

# Supplementary S3 –SIMPER analyses results

**Supplementary Table S9 - Taxa affecting for more than 70% dissimilarities for each pair AreaXDepth interaction detected by SIMPER analysis. Contrib% = percentage contribution of each Taxa to dissimilarities; Cum.% = percentage cumulative contribution of each Taxa to dissimilarities.**

Groups AI20 & AC20			Groups AI20 & NC20			Groups AC20 & NC20		
Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%
COPEPODA	24.93	24.93	CILIATA	29.62	29.62	CILIATA	20.87	20.87
GASTROTRICHA	24.7	49.63	NEMATODA	18.15	47.78	GASTROTRICHA	20.18	41.05
NEMATODA	12.05	61.69	GASTROTRICHA	8.93	56.71	COPEPODA	15.2	56.25
PLATYHELMINTHES	7.2	68.88	OLIGOCHAETA	8.18	64.89	NEMATODA	14.35	70.6
OLIGOCHAETA	6.44	75.32	PLATYHELMINTHES	7.31	72.19			
Groups AI20 & NI20			Groups AC20 & NI20			Groups NC20 & NI20		
Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%
NEMATODA	19.78	19.78	GASTROTRICHA	24.27	24.27	CILIATA	44.96	44.96
CILIATA	17.77	37.54	COPEPODA	20.73	45.01	GASTROTRICHA	12.8	57.76
GASTROTRICHA	15.23	52.77	NEMATODA	17.03	62.04	NEMATODA	11.32	69.08
OLIGOCHAETA	11.33	64.1	CILIATA	12.28	74.31	PLATYHELMINTHES	9.87	78.95
COPEPODA	10.87	74.97						
Groups AI20 & AI50			Groups AC20 & AI50			Groups NC20 & AI50		
Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%
COPEPODA	25.14	25.14	NEMATODA	29.68	29.68	CILIATA	22.49	22.49
NEMATODA	16.81	41.95	GASTROTRICHA	11.29	40.97	COPEPODA	16.36	38.85
GASTROTRICHA	14.85	56.79	OLIGOCHAETA	10.88	51.84	GASTROTRICHA	13.35	52.19
PLATYHELMINTHES	12.75	69.54	PLATYHELMINTHES	9.3	61.15	PLATYHELMINTHES	11.88	64.07
OLIGOCHAETA	8.25	77.79	NEMERTEA	5.96	67.11	OLIGOCHAETA	11.61	75.68
			COPEPODA	5.63	72.74			
Groups NI20 & AI50			Groups AI20 & AC50			Groups AC20 & AC50		
Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%
COPEPODA	22.35	22.35	GASTROTRICHA	21.64	21.64	COPEPODA	23.49	23.49
OLIGOCHAETA	17.5	39.85	NEMATODA	17.78	39.42	NEMATODA	19.43	42.92
GASTROTRICHA	14.09	53.94	OLIGOCHAETA	11.42	50.84	GASTROTRICHA	11.08	54

NEMATODA	10.76	64.7	OSTRACODA	9.83	60.67	OLIGOCHAETA	9.91	63.91
PLATYHELMINTHES	9.77	74.47	PLATYHELMINTHES	9.01	69.68	OSTRACODA	9.86	73.77
			COPEPODA	8.13	77.81			
Groups NC20 & AC50			Groups NI20 & AC50			Groups AI50 & AC50		
Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%
CILIATA	21.11	21.11	CILIATA	21	21	COPEPODA	29.14	29.14
GASTROTRICHA	18.96	40.06	OLIGOCHAETA	20.12	41.12	PLATYHELMINTHES	11.33	40.47
OLIGOCHAETA	14.23	54.29	GASTROTRICHA	19.33	60.45	CILIATA	10.31	50.78
OSTRACODA	9.54	63.83	OSTRACODA	10.14	70.59	OSTRACODA	8.79	59.57
PLATYHELMINTHES	9.31	73.14				OLIGOCHAETA	8.05	67.63
						NEMATODA	7.31	74.93
Groups AI20 & NC50			Groups AC20 & NC50			Groups NC20 & NC50		
Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%
NEMATODA	20.62	20.62	GASTROTRICHA	23.45	23.45	NEMATODA	34.15	34.15
CILIATA	15.53	36.15	CILIATA	12.72	36.17	CILIATA	12.36	46.51
BIVALVIA	11.03	47.18	COPEPODA	10.97	47.15	GASTROTRICHA	8.52	55.03
COPEPODA	10.6	57.78	NEMATODA	10.6	57.74	BIVALVIA	8.09	63.13
GASTROTRICHA	9.44	67.22	BIVALVIA	8.82	66.56	POLYCHAETA	7.23	70.36
PLATYHELMINTHES	6.89	74.1	PLATYHELMINTHES	7.87	74.43			
Groups NI20 & NC50			Groups AI50 & NC50			Groups AC50 & NC50		
Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%
NEMATODA	25.57	25.57	NEMATODA	24.17	24.17	NEMATODA	23.84	23.84
CILIATA	24.16	49.73	GASTROTRICHA	13.43	37.6	GASTROTRICHA	16.94	40.78
GASTROTRICHA	10.71	60.44	CILIATA	12.42	50.02	OLIGOCHAETA	9.11	49.89
BIVALVIA	10.04	70.48	PLATYHELMINTHES	10.44	60.46	BIVALVIA	8.28	58.17
			COPEPODA	10.35	70.82	CILIATA	8.03	66.2
						PLATYHELMINTHES	7.58	73.78
Groups AI20 & NI50			Groups AC20 & NI50			Groups NC20 & NI50		
Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%
NEMATODA	17.03	17.03	GASTROTRICHA	20.42	20.42	CILIATA	18.41	18.41
CILIATA	16.15	33.17	NEMATODA	15.57	35.99	POLYCHAETA	17.63	36.04

COPEPODA	14.33	47.51	POLYCHAETA	13.15	49.14	NEMATODA	11.32	47.36
POLYCHAETA	13.92	61.43	CILIATA	12.62	61.76	PLATYHELMINTHES	10.86	58.22
OLIGOCHAETA	9.46	70.89	COPEPODA	12.22	73.98	OSTRACODA	10	68.22
Groups NI20 & NI50			Groups AI50 & NI50			Groups AC50 & NI50		
Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%	Taxa	Contrib%	Cum.%
CILIATA	36.96	36.96	CILIATA	16.07	16.07	OLIGOCHAETA	18.68	18.68
POLYCHAETA	21.39	58.35	OLIGOCHAETA	15.34	31.41	GASTROTRICHA	18.24	36.92
GASTROTRICHA	13.97	72.32	COPEPODA	14.68	46.09	POLYCHAETA	17.03	53.94
			GASTROTRICHA	12.65	58.74	COPEPODA	11.73	65.67
			POLYCHAETA	9.87	68.61	CILIATA	9.91	75.58
			PLATYHELMINTHES	9.58	78.19			
Groups NC50 & NI50								
Taxa	Contrib%	Cum.%						
NEMATODA	33.46	33.46						
BIVALVIA	12.46	45.92						
GASTROTRICHA	11.23	57.16						
PLATYHELMINTHES	9.8	66.95						
POLYCHAETA	7.84	74.79						

**Supplementary Table S10- results of SIMPER analysis showing main TAXA affecting dissimilarities of area pairs meio-benthic communities compose by rare TAXA. Contrib% = percentage contribution of each TAXA to dissimilarities; Cum.% = percentage comulative contribution of each TAXA to dissimilarities.**

Pair AI-AC			Pair AI-NC		
TAXA	Contrib%	Cum.%	TAXA	Contrib%	Cum.%
OLIGOCHAETA	30.06	30.06	OLIGOCHAETA	27.9	27.9
OSTRACODA	20.06	50.12	BIVALVIA	18.95	46.85
NEMERTEA	16.7	66.82	HALACARIDA	15.74	62.59
HALACARIDA	11.9	78.73	POLYCHAETA	11.65	74.24
Pair AC-NC			Pair AI-NI		

TAXA	Contrib%	Cum.%	TAXA	Contrib%	Cum.%
OLIGOCHAETA	26.14	26.14	OLIGOCHAETA	37.45	37.45
BIVALVIA	17.77	43.91	POLYCHAETA	24.24	61.68
OSTRACODA	15.98	59.89	OSTRACODA	13.04	74.72
HALACARIDA	14.41	74.3			
Pair AC-NI			Pair NC-NI		
TAXA	Contrib%	Cum.%	TAXA	Contrib%	Cum.%
OLIGOCHAETA	35.72	35.72	BIVALVIA	24.96	24.96
POLYCHAETA	21.86	57.58	POLYCHAETA	24.35	49.31
OSTRACODA	20.86	78.43	HALACARIDA	21.49	70.8

**Supplementary Table S11- results of SIMPER analysis showing main TAXA affecting dissimilarities between 20 and 50 meters meio-benthic communities compose by rare TAXA. Contrib% = percentage contribution of each TAXA to dissimilarities; Cum.% = percentage comulative contribution of each TAXA to dissimilarities**

Species	Contrib%	Cum.%
OLIGOCHAETA	25.8	25.8
POLYCHAETA	20.81	46.61
OSTRACODA	17.8	64.41
HALACARIDA	10.89	75.3