

INTERACTION ASSESSMENT BETWEEN DOLPHIN/ WHALES AND SEABIRDS WITH FISHERIES



Date _____ Harbour _____ Inquiry nº _____

This inquiry pretends to understand some aspects about your work, the fishing activity in Portugal and the possible interference of dolphins, whales, seabirds and other animals with fisheries.

(should only be filled by the captain/master of the vessel)

All the information will be processed confidentially.

(please answer the questions in the space shown or indicate one or various answers that you consider relevant)

1. What type of fishing gear are you using right now? (Indicate if the fishing gear is specified in detail)

1. Gill net

- Single net
- Set gillnet
- surface
- Trammel

- drifting
- Midwater
- bottom
- _____

- 2. Trawling net
- 3. Purse seine net
- 4. Bottom longline
- 5. Surface longline
- 6. Traps/pots
- 7. Beach seine net

2. What is the tonnage/lenght/crew of the boat you work in? (indicate just 1)

_____ tonnage _____ meters _____ persons

3. Which is usually your fishing area?

North limit: _____

South limit: _____

OR Fishing area: _____

Distance to the coast:
(indicate measuring unity)

Average depth:
(indicate measuring unity)

4. At what time do you go out fishing?

5. At what time you return to the harbour?

6. What is normally your catch (species)?

<input type="checkbox"/> Sardine	<input type="checkbox"/> Cutlefish	<input type="checkbox"/> Flounder	<input type="checkbox"/> Wreckfish
<input type="checkbox"/> Horse mackerel	<input type="checkbox"/> Squid	<input type="checkbox"/> Seabass	<input type="checkbox"/> Jonh dory
<input type="checkbox"/> Chub mackerel	<input type="checkbox"/> Shortfin squid	<input type="checkbox"/> Gilthead seabream	<input type="checkbox"/> Gurnard
<input type="checkbox"/> Mackerel	<input type="checkbox"/> Octopus	<input type="checkbox"/> White seabream	<input type="checkbox"/> Striped red mullet
<input type="checkbox"/> Pouting	<input type="checkbox"/> Skate ray	<input type="checkbox"/> Mullet	<input type="checkbox"/> Greater forkbeard
<input type="checkbox"/> European hake	<input type="checkbox"/> Catshark	<input type="checkbox"/> Red porgy	<input type="checkbox"/> _____
<input type="checkbox"/> Blue whiting	<input type="checkbox"/> Sharks	<input type="checkbox"/> Megrim	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> Swordfish	<input type="checkbox"/> Motled grouper	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> Sole	<input type="checkbox"/> _____	<input type="checkbox"/> _____

7. What is the average catch?

Don't know
 Per haul
 Per fishing day
 In the last haul

(indicate just one option; If not possible to know the average catch, indicate only the catch of the last haul)

Total: In Kg (ton): _____ In baskets: _____ Value (€): _____

By specie:

_____	In Kg (ton)	_____	In baskets	_____	Value €	_____
_____	In Kg (ton)	_____	In baskets	_____	Value €	_____
_____	In Kg (ton)	_____	In baskets	_____	Value €	_____

-> fishing basket quantity: _____

8. Do you normally sight dolphins/whales or seabirds in your fishing area?

Yes
 No
 -> if not, go to question 11

9. What species of dolphin/whales and seabirds do you usually sight in the fishing area? How many individuals? How often do you see them? (pres = present; frec = frequent; rare)

Don't know

<u>Dolphins/Whales</u>	pres	frec	rare	<u>Seabirds</u>	pres	frec	rare
Common dolphin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gull	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Striped dolphin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Northern gannet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risso's dolphin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cory's Shearwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Porpoise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shearwater	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Botlenose dolphin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Petrel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pilot whale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Guillemot/Torda	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spermwhale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Great cormorant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Killer whale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dolphins (n.s.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Great skua	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Whales (n.s.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Common Scooter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Confidence in the identification (0 a 100%) _____

18. What kind of damage? Don't know

Dolphins Other animals

 Tear the nets
 Consume the bait

Dolphins Other animals

 Break the cables

19. Can you estimate the economic loss relatively to the damages in the fishing gears...
(indicate only one)

No Yes By dolphins _____ € (per haul year)
By other animals _____ € (per haul year)

20. Do seabirds usually get stuck on the fishing gears?

Yes No Don't know -> if not /don't know go to question 26

20.1. In what moment does this more frequently occur?

Shooting Towing Discarding Trawling
Other _____

21. Which species of seabirds usually get stuck on the fishing gears? Don't know

Please detail the number of times per month and/or year in which the seabirds fall on the fishing gears:

	Month	Year	χ		Month	Year	χ		Month	Year	χ
Gull				Petrel				Great skua			
Gannet				Guillemot /Razorbill				Common scoter			
Cory's shearwater				Cormorant				_____			
Shearwater				Tern				_____			

χ : average n^o of animals

22. Are the seabirds removed from the fishing gear dead or alive?

% alive _____ % dead _____ Don't know

23. Is there a time of the year when the seabirds fall in to the fishing gear more frequently?

Yes No Don't know -> if not/don't know go to question 26

24. When? _____

25. Do dolphins usually get stuck in the fishing gears?

Yes No Don't know -> if not/don't know go to question 31

26. Which species of dolphins usually get stuck in the fishing gear? Don't know

Please detail the number of times per month and/or year in which the dolphins fall on the fishing gear:

	Month	Year	χ		Mês	Ano	χ		Mês	Ano	χ
Common dolphin				Botlenose dolphin				Dolphins (n.s.)			
Striped dolphin				Pilot whale				Whales (n.s.)			
Risso's dolphin				Spermwhale							
Porpoise				Killer whale							

χ : average n° of animals

27. Are the dolphins removed from the fishing gear dead or alive?

% alive _____ % dead _____ Don't know

28. Is there a time of the year when the dolphins get stuck in the fishing gear more frequently?

Yes No Don't know -> if not/don't know go to question 31

29. When? _____

30. Which other animals get stuck in the fishing gears? Don't know None

	Month	Year	χ		Month	Year	χ
Loggerhead turtles				Other: _____			
Leatherback turtle				Other: _____			
Sharks				Other: _____			

χ : average n° of animals

31. Do you take any measures to avoid interactions with seabirds?

Yes No if not/don't know go to question 34

32. What kind of measures?

- | | |
|--|---|
| <input type="checkbox"/> Scare line/ Toriline | <input type="checkbox"/> Lateral setting |
| <input type="checkbox"/> Thawed bait | <input type="checkbox"/> Increased nets depth |
| <input type="checkbox"/> Increased line weight | <input type="checkbox"/> Scaring the seabirds (specify) _____ |
| <input type="checkbox"/> Nocturnal hauling | _____ |
| <input type="checkbox"/> Diyed bait | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Controled discards | |
| <input type="checkbox"/> Submerged hauling devices | |

33. Do you take any measures to avoid interactions with dolphins?

Yes No if not/don't know go to question 36

34. What kind of measures?

- Acoustic alarms (*specify*) _____
- Navigate to a different area
- Wait for the dolphins to move away from the area
- Reduce the time the fishing gear is on the water
- Scaring the dolphins (*specify*) _____
- Other (specify) _____

35. Do you usually use the dolphins and/or seabirds sightings for detection of fish shoals?

- yes only dolphins no don't know
- only birds

36. Which do you think are the main problems that exist between dolphins/seabirds and the fishing activity?

(Fill in 3 per order of importance : 1 – more important, 3- less important)

Dolph. Birds

- Don't know
- There are are no problems
- They damage the fishing gears
- Consume/damage the catch

Dolph. Birds

- Cause additional costs
- Scare the fish away
- To many of them die on the fishing gears
- Other (specify) _____

37. In your personal opinion the interactions and the by catch....

- Increased in the last 10 years
- decreased in the last 10 years
- Remained the same
- Don't know

38. And wich factors do you think influence in the amount of interactions/ by catch?

Dolph. Birds

- Don't know
- Não existem factores
- Fishing time, e.g. day or night
- Species/catch
- Fishing area
- Water depth

Dolph. Birds

- Month/Season
- Type of fishing gear
- Duration of fishing operation
- Weather (condições climatéricas, mar)
- Dolphins behavior
- Other _____

39. What is your proposal/suggestion to reduce the interactions between dolphins/seabirds and the fishing activity?

Some personal information....

How old are you? _____

For how long do you work in the fisheries sector? _____

Do you belong to a family of fishermen ? _____

Man Woman

Additional coments/notes:

Thank you!