REGIONAL TRAINING WORKSHOP ON LARVAL FISH IDENTIFICATION AND FISH EARLY LIFE HISTORY SCIENCE

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SAMUTPRAKARN
THAILAND

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OBJECTIVE

1. To identify of larval fish collected from the Ko Lan marine water.

2. To examine families composition

3. To determine abundance of fish larvae (larval fish/1000m^3, larvae fish/m^2).

MATERIALS AND METHODS

- Sampling site: Samples were collected at Ko Lan, Pattaya.
- Sampling times: Samples were taken at 12h.
- Sampling collection: Samples were collected by the bongo-net with 60cm diameter mouth; 4m length; 330 μm mesh size and set down 20 meters depth during 10 minites
- Larvae fish were preserved immediately with 10% of formalin solution.
- Fish larval identification refer to Jeffrey M. Leis et all 2000, The Larval of Indo-Pacific coastal fishes an identification guide to marine fish larvae

Estimate the numbers of larvae fish in the sample following by formula

$T = 1000t/V$

Where

T is the numbers of larval or eggs in the sample per $1000m^3$ sea water volume

t is total number of larval or eggs in the samples

V is sea water volume flow through plankton nets (m^3)

Where

$V = a{\times}n/N$

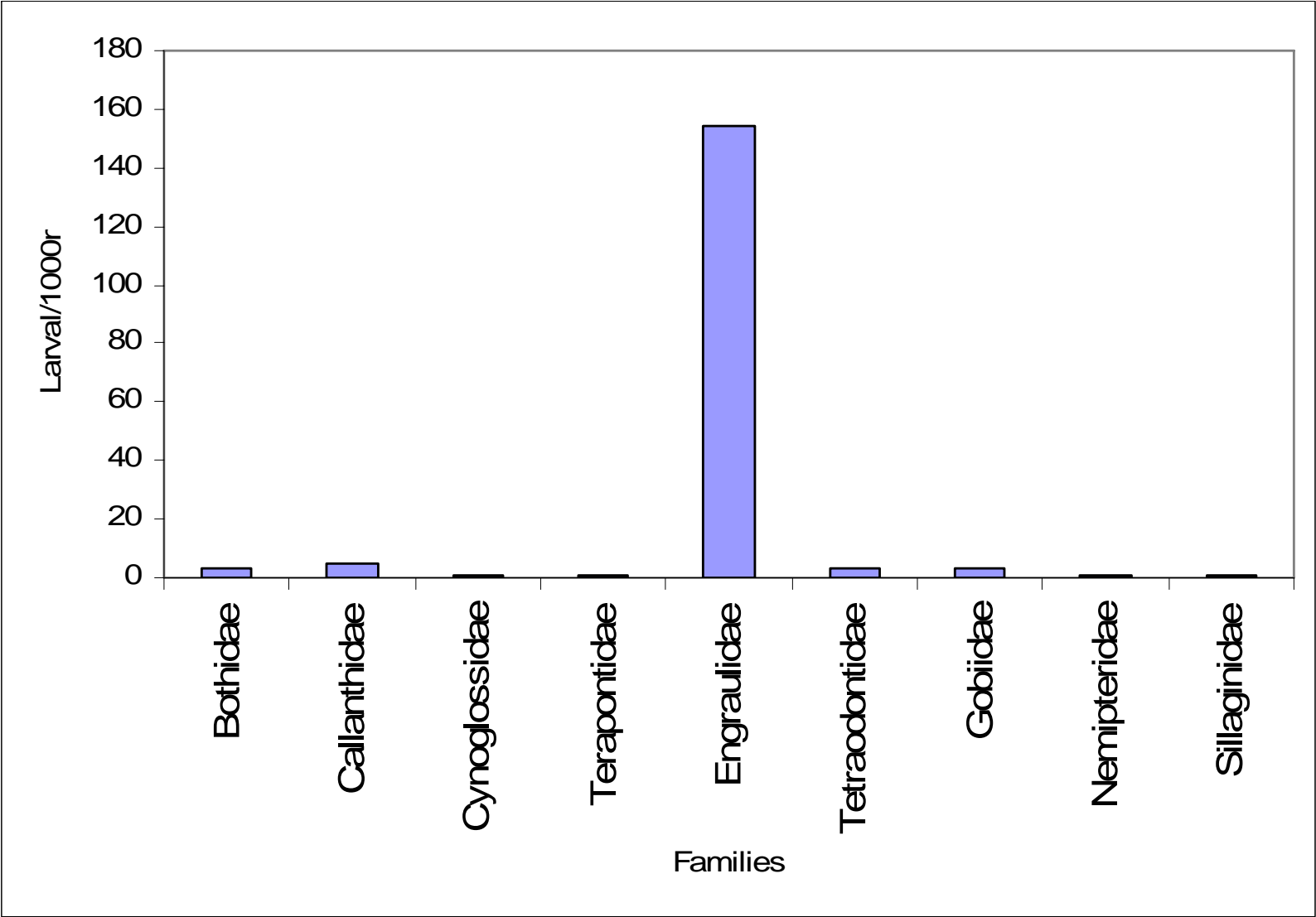a is the are of the mouth of the net in square meter $= \pi \times r^2$

n is the number of revolution of flow meter during the sample tow

N is the calibration factor in number of revolutions of the flow meter/meter

Where N is derived from calibrated flow meter before and after each sampling trip.

RESULTS

- Samples larvae fish collected in Ko Lan sea water, we found that 9 families presented in Samples: Bothidae,Callanthidae, Cynoglossidae,Terapontidae,Engraulidae,Tetraodontidae,Gobiidae,Nemipteridae, Sillaginidae.
- Family Engraulidae was the most abundant in samples

- Larvae fish densities: 1211 larvae/1000m^3, 24 larvae/m^2
- Eggs densities: 2168 eggs/1000m^3, 43 eggs/m^2

RESULT

		Date	times	Location	Start time	End time	Revolution	Calibration		Sea water/m3
		23/05/2007	12:00	Ko Lan	7650	11470	3820			
Family	# specimen				0	220	220			
Bothdae	3				220	514	294			
Callanthidae	5				514	821	307			
Cynoglossidae	1				821	1127	306			
Terapontidae	1				1127	1436	309			
Engraulidae	154						304	0.131578947	0.2826	142.0436842
Tetraodontidae	3									
Gobiidae	3									
Nemipteridae	1							Larvae/1000m3	1211	
Sillaginidae	1									
Total	172									
Densities total # of larvae/m2	24									

RESULT

Eggs	# eggs	Date	times	Location	Start time	End time	Revolution	Calibration	Area mouth	Sea water/m3
		23/05/2007	12:00	Ko Lan	7650	11470	3820			
					0	220	220			
					220	514	294			
					514	821	307			
					821	1127	306			
					1127	1436	309			
Engraulidae sp1	122						304	0.131578947	0.2826	142.0436842
Engraulidae sp2	186									
								Eggs/1000m3	2168	
Eggs	308									
Eggs/m2	43									

Chao Phraya River

Order	Families	Species
	ATHIRINIDAE	*Atherinid sp*
Clupeiformes	CLUPEIDAE	*Macrura reevesii*
	CLUPEIDAE	*Sardinella gibbosa*
Peiciformes	LEIOGNATHIDAE	*Secutor ruconius*
Peiciformes	SCIAENIDAE	*Otolithoides biauritus*
	THERAPONIDAE	*Therapon theraps*
		Leiognathus slendens

In the Chao Phraya Basin we found that 8 species presented in samples, it belonged to 5 families and 2 order, species *Secutor ruconius was* the most species abundant in samples.
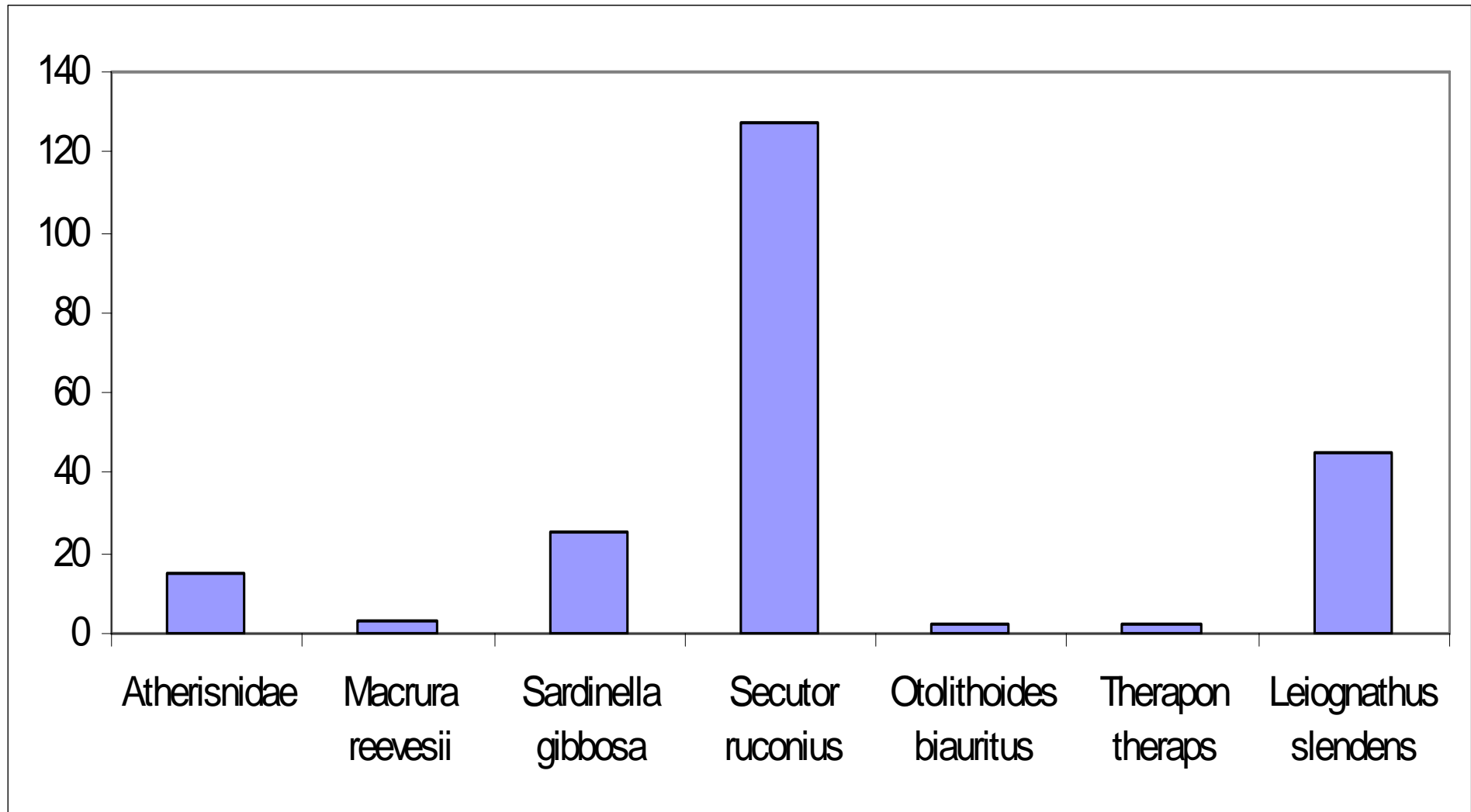
Future plan

- I would urge SEAFDEC/TD Department keep the communication going within the national and regional networks.
- This in my opinion, will contribute immensely for sharing information and accomplishing harmonization in the implementation of regional training workshop on larval fish identification and fish early life history science for sustainable biodiversities in Southeast Asian Sea
- Link network and shearing all information and result on larvae fish in Southeast Asian sea to members Asian countries
- Need fund to support this activity to each ASEAN member's countries.

Thank you for your kind attention