The following supplement accompanies the article

Modelling the Mediterranean marine ecosystem as a whole: addressing the challenge of complexity

Chiara Piroddi*, Marta Coll, Jeroen Steenbeek, Diego Macias Moy, Villy Christensen

*Corresponding author: cpiroddi@hotmail.com

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Supplement.

Outline

Table S1. Initial (light grey cells) and output (white cells) parameters of the Mediterranean marine ecosystem for the 1950s period

#	Group name	Trophic level	Habitat area (fraction)	Biomass in habitat area (t/km^2)	Biomass (t/km^2)	Production / biomass (/year)	Consumption / biomass (/year)	Ecotrophic efficiency	Production / consumption
1	Piscivores cetaceans W	4.19	0.33	0.01	0.00	0.08	25.84	0.97	0.00
2	Others cetaceans	3.53	1.00	0.07	0.07	0.05	8.29	0.07	0.01
3	Pinnipeds W	4.20	0.33	0.00	0.00	0.08	13.15	0.90	0.01
4	Seabirds W	3.09	0.33	0.00	0.00	5.33	73.09	0.01	0.07
5	Sea turtles	2.68	1.00	0.02	0.02	0.19	2.78	0.14	0.07
6	Large Pelagics	3.94	1.00	0.44	0.44	0.35	2.50	0.04	0.14
7	Medium pelagics W	3.28	0.33	0.56	0.18	0.75	4.94	0.85	0.15
8	European pilchard W	3.13	0.33	0.55	0.18	0.99	8.45	1.00	0.12
9	European anchovy W	3.25	0.33	0.67	0.22	0.87	7.95	0.90	0.11
10	Other small pelagics W	3.14	0.33	0.36	0.12	0.75	6.63	0.90	0.11
11	Large demersals W	3.68	0.33	0.24	0.08	0.87	3.06	0.87	0.28
12	European hake W	3.81	0.33	0.28	0.09	0.60	2.80	0.91	0.21
13	Medium demersals W	2.94	0.33	0.79	0.26	0.70	6.40	0.92	0.11
14	Small demersals W	3.03	0.33	0.38	0.13	1.57	6.87	0.98	0.23
15	Deep fish W	2.97	0.33	0.85	0.28	0.70	3.50	0.99	0.20
16	Sharks W	3.85	0.33	0.36	0.12	0.42	3.48	0.10	0.12
17	Rays and skates W	3.34	0.33	0.28	0.09	0.80	3.67	0.83	0.22
18	Benthopelagic cephalopods W	3.69	0.33	0.32	0.11	2.00	9.00	0.96	0.22
19	Benthic cephalopods W	3.44	0.33	0.56	0.18	2.10	7.00	0.86	0.30
20	Bivalves_gastropods W	2.01	0.33	1.00	0.33	1.30	5.00	0.94	0.26
21	Crustaceans W	2.79	0.33	0.99	0.33	3.50	12.00	0.97	0.29
22	Jellyfish W	3.08	0.33	0.33	0.11	13.87	50.48	0.42	0.27
23	Benthos W	2.02	0.33	16.22	5.39	2.50	9.04	0.33	0.28
24	Zooplankton W	2.25	0.33	7.76	2.58	30.60	102.00	0.81	0.30
25	Phytoplankton W	1.00	0.33	18.40	6.11	197.00	--	0.18	--
26	Seagrass W	1.00	0.33	16.70	5.55	5.94	--	0.16	--
27	Piscivores cetaceans A	4.16	0.05	0.00	0.00	0.08	25.84	0.90	0.00
28	Pinnipeds A	4.19	0.05	0.00	0.00	0.08	13.15	0.55	0.01
29	Seabirds A	3.03	0.05	0.00	0.00	4.61	69.34	0.16	0.07
30	Medium Pelagics A	3.26	0.05	0.88	0.05	0.92	6.76	0.89	0.14
31	European pilchard A	3.00	0.05	4.32	0.23	0.80	9.19	0.31	0.09
32	European anchovy A	3.11	0.05	2.60	0.14	0.85	11.02	0.75	0.08
33	Other small pelagics A	3.02	0.05	0.53	0.03	1.00	11.29	0.48	0.09
34	Large demersals A	3.63	0.05	0.20	0.01	0.90	5.14	0.72	0.18
35	European hake A	3.86	0.05	0.28	0.01	0.40	1.85	0.79	0.22
36	Medium demersals A	2.96	0.05	0.39	0.02	1.10	5.57	0.99	0.20
37	Small demersals A	2.96	0.05	0.32	0.02	1.50	8.02	0.97	0.19
38	Deep fish A	2.88	0.05	0.61	0.03	0.70	3.50	0.98	0.20
39	Sharks A	3.79	0.05	0.10	0.01	0.50	4.00	0.26	0.13
40	Rays and skates A	3.41	0.05	0.12	0.01	0.64	4.10	0.77	0.16
41	Benthopelagic cephalopods A	3.58	0.05	0.22	0.01	2.70	9.00	0.88	0.30
42	Benthic cephalopods A	3.45	0.05	0.33	0.02	2.10	7.00	0.85	0.30
43	Bivalves_gastropods A	2.05	0.05	0.95	0.05	1.30	5.00	0.99	0.26
44	Crustaceans A	2.76	0.05	0.80	0.04	3.50	12.00	0.99	0.29
45	Jellyfish A	3.14	0.05	2.27	0.12	14.60	50.48	0.94	0.29
46	Benthos A	2.02	0.05	68.24	3.64	1.31	6.71	0.18	0.20
47	Zooplankton A	2.11	0.05	5.79	0.31	37.85	126.17	0.97	0.30

48	Phytoplankton A	1.00	0.05	15.00	0.80	140.00	--	0.33	--
49	Seagrass A	1.00	0.05	2.68	0.14	4.02	--	0.50	--

50	Piscivores cetaceans I	4.13	0.30	0.00	0.00	0.08	25.84	0.77	0.00
51	Pinnipeds I	4.16	0.30	0.00	0.00	0.08	13.15	0.35	0.01
52	Seabirds I	3.11	0.30	0.00	0.00	4.60	105.43	0.07	0.04
53	Medium Pelagics I	3.20	0.30	0.38	0.11	0.70	7.70	0.96	0.09
54	European pilchard I	3.02	0.30	0.48	0.14	0.94	8.68	0.97	0.11
55	European anchovy I	3.14	0.30	0.53	0.16	0.91	12.30	0.86	0.07
56	Other small pelagics I	3.04	0.30	0.28	0.08	0.86	8.36	0.95	0.10
57	Large demersals I	3.66	0.30	0.20	0.06	0.65	2.85	0.93	0.23
58	European hake I	3.86	0.30	0.13	0.04	0.65	3.40	0.96	0.19
59	Medium demersals I	2.89	0.30	0.65	0.20	0.90	8.13	0.82	0.11
60	Small demersals I	2.93	0.30	0.34	0.10	1.10	6.38	0.98	0.17
61	Deep fish I	2.80	0.30	0.59	0.18	0.70	3.50	0.81	0.20
62	Sharks I	3.72	0.30	0.24	0.07	0.41	4.33	0.10	0.09
63	Rays and skates I	3.27	0.30	0.24	0.07	0.60	3.00	0.76	0.20
64	Benthopelagic cephalopods I	3.53	0.30	0.17	0.05	2.70	9.00	0.93	0.30
65	Benthic cephalopods I	3.42	0.30	0.33	0.10	2.10	7.00	0.95	0.30
66	Bivalves_gastropods I	2.01	0.30	0.70	0.21	1.30	5.00	0.95	0.26
67	Crustaceans I	2.63	0.30	0.63	0.19	3.45	12.00	0.97	0.29
68	Jellyfish I	3.10	0.30	0.17	0.05	11.10	35.90	0.87	0.31
69	Benthos I	2.01	0.30	11.74	3.52	2.75	22.00	0.29	0.13
70	Zooplankton I	2.14	0.30	3.63	1.09	38.44	128.12	0.57	0.30
71	Phytoplankton I	1.00	0.30	7.60	2.28	61.80	--	0.88	--
72	Seagrass I	1.00	0.30	16.00	4.79	2.59	--	0.64	--

73	Piscivores cetaceans E	4.12	0.31	0.00	0.00	0.08	25.84	0.76	0.00
74	Pinnipeds E	4.11	0.31	0.00	0.00	0.08	13.15	0.31	0.01
75	Seabirds E	3.12	0.31	0.00	0.00	4.78	111.61	0.00	0.04
76	Medium Pelagics E	3.23	0.31	0.61	0.19	0.80	4.79	0.92	0.17
77	European pilchard E	3.02	0.31	0.48	0.15	0.95	9.49	0.99	0.10
78	European anchovy E	3.14	0.31	0.87	0.27	0.90	5.20	0.92	0.17
79	Other small pelagics E	2.89	0.31	0.48	0.15	0.95	8.23	0.91	0.12
80	Large demersals E	3.57	0.31	0.18	0.06	0.70	4.35	0.94	0.16
81	European hake E	3.79	0.31	0.28	0.09	0.60	5.26	0.92	0.11
82	Medium demersals E	2.87	0.31	0.40	0.12	1.00	9.09	0.91	0.11
83	Small demersals E	2.95	0.31	0.36	0.11	1.10	7.64	0.99	0.14
84	Deep fish E	2.90	0.31	0.42	0.13	0.70	3.50	0.94	0.20
85	Skarks E	3.70	0.31	0.20	0.06	0.50	5.16	0.10	0.10
86	Rays and skates E	3.38	0.31	0.18	0.06	0.70	4.07	0.93	0.17
87	Benthopelagic cephalopods E	3.55	0.31	0.13	0.04	2.70	9.00	0.92	0.30
88	Benthic cephalopods E	3.36	0.31	0.32	0.10	2.10	7.00	0.96	0.30
89	Bivalves_gastropods E	2.01	0.31	0.62	0.19	1.30	5.00	0.98	0.26
90	Crustaceans E	2.64	0.31	0.56	0.17	3.50	12.00	0.98	0.29
91	Jellyfish E	3.25	0.31	0.16	0.05	4.84	15.00	0.75	0.32
92	Benthos E	2.02	0.31	9.83	3.10	2.64	16.13	0.32	0.16
93	Zooplankton E	2.14	0.31	3.59	1.13	38.80	129.33	0.55	0.30
94	Phytoplankton E	1.00	0.31	8.83	2.78	70.00	--	0.66	--
95	Seagrass E	1.00	0.31	15.00	4.72	2.69	--	0.40	--
96	Discards W	1.00	0.33	0.02	0.01	--	--	0.02	--
97	Detritus W	1.00	0.33	32.01	10.63	--	--	0.04	--
98	Discards A	1.00	0.05	0.01	0.00	--	--	0.11	--

99	Detritus A	1.00	0.05	19.73	1.05	--	--	0.25	--
100	Discards I	1.00	0.30	0.01	0.00	--	--	0.27	--
101	Detritus I	1.00	0.30	14.78	4.43	--	--	0.59	--
102	Discards E	1.00	0.31	0.01	0.00	--	--	0.13	--
103	Detritus E	1.00	0.31	14.74	4.64	--	--	0.29	--

S 2. Initial (light grey cells) and output (white cells) parameters of the Mediterranean marine ecosystem for the 2000s period

#	Group name	Trophic level	Habitat area (fraction)	Biomass in habitat area (t/km²)	Biomass (t/km²)	Production / biomass (/year)	Consumption / biomass (/year)	Ecotrophic efficiency	Production / consumption
1	Piscivores cetaceans W	4.19	0.33	0.00	0.00	0.08	25.84	0.50	0.00
2	Others cetaceans	3.53	1.00	0.05	0.05	0.05	8.29	0.21	0.01
3	Pinnipeds W	4.22	0.33	0.00	0.00	0.08	13.15	0.41	0.01
4	Seabirds W	3.09	0.33	0.00	0.00	5.33	73.09	0.05	0.07
5	Sea turtles	2.68	1.00	0.00	0.00	0.16	2.78	0.97	0.06
6	Large Pelagics	3.94	1.00	0.40	0.40	0.39	2.50	0.15	0.16
7	Medium pelagics W	3.28	0.33	0.48	0.16	0.85	4.94	0.97	0.17
8	European pilchard W	3.13	0.33	0.39	0.13	1.20	8.45	0.97	0.14
9	European anchovy W	3.25	0.33	0.64	0.21	0.97	7.95	0.97	0.12
10	Other small pelagics W	3.14	0.33	0.32	0.11	0.99	6.63	0.88	0.15
11	Large demersals W	3.68	0.33	0.22	0.07	0.91	3.06	0.84	0.30
12	European hake W	3.82	0.33	0.24	0.08	0.70	2.80	0.87	0.25
13	Medium demersals W	2.94	0.33	0.71	0.24	0.80	6.40	0.94	0.13
14	Small demersals W	3.04	0.33	0.31	0.10	1.60	6.87	0.91	0.23
15	Deep fish W	2.97	0.33	0.87	0.29	0.70	3.50	0.96	0.20
16	Sharks W	3.85	0.33	0.35	0.11	0.50	3.48	0.09	0.14
17	Rays and skates W	3.34	0.33	0.27	0.09	0.88	3.67	0.77	0.24
18	Benthopelagic cephalopods W	3.69	0.33	0.30	0.10	2.50	8.33	0.85	0.30
19	Benthic cephalopods W	3.48	0.33	0.43	0.14	2.30	7.67	0.92	0.30
20	Bivalves_gastropods W	2.01	0.33	0.70	0.23	1.50	5.00	1.00	0.30
21	Crustaceans W	2.79	0.33	0.72	0.24	3.67	12.23	0.99	0.30
22	Jellyfish W	3.08	0.33	0.27	0.09	22.84	50.48	0.26	0.45
23	Benthos W	2.02	0.33	13.27	4.41	3.90	9.04	0.21	0.43
24	Zooplankton W	2.25	0.33	8.04	2.67	39.60	132.00	0.76	0.30
25	Phytoplankton W	1.00	0.33	20.40	6.77	185.18	--	0.23	--
26	Seagrass W	1.00	0.33	12.84	4.26	5.94	--	0.16	--
27	Piscivores cetaceans A	4.16	0.05	0.00	0.00	0.08	25.84	0.85	0.00
28	Pinnipeds A	4.21	0.05	0.00	0.00	0.08	13.15	0.55	0.01
29	Seabirds A	3.03	0.05	0.00	0.00	4.61	69.34	0.41	0.07
30	Medium Pelagics A	3.26	0.05	0.74	0.04	1.15	6.76	0.72	0.17
31	European pilchard A	3.00	0.05	3.37	0.18	0.97	9.19	0.30	0.11
32	European anchovy A	3.11	0.05	2.11	0.11	1.10	11.02	0.70	0.10
33	Other small pelagics A	3.02	0.05	0.43	0.02	1.10	11.29	0.46	0.10
34	Large demersals A	3.64	0.05	0.18	0.01	1.30	5.14	0.53	0.25
35	European hake A	3.86	0.05	0.25	0.01	0.60	2.10	0.65	0.29
36	Medium demersals A	2.96	0.05	0.28	0.02	1.54	5.57	0.94	0.28
37	Small demersals A	2.96	0.05	0.26	0.01	1.90	8.02	0.98	0.24
38	Deep fish A	2.88	0.05	0.48	0.03	0.70	3.50	0.97	0.20
39	Sharks A	3.79	0.05	0.05	0.00	0.60	4.00	0.38	0.15
40	Rays and skates A	3.42	0.05	0.10	0.01	0.74	4.10	0.44	0.18

41	Benthopelagic cephalopods A	3.56	0.05	0.17	0.01	3.30	11.00	0.98	0.30
42	Benthic cephalopods A	3.51	0.05	0.30	0.02	3.00	10.00	0.87	0.30
43	Bivalves_gastropods A	2.01	0.05	0.84	0.04	1.35	4.50	0.95	0.30
44	Crustaceans A	2.75	0.05	0.67	0.04	3.80	12.67	0.98	0.30
45	Jellyfish A	3.14	0.05	2.51	0.13	14.71	50.48	0.93	0.29
46	Benthos A	2.02	0.05	64.24	3.43	1.31	6.71	0.16	0.20
47	Zooplankton A	2.11	0.05	6.15	0.33	38.85	129.50	0.87	0.30
48	Phytoplankton A	1.00	0.05	17.73	0.95	214.00	--	0.20	--
49	Seagrass A	1.00	0.05	2.06	0.11	4.02	--	0.59	--

50	Piscivores cetaceans I	4.13	0.30	0.00	0.00	0.08	25.84	0.67	0.00
51	Pinnipeds I	4.15	0.30	0.00	0.00	0.08	13.15	0.67	0.01
52	Seabirds I	3.11	0.30	0.00	0.00	4.48	79.17	0.29	0.06
53	Medium Pelagics I	3.20	0.30	0.29	0.09	0.83	7.70	0.92	0.11
54	European pilchard I	3.02	0.30	0.39	0.12	1.00	8.68	0.99	0.12
55	European anchovy I	3.14	0.30	0.44	0.13	1.10	12.30	0.79	0.09
56	Other small pelagics I	3.04	0.30	0.26	0.08	1.10	8.36	0.91	0.13
57	Large demersals I	3.66	0.30	0.19	0.06	0.70	2.85	0.86	0.25
58	European hake I	3.86	0.30	0.12	0.04	0.70	3.40	0.95	0.21
59	Medium demersals I	2.89	0.30	0.52	0.16	1.15	8.13	0.86	0.14
60	Small demersals I	2.93	0.30	0.30	0.09	1.40	6.38	1.00	0.22
61	Deep fish I	2.80	0.30	0.51	0.15	0.70	3.50	0.97	0.20
62	Sharks I	3.71	0.30	0.24	0.07	0.58	4.33	0.09	0.13
63	Rays and skates I	3.27	0.30	0.23	0.07	0.70	3.00	0.67	0.23
64	Benthopelagic cephalopods I	3.53	0.30	0.14	0.04	3.10	10.33	0.90	0.30
65	Benthic cephalopods I	3.42	0.30	0.32	0.09	3.00	10.00	0.81	0.30
66	Bivalves_gastropods I	2.01	0.30	0.63	0.19	1.50	5.00	0.99	0.30
67	Crustaceans I	2.63	0.30	0.59	0.18	3.77	12.57	0.97	0.30
68	Jellyfish I	3.10	0.30	0.25	0.08	14.13	47.10	0.86	0.30
69	Benthos I	2.01	0.30	11.35	3.40	4.70	16.13	0.16	0.29
70	Zooplankton I	2.14	0.30	5.65	1.69	30.63	102.10	0.53	0.30
71	Phytoplankton I	1.00	0.30	14.09	4.22	173.56	--	0.21	--
72	Seagrass I	1.00	0.30	12.17	3.65	2.59	--	0.60	--

73	Piscivores cetaceans E	4.11	0.31	0.00	0.00	0.08	25.84	0.89	0.00
74	Pinnipeds E	4.10	0.31	0.00	0.00	0.08	13.15	0.62	0.01
75	Seabirds E	3.12	0.31	0.00	0.00	4.78	111.61	0.02	0.04
76	Medium Pelagics E	3.19	0.31	0.42	0.13	0.95	4.79	0.81	0.20
77	European pilchard E	3.02	0.31	0.45	0.14	1.10	9.49	0.90	0.12
78	European anchovy E	3.14	0.31	0.52	0.16	1.20	5.20	0.94	0.23
79	Other small pelagics E	2.89	0.31	0.41	0.13	1.15	8.23	0.89	0.14
80	Large demersals E	3.56	0.31	0.17	0.05	0.90	4.35	0.84	0.21
81	European hake E	3.73	0.31	0.27	0.09	0.75	4.06	0.65	0.18
82	Medium demersals E	2.84	0.31	0.35	0.11	1.18	9.09	0.90	0.13
83	Small demersals E	2.95	0.31	0.21	0.07	1.30	7.64	0.96	0.17
84	Deep fish E	2.90	0.31	0.44	0.14	0.70	5.50	0.84	0.13
85	Skarks E	3.64	0.31	0.19	0.06	0.58	5.16	0.14	0.11
86	Rays and skates E	3.38	0.31	0.17	0.05	0.78	4.07	0.89	0.19
87	Benthopelagic cephalopods E	3.54	0.31	0.11	0.03	3.10	10.33	0.94	0.30
88	Benthic cephalopods E	3.35	0.31	0.29	0.09	3.00	10.00	0.82	0.30
89	Bivalves_gastropods E	2.01	0.31	0.59	0.19	1.50	5.00	0.98	0.30
90	Crustaceans E	2.63	0.31	0.42	0.13	4.90	16.33	0.97	0.30
91	Jellyfish E	3.25	0.31	0.20	0.06	4.84	16.13	0.74	0.30

92	Benthos E	2.02	0.31	8.90	2.80	4.00	13.33	0.22	0.30
93	Zooplankton E	2.14	0.31	3.80	1.20	35.13	117.10	0.54	0.30
94	Phytoplankton E	1.00	0.31	11.61	3.66	168.99	0.00	0.20	--
95	Seagrass E	1.00	0.31	11.58	3.65	2.69	0.00	0.40	--
96	Discards W	1.00	0.33	0.04	0.01	--	--	0.02	--
97	Detritus W	1.00	0.33	32.01	10.63	--	--	0.04	--
98	Discards A	1.00	0.05	0.01	0.00	--	--	0.06	--
99	Detritus A	1.00	0.05	19.73	1.05	--	--	0.13	--
100	Discards I	1.00	0.30	0.02	0.00	--	--	0.04	--
101	Detritus I	1.00	0.30	12.78	3.83	--	--	0.08	--
102	Discards E	1.00	0.31	0.04	0.01	--	--	0.03	--
103	Detritus E	1.00	0.31	14.74	4.64	--	--	0.07	--

Table S3. Diet composition matrix for the Mediterranean marine ecosystem, 1950s period. Prey are indicated by rows and predators by columns. Functional group codes are reporting according to Table S1.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0.1	0	0	0.2	0	0.1	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0.1	0	0	0.1	0	0.1	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0.1	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0.1	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0.2	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0.3	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0.1	0	0.4	0	0	0	0	0	0	0	0.1	0	0	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0.1	0	0	0	0	0	0	0	0	0.1	0	0	0	0.1	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0.1	0	0.1	0	0	0	0	0	0	0	0.2	0.1	0.1	0.1	0	0.1	0.1	0.4	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0.1	0.1	0	0.4	0	0	0	0.3	0.1	0.5	0.4	0.2	0.2	0.5	0	0.3	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0.3	0	0	0	0	0.5	0.9	1	0.9	0.1	0.1	0.1	0.3	0.6	0	0	0.3	0.1	0	0.2	0.7	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0.1	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0	0	0	0
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.1	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	0	0	0	0	0	0.1	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0	0.1	0	0.1	0.2	0	0	0.00	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0.1	0.1	0.1	0.1	0	0.1	0.1	0.3	0.3	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0
92	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0	0.4	0.1	0.4	0.4	0.2	0.3	0.5	0	0.3	0	0.4	0	0	0
93	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.9	1	0.8	0.1	0.1	0.1	0.3	0.6	0	0	0.3	0.1	0	0.2	0.7	0	0.1
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0.2	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0.9
95	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0.1	0	0
96	0.1	0	0	0.3	0	0	0	0	0	0	0	0.1	0	0	0	0	0.2	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.1	0	0	0	0	0.8	0.3	0.1	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0.3	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.1	0	0	0	0	0.8	0.3	0	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0.3	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.2	0.1	0	0	0	0	0.8	0.4	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0.3	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0.1	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.2	0.1	0	0	0	0	0.8	0.4	0	0.8	0
Import	0	0.1	0	0.3	0.1	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0
Sum	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table S4. Diet composition matrix for the Mediterranean marine ecosystem, 2000s period. Prey are indicated by rowa and predators by columns. Functional groups codes are reporting according to Table S1.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0.1	0	0	0.2	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0.1	0	0	0.1	0	0.1	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0.1	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0.1	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0.2	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0.3	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0.1	0	0.4	0	0	0	0	0	0	0	0.1	0	0	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0.1	0	0	0	0	0	0	0	0	0.1	0	0	0	0.1	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0.1	0	0.1	0	0	0	0	0	0	0	0.2	0.1	0.1	0.1	0	0.1	0.1	0.3	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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23	0	0	0	0.1	0.1	0	0.4	0	0	0	0.3	0.1	0.5	0.4	0.2	0.2	0.5	0	0.3	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0.3	0	0	0	0	0.5	0.9	1	0.9	0.1	0.1	0.1	0.3	0.6	0	0	0.4	0.1	0	0.2	0.7	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.2	0.1	0	0	0	0	0.8	0.4	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0.3	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0.1	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.2	0.1	0	0	0	0	0.8	0.4	0	0.8	0	0
Import	0	0.1	0	0.3	0.1	0.1	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0
Sum	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

S 5. **Main equations and references used for basic input parameters (Biomass (B), Production over Biomass (P/B), Consumption over Biomass (Q/B), Diet (TL)) of the Mediterranean functional groups in the 1950 and 2000 periods. Information about species composition of each functional group is also given.**

		Source			
Functional groups	**Equations**	**Western Med. Sea**	**Adriatic Sea**	**Ionian and central Med. Sea**	**Eastern and Levantine Sea**
Piscivores cetaceans: *Delphinus delphis, Stenella coeruleoalba, Tursiops truncatus*					
Biomass 1950s	Estimated by Ecopath		*(Bearzi et al. 2004)*		
Biomass 2000s		*(Reeves & Notarbartolo di Sciara 2006)*	*(Reeves & Notarbartolo di Sciara 2006)*	*(Reeves & Notarbartolo di Sciara 2006)*	*(Reeves & Notarbartolo di Sciara 2006)*
Production/Biomass	Life history table	*(Barlow & Boveng 1991)*	*(Barlow & Boveng 1991)*	*(Barlow & Boveng 1991)*	*(Barlow & Boveng 1991)*
Consumption/Biomass	From modified energy requirement equation: $E = aW^{0.714}$	*(Pauly et al. 1998, Hunter 2005)*	*(Pauly et al. 1998, Hunter 2005)*	*(Pauly et al. 1998, Hunter 2005)*	*(Pauly et al. 1998, Hunter 2005)*
Diet		*(Aguilar & Raga 1993, Würtz & Marrale 1993, Blanco et al. 1995, Blanco et al. 2001, Cañadas & Hammond 2008, Bearzi et al. 2009, Gómez-Campos et al. 2011)*	*(Bearzi et al. 2004, Fortuna 2006, Bearzi et al. 2009)*	*(Blanco et al. 1995, Bearzi et al. 2003, Bearzi et al. 2009, Piroddi et al. 2010)*	*(Blanco et al. 1995, Blanco et al. 2001, Bearzi et al. 2003, Bearzi et al. 2009)*
Other cetaceans: *Balaenoptera physalus, Globicephala melas, Grampus griseus, Physeter macrocephalus, Ziphius cavirostris*					
Biomass 1950s	Estimated by Ecopath				
Biomass 2000s		*(Reeves & Notarbartolo di Sciara 2006)*	*(Reeves & Notarbartolo di Sciara 2006)*	*(Reeves & Notarbartolo di Sciara 2006)*	*(Reeves & Notarbartolo di Sciara 2006)*
Production/Biomass	Life history table	*(Barlow & Boveng 1991)*	*(Barlow & Boveng 1991)*	*(Barlow & Boveng 1991)*	*(Barlow & Boveng 1991)*
Consumption/Biomass	From modified energy requirement equation: $E = aW^{0.714}$	*(Pauly et al. 1998, Hunter 2005)*	*(Pauly et al. 1998, Hunter 2005)*	*(Pauly et al. 1998, Hunter 2005)*	*(Pauly et al. 1998, Hunter 2005)*
Diet		*(Würtz et al. 1992, Cañadas & Sagarminaga 2000, Drouot et al. 2004, Blanco et al. 2006, Canese et al. 2006, De Stephanis et al. 2008, Praca & Gannier 2008, Cotté et al. 2009, Rosso 2009, Bearzi et al. 2011)*	*(Santos et al. 2001, Reeves & Notarbartolo di Sciara 2006, Cotté et al. 2009)*	*(Santos et al. 2001, Reeves & Notarbartolo di Sciara 2006, Cotté et al. 2009, Bearzi et al. 2011)*	*(Santos et al. 2001, Shoham-Frider et al. 2002, Roberts 2003, Reeves & Notarbartolo di Sciara 2006, Cotté et al. 2009, Bearzi et al. 2011)*
Pinnipeds: *Monachus monachus*					
Biomass 1950s		*(Sergeant et al. 1978, UNEP/MAP 1994, Johnson & Lavigne 1998)*	*(Sergeant et al. 1978, UNEP/MAP 1994, Johnson & Lavigne 1998)*	*(Sergeant et al. 1978, UNEP/MAP 1994, Johnson & Lavigne 1998)*	*(Sergeant et al. 1978, UNEP/MAP 1994, Johnson & Lavigne 1998)*
Biomass 2000s		*(UNEP/MAP 2005, Mo et al. 2011)*	*(Gomerčić et al. 2011, Mo 2011)*	*(Panou et al. 1993, Notarbartolo di Sciara G. et al. 2009, Mo 2011)*	*(Güçlüsoy et al. 2004, Gucu et al. 2004, Notarbartolo di Sciara G. et al. 2009, Scheinin et al. 2011)*
Production/Biomass	Life history table	*(Barlow & Boveng 1991)*	*(Barlow & Boveng 1991)*	*(Barlow & Boveng 1991)*	*(Barlow & Boveng 1991)*
Consumption/Biomass	From modified energy requirement equation: $E = aW^{0.714}$	*(Pauly et al. 1998, Hunter 2005)*	*(Pauly et al. 1998, Hunter 2005)*	*(Pauly et al. 1998, Hunter 2005)*	*(Pauly et al. 1998, Hunter 2005)*
Diet		*(Salman et al. 2001, Karamanlidis et al. 2011, Pierce et al. 2011)*	*(Salman et al. 2001, Karamanlidis et al. 2011, Pierce et al. 2011)*	*(Salman et al. 2001, Karamanlidis et al. 2011, Pierce et al. 2011)*	*(Salman et al. 2001, Karamanlidis et al. 2011, Pierce et al. 2011)*
Seabirds: *Calonectris diomedea, Hydrobates pelagicus melitensis, Larus michahellis, Larus audouinii, Larus genei, Larus melanocephalus, Phalacrocorax aristotelis desmarestii, Puffinus yelkouan, Puffinus mauretanicus, Sterna nilotica, Sterna sandvicensis, Sterna caspia, Sterna hirundo, Sterna albifrons, Sterna bengalensis*					
Biomass 1950s		*(Karpouzi et al. 2007, Paleczny 2012)*	*(Karpouzi et al. 2007, Paleczny 2012)*	*(Karpouzi et al. 2007, Paleczny 2012)*	*(Karpouzi et al. 2007, Paleczny 2012)*
Biomass 2000s		*(Karpouzi et al. 2007, Paleczny 2012)*	*(Karpouzi et al. 2007, Paleczny 2012)*	*(Karpouzi et al. 2007, Paleczny 2012)*	*(Karpouzi et al. 2007, Paleczny 2012)*
Production/Biomass		*(Birdlife www.birdlife.org; Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Birdlife www.birdlife.org; Coll et al. 2007, Coll et al. 2009)*	*(Birdlife www.birdlife.org; Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Birdlife www.birdlife.org; Tsagarakis et al. 2010)*

Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Birdlife www.birdlife.org; Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Birdlife www.birdlife.org; Coll et al. 2007, Coll et al. 2009)*	*(Birdlife www.birdlife.org; Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Birdlife www.birdlife.org; Tsagarakis et al. 2010)*
Sea turtles: *Caretta caretta, Chelonia mydas*					
Biomass 1950s		*(Groombridge 1990, Margaritoulis et al. 2003, Camiñas 2004, Casale & Margaritoulis 2010)*	*(Groombridge 1990, Margaritoulis et al. 2003, Camiñas 2004, Casale & Margaritoulis 2010)*	*(Groombridge 1990, Margaritoulis et al. 2003, Camiñas 2004, Casale & Margaritoulis 2010)*	*(Kasparek & Baran 1989, Groombridge 1990, Margaritoulis et al. 2003, Camiñas 2004, Casale & Margaritoulis 2010)*
Biomass 2000s		*(Groombridge 1990, Margaritoulis et al. 2003, Camiñas 2004, Mingozzi et al. 2008, Bentivegna et al. 2010, Casale & Margaritoulis 2010, Lauriano et al. 2011)*	*(Groombridge 1990, Margaritoulis et al. 2003, Camiñas 2004, Mingozzi et al. 2008, Bentivegna et al. 2010, Casale & Margaritoulis 2010)*	*(Groombridge 1990, Margaritoulis & Rees 2001, Margaritoulis et al. 2003, Camiñas 2004, Mingozzi et al. 2008, Casale & Margaritoulis 2010)*	*(Groombridge, 1990; Margaritoulis et al., 2003; Camiñas, 2004; Casale and Margaritoulis, 2010)(Broderick & Godley 1996, Kasparek et al. 2001, Canbolat 2004, Yalçin-Özdilek & Yerlİ 2009)*
Production/Biomass	Z = survival rate	*(Coll et al. 2006, Coll et al. 2008, Casale et al. 2009, Wabnitz et al. 2010, Casale et al. 2011, Piovano et al. 2011)*	*(Coll et al. 2007, Casale et al. 2009, Coll et al. 2009, Casale et al. 2011, Piovano et al. 2011)*	*(Casale et al. 2009, Piroddi et al. 2010, Wabnitz et al. 2010, Casale et al. 2011, Piovano et al. 2011, Moutopoulos et al. 2013)*	*(Casale et al. 2009, Tsagarakis et al. 2010, Wabnitz et al. 2010, Casale et al. 2011, Piovano et al. 2011)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Wabnitz et al. 2010)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Wabnitz et al. 2010, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010, Wabnitz et al. 2010)*
Diet		*(Coll et al. 2006, Casale et al. 2008, Casale & Margaritoulis 2010, Wabnitz et al. 2010)*	*(Coll et al. 2007, Casale et al. 2008, Coll et al. 2009, Casale & Margaritoulis 2010)*	*(Casale & Margaritoulis 2010, Piroddi et al. 2010, Wabnitz et al. 2010, Moutopoulos et al. 2013)*	*(Casale et al. 2008, Casale & Margaritoulis 2010, Tsagarakis et al. 2010, Wabnitz et al. 2010)*
Large pelagics: *Coryphaena hippurus, Tetrapturus belone, Thunnus alalunga, Thunnus thynnus, Xiphias gladius*					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*	*(Fishstat www.fao.org; ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*	*(Fishstat www.fao.org; ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*	*((Fishstat www.fao.org; ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*
Biomass 2000s		*(Fishstat www.fao.org; ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*	*(Fishstat www.fao.org; ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*	*(Fishstat www.fao.org; ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*	*(Fishstat www.fao.org; ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*
Production/Biomass 1950	Total mortality Z= F+M (Pauly 1980)	*(Coll et al. 2006, Coll et al. 2008, ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009, ICCAT 2010b, a, 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*	*(ICCAT 2010b, a, Piroddi et al. 2010, ICCAT 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(ICCAT 2010b, a, Tsagarakis et al. 2010, ICCAT 2011b, a, Ortiz de Zárate et al. 2011, ICCAT 2012)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Stergiou & Karpouzi 2001, Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Stergiou & Karpouzi 2001, Coll et al. 2007, Coll et al. 2009)*	*(Stergiou & Karpouzi 2001, Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Stergiou & Karpouzi 2001, Tsagarakis et al. 2010)*
Medium pelagics: *Acanthocybium solandri, Alepes djedaba, Auxis rochei rochei, Auxis thazard thazard, Belone belone, Dicentrarchus punctatus, Euthynnus alletteratus, Katsuwonus pelamis, Lichia amia, Liza aurata, Orcynopsis unicolor, Pomatomus saltatrix, Sarda sarda, Scomber japonicus, Scomber scombrus, Scomberesox saurus saurus, Scomberomorus commerson, Seriola dumerili, Sphyraena sphyraena*					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Fishstat www.fao.org; Coll et al. 2006, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007)*	*(Fishstat www.fao.org; Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Production/Biomass		*(Fishstat www.fao.org; Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007, Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*

Diet		*(Stergiou & Karpouzi 2001, Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Stergiou & Karpouzi 2001, Coll et al. 2007, Coll et al. 2009)*	*(Stergiou & Karpouzi 2001, Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Stergiou & Karpouzi 2001, Tsagarakis et al. 2010)*
European pilchard: *Sardina pilchardus*					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Coll et al. 2006, STECF 2010a, b, 2011a, b, 2012a, b, Bănaru et al. 2013, STECF 2013a, b)*	*(Coll et al. 2007, STECF 2010a, b, 2011a, b, 2012a, b, 2013a, b)*	*(STECF 2010a, b, Piroddi et al. 2011, STECF 2011a, b, 2012a, b, Hattab et al. 2013, Moutopoulos et al. 2013, STECF 2013a, b)*	*(STECF 2010a, b, Tsagarakis et al. 2010, STECF 2011a, b, 2012a, b, 2013a, b)*
Production/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Stergiou & Karpouzi 2001, Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Stergiou & Karpouzi 2001, Coll et al. 2007, Coll et al. 2009)*	*(Stergiou & Karpouzi 2001, Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Stergiou & Karpouzi 2001, Tsagarakis et al. 2010)*
European anchovy: *Engraulis encrasicolus*					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Coll et al. 2006, STECF 2010a, b, 2011a, b, 2012a, b, Bănaru et al. 2013, STECF 2013a, b)*	*(Coll et al. 2007, STECF 2010a, b, 2011a, b, 2012a, b, 2013a, b)*	*(STECF 2010a, b, Piroddi et al. 2011, STECF 2011a, b, 2012a, b, Hattab et al. 2013, Moutopoulos et al. 2013, STECF 2013a, b)*	*(STECF 2010a, b, Tsagarakis et al. 2010, STECF 2011a, b, 2012a, b, 2013a, b)*
Production/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Stergiou & Karpouzi 2001, Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Stergiou & Karpouzi 2001, Coll et al. 2007, Coll et al. 2009)*	*(Stergiou & Karpouzi 2001, Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Stergiou & Karpouzi 2001, Tsagarakis et al. 2010)*
Other small pelagics: *Aphia minuta, Atherina hepsetus, Etrumeus sadina, Sardinella aurita, Spicara maena, Spicara smaris, Sprattus sprattus, Trachurus trachurus, Trachurus mediterraneus*					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Fishstat www.fao.org; Coll et al. 2006, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007)*	*(Fishstat www.fao.org; Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Production/Biomass		*(Fishstat www.fao.org; Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007, Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Stergiou & Karpouzi 2001, Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Stergiou & Karpouzi 2001, Coll et al. 2007, Coll et al. 2009)*	*(Stergiou & Karpouzi 2001, Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Stergiou & Karpouzi 2001, Tsagarakis et al. 2010)*
Large demersals: Conger conger, Epinephelus aeneus, Epinephelus caninus, Epinephelus marginatus, Lophius piscatorius, Molva dypterygia, Muraena helena, Polyprion americanus					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Coll et al. 2006, STECF 2010a, b, 2011a, b, 2012a, b, Bănaru et al. 2013, STECF 2013a, b)*	*(Coll et al. 2007, STECF 2010a, b, 2011a, b, 2012a, b, 2013a, b)*	*(STECF 2010a, b, Piroddi et al. 2011, STECF 2011a, b, 2012a, b, Hattab et al. 2013, Moutopoulos et al. 2013, STECF 2013a, b)*	*(STECF 2010a, b, Tsagarakis et al. 2010, STECF 2011a, b, 2012a, b, 2013a, b)*

Production/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Stergiou & Karpouzi 2001, Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Stergiou & Karpouzi 2001, Coll et al. 2007, Coll et al. 2009)*	*(Stergiou & Karpouzi 2001, Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Stergiou & Karpouzi 2001, Tsagarakis et al. 2010)*
European hake: *Merluccius merluccius*					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Coll et al. 2006, STECF 2010a, b, 2011a, b, 2012a, b, Bănaru et al. 2013, STECF 2013a, b)*	*(Coll et al. 2007, STECF 2010a, b, 2011a, b, 2012a, b, 2013a, b)*	*(STECF 2010a, b, Piroddi et al. 2011, STECF 2011a, b, 2012a, b, Hattab et al. 2013, Moutopoulos et al. 2013, STECF 2013a, b)*	*(STECF 2010a, b, Tsagarakis et al. 2010, STECF 2011a, b, 2012a, b, 2013a, b)*
Production/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Stergiou & Karpouzi 2001, Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Stergiou & Karpouzi 2001, Coll et al. 2007, Coll et al. 2009)*	*(Stergiou & Karpouzi 2001, Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Stergiou & Karpouzi 2001, Tsagarakis et al. 2010)*
Medium demersals: *Argyrosomus regius, Balistes capriscus, Campogramma glaycos, Cepola macrophthalma, Chelidonichthys lucerna, Chelon labrosus, Dactylopterus volitans, Dentex dentex, Dentex macrophthalmus, Dicentrarchus labrax, Epigonus telescopus, Eutrigla gurnardus, Labrus Merula, Lagocephalus sceleratus, Lepidopus caudatus,Lithognathus mormyrus, Lophius budegassa, Mugil cephalus, Naucrates ductor, Pagellus bogaraveo, Pagrus pagrus, Phycis blennoides, Platichthys flesus, Plectorhinchus mediterraneus, Sarpa salpa, Saurida undosquamis, Sciaena umbra, Scophthalmus maximus, Scophthalmus rhombus, Scorpaena scrofa, Solea solea, Sparisoma cretense, Sparus aurata, Spondyliosoma cantharus, Trisopterus luscus, Umbrina canariensis, Umbrina cirrosa, Zeus faber*					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Coll et al. 2006, STECF 2010a, b, 2011a, b, 2012a, b, Bănaru et al. 2013, STECF 2013a, b)*	*(Coll et al. 2007, STECF 2010a, b, 2011a, b, 2012a, b, 2013a, b)*	*(STECF 2010a, b, Piroddi et al. 2011, STECF 2011a, b, 2012a, b, Hattab et al. 2013, Moutopoulos et al. 2013, STECF 2013a, b)*	*(STECF 2010a, b, Tsagarakis et al. 2010, STECF 2011a, b, 2012a, b, 2013a, b)*
Production/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Stergiou & Karpouzi 2001, Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Stergiou & Karpouzi 2001, Coll et al. 2007, Coll et al. 2009)*	*(Stergiou & Karpouzi 2001, Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Stergiou & Karpouzi 2001, Tsagarakis et al. 2010)*
Small demersals: *Atherina boyeri, Boops boops, Chelidonichthys cuculus, Dicologlossa cuneata, Diplodus annularis, Diplodus sargus sargus, Diplodus vulgaris, Gobius niger, Helicolenus dactylopterus, Lepidorhombus whiffiagonis, Merlangius merlangus, Mullus barbatus barbatus, Mullus surmuletus, Nemipterus randalli, Oblada melanura, Pagellus acarne, Pagellus erythrinus, Phycis phycis, Scorpaena porcus, Serranus cabrilla, Serranus scriba, Synodus saurus, Trachinus draco, Trisopterus minutes, Uranoscopus scaber, Xyrichtys novacula*					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Coll et al. 2006, STECF 2010a, b, 2011a, b, 2012a, b, Bănaru et al. 2013, STECF 2013a, b)*	*(Coll et al. 2007, STECF 2010a, b, 2011a, b, 2012a, b, 2013a, b)*	*(STECF 2010a, b, Piroddi et al. 2011, STECF 2011a, b, 2012a, b, Hattab et al. 2013, Moutopoulos et al. 2013, STECF 2013a, b)*	*(STECF 2010a, b, Tsagarakis et al. 2010, STECF 2011a, b, 2012a, b, 2013a, b)*
Production/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Stergiou & Karpouzi 2001, Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Stergiou & Karpouzi 2001, Coll et al. 2007, Coll et al. 2009)*	*(Stergiou & Karpouzi 2001, Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Stergiou & Karpouzi 2001, Tsagarakis et al. 2010)*

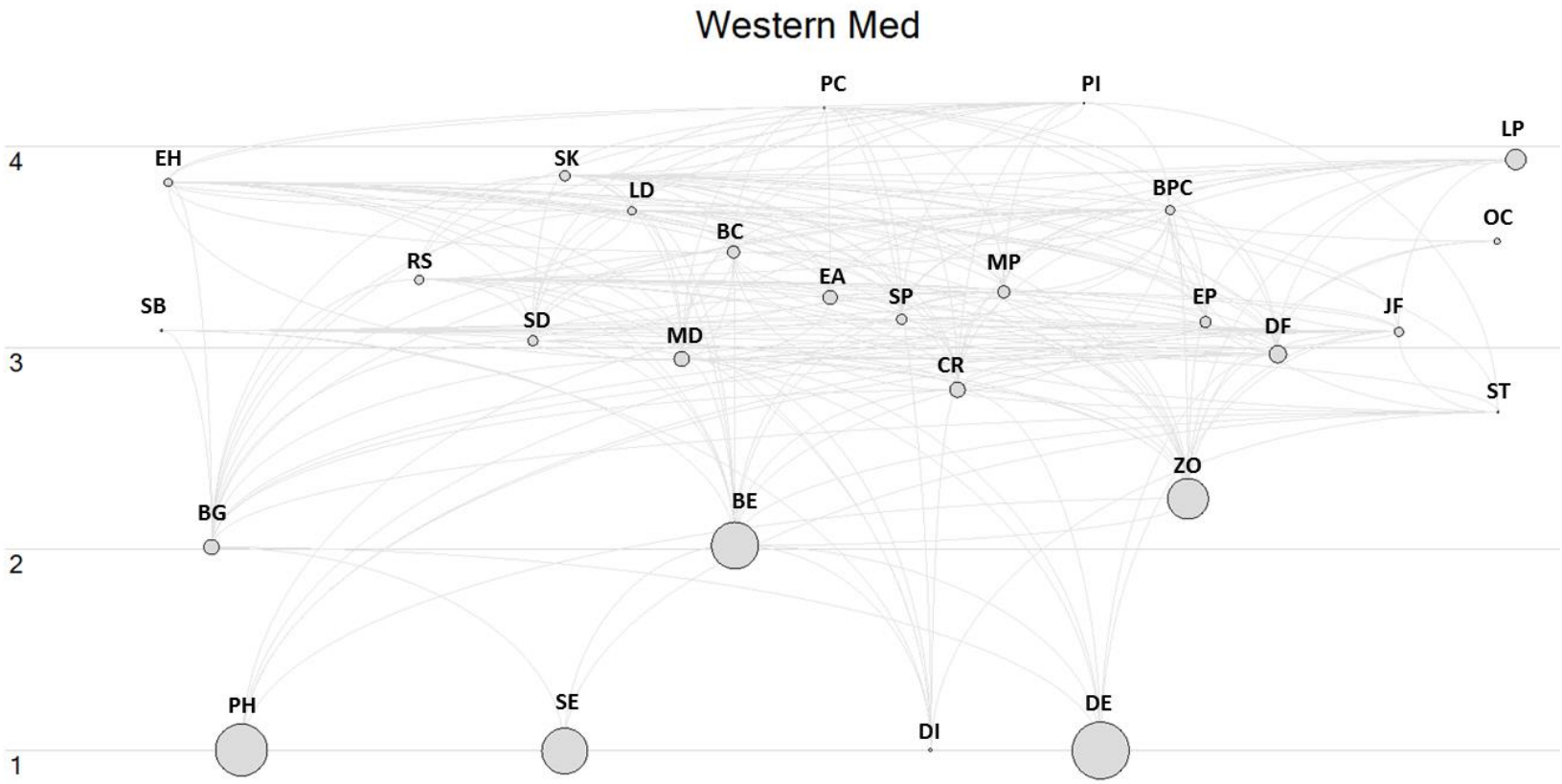
Deep fish: ***Alepocephalus rostratus, Argyropelecus hemigymnus, Bathypterois mediterraneus, Benthocometes robustus, Benthosema glaciale, Brama brama, Caelorhynchus caelorhynchus, Caelorhynchus mediterraneus, Cataetyx laticeps, Ceratoscopelus maderensis, Chalinura mediterranea, Chauliodus sloani, Chlorophthalmus agassizii, Coryphaenoides guentheri, Cyclothone braueri, Diaphus metopoclampus, Epigonus constanciae, Epigonus denticulatus, Epigonus telescopus, Halosaurus ovenii, Helicolenus dactylopterus, Hoplostethus mediterraneus, Hygophum benoiti, Hymenocephalus italicus, Lampanyctus crocodilus, Lepidion lepidion, Lepidopus caudatus, Lepidorhombus whiffiagonis, Micromesistius poutassou, Mora moro, Nettastoma melanorum, Nezumia aequalis, Nezumia sclerorhynchus, Notacanthus bonapartei, Notolepis rissoi, Paralepis speciosa, Polyacanthonotus rissoanus, Stomias boa, Trachyrhynchus trachyrhynchus, Trachyscorpia cristulata echinata***					
Biomass 1950s		*(Christensen et al. 2009)*	*(Christensen et al. 2009)*	*(Christensen et al. 2009)*	*(Christensen et al. 2009)*
Biomass 2000s		*(Wei et al. 2010, Tecchio et al. 2013)*	*(Wei et al. 2010)*	*(Wei et al. 2010)*	*(Wei et al. 2010)*
Production/Biomass		*(Christensen et al. 2009, Tecchio et al. 2013)*	*(Christensen et al., 2009)*	*(Christensen et al., 2009)*	*(Christensen et al., 2009)*
Consumption/Biomass		*(Christensen et al. 2009, Tecchio et al. 2013)*	*(Christensen et al., 2009)*	*(Christensen et al., 2009)*	*(Christensen et al., 2009)*
Diet		*(Christensen et al. 2009, Tecchio et al. 2013)*	*(Christensen et al., 2009)*	*(Christensen et al., 2009)*	*(Christensen et al., 2009)*
Sharks: ***Alopias superciliosus, Alopias vulpinus, Carcharias taurus, Carcharodon carcharias, Centrophorus granulosus, Centrophorus granulosus, Centroscymnus coelolepis, Cetorhinus maximus, Chimaera monstrosa, Dalatias licha, Etmopterus spinax, Galeorhinus galeus, Galeus melastomus, Heptranchias perlo, Hexanchus griseus, Isurus oxyrinchus, Lamna nasus, Mustelus mustelus, Oxinotus centrina, Prionace glauca, Scyliorhinus canicula, Sharks nei, Somniosus rostratus, Squalus acanthias, Squalus blainville***					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Fishstat www.fao.org; Coll et al. 2006, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007)*	*(Fishstat www.fao.org; Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Production/Biomass		*(Fishstat www.fao.org; Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007, Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Rays and skates: ***Dasyatis pastinaca, Leucoraja naevus, Gymnura altavela, Mobula mobular, Myliobatis aquila, Rays and Skates nei, Raja asterias, Raja clavata, Raja montagui, Rhinobatos rhinobatos, Rostroraja alba***					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Fishstat www.fao.org; Coll et al. 2006, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007)*	*(Fishstat www.fao.org; Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Production/Biomass		*(Fishstat www.fao.org; Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007, Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Benthopelagic Cephalopods: ***Alloteuthis media, Ancistroteuthis lichtensteini, Callista chione, Cerastoderma edule, Chamelea gallina, Crassostrea gigas, Donax vittatus, Eledone cirrhosa, Eledone moschata, Illex coindetii, Littorina littorea, Loligo vulgaris, Marine molluscs nei, Mytilus galloprovincialis, Octopus vulgaris, Ostrea edulis, Pecten jacobaeus, Pecten maximus, Ruditapes decussatus, Sepia officinalis, Todarodes sagittatus, Venerupis pullastra, Venus verrucosa***					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Fishstat www.fao.org; Coll et al. 2006, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007)*	*(Fishstat www.fao.org; Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*

Production/Biomass	Total mortality Z= F+M (Pauly, 1980)	*(Fishstat www.fao.org; Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007, Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Consumption/Biomass	From daily feeding rate equation FR = 0.0683 + 0.0474 W	*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Benthic Cephalopods: ***Alloteuthis media, Ancistroteuthis lichtensteini, Callista chione, Cerastoderma edule, Chamelea gallina, Crassostrea gigas, Donax vittatus, Eledone cirrhosa, Eledone moschata, Illex coindetii, Littorina littorea, Loligo vulgaris, Marine molluscs nei, Mytilus galloprovincialis, Octopus vulgaris, Ostrea edulis, Pecten jacobaeus, Pecten maximus, Ruditapes decussatus, Sepia officinalis, Todarodes sagittatus, Venerupis pullastra, Venus verrucosa***					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Fishstat www.fao.org; Coll et al. 2006, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007)*	*(Fishstat www.fao.org; Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Production/Biomass		*(Fishstat www.fao.org; Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007, Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Fishstat www.fao.org; Tsagarakis et al. 2010)*
Consumption/Biomass		*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Bivalves and Gastropods: ***Alloteuthis media, Ancistroteuthis lichtensteini, Callista chione, Cerastoderma edule, Chamelea gallina, Crassostrea gigas, Donax vittatus, Eledone cirrhosa, Eledone moschata, Illex coindetii, Littorina littorea, Loligo vulgaris, Marine molluscs nei, Mytilus galloprovincialis, Octopus vulgaris, Ostrea edulis, Pecten jacobaeus, Pecten maximus, Ruditapes decussatus, Sepia officinalis, Todarodes sagittatus, Venerupis pullastra, Venus verrucosa***					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org)*	*(Fishstat www.fao.org)*
Biomass 2000s		*(Fishstat www.fao.org; Bănaru et al. 2013)*	*(Fishstat www.fao.org; Coll et al. 2007)*	*(Fishstat www.fao.org)*	*(Fishstat www.fao.org)*
Production/Biomass		*(Fishstat www.fao.org; Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Coll et al. 2007, Coll et al. 2009)*
Consumption/Biomass		*(Bănaru et al., 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Coll et al. 2007, Coll et al. 2009)*
Diet		*(Bănaru et al., 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Coll et al. 2007, Coll et al. 2009)*
Crustaceans: ***Aristaeomorpha foliacea, Aristeus antennatus, Carcinus aestuarii, Crangon crangon, Erugosquilla massavensis, Homarus gammarus, Maja squinado, Marine crustaceans nei, Marsupenaeus japonicus, Melicertus kerathurus, Metapenaeus monoceros, Nephrops norvegicus, Palaemon serratus, Palinurus elephas, Palinurus mauritanicus, Parapenaeus longirostris, Plesionika martia, Portunus pelagicus, Scyllarides latus, Squilla mantis***					
Biomass 1950s	From a logist growth model: $N_{t+1}=N_t + rN_t(1-N_t/k)-C_t$	*(Fishstat www.fao.org; Coll et al. 2008)*	*(Fishstat www.fao.org; Coll et al. 2009)*	*(Fishstat www.fao.org; Piroddi et al. 2010)*	*Fishstat www.fao.org*
Biomass 2000s		*(Coll et al. 2006, STECF 2010a, b, 2011a, b, 2012a, b, Bănaru et al. 2013, STECF 2013a, b)*	*(Coll et al. 2007, STECF 2010a, b, 2011a, b, 2012a, b, 2013a, b)*	*(STECF 2010a, b, Piroddi et al. 2011, STECF 2011a, b, 2012a, b, Hattab et al. 2013, Moutopoulos et al. 2013, STECF 2013a, b)*	*(STECF 2010a, b, Tsagarakis et al. 2010, STECF 2011a, b, 2012a, b, 2013a, b)*
Production/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Piroddi et al. 2011, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al. 2010, Hattab et al. 2013, Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Jellyfish: ***Aequorea forskalea, Aurelia aurita, Pelagia noctiluca, Chrysaora hysoscella, Cotylorhiza tuberculata, Liriope tetraphylla, Mnemiopsis leidyi , Pleurobrachia rhodopis, Physalia physalis, Rhizostoma pulmo***					
Biomass 1950s		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*

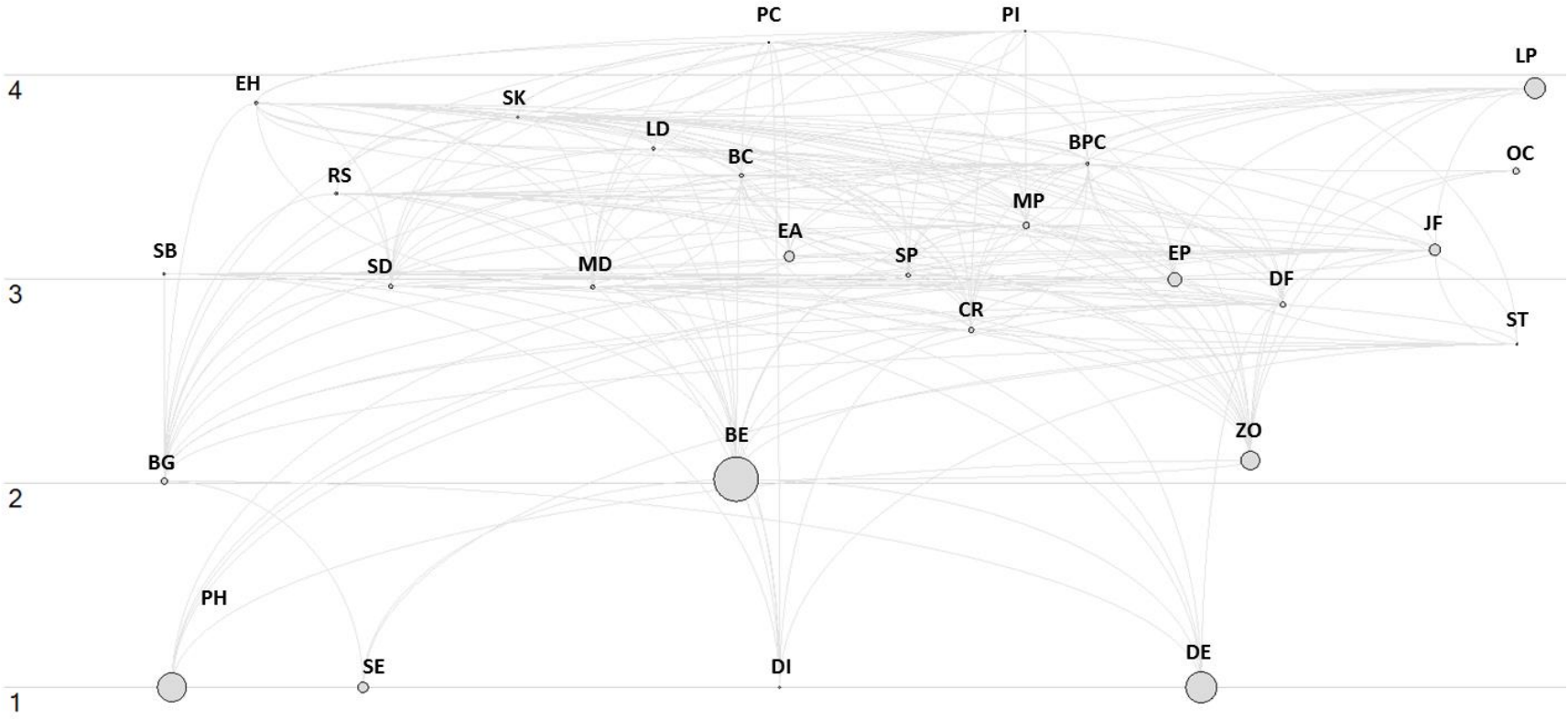
Biomass 2000s		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Production/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Consumption/Biomass		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Diet		*(Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Moutopoulos et al. 2013)*	*(Tsagarakis et al. 2010)*
Benthos: cnidarians, sponges, tunicates, echinoderms, worms					
Biomass 1950s		*(Coll et al., 2008)*	*(Coll et al. 2007, Coll et al. 2009)*	*(Piroddi et al., 2010)*	*(Tsagarakis et al. 2010)*
Biomass 2000s		*(Wei et al., 2010; Coll et al. 2006, Coll et al. 2008, Bănaru et al. 2013)*	*(Wei et al., 2010; Coll et al., 2007; Wei et al., 2010)*	*(Wei et al., 2010; Piroddi et al., 2011; Hattab et al., 2013; Moutopoulos et al., 2013)*	*(Wei et al., 2010; Tsagarakis et al., 2010)*
Production/Biomass		*(Coll et al., 2006; Coll et al., 2008; Bănaru et al., 2013; Tecchio et al., 2013)*	*(Coll et al., 2007; Coll et al., 2009)*	*(Piroddi et al., 2011; Hattab et al., 2013; Moutopoulos et al., 2013)*	*(Tsagarakis et al., 2010)*
Consumption/Biomass		*(Coll et al., 2006; Coll et al., 2008; Bănaru et al., 2013; Tecchio et al., 2013)*	*(Coll et al., 2007; Coll et al., 2009)*	*(Piroddi et al., 2011; Hattab et al., 2013; Moutopoulos et al., 2013)*	*(Tsagarakis et al., 2010)*
Diet		*(Coll et al., 2006; Coll et al., 2008; Bănaru et al., 2013; Tecchio et al., 2013)*	*(Coll et al., 2007; Coll et al., 2009)*	*(Piroddi et al., 2010; Hattab et al., 2013; Moutopoulos et al., 2013)*	*(Tsagarakis et al., 2010)*
Zooplankton: meso and macro zooplankton (amphipods, copepods, cladocerans, euphasids, mysids, pteropods)					
Biomass 1950s		*(NOAA www.st.nmfs.noaa.gov; Coll et al., 2008)*	*(NOAA www.st.nmfs.noaa.gov; Coll et al., 2009)*	*(NOAA www.st.nmfs.noaa.gov; Piroddi et al., 2010)*	*(NOAA www.st.nmfs.noaa.gov)*
Biomass 2000s		*(Coll et al., 2006; Siokou-Frangou et al., 2010; Bănaru et al., 2013; Tecchio et al., 2013)*	*(Coll et al., 2007; Siokou-Frangou et al., 2010;)*	*(Siokou-Frangou et al., 2010; Piroddi et al., 2011; Hattab et al., 2013; Moutopoulos et al., 2013)*	*(Siokou-Frangou et al., 2010; Tsagarakis et al., 2010)*
Production/Biomass		*(Coll et al., 2006; Coll et al., 2008; Bănaru et al., 2013; Tecchio et al., 2013)*	*(Coll et al., 2007; Coll et al., 2009)*	*(Piroddi et al., 2010; Hattab et al., 2013; Moutopoulos et al., 2013)*	*(Tsagarakis et al., 2010)*
Consumption/Biomass		*(Coll et al., 2006; Coll et al., 2008; Bănaru et al., 2013; Tecchio et al., 2013)*	*(Coll et al., 2007; Coll et al., 2009)*	*(Piroddi et al., 2010; Hattab et al., 2013; Moutopoulos et al., 2013)*	*(Tsagarakis et al., 2010)*
Diet		*(Coll et al., 2006; Coll et al., 2008; Bănaru et al., 2013; Tecchio et al., 2013)*	*(Coll et al., 2007; Coll et al., 2009)*	*(Piroddi et al., 2010; Hattab et al., 2013; Moutopoulos et al., 2013)*	*(Tsagarakis et al., 2010)*
Seagrass: *Cymodocea nodosa, Posidonia oceanica, Zoostera marina, Zoostera noltii*					
Biomass 1950s		*(Ardizzone et al., 2006; Duarte et al., 2009; Giannoulaki M. et al., 2013)*	*(Guidetti et al., 2002; Duarte et al., 2009; Giannoulaki et al., 2013)*	*Duarte et al., 2009; Giannoulaki et al., 2013)*	*Duarte et al., 2009; Giannoulaki et al., 2013)*
Biomass 2000s		*(Bay, 1984; Casola et al., 1987; Duarte and Sand-Jensen, 1990; Pergent et al., 1994; Marbá et al., 1996;Cebrián et al., 1997; Duarte et al., 1998; Duarte and Chiscano, 1999; Cebrián et al., 2000; Cebrian and Duarte, 2001; Cancemi et al., 2002; Ardizzone et al., 2006; Giakoumi et al., 2013; Giannoulaki et al., 2013)*	*(Duarte and Sand-Jensen, 1990; Pergent et al., 1994;Duarte and Chiscano, 1999; Guidetti et al., 2002; Giakoumi et al., 2013; Giannoulaki et al., 2013)*	*(Duarte and Sand-Jensen, 1990; Pergent et al., 1994;Duarte and Chiscano, 1999; Mustapha et al., 2004;Badalamenti et al., 2006; Borg et al., 2009; Ben Brahim et al., 2010; Costantino et al., 2010; Giakoumi et al., 2013; Giannoulaki et al., 2013; Sghaier et al., 2013)*	*(Duarte and Sand-Jensen, 1990; Pergent et al., 1994;Duarte and Chiscano, 1999; Dural et al., 2012; Giakoumi et al., 2013; Giannoulaki et al., 2013)*
Production/Biomass		*(Bay, 1984; Pergent et al., 1994; Marbá et al., 1996; Cebrián et al., 1997; Duarte et al., 1998; Duarte and Chiscano, 1999; Hemminga and Duarte, 2000; Cebrián et al., 2000; Marbà and Duarte, 2001; Cancemi et al., 2002;*	*(Peduzzi and Vukovic, 1990; Pergent et al., 1994;Duarte and Chiscano, 1999; Hemminga and Duarte, 2000)*	*(Pergent et al., 1994;Duarte and Chiscano, 1999; Hemminga and Duarte, 2000; Mustapha et al., 2004; Sghaier et al., 2013)*	*(Pergent et al., 1994;Duarte and Chiscano, 1999; Hemminga and Duarte, 2000)*
Phytoplankton: Diatoms, dinoflagellates					
Biomass 1950s		*(Macias et al., 2014)*	*(Macias et al., 2014)*	*(Macias et al., 2014)*	*(Macias et al., 2014)*
Biomass 2000s		*(EMIS emis.jrc.ec.europa.eu; Siokou-Frangou et al., 2010)*	*(EMIS emis.jrc.ec.europa.eu; Siokou-Frangou et al., 2010)*	*(EMIS emis.jrc.ec.europa.eu; Siokou-Frangou et al., 2010)*	*(EMIS emis.jrc.ec.europa.eu; Siokou-Frangou et al., 2010)*

Production/Biomass		*(EMIS emis.jrc.ec.europa.eu; Siokou-Frangou et al., 2010; Macias et al., 2014)*	*(EMIS emis.jrc.ec.europa.eu; Siokou-Frangou et al., 2010; Macias et al., 2014)*	*(EMIS emis.jrc.ec.europa.eu; Siokou-Frangou et al., 2010; Macias et al., 2014)*	*(EMIS emis.jrc.ec.europa.eu; Siokou-Frangou et al., 2010; Macias et al., 2014)*

S 6. Flow diagram (year 2000s) presented per each MSFD area where each functional group is shown as a circle and its size is approximately proportional to the log of its biomass. All the functional groups are represented by their trophic levels (y-axis) and linked to each other by predator-prey relationships expressed as light grey lines. For the abbreviations, please refer to Table 1.



Adriatic


PC
PI
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BPC
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EA
SB
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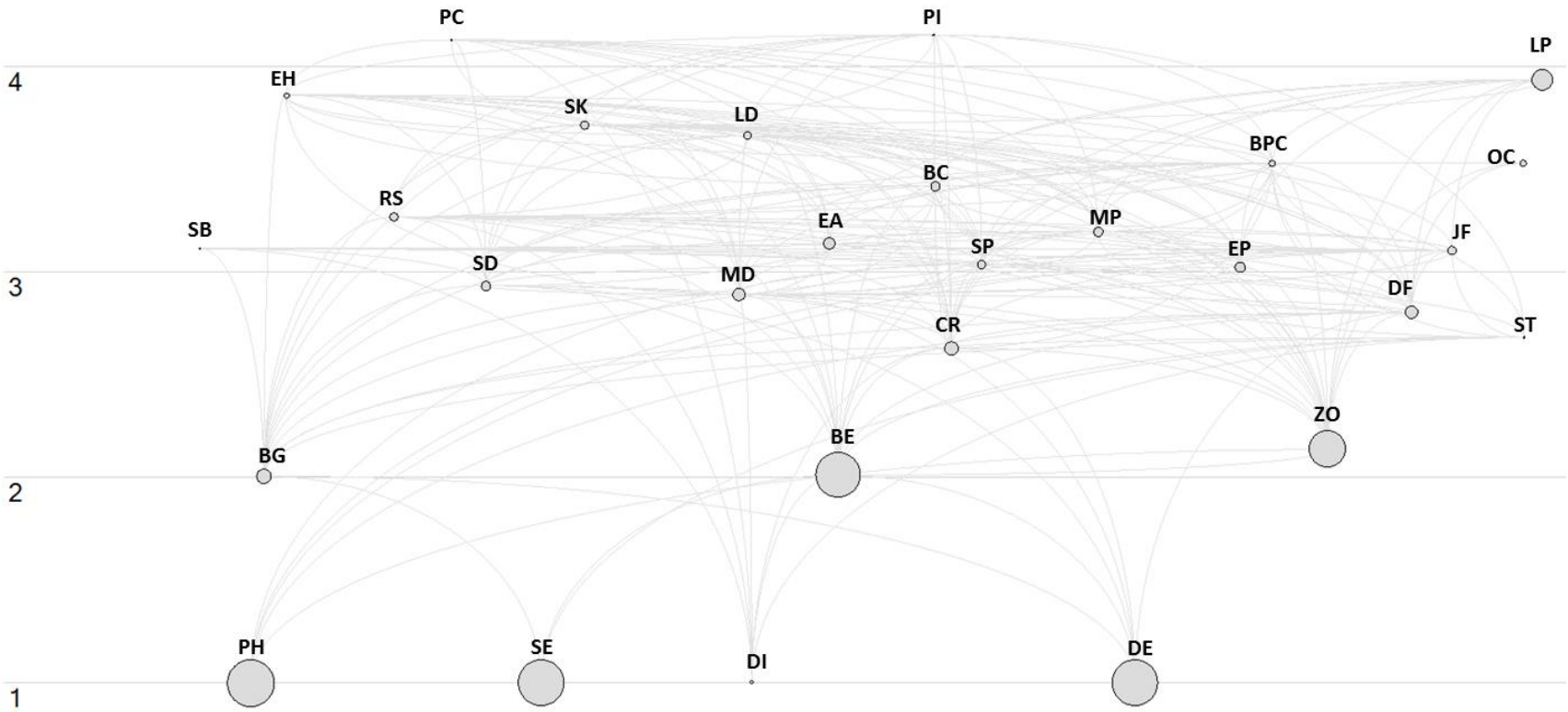
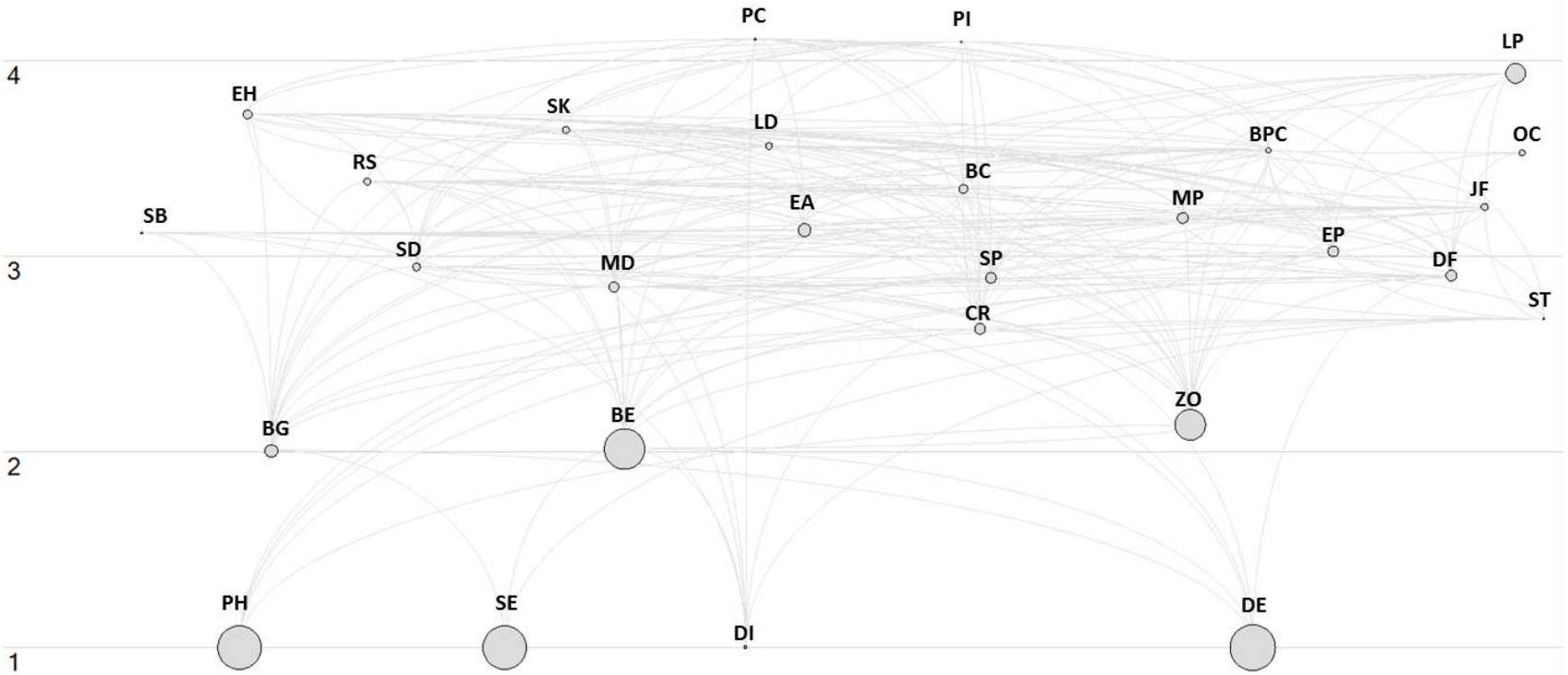
DI
DE
4
3
2
1

Ionian/Central



Eastern/Levantine



S 7. Pedigree chart of EwE basic input parameters for the Mediterranean Sea models. Definition of color codes for each parameter are given below. A quantitative description of these colors can be found as well in Christensen et al (2008).

Biomass (B)
Estimated by Ecopath
From other models
Approximate or indirect methods
Sampling/locally low precision
Sampling/locally high precision
Production/biomass (P/B) and consumption/biomass (Q/B)
Estimated by Ecopath
From other models
Empirical relationship
Similar species similar system low precision
Same species, similar system, high precision
Same species, same system, high precision
Diet (D)
General knowledge of related group/species
From other models
Qualitative diet composition study
Quantitative but limited diet composition study
Quantitative detailed diet composition study
Catch (Y)
Guesstimate
From other models
FAO Statistics
National Statistics
Sampling/locally low precision
Sampling/locally high precision

	1950					2000				
Group name	**B**	**P/B**	**Q/B**	**D**	**Y**	**B**	**P/B**	**Q/B**	**D**	**Y**
Piscivores cetaceans										
Others cetaceans										
Pinnipeds										
Seabirds										
Sea turtles										
Large Pelagics										
Medium pelagics										
European pilchard										
European anchovy										
Other small pelagics										
Large demersals										
European hake										
Medium demersals										
Small demersals										
Deep fish										
Sharks										
Rays and skates										
Benthopelagic cephalopods										
Benthic cephalopods										
Bivalves_gastropods										
Crustaceans										
Jellyfish										
Benthos										
Zooplankton										
Phytoplankton										
Seagrass										
Ecopath pedigree index	**0.39**					**0.59**				

S 8. Fisheries landing (t/km^2/year) of the Mediterranean marine ecosystem for the 1950s period

Group name	TR W	DR W	MT W	PS W	LL W	AR W	RC W	TR A	DR A	MT A	PS A	LL A	AR A	RC A	TR I	DR I	MT I	PS I	LL I	AR I	RC I	TR E	DR E	MT E	PS E	LL E	AR E	RC E
Piscivores cetaceans W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Others cetaceans	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pinnipeds W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Seabirds W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Sea turtles	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Large Pelagics	0.0000	0.0000	0.0000	0.0001	0.0010	0.0000	0.0027	0.0000	0.0000	0.0000	0.0001	0.0007	0.0000	0.0001	0.0000	0.0000	0.0000	0.0001	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000
Medium pelagics W	0.0003	0.0000	0.0008	0.0005	0.0008	0.0129	0.0002																					
European pilchard W	0.0013	0.0000	0.0029	0.0162	0.0000	0.0028	0.0000																					
European anchovy W	0.0006	0.0000	0.0014	0.0078	0.0000	0.0013	0.0000																					
Other small pelagics W	0.0003	0.0000	0.0005	0.0008	0.0000	0.0010	0.0001																					
Large demersals W	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
European hake W	0.0016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Medium demersals W	0.0071	0.0000	0.0005	0.0000	0.0000	0.0033	0.0005																					
Small demersals W	0.0027	0.0000	0.0000	0.0000	0.0000	0.0020	0.0009																					
Deep fish W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Sharks W	0.0004	0.0000	0.0000	0.0000	0.0005	0.0001	0.0001																					
Rays and skates W	0.0005	0.0000	0.0000	0.0000	0.0005	0.0001	0.0000																					
Benthopelagic cephalopods	0.0003	0.0000	0.0005	0.0005	0.0000	0.0003	0.0000																					
Benthic cephalopods W	0.0008	0.0000	0.0000	0.0000	0.0000	0.0005	0.0000																					
Bivalves_gastropods W	0.0003	0.0023	0.0000	0.0000	0.0000	0.0007	0.0000																					
Crustaceans W	0.0030	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000																					
Jellyfish W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Benthos W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Zooplankton W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Phytoplankton W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Seagrass W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Piscivores cetaceans A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Pinnipeds A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Seabirds A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Medium Pelagics A								0.0008	0.0000	0.0008	0.0004	0.0004	0.0059	0.0003														
European pilchard A								0.0009	0.0000	0.0052	0.0028	0.0000	0.0004	0.0000														
European anchovy A								0.0005	0.0000	0.0027	0.0014	0.0000	0.0002	0.0000														
Other small pelagics A								0.0004	0.0000	0.0002	0.0001	0.0000	0.0005	0.0001														
Large demersals A								0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
European hake A								0.0010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Medium demersals A								0.0037	0.0000	0.0002	0.0000	0.0000	0.0010	0.0003														
Small demersals A								0.0011	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003														
Deep fish A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Sharks A								0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Rays and skates A								0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Benthopelagic cephalopods A								0.0002	0.0000	0.0003	0.0003	0.0000	0.0002	0.0000														
Benthic cephalopods A								0.0004	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000														
Bivalves_gastropods A								0.0002	0.0014	0.0000	0.0000	0.0000	0.0004	0.0000														
Crustaceans A								0.0011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Jellyfish A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Benthos A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Zooplankton A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Phytoplankton A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Seagrass A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Piscivores cetaceans I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Pinnipeds I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Seabirds I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Medium Pelagics I															0.0001	0.0000	0.0003	0.0002	0.0012	0.0043	0.0000							
European pilchard I															0.0002	0.0000	0.0004	0.0030	0.0000	0.0004	0.0000							
European anchovy I															0.0001	0.0000	0.0002	0.0019	0.0000	0.0003	0.0000							
Other small pelagics I															0.0002	0.0000	0.0004	0.0004	0.0000	0.0009	0.0000							
Large demersals I															0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
European hake I															0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Medium demersals I															0.0022	0.0000	0.0002	0.0000	0.0000	0.0010	0.0001							
Small demersals I															0.0009	0.0000	0.0000	0.0000	0.0000	0.0007	0.0001							
Deep fish I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Sharks I															0.0001	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000							
Rays and skates I															0.0001	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000							
Benthopelagic cephalopods I															0.0001	0.0000	0.0002	0.0002	0.0000	0.0001	0.0000							
Benthic cephalopods I															0.0002	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000							
Bivalves_gastropods I															0.0001	0.0007	0.0000	0.0000	0.0000	0.0002	0.0000							
Crustaceans I															0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Jellyfish I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Benthos I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Zooplankton I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Phytoplankton I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Seagrass I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Piscivores cetaceans E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pinnipeds E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Seabirds E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medium Pelagics E																						0.0003	0.0000	0.0008	0.0059	0.0002	0.0097	0.0000
European pilchard E																						0.0000	0.0000	0.0011	0.0029	0.0000	0.0001	0.0000
European anchovy E																						0.0001	0.0000	0.0043	0.0062	0.0000	0.0002	0.0000
Other small pelagics E																						0.0010	0.0000	0.0018	0.0027	0.0000	0.0036	0.0000
Large demersals E																						0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
European hake E																						0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medium demersals E																						0.0042	0.0000	0.0003	0.0000	0.0000	0.0019	0.0001
Small demersals E																						0.0011	0.0000	0.0000	0.0000	0.0000	0.0008	0.0002
Deep fish E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Skarks E																						0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Rays and skates E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benthopelagic cephalopods E																						0.0001	0.0000	0.0002	0.0002	0.0000	0.0001	0.0000
Benthic cephalopods E																						0.0002	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
Bivalves_gastropods E																						0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
Crustaceans E																						0.0010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jellyfish E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benthos E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Zooplankton E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Phytoplankton E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Seagrass E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

S 9. Fisheries landings (t/km^2/year) of the Mediterranean marine ecosystem for the 2000s period

Group name	TR W	DR W	MT W	PS W	LL W	AR W	RC W	TR A	DR A	MT A	PS A	LL A	AR A	RC A	TR I	DR I	MT I	PS I	LL I	AR I	RC I	TR E	DR E	MT E	PS E	LL E	AR E	RC E
Piscivores cetaceans W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Others cetaceans	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pinnipeds W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Seabirds W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Sea turtles	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Large Pelagics	0.0000	0.0000	0.0000	0.0005	0.0088	0.0001	0.0040	0.0000	0.0000	0.0000	0.0004	0.0024	0.0000	0.0002	0.0000	0.0000	0.0000	0.0004	0.0031	0.0002	0.0001	0.0000	0.0000	0.0000	0.0007	0.0012	0.0001	0.0000
Medium pelagics W	0.0004	0.0000	0.0010	0.0006	0.0010	0.0174	0.0003																					
European pilchard W	0.0030	0.0000	0.0069	0.0387	0.0000	0.0066	0.0000																					
European anchovy W	0.0009	0.0000	0.0021	0.0120	0.0000	0.0021	0.0000																					
Other small pelagics W	0.0017	0.0000	0.0031	0.0046	0.0000	0.0062	0.0001																					
Large demersals W	0.0012	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001																					
European hake W	0.0046	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Medium demersals W	0.0096	0.0000	0.0007	0.0000	0.0000	0.0045	0.0007																					
Small demersals W	0.0062	0.0000	0.0000	0.0000	0.0000	0.0046	0.0013																					
Deep fish W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Sharks W	0.0002	0.0000	0.0000	0.0000	0.0002	0.0000	0.0001																					
Rays and skates W	0.0002	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000																					
Benthopelagic cephalopods W	0.0006	0.0000	0.0010	0.0010	0.0000	0.0006	0.0001																					
Benthic cephalopods W	0.0032	0.0000	0.0000	0.0000	0.0000	0.0021	0.0000																					
Bivalves_gastropods W	0.0007	0.0051	0.0000	0.0000	0.0000	0.0015	0.0000																					
Crustaceans W	0.0075	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000																					
Jellyfish W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Benthos W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Zooplankton W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Phytoplankton W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Seagrass W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Piscivores cetaceans A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Pinnipeds A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Seabirds A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Medium Pelagics A								0.0005	0.0000	0.0005	0.0003	0.0003	0.0036	0.0004														
European pilchard A								0.0009	0.0000	0.0052	0.0028	0.0000	0.0004	0.0000														
European anchovy A								0.0010	0.0000	0.0056	0.0030	0.0000	0.0004	0.0000														
Other small pelagics A								0.0002	0.0000	0.0001	0.0000	0.0000	0.0002	0.0001														
Large demersals A								0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
European hake A								0.0019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Medium demersals A								0.0028	0.0000	0.0002	0.0000	0.0000	0.0008	0.0005														
Small demersals A								0.0029	0.0000	0.0000	0.0000	0.0000	0.0002	0.0004														
Deep fish A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Sharks A								0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Rays and skates A								0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Benthopelagic cephalopods A								0.0004	0.0000	0.0005	0.0005	0.0000	0.0004	0.0000														
Benthic cephalopods A								0.0010	0.0000	0.0000	0.0000	0.0000	0.0006	0.0000														
Bivalves_gastropods A								0.0007	0.0047	0.0000	0.0000	0.0000	0.0014	0.0000														
Crustaceans A								0.0037	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000														
Jellyfish A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Benthos A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Zooplankton A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Phytoplankton A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Seagrass A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Piscivores cetaceans I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Pinnipeds I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Seabirds I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Medium Pelagics I															0.0003	0.0000	0.0009	0.0005	0.0035	0.0121	0.0001							
European pilchard I															0.0005	0.0000	0.0009	0.0072	0.0000	0.0010	0.0000							
European anchovy I															0.0003	0.0000	0.0005	0.0038	0.0000	0.0005	0.0000							
Other small pelagics I															0.0010	0.0000	0.0019	0.0019	0.0000	0.0046	0.0001							
Large demersals I															0.0003	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000							
European hake I															0.0014	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Medium demersals I															0.0097	0.0000	0.0007	0.0000	0.0000	0.0045	0.0003							
Small demersals I															0.0051	0.0000	0.0000	0.0000	0.0000	0.0038	0.0004							
Deep fish I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Sharks I															0.0002	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000							
Rays and skates I															0.0003	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000							
Benthopelagic cephalopods I															0.0007	0.0000	0.0011	0.0011	0.0000	0.0007	0.0000							
Benthic cephalopods I															0.0012	0.0000	0.0000	0.0000	0.0000	0.0008	0.0000							
Bivalves_gastropods I															0.0004	0.0026	0.0000	0.0000	0.0000	0.0007	0.0000							
Crustaceans I															0.0049	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000							
Jellyfish I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Benthos I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Zooplankton I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Phytoplankton I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Seagrass I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Piscivores cetaceans E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pinnipeds E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Seabirds E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medium Pelagics E																						0.0008	0.0000	0.0020	0.0137	0.0004	0.0223	0.0000
European pilchard E																						0.0001	0.0000	0.0031	0.0079	0.0000	0.0002	0.0000
European anchovy E																						0.0006	0.0000	0.0456	0.0655	0.0000	0.0023	0.0000
Other small pelagics E																						0.0023	0.0000	0.0042	0.0061	0.0000	0.0083	0.0001
Large demersals E																						0.0013	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
European hake E																						0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medium demersals E																						0.0090	0.0000	0.0007	0.0000	0.0000	0.0042	0.0003
Small demersals E																						0.0087	0.0000	0.0000	0.0000	0.0000	0.0064	0.0006
Deep fish E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Skarks E																						0.0014	0.0000	0.0000	0.0000	0.0002	0.0002	0.0000
Rays and skates E																						0.0008	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000
Benthopelagic cephalopods E																						0.0004	0.0000	0.0006	0.0006	0.0000	0.0004	0.0000
Benthic cephalopods E																						0.0008	0.0000	0.0000	0.0000	0.0000	0.0005	0.0000
Bivalves_gastropods E																						0.0006	0.0044	0.0000	0.0000	0.0000	0.0013	0.0000
Crustaceans E																						0.0042	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
Jellyfish E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benthos E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Zooplankton E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Phytoplankton E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Seagrass E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

S 10. Fisheries discards (t/km^2/year) of the Mediterranean marine ecosystem for the 1950s period

Group name	TR W	DR W	MT W	PS W	LL W	AR W	RC W	TR A	DR A	MT A	PS A	LL A	AR A	RC A	TR I	DR I	MT I	PS I	LL I	AR I	RC I	TR E	DR E	MT E	PS E	LL E	AR E	RC E
Piscivores cetaceans W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Others cetaceans	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pinnipeds W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Seabirds W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Sea turtles	0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0001	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Large Pelagics	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medium pelagics W	0.0007	0.0000	0.0001	0.0000	0.0000	0.0010	0.0000																					
European pilchard W	0.0001	0.0000	0.0016	0.0018	0.0000	0.0003	0.0000																					
European anchovy W	0.0001	0.0000	0.0001	0.0011	0.0000	0.0003	0.0000																					
Other small pelagics W	0.0001	0.0000	0.0001	0.0005	0.0000	0.0008	0.0000																					
Large demersals W	0.0001	0.0000	0.0000	0.0000	0.0001	0.0003	0.0000																					
European hake W	0.0001	0.0000	0.0000	0.0000	0.0001	0.0003	0.0000																					
Medium demersals W	0.0019	0.0000	0.0000	0.0000	0.0001	0.0010	0.0000																					
Small demersals W	0.0003	0.0000	0.0000	0.0000	0.0001	0.0008	0.0000																					
Deep fish W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Sharks W	0.0000	0.0000	0.0000	0.0000	0.0001	0.0005	0.0000																					
Rays and skates W	0.0000	0.0000	0.0000	0.0000	0.0001	0.0005	0.0000																					
Benthopelagic cephalopods W	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Benthic cephalopods W	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Bivalves_gastropods W	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000																					
Crustaceans W	0.0007	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000																					
Jellyfish W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Benthos W	0.0029	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Zooplankton W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Phytoplankton W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Seagrass W	0.0000	0.0001	0.0000	0.0000	0.0000	0.0002	0.0000																					
Piscivores cetaceans A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Pinnipeds A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Seabirds A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Medium Pelagics A								0.0003	0.0000	0.0002	0.0000	0.0000	0.0001	0.0000														
European pilchard A								0.0001	0.0000	0.0032	0.0002	0.0000	0.0000	0.0000														
European anchovy A								0.0001	0.0000	0.0002	0.0003	0.0000	0.0000	0.0000														
Other small pelagics A								0.0001	0.0000	0.0002	0.0001	0.0000	0.0001	0.0000														
Large demersals A								0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000														
European hake A								0.0002	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000														
Medium demersals A								0.0004	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000														
Small demersals A								0.0002	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000														
Deep fish A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Sharks A								0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000														
Rays and skates A								0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000														
Benthopelagic cephalopods A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Benthic cephalopods A								0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Bivalves_gastropods A								0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000														
Crustaceans A								0.0016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Jellyfish A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Benthos A								0.0025	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000														
Zooplankton A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Phytoplankton A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Seagrass A								0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000														
Piscivores cetaceans I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Pinnipeds I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Seabirds I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Medium Pelagics I															0.0002	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000							
European pilchard I															0.0000	0.0000	0.0004	0.0004	0.0000	0.0000	0.0000							
European anchovy I															0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000							
Other small pelagics I															0.0000	0.0000	0.0000	0.0001	0.0000	0.0001	0.0000							
Large demersals I															0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000							
European hake I															0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000							
Medium demersals I															0.0006	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000							
Small demersals I															0.0001	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000							
Deep fish I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Sharks I															0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000							
Rays and skates I															0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000							
Benthopelagic cephalopods I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Benthic cephalopods I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Bivalves_gastropods I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Crustaceans I															0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Jellyfish I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Benthos I															0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Zooplankton I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Phytoplankton I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Seagrass I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Piscivores cetaceans E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pinnipeds E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Seabirds E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medium Pelagics E																						0.0003	0.0000	0.0002	0.0000	0.0000	0.0003	0.0000
European pilchard E																						0.0000	0.0000	0.0020	0.0012	0.0000	0.0001	0.0000
European anchovy E																						0.0000	0.0000	0.0001	0.0008	0.0000	0.0001	0.0000
Other small pelagics E																						0.0000	0.0000	0.0001	0.0003	0.0000	0.0002	0.0000
Large demersals E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
European hake E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
Medium demersals E																						0.0008	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000
Small demersals E																						0.0001	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000
Deep fish E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Skarks E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
Rays and skates E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
Benthopelagic cephalopods E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benthic cephalopods E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Bivalves_gastropods E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Crustaceans E																						0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jellyfish E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benthos E																						0.0012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Zooplankton E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Phytoplankton E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Seagrass E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000

S 11. Fisheries discards (t/km^2/year) of the Mediterranean marine ecosystem for the 2000s period

Group name	TR W	DR W	MT W	PS W	LL W	AR W	RC W	TR A	DR A	MT A	PS A	LL A	AR A	RC A	TR I	DR I	MT I	PS I	LL I	AR I	RC I	TR E	DR E	MT E	PS E	LL E	AR E	RC E
Piscivores cetaceans W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Others cetaceans	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
Pinnipeds W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Seabirds W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Sea turtles	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Large Pelagics	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000
Medium pelagics W	0.0010	0.0000	0.0003	0.0000	0.0001	0.0019	0.0000																					
European pilchard W	0.0001	0.0000	0.0035	0.0037	0.0000	0.0006	0.0000																					
European anchovy W	0.0001	0.0000	0.0002	0.0023	0.0000	0.0006	0.0000																					
Other small pelagics W	0.0001	0.0000	0.0002	0.0010	0.0000	0.0015	0.0000																					
Large demersals W	0.0001	0.0000	0.0000	0.0000	0.0004	0.0006	0.0000																					
European hake W	0.0001	0.0000	0.0000	0.0000	0.0004	0.0006	0.0000																					
Medium demersals W	0.0026	0.0000	0.0000	0.0000	0.0003	0.0019	0.0000																					
Small demersals W	0.0004	0.0000	0.0000	0.0001	0.0003	0.0015	0.0000																					
Deep fish W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Sharks W	0.0000	0.0000	0.0000	0.0000	0.0003	0.0009	0.0000																					
Rays and skates W	0.0000	0.0000	0.0000	0.0000	0.0003	0.0009	0.0000																					
Benthopelagic cephalopods W	0.0002	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000																					
Benthic cephalopods W	0.0002	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000																					
Bivalves_gastropods W	0.0001	0.0002	0.0000	0.0000	0.0000	0.0001	0.0000																					
Crustaceans W	0.0010	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000																					
Jellyfish W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Benthos W	0.0040	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000																					
Zooplankton W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Phytoplankton W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																					
Seagrass W	0.0000	0.0002	0.0000	0.0000	0.0000	0.0004	0.0000																					
Piscivores cetaceans A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Pinnipeds A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Seabirds A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Medium Pelagics A								0.0002	0.0000	0.0003	0.0000	0.0001	0.0001	0.0000														
European pilchard A								0.0000	0.0000	0.0043	0.0003	0.0000	0.0000	0.0000														
European anchovy A								0.0000	0.0000	0.0003	0.0005	0.0000	0.0000	0.0000														
Other small pelagics A								0.0000	0.0000	0.0003	0.0001	0.0000	0.0001	0.0000														
Large demersals A								0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000														
European hake A								0.0002	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000														
Medium demersals A								0.0003	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000														
Small demersals A								0.0002	0.0000	0.0000	0.0000	0.0002	0.0001	0.0000														
Deep fish A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Sharks A								0.0001	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000														
Rays and skates A								0.0001	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000														
Benthopelagic cephalopods A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Benthic cephalopods A								0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Bivalves_gastropods A								0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000														
Crustaceans A								0.0011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Jellyfish A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Benthos A								0.0018	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000														
Zooplankton A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Phytoplankton A								0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000														
Seagrass A								0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000														
Piscivores cetaceans I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Pinnipeds I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Seabirds I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Medium Pelagics I															0.0007	0.0000	0.0001	0.0000	0.0001	0.0004	0.0000							
European pilchard I															0.0001	0.0000	0.0014	0.0011	0.0000	0.0001	0.0000							
European anchovy I															0.0001	0.0000	0.0001	0.0007	0.0000	0.0001	0.0000							
Other small pelagics I															0.0001	0.0000	0.0001	0.0003	0.0000	0.0004	0.0000							
Large demersals I															0.0001	0.0000	0.0000	0.0000	0.0004	0.0001	0.0000							
European hake I															0.0001	0.0000	0.0000	0.0000	0.0004	0.0001	0.0000							
Medium demersals I															0.0018	0.0000	0.0000	0.0000	0.0003	0.0004	0.0000							
Small demersals I															0.0003	0.0000	0.0000	0.0000	0.0003	0.0004	0.0000							
Deep fish I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Sharks I															0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0000							
Rays and skates I															0.0000	0.0000	0.0000	0.0000	0.0003	0.0002	0.0000							
Benthopelagic cephalopods I															0.0001	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000							
Benthic cephalopods I															0.0001	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000							
Bivalves_gastropods I															0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000							
Crustaceans I															0.0007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Jellyfish I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Benthos I															0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000							
Zooplankton I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Phytoplankton I															0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
Seagrass I															0.0000	0.0001	0.0000	0.0000	0.0000	0.0001	0.0000							
Piscivores cetaceans E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pinnipeds E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Seabirds E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medium Pelagics E																						0.0007	0.0000	0.0010	0.0001	0.0000	0.0007	0.0000
European pilchard E																						0.0001	0.0000	0.0128	0.0061	0.0000	0.0002	0.0000
European anchovy E																						0.0001	0.0000	0.0008	0.0038	0.0000	0.0002	0.0000
Other small pelagics E																						0.0001	0.0000	0.0008	0.0017	0.0000	0.0006	0.0000
Large demersals E																						0.0001	0.0000	0.0000	0.0000	0.0001	0.0002	0.0000
European hake E																						0.0001	0.0000	0.0000	0.0000	0.0001	0.0002	0.0000
Medium demersals E																						0.0019	0.0000	0.0000	0.0001	0.0001	0.0007	0.0000
Small demersals E																						0.0003	0.0000	0.0000	0.0001	0.0001	0.0006	0.0000
Deep fish E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Skarks E																						0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0000
Rays and skates E																						0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0000
Benthopelagic cephalopods E																						0.0001	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000
Benthic cephalopods E																						0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Bivalves_gastropods E																						0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
Crustaceans E																						0.0007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jellyfish E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benthos E																						0.0030	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
Zooplankton E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Phytoplankton E																						0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Seagrass E																						0.0000	0.0003	0.0000	0.0000	0.0000	0.0001	0.0000

S 12. Keystoneness index (KSi) and relative total impact (ε_i) from the least to the most important pecies/groups in the ecosystem and for the two time periods.

1950				2000s			
#	Group name	Keystone index	Relative total impact	#	Group name	Keystone index	Relative total impact
28	Pinnipeds A	-4.163	0.000071	28	Pinnipeds A	-5.074	0.000007
51	Pinnipeds I	-3.662	0.000225	3	Pinnipeds W	-4.806	0.000014
3	Pinnipeds W	-3.608	0.000255	51	Pinnipeds I	-4.549	0.000025
74	Pinnipeds E	-3.065	0.000890	74	Pinnipeds E	-3.355	0.000388
29	Seabirds A	-2.629	0.002	27	Piscivores cetaceans A	-2.777	0.001
27	Piscivores cetaceans A	-2.451	0.004	5	Sea turtles	-2.627	0.002
73	Piscivores cetaceans E	-2.189	0.007	29	Seabirds A	-2.546	0.003
52	Seabirds I	-2.167	0.007	73	Piscivores cetaceans E	-2.473	0.003
50	Piscivores cetaceans I	-2.156	0.007	50	Piscivores cetaceans I	-2.434	0.003
4	Seabirds W	-1.753	0.018	52	Seabirds I	-2.050	0.008
5	Sea turtles	-1.727	0.019	91	Jellyfish E	-1.491	0.028
75	Seabirds E	-1.573	0.028	4	Seabirds W	-1.470	0.030
91	Jellyfish E	-1.519	0.031	68	Jellyfish I	-1.322	0.042
68	Jellyfish I	-1.443	0.037	75	Seabirds E	-1.321	0.042
10	Other small pelagics W	-1.198	0.066	1	Piscivores cetaceans W	-1.257	0.049
22	Jellyfish W	-1.148	0.074	22	Jellyfish W	-1.243	0.050
1	Piscivores cetaceans W	-1.072	0.088	38	Deep fish A	-1.038	0.081
56	Other small pelagics I	-1.005	0.103	33	Other small pelagics A	-1.023	0.083
33	Other small pelagics A	-0.999	0.104	10	Other small pelagics W	-0.956	0.097
38	Deep fish A	-0.973	0.110	37	Small demersals A	-0.924	0.105
26	Seagrass W	-0.920	0.138	26	Seagrass W	-0.907	0.118
79	Other small pelagics E	-0.908	0.128	95	Seagrass E	-0.899	0.119
9	European anchovy W	-0.904	0.129	72	Seagrass I	-0.898	0.119
72	Seagrass I	-0.903	0.142	84	Deep fish E	-0.886	0.115
95	Seagrass E	-0.899	0.143	61	Deep fish I	-0.879	0.116
61	Deep fish I	-0.887	0.135	49	Seagrass A	-0.838	0.128
84	Deep fish E	-0.877	0.138	55	European anchovy I	-0.832	0.130
37	Small demersals A	-0.856	0.144	60	Small demersals I	-0.817	0.134
49	Seagrass A	-0.850	0.146	56	Other small pelagics I	-0.816	0.135
60	Small demersals I	-0.845	0.148	83	Small demersals E	-0.806	0.137
55	European anchovy I	-0.829	0.154	14	Small demersals W	-0.801	0.139
78	European anchovy E	-0.793	0.168	9	European anchovy W	-0.796	0.141
32	European anchovy A	-0.789	0.169	34	Large demersals A	-0.783	0.145
83	Small demersals E	-0.782	0.171	79	Other small pelagics E	-0.779	0.147
45	Jellyfish A	-0.779	0.172	32	European anchovy A	-0.756	0.154
14	Small demersals W	-0.762	0.179	66	Bivalves and gastropods I	-0.746	0.158
34	Large demersals A	-0.721	0.197	45	Jellyfish A	-0.744	0.159
15	Deep fish W	-0.712	0.202	89	Bivalves and gastropods E	-0.743	0.159
20	Bivalves_gastropods W	-0.708	0.204	43	Bivalves and gastropods A	-0.740	0.160
89	Bivalves_gastropods E	-0.707	0.204	40	Rays A	-0.702	0.175

66	Bivalves_gastropods I	-0.701	0.207
11	Large demersals W	-0.700	0.207
40	Rays and skates A	-0.665	0.224
77	European pilchard E	-0.638	0.239
54	European pilchard I	-0.637	0.239
80	Large demersals E	-0.615	0.251
43	Bivalves_gastropods A	-0.610	0.254
31	European pilchard A	-0.608	0.256
8	European pilchard W	-0.607	0.256
57	Large demersals I	-0.606	0.256
35	European hake A	-0.602	0.259
58	European hake I	-0.526	0.308
90	Crustaceans E	-0.479	0.345
12	European hake W	-0.475	0.347
36	Medium demersals A	-0.473	0.348
82	Medium demersals E	-0.460	0.359
44	Crustaceans A	-0.445	0.372
63	Rays and skates I	-0.430	0.384
21	Crustaceans W	-0.411	0.403
2	Others cetaceans	-0.398	0.414
17	Rays and skates W	-0.387	0.425
67	Crustaceans I	-0.386	0.427
13	Medium demersals W	-0.376	0.437
86	Rays and skates E	-0.372	0.440
81	European hake E	-0.326	0.490
7	Medium pelagics W	-0.304	0.515
59	Medium demersals I	-0.301	0.519
46	Benthos A	-0.259	0.610
65	Benthic cephalopods I	-0.245	0.589
25	Phytoplankton W	-0.239	0.670
88	Benthic cephalopods E	-0.235	0.603
41	Benthopelagic cephalopods A	-0.228	0.612
42	Benthic cephalopods A	-0.226	0.615
19	Benthic cephalopods W	-0.222	0.622
87	Benthopelagic cephalopods E	-0.210	0.638
62	Sharks I	-0.206	0.645
76	Medium Pelagics E	-0.205	0.648
93	Zooplankton E	-0.205	0.659
39	Sharks A	-0.199	0.654
18	Benthopelagic cephalopods W	-0.198	0.657
23	Benthos W	-0.189	0.741
70	Zooplankton I	-0.188	0.685
24	Zooplankton W	-0.184	0.709
16	Sharks W	-0.179	0.687
94	Phytoplankton E	-0.178	0.723
47	Zooplankton A	-0.171	0.702
64	Benthopelagic cephalopods I	-0.169	0.702
30	Medium Pelagics A	-0.168	0.703
48	Phytoplankton A	-0.166	0.716

20	Bivalves and gastropods W	-0.697	0.177
11	Large demersals W	-0.695	0.178
8	European pilchard W	-0.672	0.188
15	Deep fish W	-0.668	0.190
77	European pilchard E	-0.659	0.193
31	European pilchard A	-0.648	0.198
54	European pilchard I	-0.648	0.198
57	Large demersals I	-0.604	0.219
78	European anchovy E	-0.599	0.222
35	European hake A	-0.570	0.237
80	Large demersals E	-0.568	0.238
36	Medium demersals A	-0.558	0.243
58	European hake I	-0.547	0.250
12	European hake W	-0.536	0.256
2	Others cetaceans	-0.531	0.259
82	Medium demersals E	-0.507	0.274
21	Crustaceans W	-0.446	0.316
17	Rays W	-0.443	0.317
44	Crustaceans A	-0.433	0.325
63	Rays I	-0.429	0.328
7	Medium pelagics W	-0.428	0.329
90	Crustaceans E	-0.421	0.334
86	Rays E	-0.412	0.341
30	Medium Pelagics A	-0.402	0.349
59	Medium demersals I	-0.388	0.360
13	Medium demersals W	-0.380	0.368
67	Crustaceans I	-0.380	0.368
81	European hake E	-0.366	0.379
76	Medium Pelagics E	-0.332	0.411
62	Sharks I	-0.265	0.478
25	Phytoplankton W	-0.263	0.549
88	Benthic Cephalopods E	-0.246	0.499
42	Benthic Cephalopods A	-0.245	0.500
46	Benthos A	-0.243	0.536
41	Benthopelagic Cephalopods A	-0.237	0.510
93	Zooplankton E	-0.237	0.520
53	Medium Pelagics I	-0.236	0.511
85	Skarks E	-0.235	0.512
65	Benthic Cephalopods I	-0.230	0.518
94	Phytoplankton E	-0.205	0.588
64	Benthopelagic Cephalopods I	-0.204	0.550
70	Zooplankton I	-0.200	0.573
24	Zooplankton W	-0.198	0.587
19	Benthic Cephalopods W	-0.197	0.560
23	Benthos W	-0.191	0.616
71	Phytoplankton I	-0.191	0.615
87	Benthopelagic Cephalopods E	-0.185	0.574
18	Benthopelagic Cephalopods W	-0.183	0.577
47	Zooplankton A	-0.177	0.589

71	Phytoplankton I	-0.165	0.737	48	Phytoplankton A	-0.174	0.600
53	Medium Pelagics I	-0.160	0.717	16	Sharks W	-0.148	0.626
85	Skarks E	-0.155	0.724	69	Benthos I	-0.146	0.670
69	Benthos I	-0.146	0.789	92	Benthos E	-0.144	0.665
92	Benthos E	-0.134	0.804	39	Sharks A	-0.117	0.672
6	Large Pelagics	-0.018	1.000	6	Large Pelagics	0.053	1.000

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