

## 2.6. IPMA report on C1







**Annex 1**

**ACTION C.1: Implementation of Best Practices Manuals according to fishing gear**

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Short questionnaires were handed out to fishers during the meetings held between the project and PO members (see questionnaires below). The aim of these questionnaires was to have a sense of fishers’ opinion on the mitigation measures suggested in the Best Practice Manuals and were filled mostly by skippers (33 out of 34). 19 questionnaires were filled by purse seiner fishers and 15 questionnaires were filled by fishers of artisanal fisheries.

In both fleets, fishers reported that different types of animals get entangled in their fishing devices (Table 1). In artisanal fisheries the most reported species are seabirds (47%) while in the purse seine fishery marine mammals are reported to get entangled by all fishers (100%). Turtles are only mentioned by some purse seine fishers (26%), who also reported an event with seals (1 skipper). A great number of artisanal fishers (40%) reported that no animals get entangled in their fishing devices.

Table 1 – What type of animals get entangled in the fishing devices?

Animals/Fleet	Artisanal	Purse seine
Seabirds	47	37
Marine mammals	13	100
Turtles		26
Others		5
None	40	

Some of the practices to avoid interactions are already used by fishers (Table 2). All fishers from the purse seine fleet reported that they communicate the presence of dolphins or seabirds to others skippers because their belief is that this measure is efficient. The percentage of the interviewed fishers from the artisanal fleet that already



uses this measure is lower (47%). A significance difference between these two groups was found (Figure 1; X-squared = 13.2513, df = 2, p-value = 0.001326). Those that already implement this practice in the artisanal fleet either believe that it is efficient measure (43%) (Figure 2; X-squared = 7.8857, df = 2, p-value = 0.01939), or they don't know if it is efficient (14%), or even believe that it is not efficient (14%). However, 30% of fishers from the artisanal fishery reported that they are willing to use it in the future while the rest didn't answer the question.

Table 2 – Communicate presence of cetaceans/seabirds to other vessels.

Fleet	Answer	Already in use?	Is it efficient?	Willing to use it?
Artisanal	Yes	47	43	33
Purse seine		100	100	
Artisanal	No	40	14	
Purse seine				
Artisanal	Not much			
Purse seine				
Artisanal	Don't know	13	14	
Purse seine				
Artisanal	No answer		29	67
Purse seine				

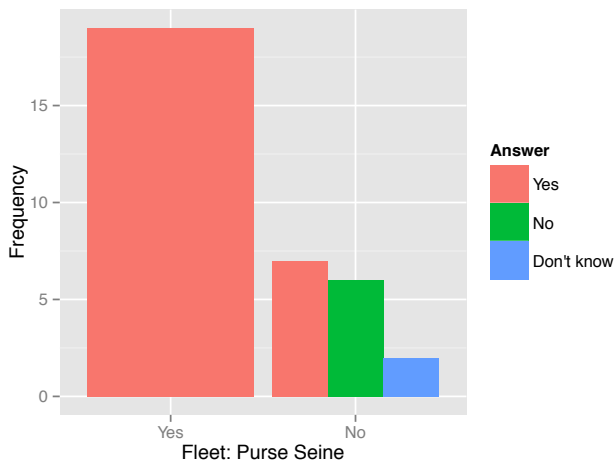


Figure 1 – Do you communicate the presence of cetaceans/seabirds to other vessels?

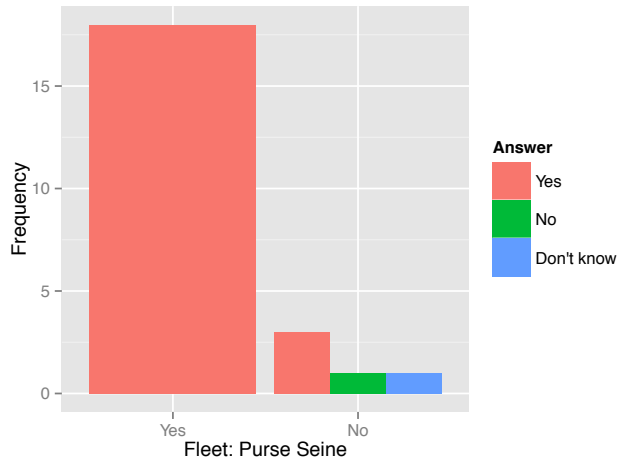


Figure 2 – Is this measure efficient?

Another avoidance practice in use by the purse seine fishers (74%) is surveillance (Table 3) because they believe it is efficient. They usually use the sonar to detect unusual behaviour of fish schools that are commonly associated with the presence of cetaceans. None of the interviewed artisanal fishers uses this measure. A significance difference between these two groups was found (Figure 3; X-squared = 19.0563, df = 2, p-value = 7.277e-05). The majority of fishers that don't use this measure didn't answer if they were willing to use it in the future (40% in the purse seine fishery and 64% in the artisanal fishery). However, 40% of the purse seine fishers state that they are willing to use it in the future against 7% of the artisanal fishers.

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Table 3 - Surveillance of the fishing area to avoid encounters.

Fleet	Answer	Already in use?	Is it efficient?	Willing to use it?
Artisanal	Yes			7
Purse seine		74	100	40
Artisanal	No	93		29
Purse seine		26		20
Artisanal	Not much	-		
Purse seine		-		
Artisanal	Don't know	7		
Purse seine				
Artisanal	No answer			64
Purse seine				40

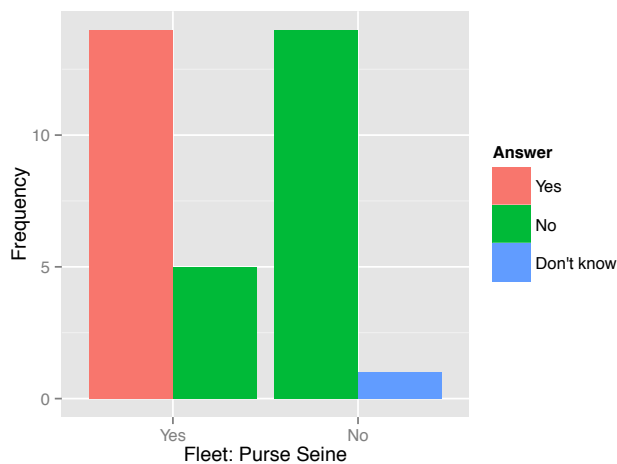


Figure 3 – Do you use surveillance of the fishing area to avoid encounters?

Regarding the use of pingers (Table 4), 21% of the purse seine fishers uses pingers and from these 25% believe that they are not very efficient and 50% believe it is. Some of those that don't use this measure yet are willing to use them in the future (50%) while others (14%) admit that they are not interested in using them. In the artisanal fishery none of the fishers uses this practice and don't seem very interested in using it (67% didn't reply and 27% admit that they're not interested in using it).

Table 4 - Use of pingers to minimize cetacean by-catch.

Fleet	Answer	Already in use?	Is it efficient?	Willing to use it?
Artisanal	Yes			7
Purse seine		21	50	50
Artisanal	No	100		27
Purse seine		74		14
Artisanal	Not much			
Purse seine			25	
Artisanal	Don't know			
Purse seine				
Artisanal	No answer			67
Purse seine		5	25	36

Only one skipper (0.07%) from the artisanal fishery has ever used streamlines or other measures to deter seabirds making this the least used practice to avoid interactions. None of the skippers from the purse seine have ever used this practice but 16% are willing to try it out. However, most part think it's not worthwhile (26%), a bit less than in the artisanal fishery (29%). A high percentage of fishers didn't reply to this question (58% in purse seine fishery and 71% in the artisanal fishery).

Table 5 - Use of streamlines to scare seabirds.

Fleet	Answer	Already in use?	Is it efficient?	Willing to use it?
Artisanal	Yes	7	100	
Purse seine				16
Artisanal	No	93		29
Purse seine		100		26
Artisanal	Not much			

Purse seine		
Artisanal	Don't know	
Purse seine		
Artisanal	No answer	71
Purse seine		58

In regards to measures that only apply to the purse seine fishery (Table 6):

73% reported that they avoid or even interrupt fishing operations when they sight a group of animals nearby the fishing vessels. All believe that this is an efficient measure. 50% of the fishers that don't use this measure reported that they are not willing to use this measure in the future. The other 50% didn't reply.

The avoidance of slipping is a practice already in use by 32% of skippers because they believe it is efficient. 58% reported that they don't use it and while 27% are not willing to use this measure the others didn't reply to this question.

However, 53% reported that they interrupt fishing operations to release any entangled animals and believe that either it is an efficient measure (70%), not very effective (10%) or not effective at all (10%). From the skippers that don't use this measure yet, 22% reported that they're willing to try it in the future although 78% didn't reply to this question.

Finally, 84% of the purse seine skippers don't use stretchers to release cetaceans. Some are willing to use it in the future (38%) but others say they're not (6%). 67% of the skippers that already use this measure state that it is an effective measure.

Table 6 - Results of the questionnaires filled by purse seine skippers.

	Yes	No	Not much	Don't know	Didn't answer
<b>Avoid or even interrupt operation when groups of animals are sighted nearby</b>					
Already in use?	73	18			9
Is it efficient?	100				
Willing to use it?		50			50





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**Avoid slipping**

Already in use?	32	58		11
Is it efficient?	50			50
Willing to use it?		27		73

**Interrupt the operation to release entagled animals**

Already in use?	53	47		
Is it efficient?	70	10	10	10
Willing to use it?		22		78

**Release cetaceans using a stretcher**

Already in use?	16	84		
Is it efficient?	67			33
Willing to use it?	38	6		56

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None of the palangre fishers uses any measure to avoid the attraction of dolphins or seabirds to the bate used and none replied to whether they were willing to use it in the future.

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## Manual de Boas Práticas para evitar a captura accidental de mamíferos e aves marinhas

### Frota: Cerco

Para melhorar o Manual de Boas Práticas para evitar a captura accidental de mamíferos e aves marinhas, agradecemos que responda a este questionário. A sua contribuição é imprescindível para desenvolver a versão final do manual. Toda a informação será tratada confidencialmente.

Data \_\_\_\_\_ Embarcação \_\_\_\_\_ Porto de Embarque \_\_\_\_\_

1. Nome: \_\_\_\_\_ 2. Tarefas a bordo:      c Mestre c outra

### 3. Que animais costumam ficar presos nas artes? (assinale 1 ou mais opções)

- c Aves marinhas      c Mamíferos Marinhos (golfinhos, baleias, focas)      c Tartarugas  
c Nenhum      c Outros \_\_\_\_\_ c Não sei

### 4. Medidas para evitar a captura accidental / interações de mamíferos e aves marinhas

#### 4.1 Colocar vigias de forma a avistar atempadamente a presença de golfinhos ou aves nas redondezas.

A medida já é utilizada: c Sim      c Não      c Não sei

*Se sim, é eficiente?*      c Sim      c Pouco      c Não      c Não sei

*Se não, estaria disposto a usar?*      c Sim      c Não      (*Porquê?* \_\_\_\_\_)

#### 4.2 Comunicar aos outros mestres a presença de golfinhos ou aves na área de pesca

A medida já é utilizada:      c Sim      c Não      c Não sei

*Se sim, é eficiente?*      c Sim      c Pouco      c Não      c Não sei

*Se não, estaria disposto a usar?*      c Sim      c Não      (*Porquê?* \_\_\_\_\_)

#### 4.3 Não largar, ou mesmo interromper o lance quando são avistados grupos de animais nas redondezas da embarcação

A medida já é utilizada:      c Sim      c Não      c Não sei



*Se sim, é eficiente?*      c Sim      c Pouco      c Não      c Não sei  
*Se não, estaria disposto a usar?*      c Sim      c Não      (*Porquê?* \_\_\_\_\_)

#### 4.4 Evitar rejeitar pescado e destombar/desenvasar a rede

A medida já é utilizada:      c Sim      c Não      c Não sei

*Se sim, é eficiente?*      c Sim      c Pouco      c Não      c Não sei  
*Se não, estaria disposto a usar?*      c Sim      c Não      (*Porquê?* \_\_\_\_\_)

#### 4.5 Utilização de sistemas acústicos nas redes (*pingers*) para alerta de cetáceos.

A medida já é utilizada:      c Sim      c Não      c Não sei

*Se sim, é eficiente?*      c Sim      c Pouco      c Não      c Não sei  
*Se não, estaria disposto a usar?*      c Sim      c Não      (*Porquê?* \_\_\_\_\_)

#### 4.6 Usar fitas para espantar as aves da proximidade da embarcação, dispositivos que emitem sinais sonoros ou substâncias com odor desagradável para afastar as aves (óleo de fígado de tubarão).

A medida já é utilizada:      c Sim      c Não      c Não sei

*Se sim, é eficiente?*      c Sim      c Pouco      c Não      c Não sei  
*Se não, estaria disposto a usar?*      c Sim      c Não      (*Porquê?* \_\_\_\_\_)

#### 4.7 Interromper as operações: parar as operações e proceder à libertação do animal

A medida já é utilizada:      c Sim      c Não      c Não sei

*Se sim, é eficiente?*      c Sim      c Pouco      c Não      c Não sei  
*Se não, estaria disposto a usar?*      c Sim      c Não      (*Porquê?* \_\_\_\_\_)

#### 4.8 Libertar o animal: Usar uma maca ou xalavar de lona que facilite, em tempo e em manobra, a libertação do golfinho



A medida já é utilizada:            c Sim            c Não    c Não sei

*Se sim, é eficiente?*            c Sim    c Pouco            c Não    c Não sei

*Se não, estaria disposto a usar?*    c Sim            c Não    (*Porquê?* \_\_\_\_\_)

**Por favor utilize a caixa em baixo para dar informações/sugestões adicionais**

**Muito Obrigados pela sua atenção!**



## Manual de Boas Práticas

### para evitar a captura acidental de mamíferos e aves marinhas

#### Frota: Polivalente

Para melhorar o Manual de Boas Práticas para evitar a captura acidental de mamíferos e aves marinhas, agradecemos que responda a este questionário. A sua contribuição é imprescindível para desenvolver a versão final do manual. Toda a informação será tratada confidencialmente.

#### MUITO OBRIGADOS PELA SUA COLABORAÇÃO !

Data \_\_\_\_\_ Embarcação \_\_\_\_\_ Porto de Embarque \_\_\_\_\_

Artes que utiliza \_\_\_\_\_

1. Nome: \_\_\_\_\_

2. Tarefas a bordo:      c Mestre      c Outra

3. Que animais costumam ficar presos nas artes?

c Aves marinhas      c Mamíferos marinhos (golfinhos, baleias, focas)

Tartarugas      c Outros      Nenhum      Não sei

4. Medidas para evitar a captura acidental de mamíferos e aves marinhas

4.1 Comunica aos outros mestres a presença de golfinhos ou aves na área de pesca ?

c Sim      c Não      c Não sei

Se sim, é eficiente?      c Sim      c Pouco      c Não      c Não sei

Se não, estaria disposto a usar?      c Sim      c Não (Porquê? \_\_\_\_\_)

