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Variability in catch composition and CPUE of bottom trawl fishery along Parangipettai, Cuddalore and Pazhayar, Southeast coast of India, Bay of Bengal

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Supplementary Tables

Table S1 — Correlation between catch abundance and environmental parameters at Parangipettai station

	a. Temp	*w. Temp*	*pH*	*DO*	*Salinity*	*Ammonia*	*Nitrite*	*Nitrate*	*IP*	*Silicate*	*Chlorophyll*	*SSC*	*Catch density*
A. Temp	1.00												
w. Temp	0.96*	1.00											
pH	0.64	0.65	1.00										
DO	0.34	0.21	0.04	1.00									
Salinity	-0.15	-0.15	0.09	0.51*	1.00								
Ammonia	-0.50	-0.62	-0.42	0.18	-0.25	1.00							
Nitrite	0.13	0.23	0.41	-0.03	-0.30	0.29	1.00						
Nitrate	-0.77	-0.79	-0.58*	-0.04	-0.16	0.91	0.29	1.00					
IP	-0.32	-0.43	-0.25	0.39	-0.12	0.95	0.47	0.82*	1.00				
Silicate	-0.92	-0.83	-0.60	-0.58	-0.21	0.50	0.11	0.79*	0.32	1.00			
Chlorophyll	0.31	0.48	0.49	0.13	0.58	-0.72	0.20	-0.55	-0.50	-0.37	1.00		
SSC	-0.80*	-0.83	-0.88	-0.22	-0.28	0.71	-0.15	0.84*	0.51	0.82	-0.71	1.00	
Catch density	-0.53*	-0.70	-0.36	0.50*	0.43	0.73	-0.15	0.65*	0.72*	0.25	0.50*	0.49	1.00

*Significant

Table S2 — Correlation between catch abundance and environmental parameters at Cuddalore station

	a. Temp	*w. Temp*	*pH*	*DO*	*Salinity*	*Ammonia*	*Nitrite*	*Nitrate*	*IP*	*Silicate*	*Chlorophyll*	*SSC*	Catch density
A. Temp	1.00												
w. Temp	0.91*	1.00											
pH	0.65*	0.41	1.00										
DO	0.47	0.30	0.72	1.00									
Salinity	0.37	-0.01	0.85	0.70	1.00								
Ammonia	-0.61	-0.52	-0.57	-0.94	-0.50	1.00							
Nitrite	-0.62*	-0.44	-0.14	-0.38	-0.28	0.57	1.00						
Nitrate	-0.66*	-0.43	-1.00	-0.73	-0.84	0.60	0.15	1.00					
IP	-0.52	-0.26	-0.39	-0.72	-0.59	0.78	0.88	0.39	1.00				
Silicate	-0.91*	-0.73	-0.90	-0.66	-0.67	0.67	0.43	0.91	0.51	1.00			
Chlorophyll	-0.68*	-0.85	-0.06	-0.35	0.23	0.64	0.58	0.09	0.41	0.42	1.00		
SSC	-0.50	-0.76	-0.24	-0.43	0.20	0.59	0.04	0.28	0.04	0.42	0.80	1.00	
Catch density	-0.15	-0.32	-0.43	-0.09	0.01	-0.01	-0.67*	0.44	-0.57*	0.31	0.63*	0.55	1.00

*Significant

Table S3 — Correlation between catch abundance and environmental parameters at Pazhayar station

	a. Temp	*w. Temp*	*pH*	*DO*	*Salinity*	*Ammonia*	*Nitrite*	*Nitrate*	*IP*	*Silicate*	*Chlorophyll*	*SSC*	Catch density
A. Temp	1.00												
w. Temp	0.90	1.00											
pH	0.80	0.91*	1.00										
DO	0.95	0.85*	0.87	1.00									
Salinity	0.88	0.88*	0.88*	0.88	1.00								
Ammonia	-0.97*	-0.97*	-0.97*	-0.97	-0.74	1.00							
Nitrite	-0.92*	-0.92*	-0.92*	-0.92	-1.00	0.79*	1.00						
Nitrate	-0.68*	-0.68	-0.68*	-0.68	-0.94	0.47	0.91*	1.00					
IP	-0.79*	-0.79	-0.79	-0.79	-0.98	0.61	0.97*	0.99	1.00				
Silicate	-0.96*	-0.96*	-0.96*	-0.96	-0.98	0.85	0.99*	0.86	0.93	1.00			
Chlorophyll	-0.17	-0.17	-0.17	-0.17	-0.61	-0.09	0.54	0.84	0.74	0.44	1.00		
SSC	-0.95	-0.95	-0.95	-0.95	-0.69	0.80	0.75	0.41	0.55	0.82	-0.15	1.00	
Catch density	-0.88*	-0.85*	-0.78*	-0.90*	-0.70*	0.73*	0.70	0.95	0.99*	0.98	0.61*	0.69	1.00

*Significant

Table S4 — Species diversity indices of fish catch collected from Parangipettai, Cuddalore and Pazhayar

Month	Diversity (H')			Richness (S)			Evenness (J')		
	Parangipettai	Cuddalore	Pazhayar	Parangipettai	Cuddalore	Pazhayar	Parangipettai	Cuddalore	Pazhayar
Nov-17	1.07	0.00	0.00	3	0	0	0.97	0	0
Dec-17	2.52	1.57	0.00	15	6	0	0.92	0.87	0
Jan-18	1.94	2.06	0.00	9	11	0	0.42	0.86	0
Feb-18	1.13	1.54	1.88	4	9	7	0.81	0.69	0.96
Mar-18	1.13	1.90	0.69	4	7	4	0.81	0.97	0.50
Apr-18	1.55	1.14	1.04	8	5	3	0.74	0.71	0.94

Supplementary Figures

Fig. S1 — Total catch and sorting of collected fish catch at Parangipettai during January and February, 2018

Fig. S2 — Trawling operation and the total catch caught during February, 2018 at Cuddalore station

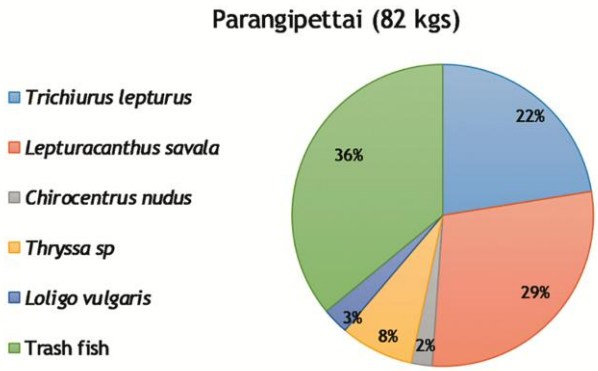

Fig. S3 — Total weight and species composition of fish catch during November, 2017

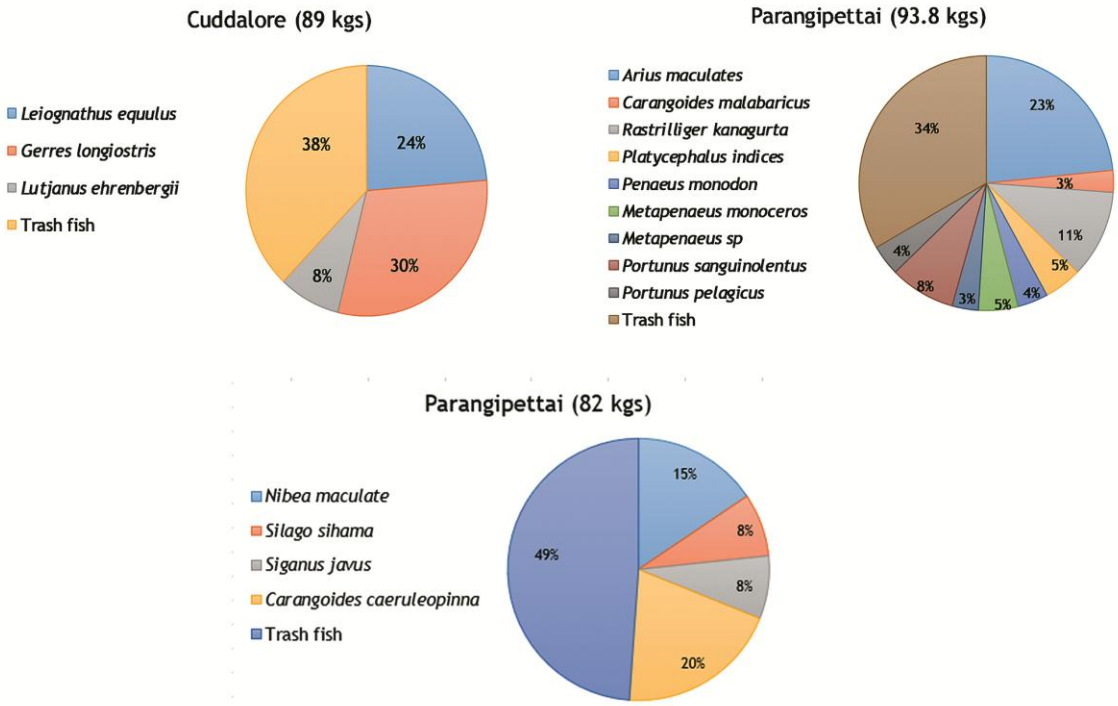

Fig. S4 — Total weight and species composition of fish catch collected during December, 2017

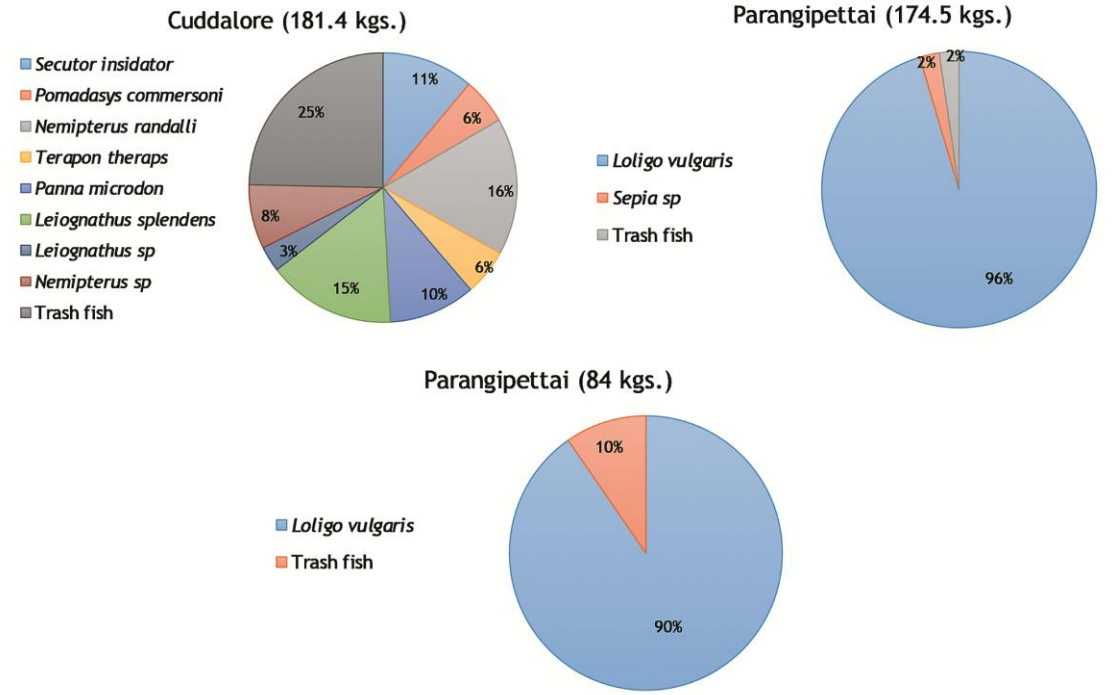

Fig. S5 — Total weight and species composition of fish catch collected during January, 2018

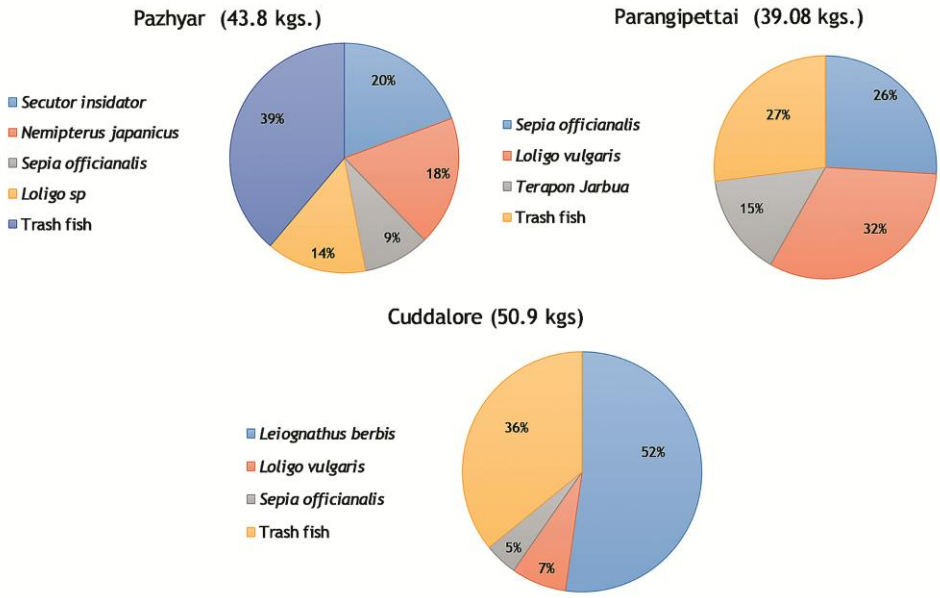

Fig. S6 — Total weight and species composition of fish catch collected during February, 2018

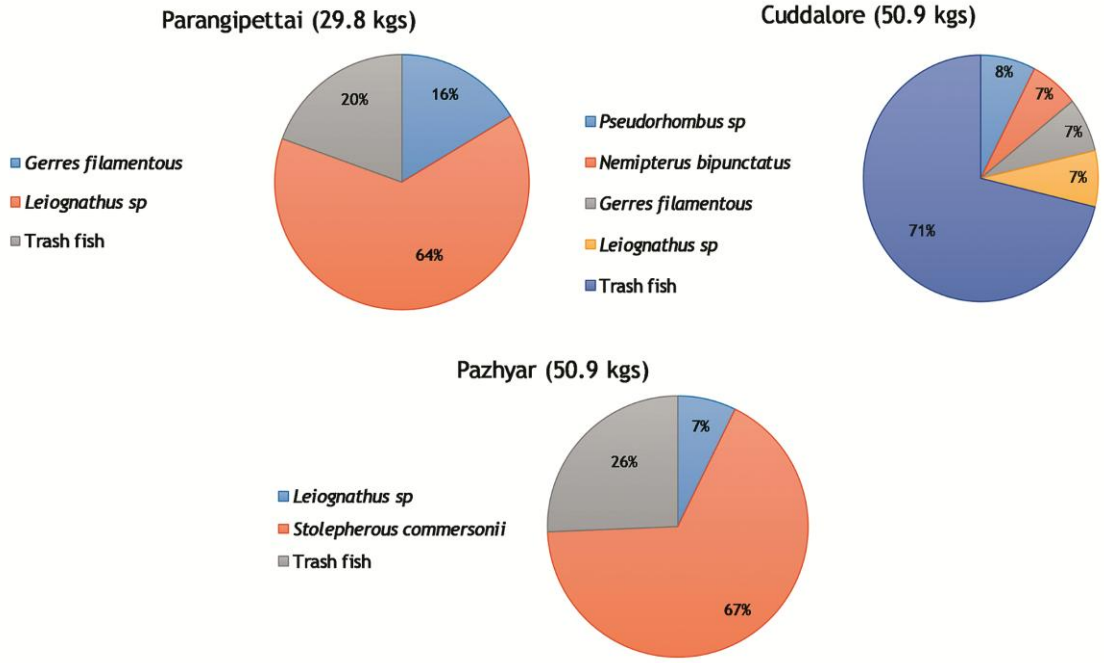

Fig. S7 — Total weight and species composition of fish catch collected during March, 2018

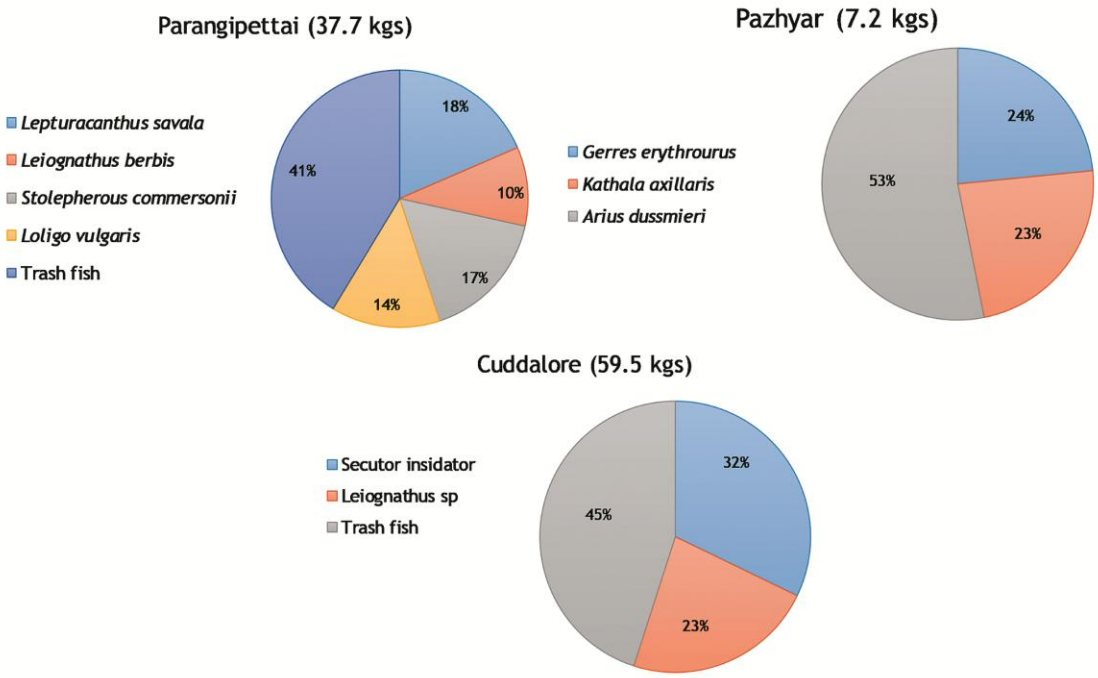

Fig. S8 — Total weight and species composition of fish catch collected during April, 2018