

ANNEX VI

SIMPER results for the abundance (a) and biomass (b) of the discarded species between crustacean and fish trawl métiers. MDS plots of the main species which contributed most to the dissimilarities between crustacean (CT) and fish trawl (FT) métiers are given in c).

Parameters included: a) average contribution to abundance (Av. Abund) and to dissimilarity (Av. Diss), dissimilarity/standard deviation (Diss/SD), contribution of the dominant species to the dissimilarity % (Contrib%) and cumulative dissimilarity % (Cum.%); b) average contribution to biomass (Av. Biom) and to dissimilarity (Av. Diss.), dissimilarity/standard deviation (Diss/SD), contribution of the dominant species to the dissimilarity % (Contrib%) and cumulative dissimilarity % (Cum.%).

Bycatch and discards of commercial trawl fisheries in the South coast of Portugal

a)

Species	Crustacean trawl Av.Abund	Fish trawl Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
CRUSTACEAN and FISH TRAWLS:			87.49			
<i>Micromesistius poutassou</i>	3.67	1.35	4.76	1.33	5.44	5.44
<i>Macroramphosus scolopax</i>	0.86	3.51	4.31	1.01	4.92	10.37
<i>Serranus hepatus</i>	0.22	3.13	3.84	1.71	4.39	14.75
<i>Nezumia sclerorhynchus</i>	2.32	0.00	3.30	1.12	3.77	18.53
<i>Boops boops</i>	0.03	2.53	3.27	1.45	3.73	22.26
<i>Galeus melastomus</i>	2.20	0.00	3.15	1.06	3.60	25.86
<i>Capros aper</i>	1.45	2.28	3.11	1.08	3.56	29.42
<i>Merluccius merluccius</i>	1.10	2.63	3.09	1.35	3.53	32.95
<i>Macroramphosus gracilis</i>	0.59	1.82	2.69	0.70	3.08	36.03
<i>Sardina pilchardus</i>	0.03	1.85	2.59	0.90	2.96	38.99
<i>Scorpaena notata</i>	0.09	1.90	2.57	1.23	2.94	41.93
<i>Scomber colias</i>	0.01	1.82	2.27	0.76	2.60	44.53
<i>Etmopterus spinax</i>	1.55	0.00	2.18	1.01	2.49	47.02
<i>Conger conger</i>	1.70	0.85	2.16	1.21	2.46	49.48
<i>Citharus linguatula</i>	0.16	1.71	2.06	1.12	2.36	51.84
<i>Alloteuthis subulata</i>	0.28	1.58	2.06	0.89	2.36	54.20
<i>Hoplostethus m. mediterraneus</i>	1.43	0.00	2.05	0.85	2.35	56.55
<i>Gadiculus a. argenteus</i>	1.44	0.17	2.00	0.91	2.29	58.84
<i>Scomber scombrus</i>	0.04	1.57	2.00	0.80	2.29	61.13
<i>Lepidopus caudatus</i>	1.01	0.88	1.90	0.87	2.18	63.31
<i>Lepidotrigla cavillone</i>	0.03	1.36	1.85	0.73	2.11	65.41
<i>Scyliorhinus canicula</i>	0.68	1.14	1.85	0.83	2.11	67.52
<i>Illex coindetii</i>	0.97	0.63	1.60	0.92	1.83	69.35
<i>Malacocephalus laevis</i>	1.16	0.04	1.60	0.96	1.83	71.18
<i>Helicolenus dactylopterus</i>	0.96	0.44	1.53	0.90	1.75	72.93
<i>Etmopterus pusillus</i>	1.07	0.00	1.49	0.77	1.71	74.64
<i>Sepia elegans</i>	0.15	1.90	1.35	0.83	1.54	76.19
<i>Trachurus trachurus</i>	0.22	0.99	1.33	0.79	1.52	77.70
<i>Cepola macrophthalma</i>	0.00	0.98	1.32	0.74	1.51	79.21
<i>Eledone moschata</i>	0.19	0.92	1.32	0.84	1.51	80.72
<i>Arnoglossus imperialis</i>	0.08	1.05	1.30	0.71	1.49	82.21
<i>Callionymus lyra</i>	0.09	0.98	1.30	0.81	1.49	83.70
<i>Microchirus variegatus</i>	0.04	1.17	1.29	0.81	1.47	85.17
<i>Microchirus boscanion</i>	0.00	1.06	1.19	0.69	1.37	86.53
<i>Callionymus maculatus</i>	0.09	0.87	1.06	0.69	1.22	87.75
<i>Lepidotrigla dieuzeidei</i>	0.00	0.85	1.05	0.56	1.20	88.95
<i>Arnoglossus thori</i>	0.02	0.86	0.99	0.61	1.13	90.08

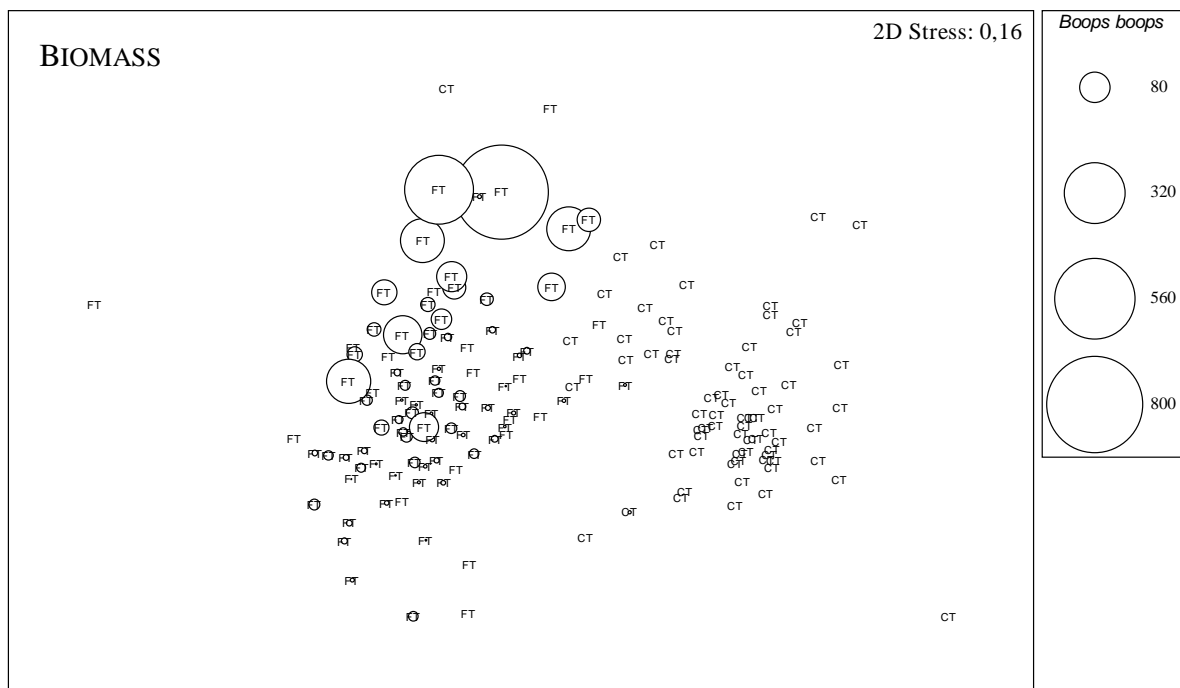
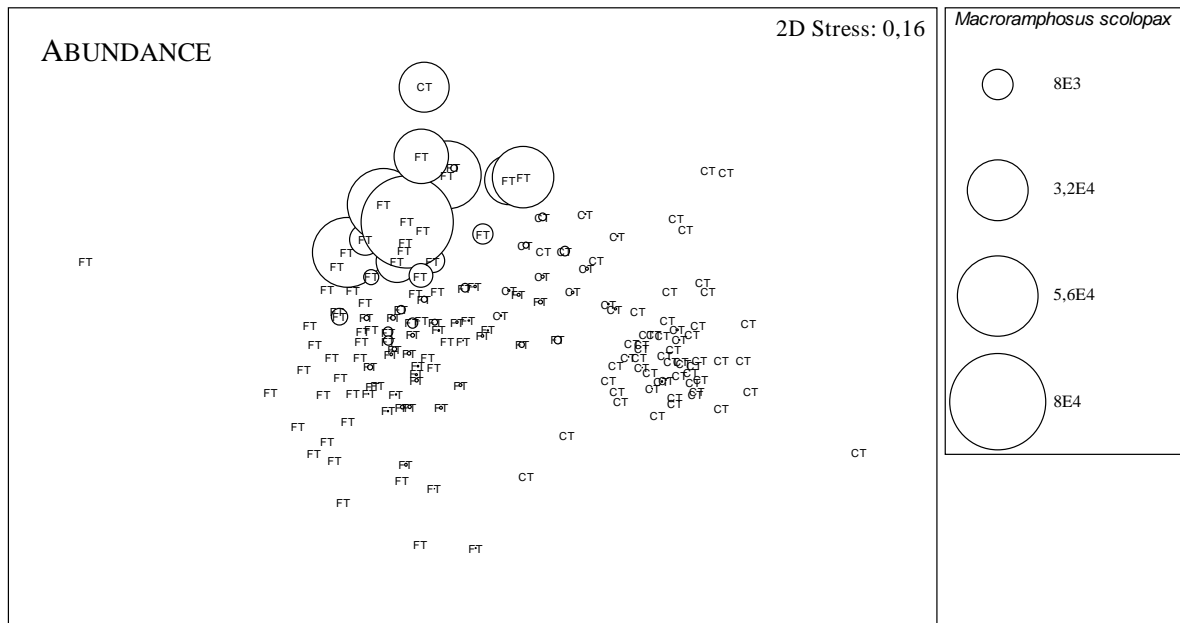
b)

Species	Crustacean trawl Av.Biom	Fish trawl Av.Biom	Av.Diss	Diss/SD	Contrib%	Cum. %
CRUSTACEAN and FISH TRAWLS:			87.90			
<i>Micromesistius poutassou</i>	1.92	0.57	5.06	1.44	5.75	5.75
<i>Boops boops</i>	0.01	1.36	3.64	1.47	4.14	9.89
<i>Serranus hepatus</i>	0.07	1.25	3.33	1.70	3.79	13.68
<i>Macroramphosus scolopax</i>	0.29	1.09	2.89	0.96	3.29	16.97
<i>Conger conger</i>	1.07	0.45	2.84	1.20	3.23	20.21
<i>Scomber colias</i>	0.01	1.08	2.81	0.81	3.20	23.40
<i>Galeus melastomus</i>	0.98	0.00	2.75	1.09	3.13	26.53
<i>Merluccius merluccius</i>	0.50	1.07	2.72	1.31	3.09	29.62
<i>Sardina pilchardus</i>	0.01	0.89	2.61	0.91	2.97	32.59
<i>Scorpaena notata</i>	0.04	0.88	2.53	1.24	2.88	35.48
<i>Scyliorhinus canicula</i>	0.42	0.73	2.39	0.87	2.72	38.20
<i>Nezumia sclerorhynchus</i>	0.81	0.00	2.36	1.07	2.69	40.89
<i>Scomber scombrus</i>	0.02	0.88	2.34	0.82	2.67	43.55
<i>Capros aper</i>	0.52	0.70	2.23	0.96	2.53	46.09
<i>Etmopterus spinax</i>	0.73	0.00	2.05	1.03	2.34	48.43
<i>Illex coindetii</i>	0.61	0.33	1.95	0.92	2.22	50.65
<i>Macroramphosus gracilis</i>	0.20	0.60	1.95	0.67	2.22	52.87
<i>Lepidopus caudatus</i>	0.52	0.37	1.89	0.87	2.15	55.02
<i>Citharus linguatula</i>	0.07	0.71	1.86	1.10	2.12	57.14
<i>Malacocephalus laevis</i>	0.56	0.02	1.59	0.98	1.81	58.95
<i>Lepidotrigla cavillone</i>	0.01	0.54	1.55	0.72	1.77	60.71
<i>Helicolenus dactylopterus</i>	0.49	0.20	1.54	0.90	1.75	62.47
<i>Etmopterus pusillus</i>	0.55	0.00	1.53	0.83	1.74	64.21
<i>Eledone moschata</i>	0.12	0.47	1.48	0.84	1.68	65.89
<i>Phycis blennoides</i>	0.53	0.00	1.46	0.80	1.66	67.56
<i>Cepola macrophthalma</i>	0.00	0.50	1.42	0.73	1.62	69.17
<i>Trachurus trachurus</i>	0.13	0.46	1.38	0.78	1.57	70.75
<i>Hoplostethus m. mediterraneus</i>	0.47	0.00	1.37	0.80	1.55	72.30
<i>Gadiculus a. argenteus</i>	0.46	0.05	1.35	0.90	1.54	73.84
<i>Callionymus lyra</i>	0.03	0.48	1.33	0.80	1.52	75.35
<i>Microchirus variegatus</i>	0.02	0.49	1.19	0.80	1.36	76.71
<i>Alloteuthis subulata</i>	0.07	0.40	1.17	0.88	1.33	78.04
<i>Deania calceus</i>	0.39	0.00	1.07	0.63	1.21	79.25
<i>Raja clavata</i>	0.16	0.29	1.06	0.59	1.20	80.45
<i>Chimaera monstrosa</i>	0.36	0.00	1.01	0.44	1.15	81.60
<i>Arnoglossus imperialis</i>	0.03	0.36	0.98	0.72	1.12	82.72
<i>Microchirus boscanion</i>	0.00	0.39	0.97	0.68	1.11	83.82
<i>Sepia elegans</i>	0.05	0.35	0.97	0.81	1.10	84.92
<i>Chelidonichthys obscurus</i>	0.01	0.34	0.95	0.56	1.09	86.01
<i>Spondyliosoma cantharus</i>	0.01	0.31	0.95	0.54	1.08	87.09
<i>Pagellus acarne</i>	0.07	0.31	0.94	0.52	1.07	88.16
<i>Lepidotrigla dieuzeidei</i>	0.00	0.32	0.85	0.55	0.97	89.12
<i>Todaropsis eblanae</i>	0.23	0.11	0.83	0.56	0.94	90.06

c)



c) continuation.



c) continuation.

