



Update Information on Cetacean Distribution in South East Asian and Its Interaction to Fisheries

Chachoengsao, Thailand
23-25 November 2010

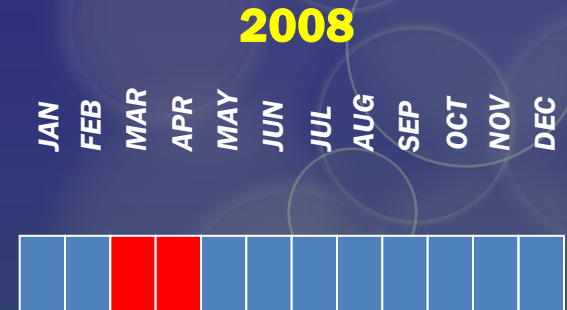
Sayan Promjinda
CFTD/TD Southeast Asian Fisheries Development Center

Outline

- ➡ The activity on Cetacean Research in Southeast Asian Water
 - : Cetacean Sighting Program:
 - Work shop / consultation Visit and Preparatory Work on Cetacean Sighting Program
 - Information Gathering/Collection and Actual Survey
 - Data Analysis and Information Dissemination
- ➡ The Interaction to Fisheries

ACTIVITIES

1st Sighting survey from Gulf of Thailand to Andaman Sea, Thailand in 3 March – 4 April



2nd Sighting survey from Gulf of Thailand to Brunei Darussalam in 4 June – 5 July



Training Workshop on the Cetacean Research and Shipboard Training 2008

3rd Sighting survey from Gulf of Thailand to Andaman Sea , Thailand in 21November – 30 December 2008



2009

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ACTIVITIES

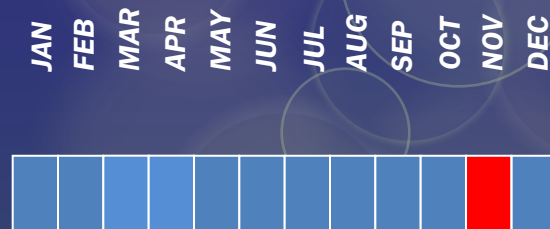
Activity 1 : Workshop/Consultation Visit and Preparatory Works

The 1st Regional Training Program on Cetacean Information Gathering and Research Methodology for Cetacean Stock Assessment, 23-25 November

Activity 2 : Information Gathering and Actual Survey by Research Vessel

- 7th Sighting survey in Andaman Sea, Thailand in 5 May – 7 June
- 8th Sighting survey from Gulf of Thailand to Sabah and Sarawak, Malaysia in 28 June – 11 August
- 9th Sighting survey Gulf of Thailand to Brunei Darussalam, Brunei water in 15 September – 25 October

2010



Sighting survey from Gulf of Thailand to Bitung, Indonesia in 23 April – 22 May, 2009

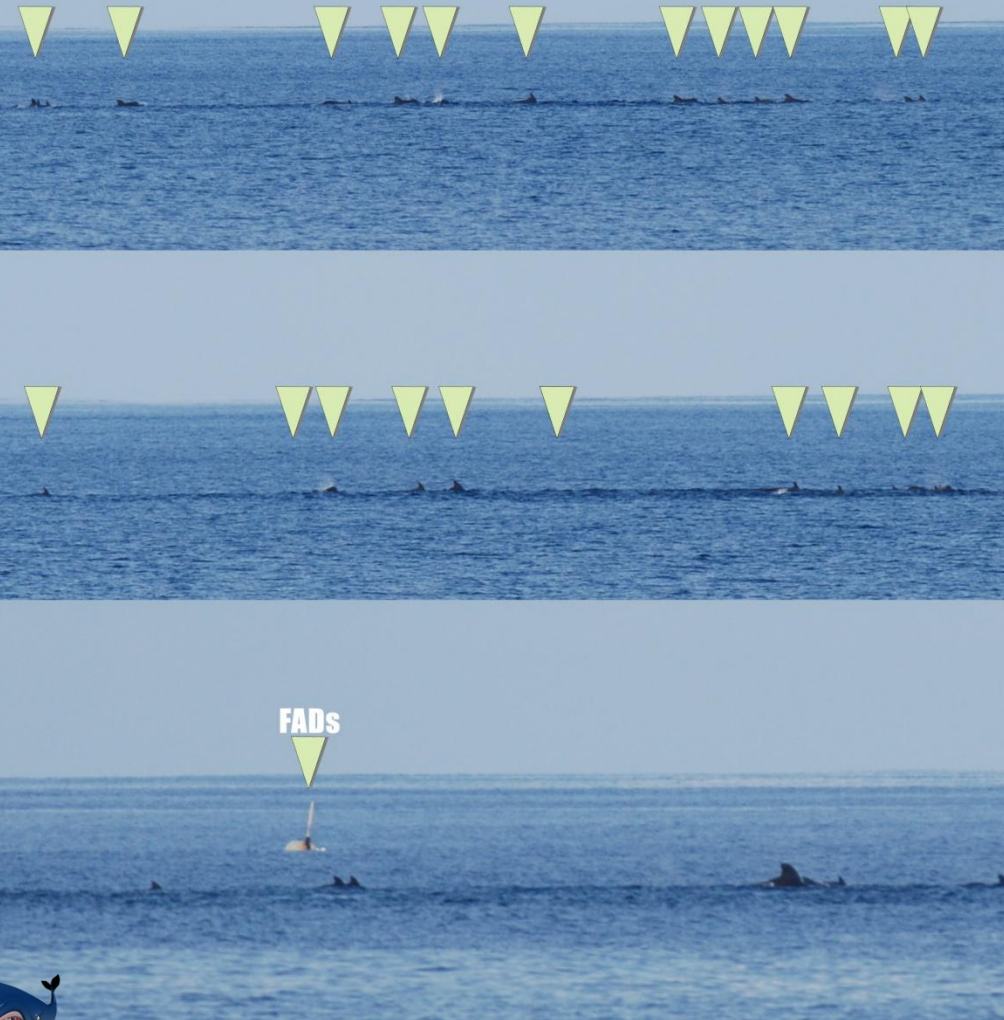


Short-finned pilot whale *Globicephala macrorhynchus*



Whale school

Sighting no.3
Globicephala macrorhynchus 2_22.1' N, 125_30.0' E



Cetacean Sighting Survey Onboard the M.V. DA-BFAR In Philippines Waters 16-26 August , 2009



- 1) The vessel sailed from Butuan City to Siargao Island, set one *payaw* at sea depth of 1800-2000 m
- 2) After completing the activities, the M.V. DA-BFAR proceeded back to Manila, passing through the Mindanao Sea, Camotes Sea, Visayan Sea, Sibuyan Sea and along Romblon Island, then proceeded to Manila Bay

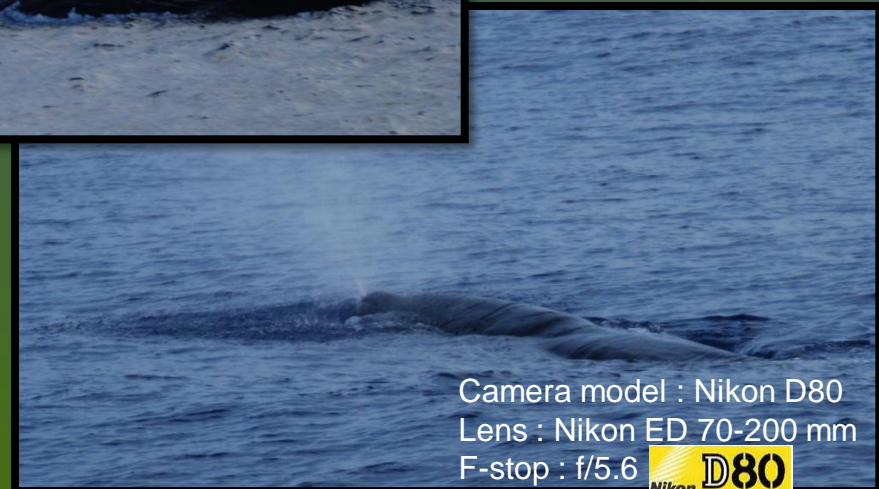


Butuan City in northern
Mindanao

Data recording, data collection and photography

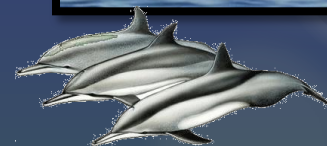


Sperm whale
Physeter catodon



Camera model : Nikon D80
Lens : Nikon ED 70-200 mm
F-stop : f/5.6





Spinner dolphins
Stenella longirostris



Melon-headed whales
Peponocephala electra



Camera model : Nikon D80
Lens : Nikon ED 70-200 mm
F-stop : f/5.6



2008

Sighting Record Form for Cetacean Sighting Survey in coastal waters of Thailand, 2008

Vessel _____ Date

Year	Month	Day	

 Time

Hour	Min

 Sighting No.

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 Type

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 Recorder

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R/L	Angle	Distance	Unit of distance	Cue	Seen at	Seen by	<u>Swimming direction</u>		<u>Position of vessel</u>						Event	Course	CT	Closest distance	Unit of distance	<u>Time Left</u>	
							R/L	Angle	<u>Latitude</u>			<u>Longitude</u>								E/W	
									Deg.	Min.	N/S	Deg.	Min.	E/W							
											N										
														E							

Species		Pod size			No. of Calves	No. of Photos
Name	Code	Best	Min	Max		
1						
2						
3						

Comment

Cetaceans sighting data record form

Action and Weather Record Form for Cetacean Sighting Survey
in coastal waters of Thailand, 2008

Vessel _____ Date

Year	Month	Day	

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Cetaceans sighting materials

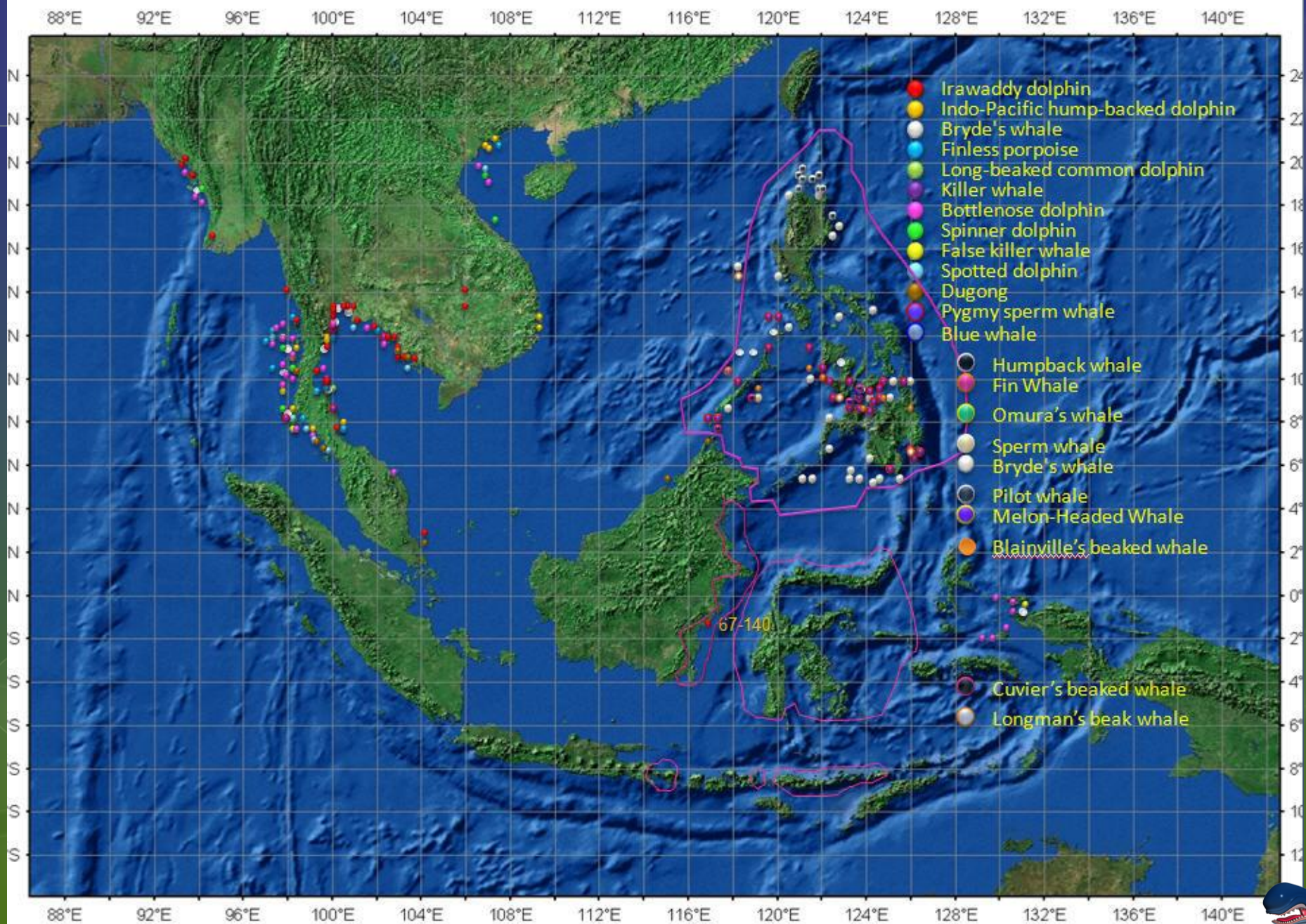


The 1st Regional Workshop on Information Gathering and Cetacean Research in the Southeast Asian Waters 30 – 31 July, 2009



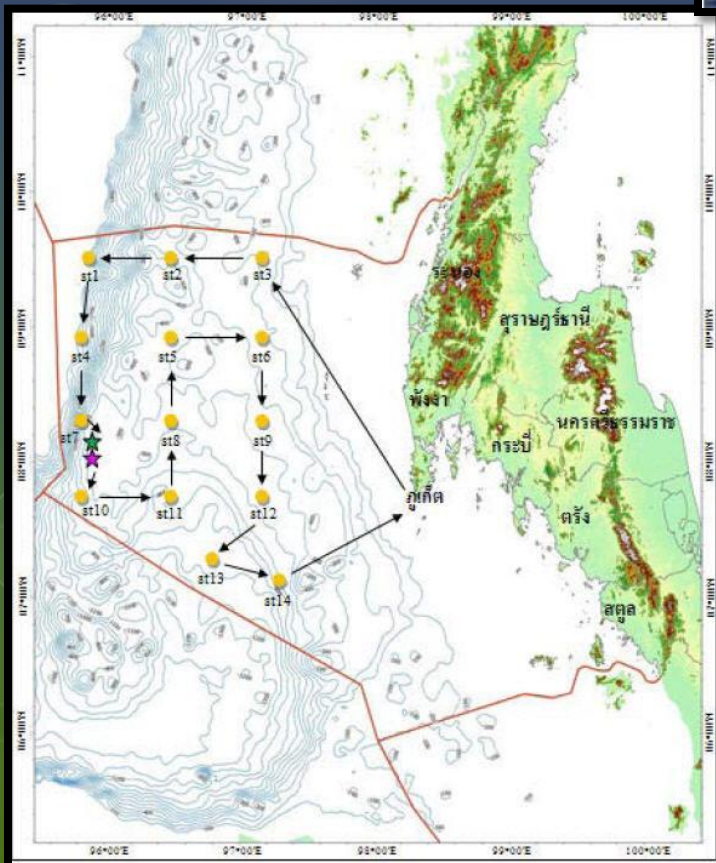
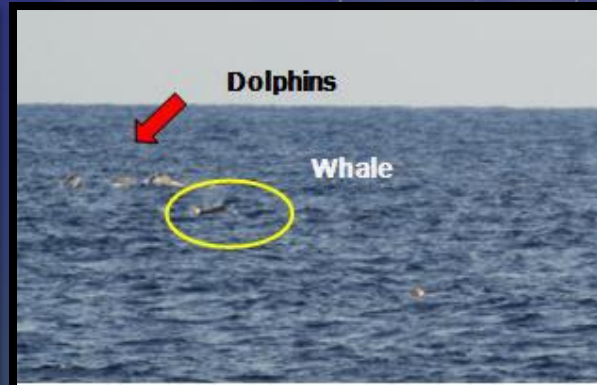
Species	Code	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Thailand	Vietnam
<i>Eubalaena glacialis</i> (Northern right whale)	1								
<i>Eubalaena australis</i> (Southern right whale)	2								
<i>Balaena mysticetus</i> (Bowhead whale)	3								
<i>Caperea marginata</i> (Pygmy right whale)	4								
<i>Balaenoptera musculus</i> (Blue whale)	5		X		X	X	X		
<i>Balaenoptera physalus</i> (Fin whale)	6		X		X	X	X	X	
<i>Balaenoptera borealis</i> (Sei whale)	7				X				
<i>Balaenoptera edeni</i> (Bryde's whale)	8	X	X		X	X	X	X	
<i>Balaenoptera acutorostrata</i> (Minke whale)	9				X				
<i>Megaptera novaeangliae</i> (Humpback whale)	10				X		X		X
<i>Eschrichtius robustus</i> (Gray whale)	11								
<i>Kogia breviceps</i> (Pygmy sperm whale)	12		X		X		X	X	X
<i>Kogia simus</i> (Dwarf sperm whale)	13		X				X	X	X
<i>Monodon monoceros</i> (Narwhal)	14								
<i>Delphinapterus leucas</i> (White whale)	15								
<i>Beraudis bairdi</i> (Baird's beaked whale)	16								
<i>Beraudis amuxii</i> (Arnoux's beaked whale)	17								
<i>Ziphius cuvierstris</i> (Cuvier's beaked whale)	18		X				X	X	
<i>Hyperoodon ampulatus</i> (Northern bottlenose whale)	19								
<i>Hyperoodon planifrons</i> (Southern bottlenose whale)	20								
<i>Hyperoodon</i> sp. (unidentified)	21								
<i>Tasmacetus shepherdii</i> (Shepherd's beaked whale)	22								
Beaked whales of the genus <i>Mesoplodon</i>	23								
<i>Mesoplodon densirostris</i> (Blainville's beaked whale)	24								
<i>Mesoplodon grayi</i> (Gray's beaked whale)	25								
<i>Mesoplodon hectori</i> (Hector's beaked whale)	26								
<i>Mesoplodon carlhubbsi</i> (Hubbs' beaked whale)	27								
<i>Mesoplodon peruvianus</i> (Pygmy beaked whale)	28								
<i>Mesoplodon bidens</i> (Sowerby's beaked whale)	29								
<i>Mesoplodon australis</i> (Garvie's beaked whale)	30								
<i>Orcaella brevirostris</i> (Irrawaddy dolphin)	37	X	X	X	X	X	X	X	X
<i>Orcinus orca</i> (Killer whale)	38		X		X		X		
<i>Globicephala melas</i> (Long-finned pilot whale)	39		X						
<i>Globicephala macrorhynchus</i> (Short-finned pilot whale)	40	X	X				X	X	X
<i>Pseudorca crassidens</i> (False killer whale)	41	X	X		X		X	X	X
<i>Feresa attenuata</i> (Pygmy killer whale)	42		X			X	X	X	X
<i>Peponocephala electra</i> (Melon-headed whale)	43		X				X	X	X
<i>Sotalia fluviatilis</i> (Tucuxi)	44								
<i>Sousa chinensis</i> (Indo-Pacific hump-backed dolphin)	45	X	X		X	X	X	X	X
<i>Sousa teuszii</i> (Atlantic hump-backed dolphin)	46								
<i>Steno bredanensis</i> (Rough-toothed dolphin)	47		X					X	X
<i>Lagenorhynchus obliquidens</i> (Pacific white-sided dolphin)	48								
<i>Lagenorhynchus obscurus</i> (Dusky dolphin)	49								
<i>Lagenorhynchus albirostris</i> (White-beaked dolphin)	50								
<i>Lagenorhynchus acutus</i> (Atlantic white-sided dolphin)	51								
<i>Lagenorhynchus cruciger</i> (Hourglass dolphin)	52								
<i>Lagenorhynchus australis</i> (Peale's dolphin)	53								
<i>Grampus griseus</i> (Risso's dolphin)	54		X		X		X	X	X
<i>Tursiops truncatus</i> (Bottlenose dolphin)	55	X	X		X	X	X	X	X
<i>Stenella attenuata</i> (Pantropical spotted dolphin)	56	X	X			X	X	X	X
<i>Stenella frontalis</i> (Atlantic spotted dolphin)	57								
<i>Stenella longirostris</i> (Spinner dolphin)	58	X	X		X	X	X	X	X
<i>Stenella cymene</i> (Clymene dolphin)	59								
<i>Stenella coeruleoalba</i> (Striped dolphin)	60						X	X	
<i>Delphinus delphis</i> (Common dolphin)	61	X	X		X				
<i>Lagenodelphis hosei</i> (Fraser's dolphin)	62		X		X		X		
<i>Lissodelphis borealis</i> (Northern right whale dolphin)	63								
<i>Lissodelphis peronii</i> (Southern right whale dolphin)	64								
<i>Cephalorhynchus commersonii</i> (Commerson's dolphin)	65								
<i>Cephalorhynchus heavisidii</i> (Heaviside's dolphin)	66								

Cetaceans Distribution on South East Asian region



Sighting survey in Andaman Sea, Thailand in 5 May – 7 June, 2010

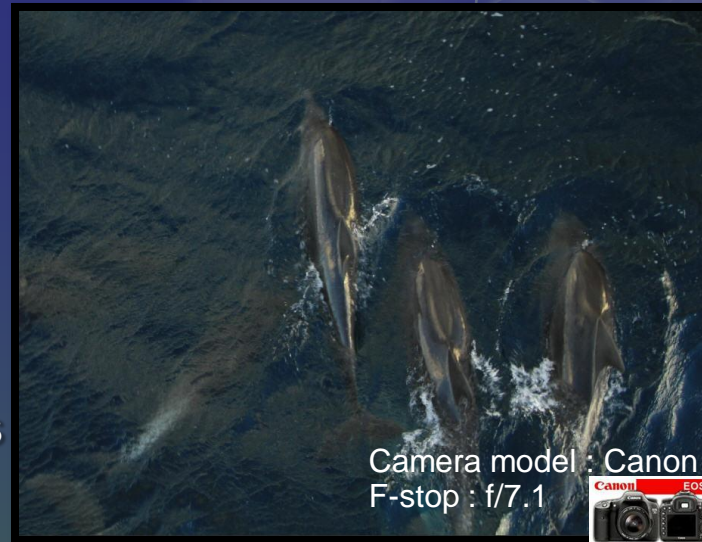
FRV. Chulabhorn



Gulf of Thailand to Sabah and Sarawak, Malaysia water/ MV.SEAFDEC 2 28 June – 11 August, 2010



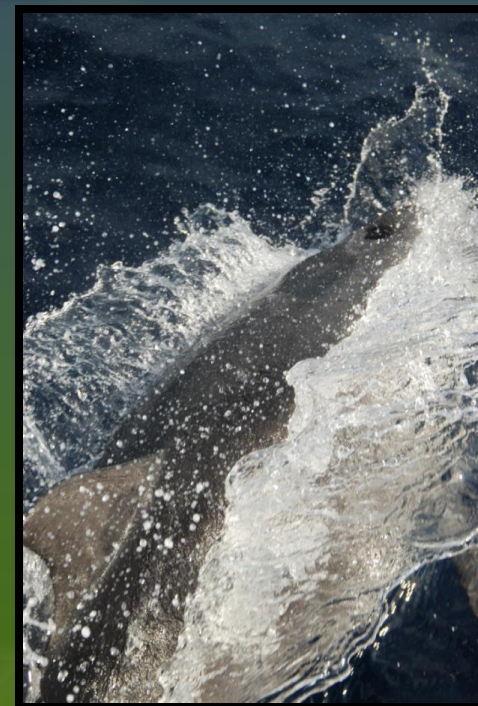
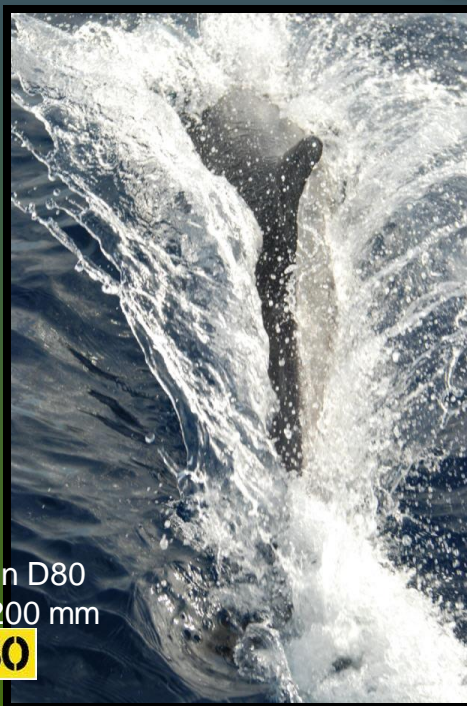
Bottlenose dolphins
Tursiops truncatus



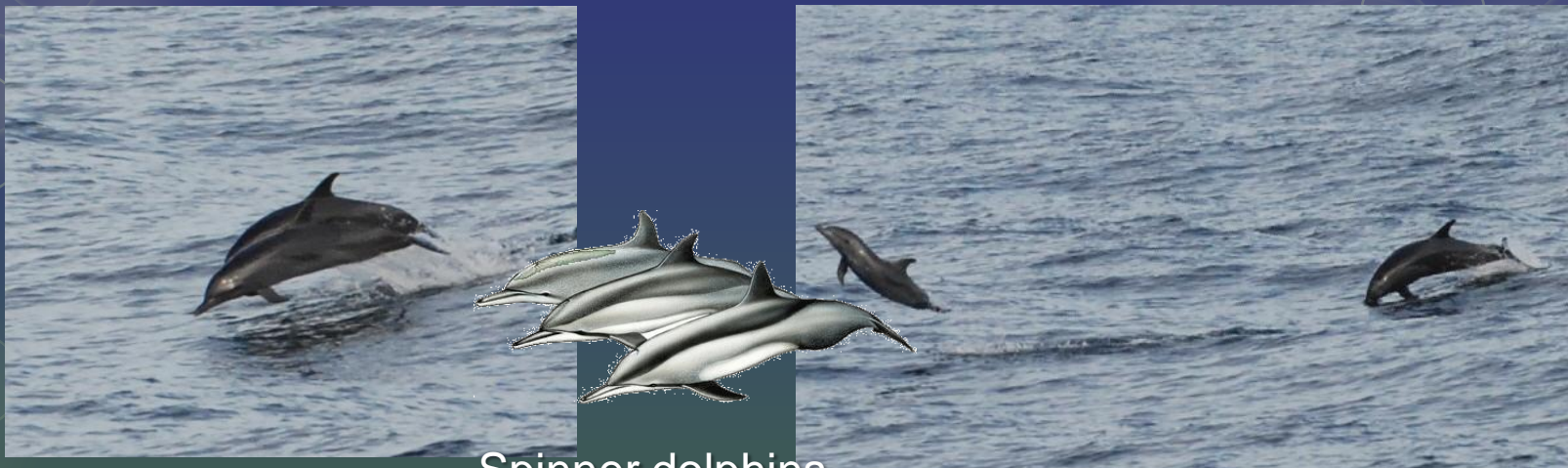
Camera model : Canon 7D
F-stop : f/7.1



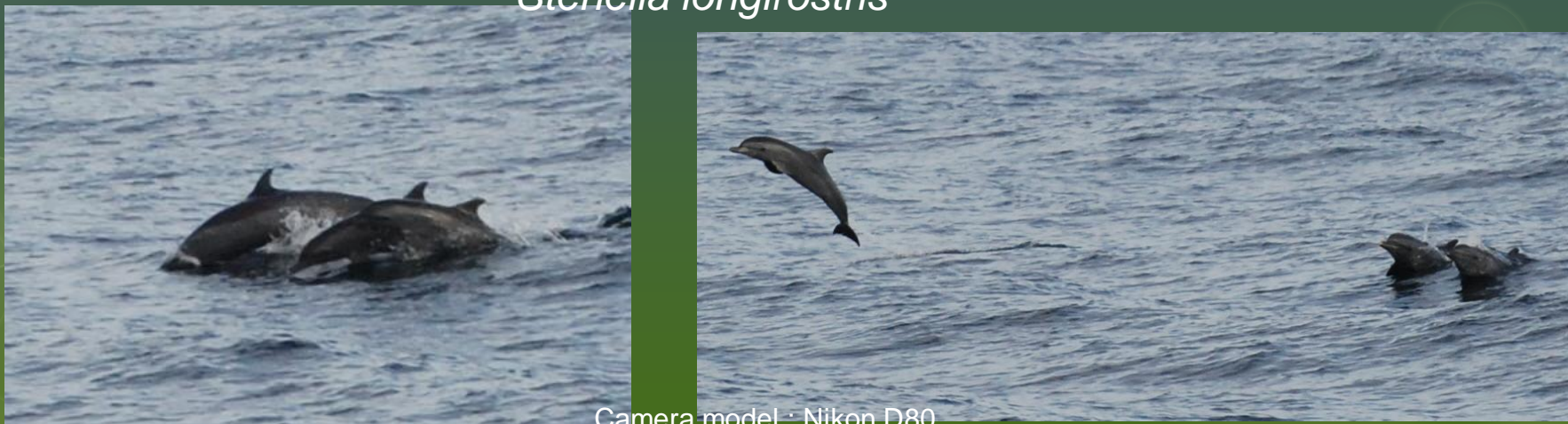
Camera model : Nikon D80
Lens : Nikon ED 70-200 mm
F-stop : f/7.1



Gulf of Thailand to Sabah and Sarawak, Malaysia water/ MV.SEAFDEC 2 28 June – 11 August



Spinner dolphins
Stenella longirostris



Camera model : Nikon D80
Lens : Nikon ED 70-200 mm
F-stop : f/6.3

M.V. SEAFDEC 2 **7 cruise**
 Andaman Sea 2 cruise
 Brunei water 3 cruise
 Indonesia water 1 cruise
 Malaysia water 1 cruise

FRV.Chulabhorn **1 cruise**
 Andaman Sea 1 cruise

M.V. DA-BFAR **1 cruise**
 Philippines water 1 cruise

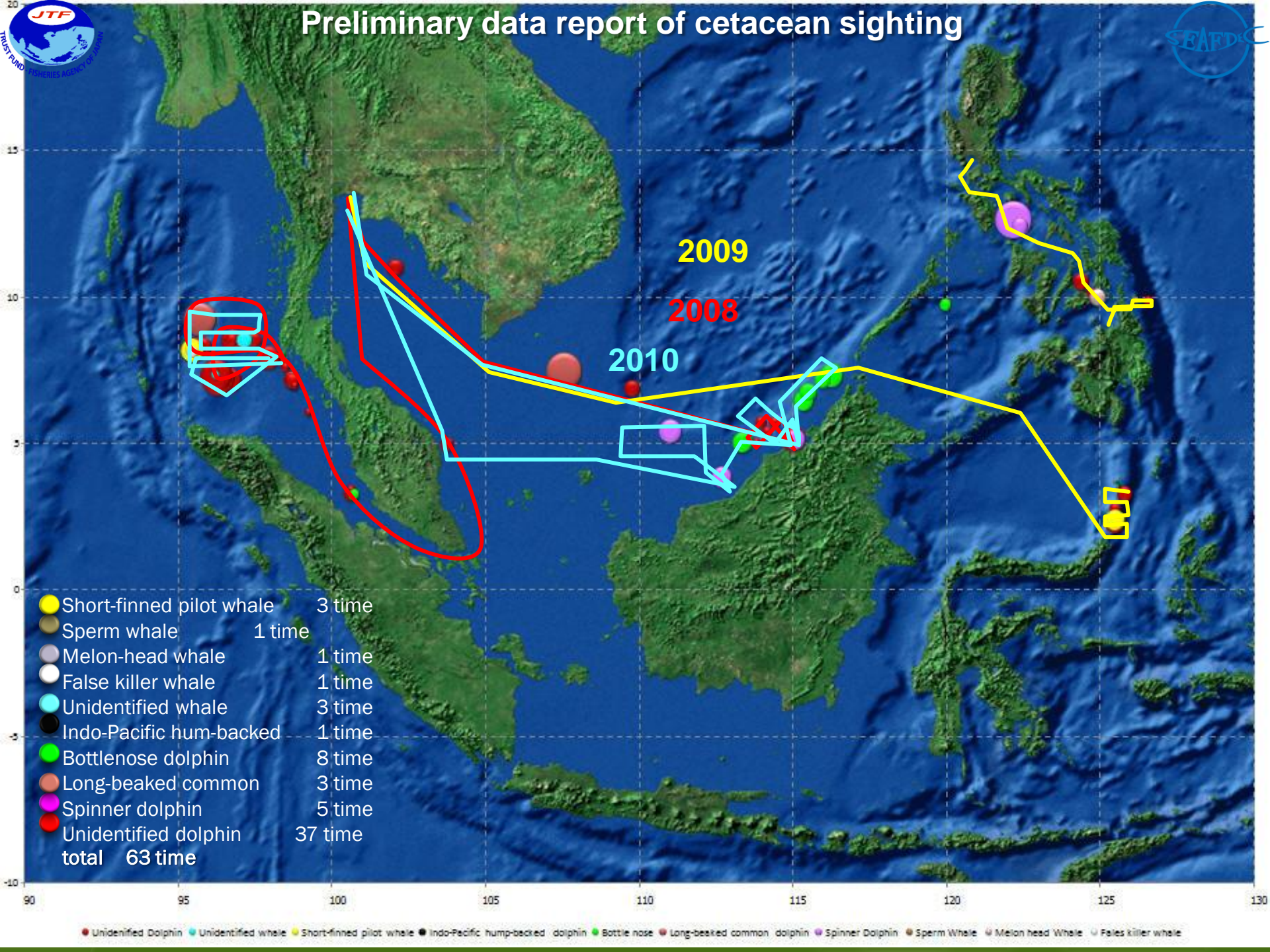
List of Cetacean found

Short-finned pilot whale 3 time
 Sperm whale 1 time
 Melon-head whale 1 time
 False killer whale 1 time
 Unidentified whale 3 time
 Indo-Pacific hum-backed 1 time
 Bottlenose dolphin 8 time
 Long-beaked common 3 time
 Spinner dolphin 5 time
 Unidentified dolphin 37 time

total 63 time

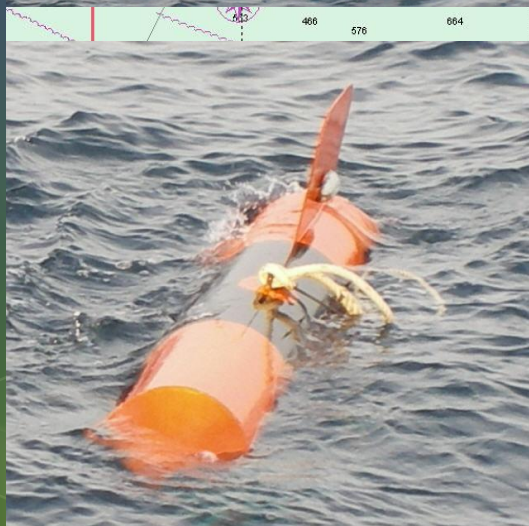
Cruise no.	Date	Time	Latitude	Longitude	Number of found	Species
	20 Mar 08	10:00	7.1599	96.7349	2	Dolphin
	20 Mar 08	18:00	7.1596	96.7349	10	Dolphin
32-2/2009	5 May 09	10:55	2.7396	125.5029	5	Dolphin
	6 May 09	9:40	3.2341	125.8006	5	Dolphin
	6 May 09	9:40	3.2334	125.8006	8	Dolphin
	8 May 09	15:25	2.3673	125.5000	15	Short-finned pilot whale
	8 May 09	15:49	2.3170	125.5000	3	Dolphin
	8 May 09	16:15	2.2674	125.5001	15	Dolphin
DA-BFAR	19-Aug-09	6:26	9.7140	126.1810	5	Common bottle nose Dolphin
	20-Aug-09	11:50	9.8367	126.5863	3	Dolphin
	20-Aug-09	17:30	9.8717	126.1800	1	Sperm Whale
	21-Aug-09	12:47	9.9600	124.9350	10	Melon head Whale
	21-Aug-09	14:07	10.1078	124.7543	4	Dolphin
	21-Aug-09	17:11	10.4467	124.4683	5	Dolphin
	21-Aug-09	17:40	10.4967	124.3900	10	Dolphin
	22-Aug-09	11:05	12.3867	122.3900	10	Spinner Dolphin
	22-Aug-09	17:15	12.6083	122.2008	50	Spinner Dolphin
Chulabhorn	10-May-10		8.1490	95.4860	20	Short-finned pilot whale
	31-May-10		8.0707	95.4767	4	Fales killer whale
	2-Jun-10	17:40	8.1889	95.5036	30	Short-finned pilot whale / Dolphins
35-3/2010	2-Jul-10	12:05	5.0800	115.0600	15	Spinner Dolphin
	8-Jul-10	6:30	7.1880	116.1710	20	Common bottle nose Dolphin
	8-Jul-10	15:45	7.0940	115.5850	10	Common bottle nose Dolphin
	9-Jul-10	20:00	6.2690	115.2240	15	Common bottle nose Dolphin
	12-Jul-10	21:00	6.4360	115.3020	10	Common bottle nose Dolphin
	18-Jul-10	9:25	5.0080	113.2420	15	Common bottle nose Dolphin
	29-Jul-10	17:30	3.4990	112.4160	15	Spinner Dolphin
	8-Aug-10	6:48	5.2400	111.0190	20	Spinner Dolphin
36-4/2010	22-Sep-10	17:50	5.073	113.502	4	Whale
	30-Sep-10	7:30	5.099	114.072	5	Dolphin
	18-Oct-10	20:29	5.377	114.192	10	Bottlenose dolphin
30-3/2008	28 Nov 08	12:39	3.4002	100.6342	2	Dolphin
	3 Dec 08	18:25	8.2342	95.8005	15	Dolphin
	6 Dec 08	9:25	9.2007	95.7170	40	Long-beaked common dolphin

Preliminary data report of cetacean sighting



Interaction to Fisheries

FADs setting in Andaman sea

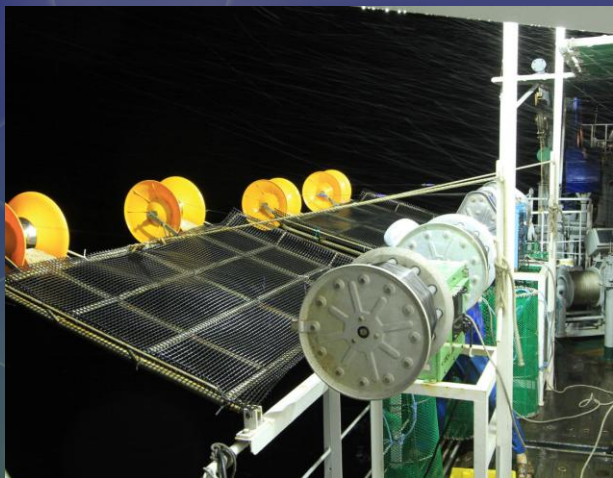


Short-finned pilot whale
Globicephala macrorhynchus



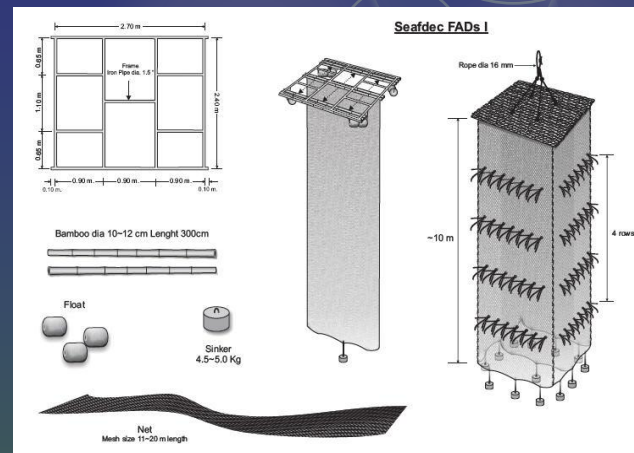
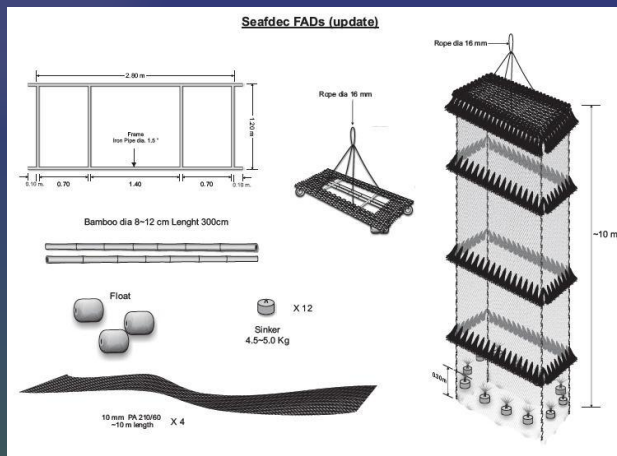
Interaction to Fisheries

Squid jigging Fishing operation



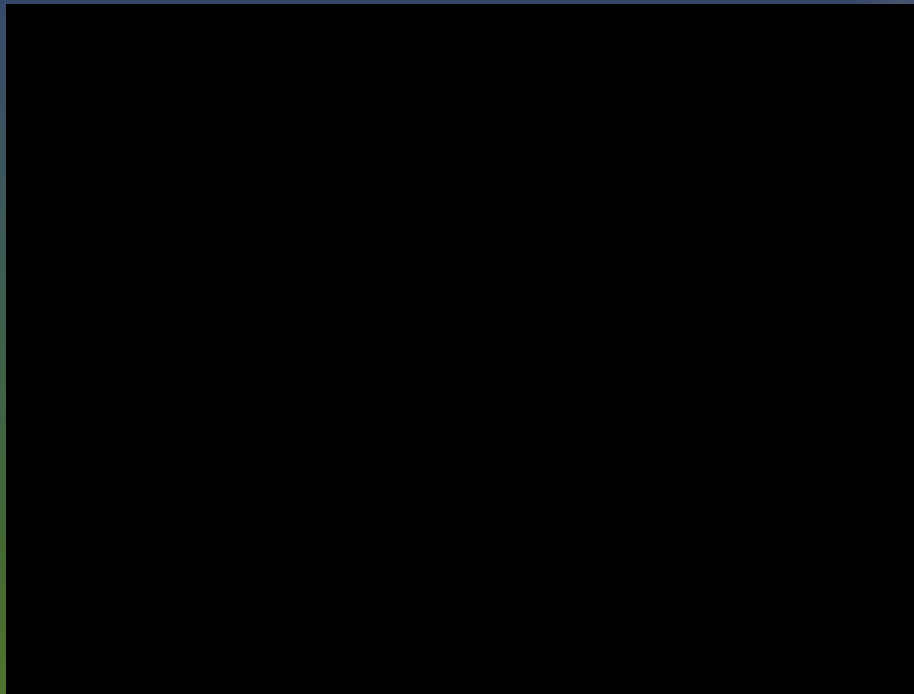
Interaction to Fisheries

Drifting FADs setting in India Ocean



Interaction to Fisheries

- * The Human and the Cetacean hunting the same preys ?
- * How these two hunters living together in balance ?



Interaction to Fisheries

Taking into account, the declining of fisheries resources in the Southeast Asian and increasing of demand of fish and fisheries products, many national programs on enhancing fisheries resources in the coastal and offshore areas are high prioritized and implemented in line with the improved policy framework to manage fisheries.

Regarding this, fish stock has been increasing around the enhancing areas for fishers to fish. Unfortunately, it is reported that many large cetacean are also found in the such areas where they are enjoy to feed fish which are aggregated. Competition between people/fishers and cetacean to get the same target fish are often found in some season when existing cetacean or migrate cetacean come into the human fishing ground.

To protect fish for the people or to feed them for cetacean, national policy management are needed to be clarified. Proper fisheries management framework needed to be adapted to ensure sustainable fisheries on fish for the people...

Thank you for your Attention



SAWASDEE KRUB