

## E-training tool exercises

Supra-category: IOTC ROS Scientific Field Observer Training (IOTC ROS SFO)

Category: IOTC fisheries impacts on ecosystems, interactions with SSIs and mitigation (IOTC ROS SFO TR17)

Individual Exercises (opens when all e-training docs under the course have been opened. To be completed within a maximum time of 30 min. To be included in ongoing evaluation process).

### QUESTION 1

**True or False - Answer by ticking the correct answers.**

IOTC Species of Special Interest include all marine turtles, all marine mammals, all seabirds, whale sharks, oceanic white tip sharks, thresher sharks, and striped, black and blue marlin and Indo-Pacific sailfish. [True]

All of the species classified by the IOTC as SSIs are listed under the IUCN red list of endangered species. [False]

The IOTC describes an SSI vulnerability in terms of its susceptible to accidental landing, primarily as a result of hunting for food or accidentally interacting with a fishing vessel. [True]

The IOTC describes an SSI vulnerability in terms of its susceptible to become endangered unless the circumstances that are threatening its survival and reproduction improve. [False]

Mitigation measures are a means to prevent, reduce or control the adverse effects of a specific fishery on a species of interest. [True]

### QUESTION 3

**True or False - Answer by ticking the correct statements**

- Seabirds are vulnerable to pelagic longline fisheries due to their natural feeding behaviour (scavenging at the surface, diving). [True]
- Seabirds are especially exposed where longline fishing grounds and seabird hotspot areas overlap (e.g., north of 25° latitude is a designated hotspot for seabird bycatch). [False]
- Seabirds' get caught in the hooks when they feed on fishing vessel catch. [False]

There are concerns related to the survival rates of released hooked sea turtles. [True]

Mitigation mechanisms to reduce pelagic longline fishing impacts on sea turtles includes the usage of tori lines. [False]

Mitigation mechanisms to reduce pelagic longline fishing impacts on seabirds includes the usage of fish baits instead of squid. [False]

Toothed whales and small cetaceans are vulnerable to the pelagic longline fishery due to their depredation behaviour on bait and catches. [True]

### QUESTION 4

Dragging and drop the boxes on the right side of the screen to the boxes on the left side of the screen, to correctly allocate listed mitigation mechanisms to the listed IOTC species of special interest (SSI).

<b>Seabirds</b>	Night setting with minimal deck lighting
<b>Marine turtles</b>	Use of circle- instead of J or the Japanese hooks
<b>Cetaceans</b>	Use of acoustic deterrent devices
<b>All SSIs</b>	Use of line cutters and de-hookers.
<b>Marine turtles</b>	Use fish baits instead of squid
<b>Seabirds</b>	Use of tori-lines

#### QUESTION 5

##### True or False - Answer by ticking the correct statements

Entanglements with gillnets set close to the surface is not discriminant and poses a high risk to a number of IOTC SSI including Endangered, Threatened and Protected (ETP) species. [True]

The Mako and the Blue shark especially vulnerable to pelagic drift gillnet fisheries. [False]

All species of sharks are vulnerable to pelagic drift gillnet fisheries. [True]

Diving seabirds aren't particularly vulnerable to pelagic drift gillnet fisheries. [False]

Gillnetting is a major source of mortality for all sea turtle species. [True]

Baleen whales aren't vulnerable to gillnet fisheries due to their feeding behaviour. [False]

#### QUESTION 6

Drag and drop the boxes on the right side of the screen to the boxes on the left side of the screen, to correctly name the mitigation measures presented in the images below.

<b>1</b>	<b>Passive acoustic devices</b>
<b>2</b>	<b>Acoustic pingers</b>
<b>3</b>	<b>Looming eyes buoy (LEB)</b>
<b>4</b>	<b>Visual decoy / deterrent</b>
<b>5</b>	<b>Visual method</b>



### QUESTION 7

True or False - Answer by ticking the correct statements

Depredation is a behaviour of non-natural predation induced by fishing modifying food behaviour and regimes. [True]

Depredation caused by false killer whales, tropical pilot whales and pelagic sharks generates considerable losses of bait. [False]

Depredation may take place during setting, soaking time and hauling. [True]

Depredation mainly affects the gillnet fisheries. [False]

### QUESTION 8

Drag and drop the boxes on the right side of the screen to the boxes on the left side of the screen, to correctly name the predator species that depredated on the tuna presented in the images below.

1	Toothed whales and dolphins
2	Sharks
3	Squid
4	Cookie shark
5	Toothed whales and dolphins
6	Sharks
7	Squid
8	Cookie shark

(see file photos depredation in dropbox).

### QUESTION 9

#### True or False - Answer by ticking the correct statement

What should an Observer do when a turtle is caught by the vessel,

A	The Observer doesn't allow the turtle to be brought on board otherwise the fisherman will eat it.	
B	The turtle should be brought on board, and if she's died, she should be immediately thrown into the sea.	
C	The turtle should be brought on board and the Observer should identify the species, measure it, take pictures on each side of the head and of the carapace, check if the turtle is injured and try to resurrect it if she's seems to be dead.	
D	The turtle should be brought on board, resuscitated and returned to the sea as soon as possible.	

Solution: C

### QUESTION 10

#### True or False - Answer by ticking the correct statement

What should an Observer do when a live seabird is caught by a longliner?

A	The Observer doesn't allow the seabird to be brought on board, fisherman should cut the line immediately.	
B	The seabird should be brought on board, the fastest possible, the line should be cut and the seabird returned to the sea as soon as possible.	
C	The seabird should be gently brought on board and the Observer should identify the species, measure it, take pictures while the crew checks if they can dehook the seabird. The bird should be kept on-board in a box until it recovered and then released against the wind.	
D	The seabird should be gently brought on board and the Observer should identify the species, measure it, take pictures. The Observer should then dehook the seabird and release it immediately.	

Solution: C

### QUESTION 11

#### True or False - Answer by ticking the correct statement

What are the main impacts of the Tuna Purse-seine fishing in the ecosystems?

A	Significant risk of large volumes of by-catch and discards of juvenile tuna when fishing on an associated school of tuna (FAD fishing).	X
B	High risk of catching birds, turtles and sperm whales.	
C	Significant risk of large volumes of by-catch when fishing on a free school of tuna.	
D	High risk of capture/entanglement of Species of special interest (SSI).	X
E	Ghost fishing and damage to marine and coastal habitats and marine litter, when FAD structures are lost or abandoned.	X

Solution: A, D and E TRUE. The others are FALSE

### QUESTION 11

#### True or False - Answer by ticking the correct statements

What are the possible strategies that can be used to avoid and mitigate interactions of Turtles with the Tuna Purse-seine fishery.

A	Use of ecological FADs	x
B	Small speed-boats can be used to chase the turtles out of the net before it is fully closed.	
C	A brail or a large dip-net can be used to pick up the turtle from the net	x
D	Use of the proper techniques to handle and release turtles.	x
E	Avoiding setting a purse seine net around the turtles, cetaceans, whale-sharks if sighted prior to the commencement of the set	x

### QUESTION 12

#### True or False - Answer by ticking the correct statements

What are the possible strategies that can be used to avoid and mitigate interactions of Cetaceans with the Tuna Purse-seine fishery.

A	Use of ecological FADs	
B	Small speed-boats can be used to chase cetaceans out of the net before it is fully closed.	x
C	A side of the net can be lowered to allow the cetacean(s) to escape	x
D	Small explosive devices can be used to chase the animals out of the net before it's fully closed	x
E	Avoiding setting a purse seine net around cetaceans if sighted prior to the commencement of the set	x

### QUESTION 13

#### True or False - Answer by ticking the correct statements

What are the possible strategies that can be used to avoid and mitigate interactions of Sharks, rays, marlins and other large fish with the Tuna Purse-seine fishery.

A	Use of ecological FADs	x
B	Small speed-boats can be used to chase them out of the net before it is fully closed.	
C	A side of the net can be lowered to allow them to escape	
D	A brail can be used to pick large individuals from the net and to attempt to release them directly, by tipping one edge of the brailer, into the ocean;	x

E	Usage of the proper techniques to handle and release bycatch species, such as Sharks, rays, marlins and other large fish	x
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#### QUESTION 14

##### True or False - Answer by ticking the correct statements

What are the possible strategies that can be used to avoid whale sharks and whales from being encircled by the purse-seine net, and to and mitigate interactions with the Tuna Purse-seine fishery.

A	Use of ecological FADs	
B	Small speed-boats can be used to chase them out of the net before it is fully closed.	
C	interdiction of setting a purse seine net around the animal if sighted prior to the start of the set;	X
d	Usage of the proper techniques to handle and release bycatch species, such as Sharks, rays, marlins and other large fish	x

#### QUESTION 15

RESOLUTION 19/02: ANNEX III - Data Collection for DFADs states that for each activity on a DFAD, whether followed by a set or not, the CPC (flagged vessel and/or the Observer) is to collect and report the following information:

##### True or False - Answer by ticking the correct statements

A	Vessel (name and registration number)	x
B	Position, date and time	x
C	DFAD identifier (DFAD or beacon ID)	X
D	DFAD type (drifting natural FAD, drifting artificial FAD),	x
E	Drifting artificial FAD design characteristics including the dimension and material of the floating part and of the underwater structure.	x
F	Type of the activity, (visit deployment, hauling, retrieving, loss, intervention to service electronic equipment).	x