

Progress Report - Ba Ria Vung Tau Trawl Fishery Sampling

Action 2.1 Collection of trawl fisheries data

Task: Improve the quality of data collected for BRVT trawl fisheries

Introduction

FIP Vung Tau developed a database to be able to monitor traceability from fishing to fish meal delivery at the feed factories. From the data collected on the fishery related to raw material for Phuc Loc Fishmeal factory, between April and October of 2023, we know where and when the fishery took place. When the vessels with the raw material land, collectors divide the batch in commercial groups for sales purposes. The main groups, though basically all sold as trash fish, being: trash fish, mixed low value fish and squid.

In order to know in more detail what is in the raw material, FIP Vung Tau asked the local South Research Sub-Institute for Marine Fisheries (SORESIMF) to sample trawl vessels landing in Ba Ria- Vung Tau ports at regular intervals:

1. Sampling points: Phuoc Tinh, Ben Da and Cat Lo ports.
2. Sampling subjects: trawl vessels and transshipment vessels that buy trash fish from trawlers.
3. Sampling frequency: 10 vessels / month.
4. Sampling duration: 12 months.
5. Total number of vessels sampled: 120 vessels.
Type of sample and number of samples to be taken for each type: 3 types, including:
6. Samples for qualitative analysis: 10 samples/month;
7. Samples for quantitative analysis: 10 samples / month;
8. Samples for biological analysis: 20 samples / month.

Results

The **first three months of sampling** (June-August) have given us the following:

# records trash fish	No of Species	Groups division		ETP (IUCN)	
1871	325	Fish	90%	Not Evaluated	34,53%
		Shellfish - Crustaceans	4%	Data Deficient	5,02%
		Shellfish - Mollusks	5%	Least Concern	60,42%
				Vulnerable	0,02%
				Near Threatened	0,02%

Top 6 of species occurring in more than 70% of each vessel sampled:

Specie	Absolute occurrence	Mass (Kg)
Saurida undosquamis - Brushtooth lizardfish -	1.142	15.666
Saurida tumbil - Greater lizardfish -	1.381	14.570
Paramonacanthus japonicus - Hairfinned leatherjacket -	2.589	14.370

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Priacanthus macracanthus - Red bigeye -	2.272	13.813
Upeneus japonicus - Japanese goatfish -	1.769	12.004
Trachinocephalus myops - Snakefish -	1.130	11.553

Length of the fish was recorded in selected samples. We could report the average length and the deviation, but need to figure out first how to analyse the data properly.

Biological analysis

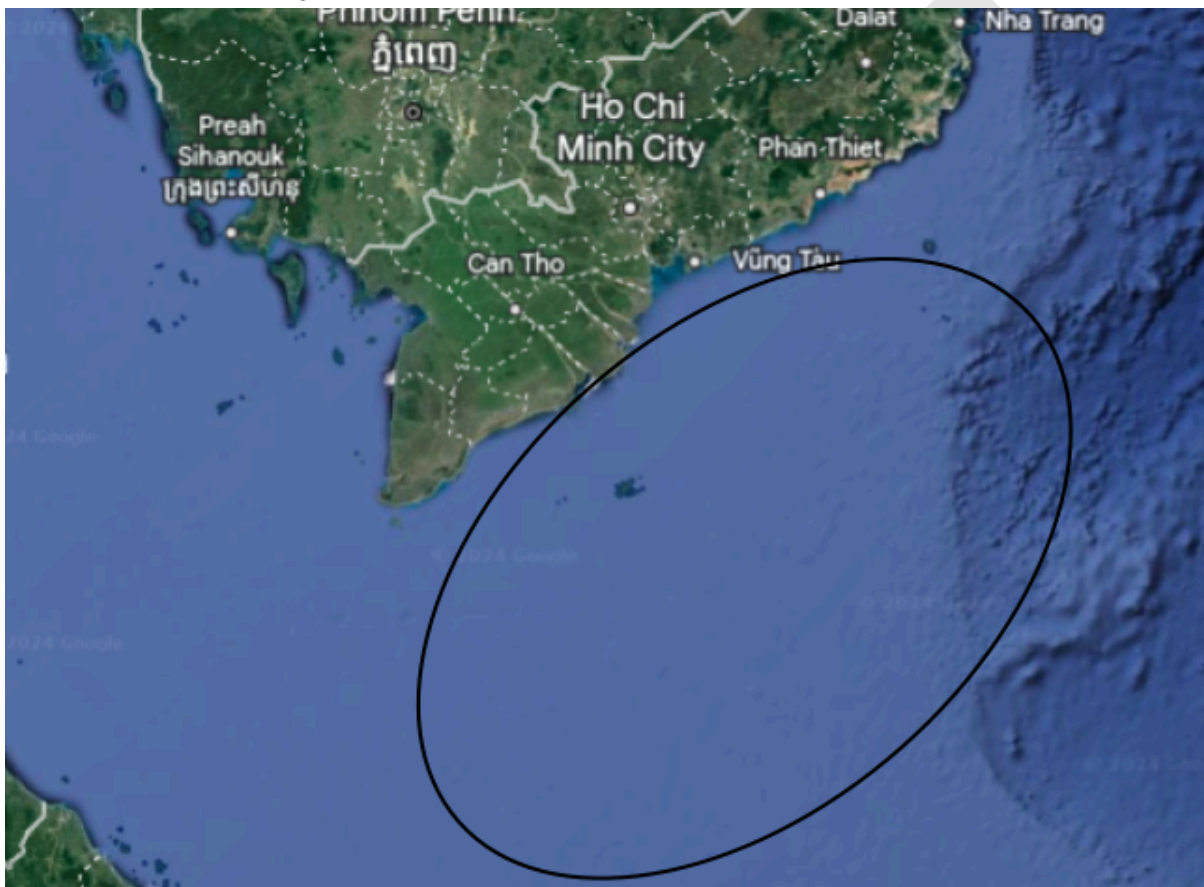
More than 90 samples have been analysed of 20 different species with the average length and weight being demonstrated in the table below.

Species	AVG Length (cm)	AVG Weight (g)
Inegocia japonica - Japanese flathead -	21	61
Nemipterus bathybius - Yellowbelly threadfin bream -	13	33
Nemipterus furcosus - Fork-tailed threadfin bream -	14	66
Nemipterus japonicus - Japanese threadfin bream -	13	41
Nemipterus marginatus - Red filament threadfin bream -	12	44
Nemipterus nematophorus - Doublewhip threadfin bream -	11	27
Nemipterus nemurus - Redspine threadfin bream -	14	54
Nemipterus tambuloides - Fivelined threadfin bream -	14	49
Paramonacanthus japonicus - Hairfinned leatherjacket -	10	17
Pennahia anea - Donkey croaker -	12	21
Priacanthus hamrur - Moontail bullseye -	20	104
Priacanthus macracanthus - Red bigeye -	13	43
Priacanthus tayenus - Purple-spotted bigeye -	9	13
Saurida elongata - Slender lizardfish -	11	19
Saurida tumbil - Greater lizardfish -	15	37
Saurida undosquamis - Brushtooth lizardfish -	16	47
Synodus hoshinonis - Blackear lizardfish -	12	16
Trachinocephalus myops - Snakefish -	14	34
Upeneus japonicus - Japanese goatfish -	13	29
Upeneus subvittatus - Deep-water goatfish -	10	18

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<p>For the fish that were the sex could be analysed (not too young or too deteriorated), male and female appeared at the same rate.</p> <p>Even though the maturity of most fish were stage VI, The amount of juvenile and stage II are significant as well.</p> <p><i>*Note: 'Tổng cộng' means Total</i></p>	<table border="1"> <thead> <tr> <th>Sex</th> <th>Count Sex</th> </tr> </thead> <tbody> <tr> <td></td> <td>319</td> </tr> <tr> <td>F</td> <td>711</td> </tr> <tr> <td>M</td> <td>745</td> </tr> <tr> <td>Tổng cộng</td> <td>1775</td> </tr> </tbody> </table>	Sex	Count Sex		319	F	711	M	745	Tổng cộng	1775	<table border="1"> <thead> <tr> <th>Maturity</th> <th>Count Maturity</th> </tr> </thead> <tbody> <tr> <td>II</td> <td>406</td> </tr> <tr> <td>III</td> <td>26</td> </tr> <tr> <td>IV</td> <td>114</td> </tr> <tr> <td>JUV</td> <td>314</td> </tr> <tr> <td>VI</td> <td>742</td> </tr> <tr> <td>VI - II</td> <td>162</td> </tr> <tr> <td>VI-III</td> <td>11</td> </tr> <tr> <td>Tổng cộng</td> <td>1775</td> </tr> </tbody> </table>	Maturity	Count Maturity	II	406	III	26	IV	114	JUV	314	VI	742	VI - II	162	VI-III	11	Tổng cộng	1775
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Location of the fishery



Another 9 months of sampling is planned.