training, workshops, dissemination materials, web-page



The screenshot shows the website for the safesea project. At the top left is the EEA Grants logo (Iceland, Liechtenstein, Norway). To the right, it states: "Supported by a grant from Iceland, Liechtenstein and Norway through the EEA Financial Mechanism". The main header features the "SAFE SEA" logo and the text "Sustentabilidade das artes das pescas locais e promoção de um mar seguro para cetáceos". Below the header is a navigation menu with items: Principal, Projecto, Intervenientes, Actividades, Documentação, Contactar, Notícias e Eventos, and Galeria de Fotografias. The main content area is divided into two columns. The left column is titled "Apresentação" and contains text about fishing in Portugal. The right column is titled "Notícias" and features a news item dated 03/08/2009 about a final seminar.

[www.safeseaproject.org](http://www.safeseaproject.org)



The poster for the safesea project features a large image of a dolphin leaping from the water. The text at the top reads: "Sustentabilidade das artes das pescas locais e promoção de um mar seguro para cetáceos" and "safesea Por uma pesca sustentável". At the bottom, it includes the EEA Grants logo and the website address "www.safeseaproject.org".

# The challenge of the "after EEA GRANTS"

How to maintain and increment the monitoring effort?

How to maintain and increment the stranding network?

How to increment the use of pingers and other mitigation measures by the fishermen?

How to increment the use of best practices codes?

Probably by finding a Financial Sustainable Mechanism that promotes the use of mitigation measures and their monitoring in the long run.

# Thanks



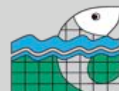
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