Sampling Process and Data Recording

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Deck Sampling and Catch Recording Procedures

Cautions!!

- Before the survey begins, make sure that the equipment and working conditions are ready and un-risk

- The ship crew must be instructed *"not to remove any part of the catch before the sampling has been completed"*

Deck Sampling and Catch Recording Procedures

❶ Remove all sea snakes and other venomous/dangerous animals, alive turtles & return to the see (record no. and species before release)

❷ Remove inorganic debris and plant (record)

❸ Remove visible larger fish & keep in the box

❹ Wash the remainder catch and mix with shovels

Deck Sampling and Catch Recording Procedures

❺ **Randomly put the mixed catch in boxes which contain approx. same weight/box (not box by box but random), if there are larger fishes, putting them into the box as mentioned in step ❸**

❻ **Count the number of boxes (small fish) & record.**

Deck Sampling and Catch Recording Procedures

❼**A RULE OF THUMB : take 1 box out every 5 boxes at random for sub-sampling, record the number of sub-sampling boxes**

❽**Each sub-sampling box**

    - Weight the total catch and record

    - Sorting to species level esp. food fish, econ. Invert.

    - Others: Family or Genera levels are acceptable

    - Do as the same in each sub-sampling boxes

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Deck Sampling and Catch Recording Procedures

❾ Counting and weighting each species or group in all sorted boxes

❾❿ Multiply the numbers and weight of fish and invert. by species by *"ratio of the number of unsorted to sorted boxes"*

☺ Individually weight and count the larger fish in step ❸ and ❺

☹ In case of overlap (when the same species occurred both in the sorted boxes of small fish and in the larger boxes), add the data between step ☺ and ❿

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Deck Sampling and Catch Recording Procedures

✌ **From Step ☺ and ☹ (in case of no overlap), estimates of total catch, both in weight and numbers by species, record total weight and numbers into fishing logsheet, convert to CPUE**

👍 **Fishery Biologist must response the following tasks:**

- ☞ **Collecting LFD**
- ☞ **Others biological information (sex, maturity, parasites etc.)**
- 👍 **Collecting and preserving specimens for onshore studies**
- ☞ **Collecting oceanographic data**

Data Recording

- Another important aspect for researchers to create is to **design a logsheet** for recording field survey and laboratory data
- Examples of data sheets for population surveys are as follows :

TUNA PURSE SEINING DATA

I) Fishing ground information

Vessel name FRV. MAHIDOL Cruise No._____ Station No._____ Date _____

Time (UTC)_____ Phases of the Moon_____ Ship position Lat_____'S Long_____

Environmental condition

Wind condition		Current condition				Pressure	Weather condition				Sing	Sea condition _____
Dir.	Sp.	Depth	10 m.	50 m.	100 m.		Air temp. Dry / Wet	Surface temp.	Humidity			Sky condition_____
		Dir.										Salinity_____ %
deg.	kts.	Sp.				hPa	°C / °C	°C	%			Thermocline layer_____ m.
												Observers

II) Fishing operation

Target			Catch		tons	Net depth	m.	Course	Start	deg.
Shooting time	1/4		Operation time	Pursing		**Shooting distance**			Finish	deg.
	2/4			1st Hauling		Forward d.	m.	Speed	Start-1/4	
	3/4			Braling		Beside d.	m.		1/4-2/4	
	4/4			2nd Hauling		Skiff b. beam	m.		2/4-3/4	
	Free			Working		Skiff b. d.	m.		3/4-4/4	
									4/4-Free	

Serial No.	Species	Weight(kg)	%	Remarks
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
	Total			

	Sun			Moon
	Rise	Civil	Set	Age

FISHING LOGSHEET

Record by

Cruise no:	Name of Vessel		Air temp:	°C
Station no:			Air press:	mbar
Date:	Start shooting	Finish shooting	Humidity:	%
Moon age:	Time		Water	
Wind	Lat.		Surface temp:	°C
Speed / Direction	Long.		Bottom temp:	°C
	Start hauling	Finish	Transparancy:	m
Sea condition:	Time		Color:	
Weather condition:	Lat.		current	
Speed vessel: Kt	Long.		Depth / Speed / Direction	
R.P.M.	Fishing Gear			
Propeller pit:	Type: bottom trawl		Type of bottom:	
Wire	Number: 1			
Out: m	Net opening: -		Depth of capture: m.	
Angle: stb ,p	Net spread: m.			

Memorandum: A= m. , B= m.   Total = kg. (hours)

No.	Fish Species	Quantity	Weight (kg)	Remarks
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

Species	
Station	
Date	

Size Dimension : TL SL FL ML CL ICW OCW PL RL DL BW BD GL

Size Unit : _____

Weight Unit : _____

Sex:

0 =Uniden.	2 = Male
1 =Pooled	3 = Female

No.	Size	Weight	Sex	No.	Size	Weight	Sex
1				26			
2				27			
3				28			
4				29			
5				30			
6				31			
7				32			
8				33			
9				34			
10				35			
11				36			
12				37			
13				38			
14				39			
15				40			
16				41			
17				42			
18				43			
19				44			
20				45			
21				46			
22				47			
23				48			
24				49			
25				50			

TL = Total L.
SL = Standard L.
FL = Forked L.
ML = Mantle L.
CL = Carapace L.
ICW = Inner Carapace Width
OCW = Outer Carapace Width
PL = Perimeter L.
RL = Radius L.
BW = Body Width
BD = Body Depth
GL = Girth L.

Recorded By:

Species	
Station	
Date	

Number	TL (..........)	SL (..........)	BW (..........)	SEX							GW (..........)	IL (..........)	SW (..........)	FW (..........)
				M-1	M-2	F-1	F-2	F-3	F-4	F-5				
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														

TL=TOTAL LENGTH BW=BODY WEIGHT GW=GONAD WEIGHT SW=STOMACH WEIGHT
SL=STANDARD LENGTH FW=FOOD WEIGHT
IL=INTESTINAL LENGTH

Recorded By: