

1 **Supporting Material**

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3 **Fish functional groups of the North Atlantic and Arctic Oceans**

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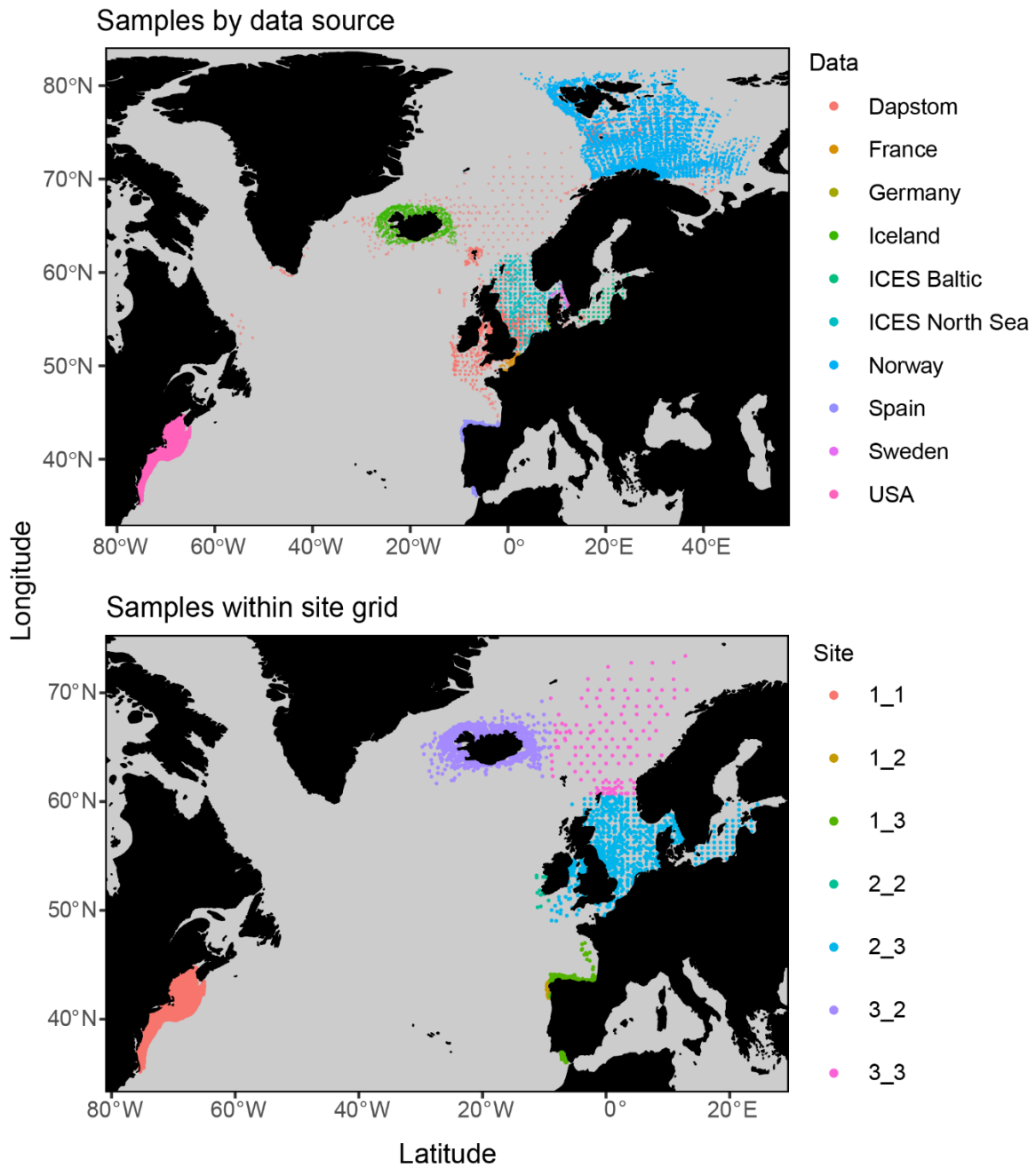
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Figure S1: The sample distribution of different data sources and by site (see Table 1).

1 Table S1. AIC values for the full (top row) and nested models to assess the importance of all random  
 2 effects. The term dropped indicates which term from the model was removed from the model above.  
 3 \* denotes an interaction with  $\log_{10}$ (predator weight), i.e., random slope and intercept, others are all  
 4 random intercepts only.

Termed dropped	AIC
	1051829
n stomachs	1052150
Site	1056090
Year	1075564
Data	1076274
Prey functional group*	1194755
Predator taxa*	1364124

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 7 Table S2. Body size bins,  $\log_{10}$  transformed body mass in grams,  $\log_{10}$  transformed bin width and  
 8 minimum and maximum body masses in grams of organisms by size bin.

Size bin	Log10(g)	Bin width	Min g	Max g
1	-7.579	0.813	1.03E-08	6.73E-08
2	-6.765	0.813	6.73E-08	4.38E-07
3	-5.952	0.813	4.38E-07	2.85E-06
4	-5.139	0.813	2.85E-06	1.85E-05
5	-4.326	0.813	1.85E-05	1.20E-04
6	-3.513	0.813	1.20E-04	7.83E-04
7	-2.699	0.813	7.83E-04	0.005095
8	-1.886	0.813	0.005095	0.033139
9	-1.073	0.813	0.033139	0.215543
10	-0.260	0.813	0.215543	1.401963
11	0.553	0.813	1.401963	9.11881
12	1.367	0.813	9.11881	59.31163
13	2.180	0.813	59.31163	385.7816
14	2.993	0.813	385.7816	2509.246
15	3.806	0.813	2509.246	16320.93
16	4.619	0.813	16320.93	106156.5
17	5.433	0.813	106156.5	690475.5
18	6.246	0.813	690475.5	4491071
19	7.059	0.813	4491071	29211349
20	7.872	0.813	29211349	1.9E+08

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1 Table S3. Data used to generate trait-based feeding guilds and produce Fig. 4. Taxa, size bin, distribution of stomach samples by taxa and size (*n*), feeding  
 2 guild (Plank = planktivore, Benth = benthivore, B-pisc = benthopiscivore, Pisc = piscivore), log10 transformed average biomass-weighted predator-prey mass  
 3 ratios (PPMR), log10 transformed average individual prey mass (g), average predator size in cm, the % of different prey functional groups (zoop=zooplankton,  
 4 ben=benthos, nek=nekton, oth=other), axes scores from non-metric multidimensional scaling analysis (Fig. S4) and the hierarchy of feeding guilds from cluster  
 5 analysis (h2 = first split in the classification tree; h3 = third split; h5 = fifth split).  
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Taxa	S. bin	<i>n</i>	Guild	PPMR	Prey mass	Pred cm	fish	zoop	ben	nek	oth	Axis 1	Axis 2	h2	h3	h5
<i>Alosa aestivalis</i>	13	37	Plank	4.09	-1.554	19	0	78	22	0	0	0.573	-0.282	2	2	2
<i>Ammodytes</i>	11	144	Plank	5.03	-2.899	13	2	83	7	0	8	0.877	-0.4	2	2	2
<i>Ammodytes</i>	12	104	Plank	5.22	-2.454	17	17	70	10	0	2	0.774	-0.103	2	2	2
<i>Argentina silus</i>	13	145	Plank	4.08	-0.674	30	2	60	0	0	38	0.592	-0.101	2	2	2
<i>Argentina silus</i>	14	141	Plank	4.4	-0.208	48	10	61	2	1	26	0.523	0.024	2	2	2
<i>Boreogadus saida</i>	11	513	Plank	3.88	-2.589	10	0	95	0	0	5	0.938	-0.313	2	2	2
<i>Boreogadus saida</i>	12	1658	Plank	4.13	-2.302	14	0	95	0	0	5	0.891	-0.302	2	2	2
<i>Boreogadus saida</i>	13	31	Plank	4.16	-1.967	23	0	95	0	0	5	0.846	-0.277	2	2	2
<i>Clupea harengus</i>	10	32	Plank	3.69	-1.936	5	0	98	0	0	2	0.864	-0.254	2	2	2
<i>Clupea harengus</i>	11	236	Plank	4.43	-1.449	11	0	67	8	0	25	0.633	-0.249	2	2	2
<i>Clupea harengus</i>	12	359	Plank	5.1	-0.892	16	4	79	16	0	1	0.561	-0.198	2	2	2
<i>Clupea harengus</i>	13	1606	Plank	5.08	-0.801	29	5	72	22	0	1	0.491	-0.184	2	2	2
<i>Clupea harengus</i>	14	202	Plank	5.44	-0.953	36	3	96	0	0	2	0.762	-0.182	2	2	2
<i>Engraulis encrasicolus</i>	12	72	Plank	2.78	-0.899	18	0	99	0	0	1	0.819	-0.089	2	2	2
<i>Etmopterus spinax</i>	12	184	Plank	3.99	-0.352	20	9	86	4	1	0	0.594	-0.028	2	2	2
<i>Etmopterus spinax</i>	13	241	Plank	4.58	0.165	31	22	64	12	2	0	0.419	0.104	2	2	2
<i>Gadus morhua</i>	8	30	Plank	2.11	-3.596	1	0	100	0	0	0	1.366	-0.274	2	2	2
<i>Gadus morhua</i>	9	149	Plank	2.72	-3.038	3	0	99	1	0	0	1.131	-0.275	2	2	2
<i>Gadus morhua</i>	10	625	Plank	3.06	-2.243	4	0	96	3	0	0	0.922	-0.24	2	2	2
<i>Gadus morhua</i>	11	2395	Plank	3.41	-1.997	9	0	80	14	3	3	0.687	-0.271	2	2	2
<i>Galeus atlanticus</i>	13	134	Plank	4.94	-1.217	34	2	62	5	31	0	0.625	-0.381	2	2	2
<i>Galeus melastomus</i>	12	1082	Plank	4.1	-0.335	22	10	69	18	3	0	0.429	-0.04	2	2	2

<i>Galeus melastomus</i>	13	1847	Plank	3.91	0.133	39	19	58	20	3	0	0.329	0.073	2	2	2
<i>Hoplostethus mediterraneus</i>	12	35	Plank	4.42	-0.493	13	3	89	6	3	0	0.616	-0.1	2	2	2
<i>Hoplostethus mediterraneus</i>	13	48	Plank	2.8	-0.186	23	9	58	16	17	0	0.447	0.08	2	2	2
<i>Lepidopus caudatus</i>	13	96	Plank	4.82	-0.478	57	12	82	1	5	0	0.614	-0.015	2	2	2
<i>Mallotus villosus</i>	11	815	Plank	4.07	-2.72	11	0	92	0	0	8	0.949	-0.332	2	2	2
<i>Mallotus villosus</i>	12	2189	Plank	4.08	-2.311	15	0	95	0	0	5	0.897	-0.301	2	2	2
<i>Melanogrammus aeglefinus</i>	9	31	Plank	2.85	-2.975	3	0	100	0	0	0	1.107	-0.28	2	2	2
<i>Melanogrammus aeglefinus</i>	10	138	Plank	3.06	-2.33	4	0	99	0	0	1	0.969	-0.25	2	2	2
<i>Merlangius merlangus</i>	9	259	Plank	3.03	-3.187	3	0	100	0	0	0	1.118	-0.301	2	2	2
<i>Merlangius merlangus</i>	10	738	Plank	3.2	-2.303	4	0	98	1	0	1	0.936	-0.252	2	2	2
<i>Merlangius merlangus</i>	11	1409	Plank	3.42	-1.51	8	2	66	22	6	5	0.497	-0.234	2	2	2
<i>Merluccius merluccius</i>	11	498	Plank	3.68	-0.565	10	9	55	10	27	0	0.497	-0.005	2	2	2
<i>Micromesistius poutassou</i>	12	3054	Plank	3.62	-0.549	17	10	83	4	3	0	0.586	-0.025	2	2	2
<i>Micromesistius poutassou</i>	13	4373	Plank	3.52	-0.028	24	22	65	10	3	0	0.424	0.124	2	2	2
<i>Peprilus triacanthus</i>	13	189	Plank	4.5	-1.769	12	0	93	5	2	0	0.768	-0.265	2	2	2
<i>Peprilus triacanthus</i>	12	70	Plank	4.15	-0.941	13	0	93	6	1	0	0.677	-0.169	2	2	2
<i>Pollachius virens</i>	10	61	Plank	2.9	-2.115	4	0	100	0	0	0	0.96	-0.223	2	2	2
<i>Sardina pilchardus</i>	13	109	Plank	5.94	-1.683	24	0	76	1	0	23	0.782	-0.341	2	2	2
<i>Scomber scombrus</i>	12	488	Plank	3.33	-0.534	18	12	79	6	2	0	0.565	0.008	2	2	2
<i>Scomber scombrus</i>	13	11527	Plank	5.64	-0.075	30	17	73	7	2	0	0.549	0.073	2	2	2
<i>Scomber scombrus</i>	14	5692	Plank	5.77	-0.238	39	17	79	3	1	0	0.622	0.061	2	2	2
<i>Sebastes norvegicus</i>	11	226	Plank	3.21	-1.829	8	0	92	0	0	8	0.865	-0.217	2	2	2
<i>Sebastes norvegicus</i>	12	842	Plank	3.94	-1.419	15	1	85	1	0	14	0.746	-0.212	2	2	2
<i>Sebastes norvegicus</i>	13	861	Plank	4.24	-0.389	25	12	69	2	0	18	0.564	0.001	2	2	2
<i>Sebastes norvegicus</i>	14	901	Plank	4.22	0.145	38	25	57	2	0	16	0.451	0.182	2	2	2
<i>Sprattus sprattus</i>	11	636	Plank	4.85	-1.398	9	0	90	1	0	8	0.764	-0.248	2	2	2
<i>Sprattus sprattus</i>	12	322	Plank	5.16	-1.33	12	3	88	4	0	6	0.73	-0.228	2	2	2
<i>Trachurus trachurus</i>	12	270	Plank	4.16	-1.01	16	1	54	22	2	21	0.413	-0.193	2	2	2
<i>Trachurus trachurus</i>	13	2528	Plank	4.72	-0.595	27	10	53	18	4	16	0.394	-0.072	2	2	2

<i>Trisopterus esmarkii</i>	10	46	Plank	3.45	-2.364	5	0	98	0	0	2	0.936	-0.274	2	2	2
<i>Trisopterus esmarkii</i>	11	751	Plank	2.91	-1.424	10	0	76	13	10	1	0.646	-0.202	2	2	2
<i>Trisopterus esmarkii</i>	12	649	Plank	3.46	-1.064	15	2	68	13	14	3	0.545	-0.155	2	2	2
<i>Trisopterus esmarkii</i>	13	106	Plank	3.16	-0.824	21	4	67	12	17	0	0.535	-0.09	2	2	2
<i>Zeus faber</i>	11	40	Plank	3.03	-0.531	7	13	66	18	3	0	0.433	0.004	2	2	2
<i>Agonus cataphractus</i>	11	99	Benth	3.24	-1.954	9	0	0	75	0	25	-0.387	-0.424	1	1	1
<i>Amblyraja radiata</i>	12	76	Benth	3.63	-0.735	19	4	11	66	13	7	-0.127	-0.209	1	1	3
<i>Anarhichas lupus</i>	12	456	Benth	3.07	-1.116	15	1	1	84	0	14	-0.378	-0.294	1	1	1
<i>Anarhichas lupus</i>	13	1328	Benth	3.69	-0.689	30	2	0	78	0	20	-0.288	-0.248	1	1	1
<i>Anarhichas lupus</i>	14	1137	Benth	4.11	0.081	50	5	0	85	0	10	-0.305	-0.152	1	1	1
<i>Anarhichas lupus</i>	15	495	Benth	4.24	0.343	70	14	0	75	0	11	-0.264	-0.058	1	1	1
<i>Anarhichas minor</i>	13	37	Benth	3.26	-0.461	24	0	0	80	0	20	-0.341	-0.212	1	1	1
<i>Anarhichas minor</i>	14	256	Benth	3.68	-0.027	47	5	2	74	0	19	-0.263	-0.129	1	1	1
<i>Arnoglossus imperialis</i>	12	38	Benth	4.42	-0.775	13	3	5	61	30	0	-0.093	-0.403	1	1	3
<i>Arnoglossus laterna</i>	11	165	Benth	4.66	-2.046	10	0	2	93	4	1	-0.331	-0.491	1	1	1
<i>Arnoglossus laterna</i>	12	150	Benth	4.93	-1.971	13	0	10	78	11	0	-0.182	-0.495	1	1	1
<i>Callionymus lyra</i>	12	742	Benth	2.93	-0.905	17	0	7	90	1	1	-0.346	-0.277	1	1	1
<i>Callionymus lyra</i>	13	1338	Benth	2.99	-0.659	23	0	7	92	0	0	-0.349	-0.249	1	1	1
<i>Centropristis striata</i>	12	61	Benth	2.35	0.075	26	9	2	87	2	0	-0.425	-0.07	1	1	1
<i>Centropristis striata</i>	13	453	Benth	3.17	0.225	27	8	2	87	4	0	-0.328	-0.088	1	1	1
<i>Chelidonichthys cuculus</i>	11	74	Benth	2.36	-0.922	10	1	23	51	24	0	0.075	-0.421	1	1	3
<i>Chelidonichthys cuculus</i>	12	939	Benth	2.69	-0.878	13	1	14	57	27	0	-0.027	-0.405	1	1	3
<i>Chelidonichthys cuculus</i>	13	3987	Benth	3.02	-0.379	23	10	19	54	16	0	-0.023	-0.087	1	1	3
<i>Chelidonichthys lucerna</i>	13	915	Benth	3.57	0.252	27	16	11	70	2	0	-0.183	-0.027	1	1	1
<i>Chelidonichthys obscurus</i>	12	94	Benth	5	-1.235	16	0	2	94	4	0	-0.296	-0.411	1	1	1
<i>Chelidonichthys obscurus</i>	13	512	Benth	4.68	-0.794	24	0	9	64	26	0	-0.087	-0.393	1	1	3
<i>Chimaera monstrosa</i>	14	60	Benth	5.5	-1.279	26	0	6	94	0	0	-0.29	-0.452	1	1	1
<i>Chimaera monstrosa</i>	15	51	Benth	6.47	-0.488	45	0	2	96	2	0	-0.383	-0.386	1	1	1
<i>Ciliata mustela</i>	12	63	Benth	3.33	-0.672	17	9	0	87	0	3	-0.342	-0.19	1	1	1

<i>Citharichthys arctifrons</i>	13	43	Benth	4.01	-1.494	11	0	26	74	0	0	-0.072	-0.366	1	1	1
<i>Citharus linguatula</i>	12	156	Benth	5.18	-2.234	16	0	21	75	4	0	-0.084	-0.527	1	1	1
<i>Coris julis</i>	12	228	Benth	2.58	-0.677	15	2	19	50	29	0	0.067	-0.363	1	1	3
<i>Dicentrarchus labrax</i>	12	39	Benth	2.98	-0.991	15	0	0	100	0	0	-0.438	-0.31	1	1	1
<i>Dicentrarchus labrax</i>	13	144	Benth	3	-0.464	22	4	0	79	0	17	-0.353	-0.179	1	1	1
<i>Dipturus laevis</i>	12	80	Benth	1.83	0.084	57	5	0	95	0	0	-0.558	-0.117	1	1	1
<i>Dipturus laevis</i>	13	1020	Benth	2.52	0.486	64	11	1	88	1	0	-0.419	-0.032	1	1	1
<i>Dipturus laevis</i>	15	96	Benth	3.58	1.228	65	18	1	81	0	0	-0.328	0.024	1	1	1
<i>Dipturus laevis</i>	14	906	Benth	3.24	1	67	15	0	84	1	0	-0.35	0.005	1	1	1
<i>Enchelyopus cimbrius</i>	12	65	Benth	3.61	-1.199	20	2	15	72	0	12	-0.15	-0.294	1	1	1
<i>Enchelyopus cimbrius</i>	13	86	Benth	3.8	-0.96	27	0	13	77	0	9	-0.186	-0.29	1	1	1
<i>Eutrigla gurnardus</i>	11	31	Benth	2.64	-1.207	9	0	0	74	26	0	-0.523	-0.344	1	1	3
<i>Eutrigla gurnardus</i>	12	6076	Benth	3	-0.809	16	5	15	61	17	3	-0.072	-0.222	1	1	3
<i>Gadus morhua</i>	13	47491	Benth	3.2	0.201	29	18	8	71	1	2	-0.225	-0.009	1	1	1
<i>Gaidropsarus macrophthalmus</i>	11	205	Benth	1.87	-0.623	10	2	13	76	9	0	-0.461	-0.182	1	1	1
<i>Gaidropsarus macrophthalmus</i>	12	587	Benth	2.24	-0.402	14	6	12	76	6	0	-0.347	-0.125	1	1	1
<i>Glyptocephalus cynoglossus</i>	13	68	Benth	3.55	-0.477	32	0	4	90	6	0	-0.303	-0.229	1	1	1
<i>Hippoglossoides platessoides</i>	11	81	Benth	2.92	-1.723	8	0	5	18	0	77	0.219	-0.586	1	1	1
<i>Hippoglossoides platessoides</i>	12	1972	Benth	3.12	-1.139	15	1	15	34	0	50	0.112	-0.265	1	1	1
<i>Lepidorhombus boscii</i>	11	151	Benth	2.23	-0.999	11	1	10	83	6	0	-0.424	-0.271	1	1	1
<i>Lepidorhombus boscii</i>	12	13164	Benth	2.6	-0.64	16	3	15	74	8	0	-0.196	-0.216	1	1	1
<i>Lepidorhombus boscii</i>	13	14638	Benth	2.65	-0.126	24	12	11	74	2	0	-0.251	-0.06	1	1	1
<i>Lepidorhombus boscii</i>	14	51	Benth	2.99	0.185	37	23	3	74	0	0	-0.287	0.021	1	1	1
<i>Lepidotrigla cavillone</i>	11	49	Benth	4.65	-3.35	9	0	0	61	39	0	-0.254	-0.89	1	1	3
<i>Lepidotrigla cavillone</i>	12	56	Benth	4.96	-3.022	11	0	0	49	51	0	-0.088	-0.96	1	1	3
<i>Lepidotrigla dieuzeidei</i>	12	65	Benth	5.14	-3.045	12	0	0	53	47	0	-0.128	-0.938	1	1	3
<i>Lepophidium profundorum</i>	13	46	Benth	4.08	-1.182	23	2	32	66	0	0	0.006	-0.301	1	1	1
<i>Lepophidium profundorum</i>	14	41	Benth	4.7	-1.362	23	0	24	76	0	0	-0.071	-0.384	1	1	1
<i>Leucoraja erinacea</i>	12	301	Benth	2.7	-0.299	40	7	3	88	2	0	-0.375	-0.14	1	1	1



<i>Leucoraja erinacea</i>	13	5733	Benth	3.16	-0.108	40	7	3	89	1	0	-0.332	-0.133	1	1	1
<i>Leucoraja erinacea</i>	14	5402	Benth	3.79	-0.027	41	8	2	89	1	0	-0.3	-0.14	1	1	1
<i>Leucoraja garmani</i>	13	190	Benth	3.21	-0.412	37	5	8	86	2	0	-0.277	-0.176	1	1	1
<i>Leucoraja garmani</i>	14	173	Benth	3.93	-0.435	37	4	2	93	1	0	-0.309	-0.227	1	1	1
<i>Leucoraja naevus</i>	13	231	Benth	4.37	-0.308	33	3	10	68	18	0	-0.11	-0.22	1	1	3
<i>Limanda ferruginea</i>	13	268	Benth	4.01	-0.583	30	6	6	88	0	0	-0.263	-0.228	1	1	1
<i>Limanda ferruginea</i>	14	192	Benth	4.43	-0.717	30	2	10	88	0	0	-0.222	-0.29	1	1	1
<i>Limanda limanda</i>	11	67	Benth	3.47	-2.229	8	0	5	71	0	23	-0.293	-0.472	1	1	1
<i>Limanda limanda</i>	12	1134	Benth	3.17	-1.282	16	0	1	96	0	2	-0.407	-0.338	1	1	1
<i>Limanda limanda</i>	13	4080	Benth	3.44	-0.819	22	4	4	90	0	1	-0.312	-0.249	1	1	1
<i>Lipophrys pholis</i>	10	35	Benth	2.47	-2.471	4	0	7	45	0	48	-0.098	-0.718	1	1	1
<i>Lumpenus lampraeformis</i>	12	87	Benth	4.31	-1.701	30	0	5	51	0	44	-0.075	-0.452	1	1	1
<i>Macrozoarces americanus</i>	13	355	Benth	3.13	0.177	50	0	0	99	0	0	-0.421	-0.156	1	1	1
<i>Macrozoarces americanus</i>	14	314	Benth	3.81	0.133	51	1	0	99	0	0	-0.378	-0.185	1	1	1
<i>Malacocephalus laevis</i>	12	32	Benth	3.75	-1.432	5	0	5	91	3	0	-0.3	-0.356	1	1	1
<i>Malacoraja senta</i>	13	453	Benth	2.93	0.105	45	9	5	86	0	0	-0.339	-0.093	1	1	1
<i>Malacoraja senta</i>	14	452	Benth	3.52	0.143	46	12	4	84	0	0	-0.285	-0.084	1	1	1
<i>Melanogrammus aeglefinus</i>	11	368	Benth	3.54	-1.76	9	0	34	62	2	2	0.049	-0.373	1	1	1
<i>Melanogrammus aeglefinus</i>	12	10564	Benth	3.56	-0.992	15	5	17	65	5	9	-0.094	-0.22	1	1	3
<i>Microchirus variegatus</i>	12	45	Benth	4.23	-0.746	12	0	6	94	0	0	-0.278	-0.31	1	1	1
<i>Microstomus kitt</i>	12	94	Benth	3.94	-1.928	16	0	0	91	0	9	-0.376	-0.45	1	1	1
<i>Microstomus kitt</i>	13	580	Benth	4.64	-1.397	25	0	2	88	1	9	-0.3	-0.406	1	1	1
<i>Microstomus kitt</i>	14	587	Benth	4.83	-1.277	37	0	0	87	0	13	-0.306	-0.411	1	1	1
<i>Mullus surmuletus</i>	12	163	Benth	4.98	-1.4	14	0	4	86	7	3	-0.257	-0.421	1	1	1
<i>Mullus surmuletus</i>	13	888	Benth	4.56	-0.668	23	0	7	84	8	1	-0.222	-0.296	1	1	1
<i>Mullus surmuletus</i>	14	66	Benth	3.33	-0.365	31	0	7	89	2	2	-0.296	-0.206	1	1	1
<i>Mustelus canis</i>	12	112	Benth	1.82	0.357	80	10	2	82	6	0	-0.483	-0.005	1	1	1
<i>Mustelus canis</i>	13	1758	Benth	2.04	0.814	89	11	1	82	7	0	-0.471	0.034	1	1	1
<i>Mustelus canis</i>	14	1782	Benth	3.83	1.142	90	10	1	82	7	0	-0.322	-0.025	1	1	1

<i>Myoxocephalus octodecemspinosus</i>	12	95	Benth	2.29	0.044	26	8	0	92	0	0	-0.473	-0.097	1	1	1
<i>Myoxocephalus octodecemspinosus</i>	13	2555	Benth	3.01	0.141	26	8	1	91	0	0	-0.373	-0.102	1	1	1
<i>Myoxocephalus octodecemspinosus</i>	14	545	Benth	3.23	0.121	26	6	1	93	0	0	-0.368	-0.124	1	1	1
<i>Nezumia aequalis</i>	12	74	Benth	4.94	-1.734	6	0	3	73	24	0	-0.204	-0.547	1	1	1
<i>Pagellus acarne</i>	13	782	Benth	4.48	-0.018	26	7	18	61	14	0	-0.041	-0.127	1	1	3
<i>Pagellus acarne</i>	14	615	Benth	3.44	0.187	32	9	9	70	12	0	-0.197	-0.062	1	1	3
<i>Pagellus erythrinus</i>	14	121	Benth	2.98	0.398	36	10	6	78	5	0	-0.283	-0.037	1	1	1
<i>Paralichthys oblongus</i>	13	2252	Benth	3.07	0.21	28	14	2	73	11	0	-0.285	-0.009	1	1	3
<i>Paralichthys oblongus</i>	14	1932	Benth	3.62	0.327	28	17	2	70	12	0	-0.241	0.004	1	1	3
<i>Paralichthys oblongus</i>	12	116	Benth	2.49	0.107	29	9	4	69	17	0	-0.392	0.017	1	1	3
<i>Paralichthys oblongus</i>	15	36	Benth	4.15	0.662	30	19	6	63	11	0	-0.177	0.045	1	1	3
<i>Phycis blennoides</i>	12	1200	Benth	2.81	-0.552	17	2	10	83	5	0	-0.291	-0.204	1	1	1
<i>Phycis blennoides</i>	13	570	Benth	3.56	-0.181	25	5	9	83	4	0	-0.233	-0.153	1	1	1
<i>Phycis blennoides</i>	14	92	Benth	3.03	0.538	41	17	8	73	2	0	-0.25	0.015	1	1	1
<i>Platichthys flesus</i>	10	524	Benth	2.41	-2.107	4	0	0	100	0	0	-0.58	-0.468	1	1	1
<i>Platichthys flesus</i>	11	120	Benth	3	-1.275	7	0	0	98	0	2	-0.443	-0.345	1	1	1
<i>Platichthys flesus</i>	12	94	Benth	3.51	-0.868	12	1	0	97	0	2	-0.37	-0.297	1	1	1
<i>Platichthys flesus</i>	13	1075	Benth	3.95	-0.38	21	4	0	93	0	2	-0.332	-0.227	1	1	1
<i>Pleuronectes platessa</i>	11	354	Benth	3.3	-1.334	7	0	9	77	0	14	-0.248	-0.331	1	1	1
<i>Pleuronectes platessa</i>	12	1829	Benth	3.66	-1.311	13	0	11	85	0	4	-0.247	-0.342	1	1	1
<i>Pleuronectes platessa</i>	13	7220	Benth	3.83	-0.82	25	6	5	88	0	1	-0.279	-0.251	1	1	1
<i>Pleuronectes platessa</i>	14	2079	Benth	4.37	-0.577	40	6	5	83	0	7	-0.249	-0.238	1	1	1
<i>Pomatoschistus minutus</i>	11	52	Benth	3.6	-1.886	6	0	3	80	0	17	-0.34	-0.412	1	1	1
<i>Prionotus carolinus</i>	13	273	Benth	3.78	-0.757	21	1	6	93	0	0	-0.296	-0.282	1	1	1
<i>Prionotus carolinus</i>	12	36	Benth	2.84	-0.816	22	0	6	94	0	0	-0.39	-0.276	1	1	1
<i>Prionotus carolinus</i>	14	109	Benth	4.04	-0.664	23	4	4	93	0	0	-0.295	-0.267	1	1	1

<i>Prionotus evolans</i>	13	184	Benth	2.84	0.138	28	21	2	76	1	0	-0.309	0.015	1	1	1
<i>Prionotus evolans</i>	14	61	Benth	3.35	0.165	28	27	3	70	0	0	-0.255	0.042	1	1	1
<i>Pseudopleuronectes americanus</i>	12	37	Benth	3.41	-0.924	27	0	0	100	0	0	-0.394	-0.312	1	1	1
<i>Pseudopleuronectes americanus</i>	13	260	Benth	4.01	-0.641	32	2	3	95	0	0	-0.308	-0.28	1	1	1
<i>Pseudopleuronectes americanus</i>	14	299	Benth	5.04	-0.329	33	1	2	97	0	0	-0.328	-0.311	1	1	1
<i>Raja clavata</i>	12	154	Benth	3.71	-0.652	18	3	4	78	15	0	-0.234	-0.243	1	1	3
<i>Raja clavata</i>	13	1476	Benth	3.33	-0.357	31	2	3	77	18	0	-0.298	-0.186	1	1	3
<i>Raja clavata</i>	14	3012	Benth	3.18	0.525	53	6	2	84	7	0	-0.334	-0.064	1	1	1
<i>Raja clavata</i>	15	638	Benth	3.26	0.924	78	16	1	81	3	0	-0.321	0.015	1	1	1
<i>Raja montagui</i>	13	553	Benth	3.31	-0.339	32	6	6	62	26	0	-0.135	-0.17	1	1	3
<i>Raja montagui</i>	14	1512	Benth	3.4	0.302	52	17	4	61	17	0	-0.219	0.052	1	1	3
<i>Scophthalmus aquosus</i>	12	96	Benth	2.55	-0.29	27	18	3	77	1	0	-0.353	-0.035	1	1	1
<i>Scophthalmus aquosus</i>	13	1612	Benth	3.13	-0.208	27	18	4	78	0	0	-0.281	-0.061	1	1	1
<i>Scophthalmus aquosus</i>	14	1576	Benth	3.83	-0.183	27	18	4	77	1	0	-0.235	-0.075	1	1	1
<i>Scorpaena notata</i>	12	56	Benth	4.92	-0.868	12	0	7	88	4	2	-0.229	-0.342	1	1	1
<i>Scorpaena notata</i>	13	34	Benth	4.44	-0.261	16	0	6	84	7	3	-0.234	-0.235	1	1	1
<i>Serranus hepatus</i>	12	134	Benth	4.99	-2.759	11	0	4	84	11	0	-0.314	-0.609	1	1	1
<i>Solea solea</i>	12	221	Benth	3.76	-1.758	15	1	1	79	0	19	-0.325	-0.395	1	1	1
<i>Solea solea</i>	13	450	Benth	3.78	-0.956	26	3	2	92	0	3	-0.32	-0.295	1	1	1
<i>Solea solea</i>	14	39	Benth	4.12	-0.548	37	9	9	82	0	0	-0.215	-0.195	1	1	1
<i>Spondyliosoma cantharus</i>	13	124	Benth	5.02	0.047	23	8	28	46	14	4	0.107	-0.101	1	1	3
<i>Stenotomus chrysops</i>	13	114	Benth	4.22	-0.971	17	3	12	78	7	0	-0.161	-0.281	1	1	1
<i>Stenotomus chrysops</i>	14	80	Benth	5.36	-0.485	19	6	10	80	4	0	-0.173	-0.261	1	1	1
<i>Tautoglabrus adspersus</i>	13	33	Benth	3.47	-0.627	30	2	0	98	0	0	-0.375	-0.262	1	1	1
<i>Trigla lyra</i>	12	732	Benth	2.55	-0.883	12	1	8	64	27	0	-0.169	-0.445	1	1	3
<i>Trigla lyra</i>	13	568	Benth	3	-0.197	25	6	14	67	13	0	-0.152	-0.116	1	1	3
<i>Trigla lyra</i>	14	31	Benth	2.78	0.49	47	3	0	95	0	2	-0.44	-0.098	1	1	1
<i>Trisopterus luscus</i>	12	812	Benth	2.87	-0.685	15	3	17	77	3	0	-0.189	-0.217	1	1	1
<i>Trisopterus luscus</i>	13	3147	Benth	3.03	-0.193	23	10	9	79	2	0	-0.25	-0.107	1	1	1

<i>Trisopterus luscus</i>	14	207	Benth	3.01	0.227	33	23	4	71	1	0	-0.266	0.035	1	1	1
<i>Trisopterus minutus</i>	12	1511	Benth	2.88	-0.828	15	2	17	76	4	0	-0.176	-0.241	1	1	1
<i>Trisopterus minutus</i>	13	883	Benth	2.95	-0.561	20	4	16	78	2	0	-0.196	-0.19	1	1	1
<i>Urophycis chuss</i>	12	60	Benth	2.89	-0.175	27	4	3	93	0	0	-0.38	-0.165	1	1	1
<i>Urophycis chuss</i>	15	63	Benth	4.31	-0.194	28	6	7	87	0	0	-0.246	-0.192	1	1	1
<i>Urophycis chuss</i>	13	2391	Benth	3.31	0.094	31	9	5	85	1	0	-0.296	-0.1	1	1	1
<i>Urophycis chuss</i>	14	2434	Benth	3.82	0.402	32	13	4	82	1	0	-0.271	-0.063	1	1	1
<i>Amblyraja radiata</i>	13	1466	B-pisc	3.5	0.611	39	24	8	60	7	1	-0.174	0.083	1	1	4
<i>Amblyraja radiata</i>	14	2031	B-pisc	3.41	0.861	50	37	6	54	3	0	-0.179	0.189	1	1	4
<i>Anarhichas minor</i>	15	312	B-pisc	4.42	1.01	77	24	4	56	0	16	-0.184	0.115	1	1	4
<i>Argentina sphyraena</i>	12	61	B-pisc	3.55	-1.497	19	0	59	40	0	0	0.344	-0.314	1	1	4
<i>Brosme brosme</i>	14	94	B-pisc	3.2	0.512	45	39	14	35	1	11	-0.053	0.262	1	1	4
<i>Chelidonichthys cuculus</i>	14	67	B-pisc	3.3	0.409	36	31	11	55	3	0	-0.145	0.121	1	1	4
<i>Chelidonichthys lucerna</i>	14	299	B-pisc	2.66	0.873	39	30	4	65	1	0	-0.297	0.16	1	1	4
<i>Conger conger</i>	12	642	B-pisc	3.37	-0.169	31	17	23	57	3	0	-0.048	-0.021	1	1	4
<i>Conger conger</i>	13	7544	B-pisc	3.1	0.367	46	40	14	44	2	0	-0.089	0.221	1	1	4
<i>Conger conger</i>	14	300	B-pisc	2.92	1.068	71	57	4	36	3	0	-0.146	0.404	1	1	4
<i>Coris julis</i>	13	438	B-pisc	2.88	0.232	34	19	51	27	2	0	0.262	0.127	1	1	4
<i>Dicentrarchus labrax</i>	14	48	B-pisc	2.6	0.724	42	47	0	39	0	13	-0.226	0.384	1	1	4
<i>Echiichthys vipera</i>	12	383	B-pisc	2.34	-0.148	13	17	65	13	5	0	0.488	0.172	1	1	4
<i>Eutrigla gurnardus</i>	13	10342	B-pisc	3.21	-0.09	25	31	17	35	10	7	0.01	0.169	1	1	4
<i>Gadus morhua</i>	12	10404	B-pisc	3.14	-0.861	16	4	28	62	4	3	-0.017	-0.211	1	1	4
<i>Gadus morhua</i>	14	88240	B-pisc	3.62	0.638	47	39	8	51	0	2	-0.147	0.19	1	1	4
<i>Galeus melastomus</i>	14	712	B-pisc	3.73	0.514	59	28	50	17	6	0	0.284	0.197	1	1	4
<i>Gobiidae</i>	10	43	B-pisc	2.93	-2.214	4	0	46	47	0	7	0.288	-0.483	1	1	4
<i>Helicolenus dactylopterus</i>	11	64	B-pisc	1.86	-0.748	6	3	66	29	2	0	0.505	-0.201	1	1	4
<i>Helicolenus dactylopterus</i>	12	1328	B-pisc	2.52	-0.238	13	14	26	57	3	0	-0.03	-0.029	1	1	4
<i>Helicolenus dactylopterus</i>	13	1715	B-pisc	3.25	0.197	19	21	23	54	2	0	-0.054	0.047	1	1	4
<i>Helicolenus dactylopterus</i>	14	183	B-pisc	4.32	0.658	30	24	18	53	4	1	-0.053	0.075	1	1	4

<i>Hemitripterus americanus</i>	12	37	B-pisc	1.96	0.1	27	43	3	54	0	0	-0.348	0.295	1	1	4
<i>Hemitripterus americanus</i>	13	870	B-pisc	2.31	0.865	28	52	2	45	2	0	-0.253	0.395	1	1	4
<i>Hippoglossoides platessoides</i>	13	5335	B-pisc	3.18	-0.221	27	19	11	38	1	32	-0.04	0.071	1	1	4
<i>Hippoglossoides platessoides</i>	14	508	B-pisc	3.58	0.052	41	20	6	46	0	29	-0.119	0.061	1	1	4
<i>Hippoglossus hippoglossus</i>	13	137	B-pisc	3.03	1.018	43	29	1	67	0	4	-0.298	0.141	1	1	4
<i>Hippoglossus hippoglossus</i>	14	166	B-pisc	3.09	1.231	54	45	1	50	1	3	-0.225	0.295	1	1	4
<i>Hyperoplus lanceolatus</i>	12	294	B-pisc	3.3	-0.128	23	40	37	23	0	0	0.206	0.237	1	1	4
<i>Lepidorhombus whiffiagonis</i>	11	44	B-pisc	2.08	-0.765	10	2	55	39	5	0	0.34	-0.239	1	1	4
<i>Lepidorhombus whiffiagonis</i>	12	2379	B-pisc	2.46	-0.385	17	19	58	19	4	0	0.414	0.136	1	1	4
<i>Lepidorhombus whiffiagonis</i>	13	8879	B-pisc	2.68	0.097	26	47	33	18	2	0	0.196	0.374	1	1	4
<i>Leucoraja naevus</i>	14	520	B-pisc	3.84	0.183	52	33	12	49	6	0	-0.09	0.118	1	1	4
<i>Leucoraja ocellata</i>	12	77	B-pisc	2.36	-0.003	56	30	1	66	3	0	-0.338	0.122	1	1	4
<i>Leucoraja ocellata</i>	13	2547	B-pisc	2.73	0.428	60	37	2	58	2	0	-0.254	0.192	1	1	4
<i>Leucoraja ocellata</i>	14	3313	B-pisc	3.53	0.664	61	36	2	60	2	0	-0.212	0.155	1	1	4
<i>Leucoraja ocellata</i>	15	66	B-pisc	3.76	0.882	61	41	2	54	3	0	-0.194	0.207	1	1	4
<i>Limanda limanda</i>	14	241	B-pisc	3.84	0.064	35	36	6	45	0	12	-0.108	0.161	1	1	4
<i>Lophius piscatorius</i>	12	145	B-pisc	1.98	0.26	13	59	38	3	0	0	0.33	0.61	1	1	4
<i>Melanogrammus aeglefinus</i>	13	23259	B-pisc	3.83	-0.143	28	24	12	56	2	6	-0.096	0.012	1	1	4
<i>Melanogrammus aeglefinus</i>	14	12740	B-pisc	4.25	0.068	43	19	13	57	1	10	-0.089	-0.012	1	1	4
<i>Melanogrammus aeglefinus</i>	15	1185	B-pisc	4.79	0.282	69	21	16	42	1	20	0.014	0.055	1	1	4
<i>Merlangius merlangus</i>	12	29333	B-pisc	3.84	-0.516	15	20	34	27	15	3	0.219	0.034	1	1	4
<i>Merluccius albidus</i>	13	43	B-pisc	2.87	0.568	27	16	26	40	19	0	0.052	0.152	1	1	4
<i>Merluccius bilinearis</i>	12	201	B-pisc	3.33	-0.118	22	10	25	58	6	0	-0.041	-0.067	1	1	4
<i>Merluccius bilinearis</i>	13	4959	B-pisc	3.6	0.454	24	25	16	56	3	0	-0.106	0.071	1	1	4
<i>Merluccius bilinearis</i>	15	50	B-pisc	4.3	0.825	24	36	16	44	4	0	-0.037	0.188	1	1	4
<i>Merluccius bilinearis</i>	14	4585	B-pisc	3.92	0.833	25	30	12	55	3	0	-0.126	0.124	1	1	4
<i>Merluccius merluccius</i>	12	9093	B-pisc	3.3	0.105	15	39	38	13	10	0	0.254	0.296	1	1	4
<i>Micropogonias undulatus</i>	13	64	B-pisc	3.51	-0.238	27	34	6	57	3	0	-0.16	0.078	1	1	4
<i>Pagellus erythrinus</i>	13	111	B-pisc	4.66	-0.343	24	12	18	67	3	0	-0.08	-0.137	1	1	4

<i>Pollachius pollachius</i>	13	110	B-pisc	4.03	-0.774	28	23	16	60	0	1	-0.06	-0.086	1	1	4
<i>Pollachius virens</i>	13	725	B-pisc	4.42	0.937	47	44	18	35	3	1	0.012	0.272	1	1	4
<i>Raja eglanteria</i>	13	657	B-pisc	2.39	0.548	58	23	1	67	9	0	-0.348	0.126	1	1	4
<i>Raja eglanteria</i>	14	580	B-pisc	3.19	0.641	59	23	3	70	5	0	-0.259	0.066	1	1	4
<i>Raja eglanteria</i>	12	82	B-pisc	1.62	0.29	60	35	2	57	5	0	-0.399	0.271	1	1	4
<i>Scophthalmus maximus</i>	11	141	B-pisc	2.14	-1.06	7	32	24	44	0	0	0.104	0.161	1	1	4
<i>Scophthalmus maximus</i>	12	103	B-pisc	3.14	-0.594	11	44	24	32	0	0	0.095	0.222	1	1	4
<i>Scophthalmus rhombus</i>	12	96	B-pisc	2.32	-0.455	12	22	50	27	1	0	0.348	0.134	1	1	4
<i>Scyliorhinus canicula</i>	12	1223	B-pisc	3.38	-0.212	22	11	40	42	7	0	0.131	-0.041	1	1	4
<i>Scyliorhinus canicula</i>	13	6587	B-pisc	3.31	0.331	38	25	18	51	6	0	-0.078	0.091	1	1	4
<i>Scyliorhinus canicula</i>	14	5811	B-pisc	3.88	0.659	54	41	14	42	3	0	-0.062	0.214	1	1	4
<i>Sebastes fasciatus</i>	14	93	B-pisc	3.81	0.244	29	16	19	65	0	0	-0.106	-0.033	1	1	4
<i>Sebastes fasciatus</i>	13	239	B-pisc	3.65	0.354	30	12	19	69	0	0	-0.131	-0.052	1	1	4
<i>Spondyliosoma cantharus</i>	14	171	B-pisc	2.99	0.532	33	13	24	45	16	2	0.01	0.091	1	1	4
<i>Squalus acanthias</i>	12	55	B-pisc	3.24	0.642	46	29	26	26	20	0	0.115	0.272	1	1	4
<i>Trachinus draco</i>	13	193	B-pisc	4.4	-0.009	25	29	36	24	10	0	0.217	0.14	1	1	4
<i>Trachurus trachurus</i>	14	195	B-pisc	4.73	0.141	37	34	42	17	7	0	0.292	0.2	1	1	4
<i>Trisopterus minutus</i>	11	31	B-pisc	2.37	-1.271	9	0	47	43	10	0	0.278	-0.364	1	1	4
<i>Urophycis regia</i>	12	137	B-pisc	3.18	-0.318	22	9	17	68	5	0	-0.135	-0.107	1	1	4
<i>Urophycis regia</i>	15	42	B-pisc	4.38	0.133	22	22	6	69	2	0	-0.18	-0.014	1	1	4
<i>Urophycis regia</i>	13	1930	B-pisc	3.43	0.263	23	16	13	65	5	0	-0.151	-0.004	1	1	4
<i>Urophycis regia</i>	14	1645	B-pisc	3.83	0.334	24	18	11	64	7	0	-0.146	0.003	1	1	4
<i>Urophycis tenuis</i>	15	40	B-pisc	3.68	1.485	40	48	0	52	0	0	-0.228	0.287	1	1	4
<i>Urophycis tenuis</i>	13	1903	B-pisc	2.45	0.75	42	39	1	59	1	0	-0.3	0.247	1	1	4
<i>Urophycis tenuis</i>	14	2383	B-pisc	3.39	1.321	43	41	1	56	1	0	-0.231	0.238	1	1	4
<i>Zeus faber</i>	12	512	B-pisc	2	-0.122	11	44	51	2	2	0	0.469	0.467	1	1	4
<i>Amblyraja radiata</i>	15	103	Pisc	4.45	1.353	82	65	1	34	0	0	-0.118	0.432	1	3	5
<i>Cynoscion regalis</i>	13	883	Pisc	3.38	0.333	28	67	14	16	3	0	0.052	0.445	1	3	5
<i>Cynoscion regalis</i>	12	57	Pisc	2.55	0.234	30	74	11	12	3	0	0.033	0.585	1	3	5

<i>Cynoscion regalis</i>	14	651	Pisc	3.78	0.44	30	72	10	15	3	0	0.045	0.467	1	3	5
<i>Eutrigla gurnardus</i>	14	476	Pisc	2.96	0.574	38	69	7	13	2	9	0	0.54	1	3	5
<i>Gadus morhua</i>	15	28530	Pisc	4.24	0.972	78	57	14	26	1	2	0.022	0.378	1	3	5
<i>Gadus morhua</i>	16	707	Pisc	5.27	1.681	125	83	1	15	1	0	0.008	0.633	1	3	5
<i>Hippoglossus hippoglossus</i>	15	42	Pisc	3.03	1.699	77	56	3	30	10	1	-0.15	0.475	1	3	5
<i>Hyperoplus lanceolatus</i>	13	133	Pisc	1.98	0.438	30	92	8	0	0	0	0.066	0.835	1	3	5
<i>Lepidorhombus whiffiagonis</i>	14	545	Pisc	3.36	0.645	42	70	7	19	2	2	-0.017	0.476	1	3	5
<i>Lophius americanus</i>	12	44	Pisc	1.1	0.583	33	79	0	2	19	0	-0.1	0.98	1	3	5
<i>Lophius americanus</i>	13	1081	Pisc	1.89	1.104	40	78	1	9	12	0	-0.107	0.797	1	3	5
<i>Lophius americanus</i>	14	1291	Pisc	2.65	1.658	44	80	1	8	11	0	-0.071	0.723	1	3	5
<i>Lophius americanus</i>	15	45	Pisc	3.07	1.787	46	89	2	7	2	0	-0.022	0.705	1	3	5
<i>Lophius budegassa</i>	12	168	Pisc	1.74	0.233	12	77	22	1	0	0	0.204	0.769	1	3	5
<i>Lophius budegassa</i>	13	216	Pisc	2.17	0.676	19	80	14	6	0	0	0.083	0.718	1	3	5
<i>Lophius budegassa</i>	14	372	Pisc	2.39	1.35	38	92	1	6	1	0	-0.045	0.794	1	3	5
<i>Lophius budegassa</i>	15	61	Pisc	2.61	1.825	64	90	0	5	5	0	-0.055	0.777	1	3	5
<i>Lophius piscatorius</i>	13	1279	Pisc	2.08	0.721	19	81	14	4	1	0	0.092	0.743	1	3	5
<i>Lophius piscatorius</i>	14	682	Pisc	2.08	1.549	42	92	1	5	2	0	-0.055	0.846	1	3	5
<i>Lophius piscatorius</i>	15	225	Pisc	2.36	1.927	76	85	0	10	5	0	-0.091	0.773	1	3	5
<i>Merlangius merlangus</i>	13	62030	Pisc	3.55	0.329	27	55	17	23	5	1	0.042	0.351	1	3	5
<i>Merlangius merlangus</i>	14	4175	Pisc	3.29	0.732	40	67	7	22	3	1	-0.037	0.459	1	3	5
<i>Merluccius merluccius</i>	13	7379	Pisc	3.41	1.035	27	84	8	6	1	1	0.045	0.616	1	3	5
<i>Merluccius merluccius</i>	14	2044	Pisc	3.46	1.481	43	94	3	2	1	0	0.022	0.713	1	3	5
<i>Merluccius merluccius</i>	15	58	Pisc	2.72	1.916	84	97	0	3	0	0	-0.023	0.828	1	3	5
<i>Molva macrophthalma</i>	12	993	Pisc	1.78	0.218	24	73	26	1	0	0	0.247	0.742	1	3	5
<i>Molva macrophthalma</i>	13	131	Pisc	2.24	0.683	37	76	21	3	0	0	0.15	0.696	1	3	5
<i>Molva macrophthalma</i>	14	37	Pisc	3.21	1.334	77	78	22	0	0	0	0.166	0.631	1	3	5
<i>Morone saxatilis</i>	13	174	Pisc	2.11	0.629	63	70	2	25	3	0	-0.149	0.598	1	3	5
<i>Morone saxatilis</i>	14	296	Pisc	2.83	1.551	67	79	1	18	1	0	-0.086	0.632	1	3	5
<i>Paralichthys dentatus</i>	12	86	Pisc	2.09	0.39	39	48	7	27	18	0	-0.201	0.518	1	3	5

<i>Paralichthys dentatus</i>	13	1057	Pisc	2.42	0.816	41	52	3	20	25	0	-0.195	0.592	1	3	5
<i>Paralichthys dentatus</i>	14	1275	Pisc	3.09	1.063	41	50	1	22	27	0	-0.169	0.526	1	3	5
<i>Pollachius pollachius</i>	14	38	Pisc	4.27	0.572	51	59	20	20	1	0	0.103	0.378	1	3	5
<i>Pollachius virens</i>	14	7219	Pisc	4.17	0.959	52	58	26	14	2	0	0.161	0.413	1	3	5
<i>Pollachius virens</i>	15	2024	Pisc	4.23	0.98	81	62	30	5	2	2	0.232	0.465	1	3	5
<i>Pollachius virens</i>	16	210	Pisc	4.31	1.173	125	79	20	0	1	0	0.196	0.582	1	3	5
<i>Pomatomus saltatrix</i>	12	72	Pisc	1.86	0.392	35	76	6	0	18	0	0.014	0.842	1	3	5
<i>Pomatomus saltatrix</i>	13	956	Pisc	2.06	0.707	38	79	4	1	16	0	-0.04	0.82	1	3	5
<i>Pomatomus saltatrix</i>	14	850	Pisc	2.8	1.181	43	75	3	1	21	0	-0.03	0.742	1	3	5
<i>Reinhardtius hippoglossoides</i>	14	190	Pisc	3.03	0.644	53	65	14	14	1	6	0.048	0.498	1	3	5
<i>Salmo trutta</i>	14	38	Pisc	4.36	-0.018	41	79	0	18	0	3	0.028	0.515	1	3	5
<i>Scophthalmus maximus</i>	14	2058	Pisc	2.55	0.856	36	92	3	4	1	0	-0.01	0.752	1	3	5
<i>Scophthalmus maximus</i>	15	563	Pisc	2.71	1.205	53	98	0	2	0	0	-0.012	0.801	1	3	5
<i>Scophthalmus rhombus</i>	13	219	Pisc	2.79	-0.016	24	67	18	2	13	0	0.177	0.58	1	3	5
<i>Scophthalmus rhombus</i>	14	1111	Pisc	2.58	0.895	36	86	3	3	8	0	-0.023	0.729	1	3	5
<i>Squalus acanthias</i>	13	3417	Pisc	3.39	1.302	73	58	5	25	12	0	-0.081	0.459	1	3	5
<i>Squalus acanthias</i>	14	5491	Pisc	3.34	1.373	77	64	4	21	11	0	-0.071	0.503	1	3	5
<i>Squalus acanthias</i>	15	360	Pisc	3.52	1.577	91	62	3	22	14	0	-0.083	0.508	1	3	5
<i>Zenopsis conchifer</i>	13	73	Pisc	2.48	1.019	34	62	6	0	32	0	-0.122	0.786	1	3	5
<i>Zenopsis conchifer</i>	14	48	Pisc	2.42	1.599	38	59	2	0	39	0	-0.181	0.857	1	3	5
<i>Zeus faber</i>	13	944	Pisc	2.73	0.52	21	74	23	2	1	0	0.171	0.611	1	3	5
<i>Zeus faber</i>	14	625	Pisc	2.4	1.275	38	94	5	1	0	0	0.007	0.81	1	3	5

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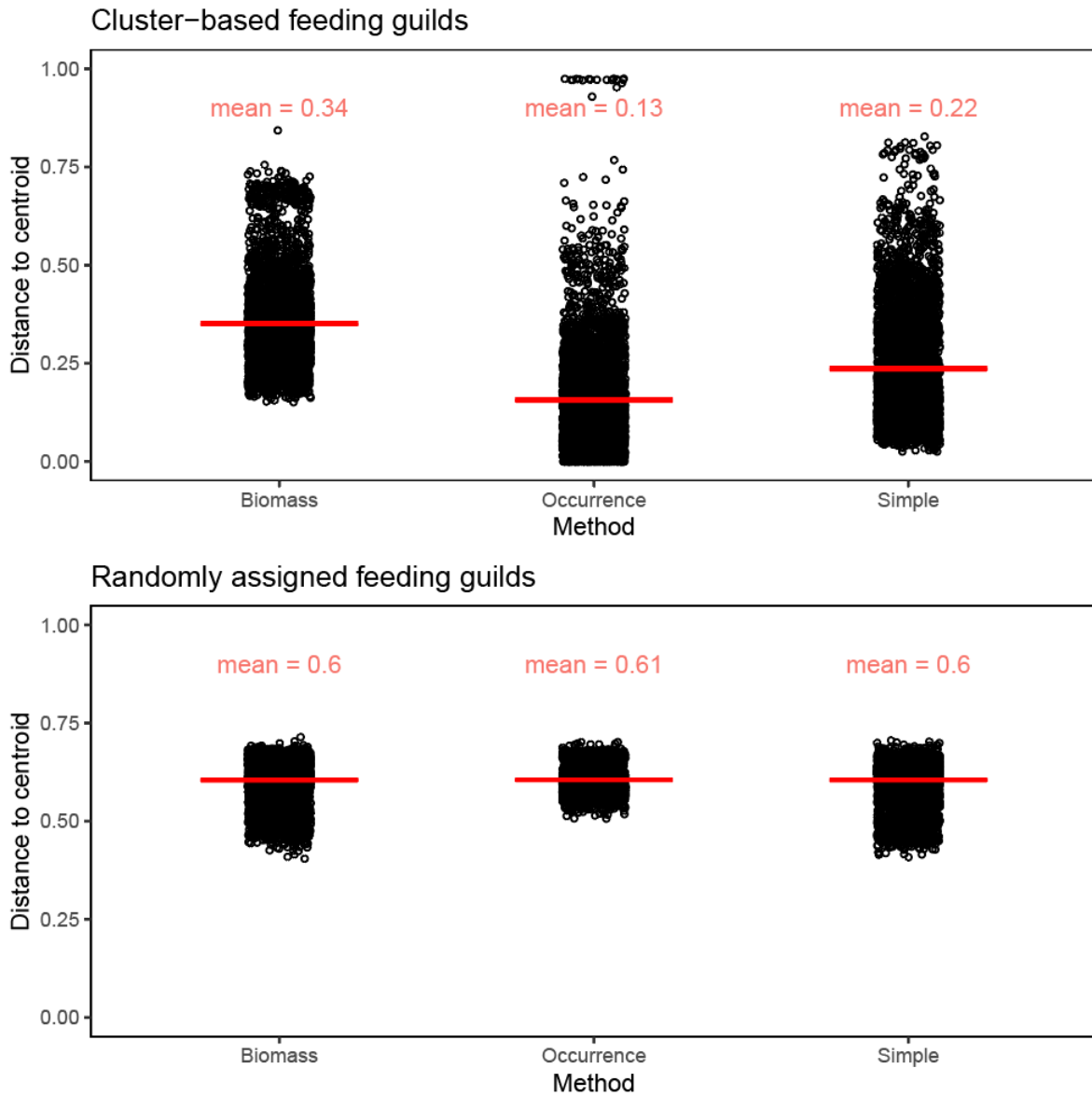
Table S4. Otter trawl surveys, the OSPAR Region in which they operate, the period over which they have been undertaken and the number of unique hauls (*n*).

Survey acronym <sup>1</sup>	OSPAR Region <sup>1</sup>	Quarter <sup>1</sup>	Years	<i>n</i>
BBICFraOT4	BBIC	4	1997-2020	1693
BBICnSpaOT4	BBIC	4	2011-2018	902
BBICPorOT4	BBIC	4	2005-2018	1045
BBICsSpaOT1	BBIC	1	2000-2020	673
BBICsSpaOT4	BBIC	4	2002-2020	691
CSFraOT4	CS	4	1997-2020	1180
CSIreOT4	CS	4	2003-2020	2353
CSNirOT1	CS	1	2008-2020	756
CSNirOT4	CS	4	2009-2020	698
CSScoOT1	CS	1	1997-2020	1082
CSScoOT4	CS	4	1997-2020	1210
GNSFraOT4	GNS	4	1998-2020	1907
GNSIntOT1	GNS	1	1997-2020	8827
WAScoOT3	WA	3	1999-2020	701
WASpaOT3	WA	3	2006-2018	1019

<sup>1</sup> Survey acronym convention: First 2 to 4 capitalised letters indicate the OSPAR Region (BBIC: Bay of Biscay and Iberian Coast; CS: Celtic Seas; GNS: Greater North Sea; WA – Wider Atlantic). Next capitalised and lowercase letters signify the country involved (Spa: Spain; Bel: Belgium; Por: Portugal; Fra: France; Eng: England; Ire: Republic of Ireland; Nir: Northern Ireland; Sco: Scotland; Ger: Germany; Int: International; Net: The Netherlands. International refers to the two international bottom trawl surveys carried out in the Greater North Sea under the International Council for the Exploration of the Sea (ICES). In the Bay of Biscay and Iberian Coast Region, Spanish surveys are further delimited by (n) for surveys operating in the northern Iberian Coast area and (s) for surveys operating in the southern Iberian Coast area. Next two capitalised letters indicate the type of survey (OT: otter trawl). Final number indicates the season in which the survey is primarily undertaken (1: January to March; 3: July to September; 4: October to December).

1 *Feeding guild classification*

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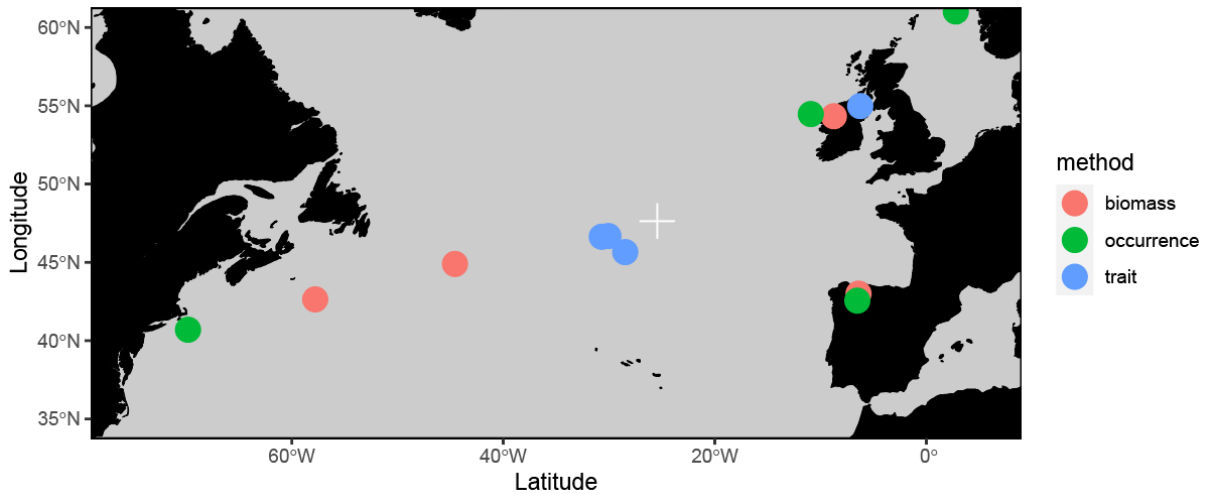
4 Figure S2: Differences in cluster-based methods used to assign feeding guilds and those randomly  
 5 generated measured using mean distance to centroid of re-sampled stomach contents data (see also  
 6 Table S7). Each point shows the distance to centroid per feeding guild per resampling event per  
 7 method. Feeding guild composition was more similar following resampling where distance to centroid  
 8 was lower.

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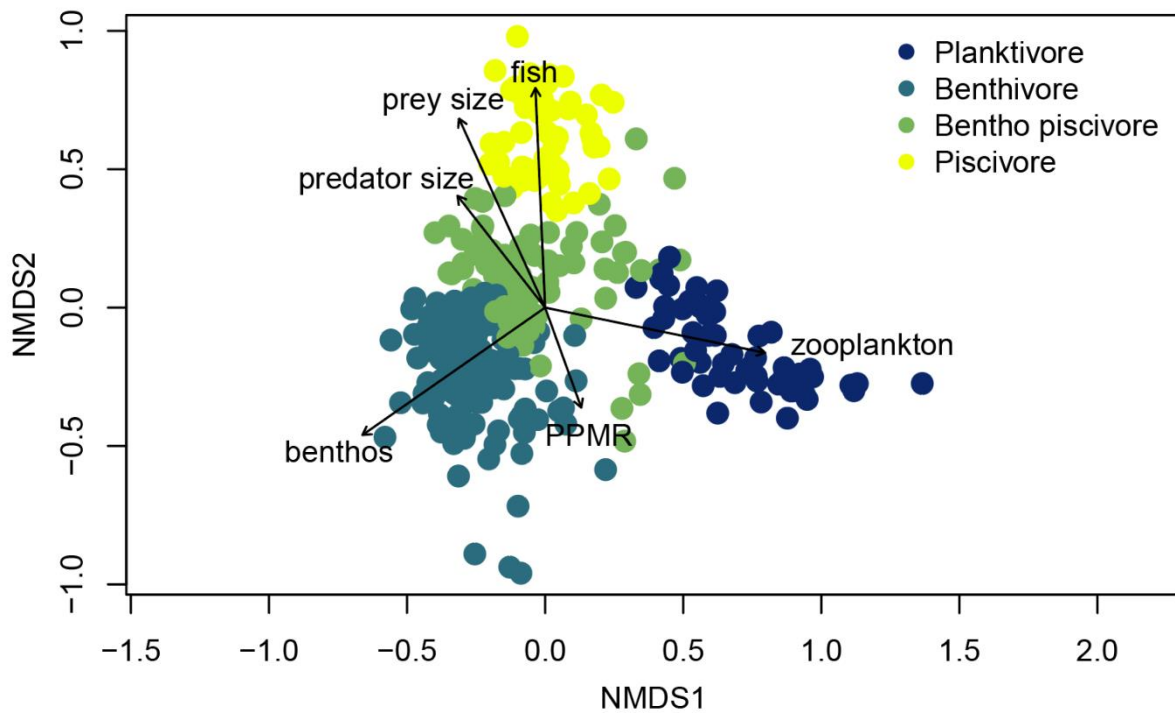
10 Table S5. Tukey's all-pairwise comparisons of mean distance to centroid (square root transformed)  
 11 between feeding guild classification methods following analysis of variance of re-sampled stomach  
 12 contents data.

Test	Fit	SE	t-value	p-value
Occurrence - Biomass	-0.22	0.003	-78.862	0.001
Trait - Biomass	-0.117	0.003	-41.920	0.001
Trait - Occurrence	0.103	0.003	36.977	0.001

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 2 Figure S3: Method-specific feeding guild spatial centroids. Guilds for the trait method were closest to  
 3 the data centroid (white cross) which shows that each guild contained fish found widely across the  
 4 study region. The occurrence and biomass methods were more susceptible to large spatial gradients  
 5 in prey composition meaning guilds were composed of fish largely found in the same area.  
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 8 Figure S4: A non-metric multidimensional scaling analysis of the dissimilarities used in our cluster  
 9 analysis which provide a more nuanced understanding (i.e., bounded data as opposed to categorical)  
 10 of different predator feeding traits in relation to others' (see Table S3 for unique species size class axis  
 11 scores). Arrows show the direction of increasing values for the variables used in our cluster analysis.  
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15 Table S6. Taxa and sizes observed in the survey data with insufficient stomach contents data to be  
 16 classified into feeding guilds. Fish are ordered by the sum of their biomass (kg per km<sup>2</sup>) observed  
 17 across all hauls to help direct future stomach sampling by prioritising those contributing most to the  
 18 fish assemblage across the study region.

<b>Taxa</b>	<b>Min cm</b>	<b>Max cm</b>	<b>Sum kg per km2</b>
<i>Capros aper</i>	8	16	3240041
<i>Trachurus trachurus</i>	5	10	1042657
<i>Capros aper</i>	4	8	441428
<i>Trachurus picturatus</i>	9	16	428259
<i>Sebastes viviparus</i>	15	28	419466
<i>Sardina pilchardus</i>	11	19	389717
<i>Gadiculus argenteus</i>	10	18	360658
<i>Argentina sphyraena</i>	21	38	337196
<i>Trachurus picturatus</i>	16	30	313069
<i>Engraulis encrasicolus</i>	6	11	265764
<i>Capros aper</i>	16	31	242370
<i>Sebastes viviparus</i>	8	15	221067
<i>Mustelus asterias</i>	50	92	176023
<i>Molva molva</i>	77	142	132724
<i>Scomber colias</i>	19	33	114984
<i>Galeorhinus galeus</i>	82	153	111270
<i>Conger conger</i>	110	191	95179
<i>Gadiculus argenteus</i>	6	10	89462
<i>Trachurus mediterraneus</i>	18	34	86786
<i>Scyliorhinus stellaris</i>	85	160	84060
<i>Platichthys flesus</i>	33	60	79759
<i>Maurolicus muelleri</i>	36	58	77134
<i>Boops boops</i>	18	33	76843
<i>Lepidion eques</i>	23	39	76313
<i>Molva molva</i>	42	77	73287
<i>Diplodus vulgaris</i>	15	27	68597
<i>Dipturus batis</i>	102	187	61092
<i>Mustelus asterias</i>	92	167	55315
<i>Raja brachyura</i>	70	125	55209
<i>Chimaera monstrosa</i>	30	55	54496
<i>Deania calcea</i>	87	154	54264
<i>Dipturus batis</i>	187	343	48680
<i>Dipturus batis</i>	55	102	41609
<i>Argentina silus</i>	11	20	40851
<i>Scyliorhinus stellaris</i>	45	85	36300
<i>Trachurus mediterraneus</i>	10	18	32564
<i>Dicentrarchus labrax</i>	61	114	30554
<i>Pollachius pollachius</i>	64	116	30073
<i>Micromesistius poutassou</i>	38	69	29757
<i>Raja brachyura</i>	39	70	29703
<i>Scomber colias</i>	10	19	29396
<i>Scymnodon ringens</i>	70	128	27806
<i>Deania calcea</i>	49	87	26632
<i>Cyclopterus lumpus</i>	38	71	23205

<i>Lophius piscatorius</i>	112	217	22100
<i>Dipturus nidarosiensis</i>	126	226	21348
<i>Raja undulata</i>	74	137	19993
<i>Glyptocephalus cynoglossus</i>	38	67	19115
<i>Serranus hepatus</i>	95	175	18942
<i>Cyclopterus lumpus</i>	20	38	18593
<i>Sprattus sprattus</i>	3	6	18436
<i>Coelorinchus caelorhincus</i>	8	15	16722
<i>Galeorhinus galeus</i>	153	286	15889
<i>Argentina sphyraena</i>	6	11	15738
<i>Sardina pilchardus</i>	6	11	15568
<i>Boops boops</i>	10	18	14845
<i>Micromesistius poutassou</i>	6	12	14300
<i>Molva macrophthalma</i>	98	174	14125
<i>Mustelus mustelus</i>	46	90	12942
<i>Mora moro</i>	34	61	12709
<i>Leucoraja circularis</i>	78	142	12328
<i>Myoxocephalus scorpius</i>	15	28	12301
<i>Spondyllosoma cantharus</i>	9	16	11753
<i>Raja microcellata</i>	68	123	11751
<i>Raja montagui</i>	65	115	10425
<i>Sparus aurata</i>	16	30	10399
<i>Trachurus mediterraneus</i>	5	10	10053
<i>Dipturus batis</i>	30	55	9798
<i>Coelorinchus caelorhincus</i>	27	49	9779
<i>Dasyatis pastinaca</i>	62	116	9115
<i>Mustelus asterias</i>	28	50	8518
<i>Trachurus mediterraneus</i>	34	65	8370
<i>Scymnodon ringens</i>	39	70	8338
<i>Callionymus maculatus</i>	11	21	8108
<i>Hoplostethus mediterraneus</i>	27	50	8077
<i>Mora moro</i>	19	34	7896
<i>Leucoraja circularis</i>	44	78	7040
<i>Microchirus variegatus</i>	18	33	6951
<i>Raja undulata</i>	40	74	6807
<i>Galeorhinus galeus</i>	44	82	6685
<i>Etmopterus spinax</i>	44	79	6577
<i>Phycis blennoides</i>	66	119	6512
<i>Epigonus telescopus</i>	17	32	6417
<i>Trachinus draco</i>	11	20	6258
<i>Chimaera monstrosa</i>	16	30	5688
<i>Cepola macrophthalma</i>	21	54	5475
<i>Coelorinchus caelorhincus</i>	49	89	5401
<i>Arnoglossus laterna</i>	104	180	5207
<i>Raja microcellata</i>	37	68	5060
<i>Lepidion eques</i>	14	23	5014

<i>Zeus faber</i>	55	105	4936
<i>Raja brachyura</i>	125	224	4908
<i>Macroramphosus scolopax</i>	12	23	4820
<i>Buglossidium luteum</i>	9	16	4815
<i>Trachyrincus scabrus</i>	16	28	4786
<i>Boops boops</i>	33	61	4731
<i>Diplodus vulgaris</i>	27	50	4630
<i>Brosme brosme</i>	61	109	4603
<i>Buglossidium luteum</i>	5	9	4532
<i>Dasyatis pastinaca</i>	34	62	4519
<i>Aphanopus carbo</i>	69	122	4475
<i>Glyptocephalus cynoglossus</i>	13	22	4232
<i>Argyrosomus regius</i>	35	67	4138
<i>Lamna nasus</i>	102	193	4120
<i>Sparus aurata</i>	30	56	4022
<i>Agonus cataphractus</i>	9	18	3903
<i>Trachurus picturatus</i>	30	54	3795
<i>Conger conger</i>	191	333	3780
<i>Mustelus mustelus</i>	90	178	3735
<i>Scyliorhinus stellaris</i>	24	45	3647
<i>Merlangius merlangus</i>	227	416	3638
<i>Molva molva</i>	23	42	3553
<i>Molva molva</i>	142	262	3511
<i>Callionymus maculatus</i>	5	11	3439
<i>Trisopterus luscus</i>	5	9	3383
<i>Malacocephalus laevis</i>	28	54	3366
<i>Leucoraja fullonica</i>	46	83	3341
<i>Brama brama</i>	29	51	3266
<i>Malacocephalus laevis</i>	54	103	3219
<i>Argyrosomus regius</i>	18	35	3207
<i>Leucoraja fullonica</i>	83	151	3188
<i>Dalatias licha</i>	74	136	3188
<i>Scorpaena scrofa</i>	27	51	3183
<i>Balistes capriscus</i>	29	53	3133
<i>Chelon labrosus</i>	31	56	3091
<i>Atherina presbyter</i>	6	11	3079
<i>Dipturus oxyrinchus</i>	81	139	3021
<i>Trachinus draco</i>	37	67	2950
<i>Nezumia aequalis</i>	25	47	2763
<i>Zenopsis conchifer</i>	57	99	2762
<i>Dicologlossa cuneata</i>	11	20	2735
<i>Mola mola</i>	36	66	2683
<i>Hydrolagus mirabilis</i>	24	44	2618
<i>Mola mola</i>	19	36	2615
<i>Callionymus lyra</i>	5	10	2591
<i>Merlangius merlangus</i>	67	123	2547

<i>Spondyliosoma cantharus</i>	5	9	2470
<i>Dasyatis pastinaca</i>	116	215	2446
<i>Coelorinchus caelorhincus</i>	15	27	2354
<i>Sarda sarda</i>	21	38	2353
<i>Coelorinchus caelorhincus</i>	89	163	2336
<i>Pagellus acarne</i>	9	16	2319
<i>Cepola macrophthalma</i>	54	137	2262
<i>Alosa fallax</i>	38	69	2262
<i>Chelidonichthys lucerna</i>	61	114	2217
<i>Macroramphosus scolopax</i>	6	12	2213
<i>Myoxocephalus scorpius</i>	8	15	2188
<i>Coelorinchus caelorhincus</i>	4	8	2137
<i>Diplodus bellottii</i>	8	15	2086
<i>Dalatias licha</i>	41	74	2039
<i>Umbrina canariensis</i>	17	31	2039
<i>Somniosus microcephalus</i>	94	168	2018
<i>Raja brachyura</i>	22	39	1947
<i>Maurollicus muelleri</i>	23	36	1858
<i>Entelurus aequoreus</i>	18	37	1814
<i>Alosa fallax</i>	21	38	1813
<i>Myliobatis aquila</i>	38	82	1795
<i>Torpedo marmorata</i>	27	51	1753
<i>Beryx splendens</i>	26	48	1740
<i>Myxine glutinosa</i>	21	36	1738
<i>Lamna nasus</i>	193	364	1678
<i>Diplodus bellottii</i>	15	27	1672
<i>Lepidopus caudatus</i>	25	45	1669
<i>Atherina presbyter</i>	11	20	1664
<i>Scophthalmus maximus</i>	16	29	1635
<i>Lithognathus mormyrus</i>	30	56	1625
<i>Centrolophus niger</i>	36	63	1617
<i>Xiphias gladius</i>	80	145	1520
<i>Scophthalmus rhombus</i>	56	104	1519
<i>Dipturus nidarosiensis</i>	70	126	1491
<i>Epigonus telescopus</i>	9	17	1490
<i>Blennius ocellaris</i>	9	17	1483
<i>Pagrus pagrus</i>	27	51	1464
<i>Ammodytes</i>	27	52	1462
<i>Pagellus bellottii</i>	15	28	1426
<i>Echiichthys vipera</i>	5	9	1422
<i>Dicologlossa cuneata</i>	20	37	1399
<i>Spicara maena</i>	9	17	1398
<i>Dasyatis tortonesei</i>	62	116	1352
<i>Dasyatis tortonesei</i>	116	215	1328
<i>Mola mola</i>	66	123	1296
<i>Dipturus oxyrinchus</i>	139	238	1243

<i>Diplodus vulgaris</i>	8	15	1217
<i>Spicara maena</i>	17	31	1208
<i>Pagellus bogaraveo</i>	16	29	1177
<i>Gaidropsarus vulgaris</i>	35	62	1164
<i>Beryx decadactylus</i>	26	47	1149
<i>Engraulis encrasicolus</i>	132	243	1129
<i>Alepocephalus rostratus</i>	41	74	1121
<i>Centrolophus niger</i>	63	110	1056
<i>Gaidropsarus vulgaris</i>	19	35	1016
<i>Tetronarce nobiliana</i>	69	131	1008
<i>Syngnathus acus</i>	8	14	994
<i>Galeus atlanticus</i>	15	27	984
<i>Liparis liparis</i>	13	23	980
<i>Capros aper</i>	2	4	918
<i>Alepocephalus rostratus</i>	22	41	918
<i>Notacanthus bonaparte</i>	19	34	916
<i>Scomber colias</i>	33	58	902
<i>Labrus mixtus</i>	18	31	902
<i>Hippoglossus hippoglossus</i>	113	204	880
<i>Brama brama</i>	51	91	868
<i>Sebastes viviparus</i>	5	8	859
<i>Entelurus aequoreus</i>	37	75	843
<i>Anguilla anguilla</i>	58	105	835
<i>Beryx splendens</i>	14	26	833
<i>Dicentrarchus punctatus</i>	61	105	829
<i>Arnoglossus imperialis</i>	6	11	825
<i>Trisopterus minutus</i>	3	5	807
<i>Deania profundorum</i>	48	86	803
<i>Trachyrincus scabrus</i>	9	16	800
<i>Rajella bathyphila</i>	126	226	792
<i>Microstomus kitt</i>	5	10	787
<i>Notacanthus bonaparte</i>	34	63	775
<i>Balistes capriscus</i>	16	29	760
<i>Liparis liparis</i>	7	13	758
<i>Pagellus bogaraveo</i>	29	53	746
<i>Taurulus bubalis</i>	16	30	684
<i>Nezumia aequalis</i>	47	87	664
<i>Taurulus bubalis</i>	9	16	663
<i>Argyrosomus regius</i>	67	129	660
<i>Maurolicus muelleri</i>	58	94	646
<i>Raja undulata</i>	22	40	645
<i>Zeus faber</i>	105	201	639
<i>Malacocephalus laevis</i>	199	381	638
<i>Lepidotrigla cavillone</i>	17	30	630
<i>Serranus cabrilla</i>	17	33	627
<i>Notoscopelus kroyeri</i>	118	220	623



<i>Pagrus pagrus</i>	51	96	614
<i>Labrus bergylta</i>	30	55	598
<i>Tetronarce nobiliana</i>	37	69	580
<i>Molva dypterygia</i>	48	88	573
<i>Gadiculus argenteus</i>	3	6	571
<i>Chelidonichthys lucerna</i>	9	17	568
<i>Trachipterus arcticus</i>	111	207	556
<i>Gasterosteus aculeatus</i>	5	9	556
<i>Scymnodon ringens</i>	21	39	556
<i>Sarda sarda</i>	38	69	554
<i>Sphoeroides pachygaster</i>	27	51	554
<i>Sphoeroides pachygaster</i>	14	27	553
<i>Boops boops</i>	5	10	542
<i>Bathysolea profundicola</i>	12	21	542
<i>Cyclopterus lumpus</i>	11	20	540
<i>Anthias anthias</i>	10	20	528
<i>Schedophilus medusophagus</i>	27	49	527
<i>Nemichthys scolopaceus</i>	66	123	517
<i>Schedophilus medusophagus</i>	49	92	513
<i>Alosa fallax</i>	11	21	503
<i>Lumpenus lampraeformis</i>	8	21	495
<i>Pegusa lascaris</i>	18	32	492
<i>Sparus aurata</i>	56	104	490
<i>Leucoraja circularis</i>	142	255	481
<i>Scyliorhinus canicula</i>	88	157	478
<i>Xiphias gladius</i>	145	262	471
<i>Lithognathus mormyrus</i>	16	30	461
<i>Molva dypterygia</i>	88	159	441
<i>Engraulis encrasicolus</i>	3	6	440
<i>Chelon labrosus</i>	56	101	436
<i>Zeugopterus norvegicus</i>	8	14	431
<i>Scymnodon ringens</i>	128	234	428
<i>Squalus blainville</i>	45	84	423
<i>Leucoraja fullonica</i>	25	46	419
<i>Molva dypterygia</i>	27	48	415
<i>Heptranchias perlo</i>	73	133	413
<i>Microchirus variegatus</i>	5	10	396
<i>Deania calcea</i>	28	49	395
<i>Scyliorhinus canicula</i>	9	15	395
<i>Centrophorus granulosus</i>	76	136	388
<i>Myoxocephalus scorpius</i>	28	53	387
<i>Diplodus sargus</i>	30	54	369
<i>Syngnathus acus</i>	25	46	362
<i>Alopias vulpinus</i>	157	303	355
<i>Argyrosomus regius</i>	9	18	351
<i>Enchelyopus cimbrius</i>	7	13	346

<i>Mullus surmuletus</i>	5	9	343
<i>Xenodermichthys copei</i>	11	21	337
<i>Argentina sphyraena</i>	3	6	337
<i>Citharus linguatula</i>	20	37	332
<i>Epigonus telescopus</i>	32	61	327
<i>Deania profundorum</i>	86	153	327
<i>Coryphaenoides rupestris</i>	90	162	327
<i>Leucoraja circularis</i>	24	44	327
<i>Hippoglossoides platessoides</i>	3	6	324
<i>Dicentrarchus punctatus</i>	35	61	321
<i>Leucoraja naevus</i>	13	23	320
<i>Mustelus mustelus</i>	23	46	316
<i>Myliobatis aquila</i>	82	175	314
<i>Nezumia aequalis</i>	4	7	309
<i>Polyprion americanus</i>	53	100	305
<i>Scomber scombrus</i>	64	117	300
<i>Sarpa salpa</i>	29	54	298
<i>Dipturus oxyrinchus</i>	47	81	296
<i>Acantholabrus palloni</i>	16	30	295
<i>Notoscopelus kroyeri</i>	10	18	286
<i>Rajella bathyphila</i>	70	126	285
<i>Pholis gunnellus</i>	13	24	282
<i>Hydrolagus mirabilis</i>	44	79	280
<i>Trachipterus arcticus</i>	60	111	275
<i>Lophius budegassa</i>	5	9	267
<i>Nesiarchus nasutus</i>	73	134	267
<i>Gaidropsarus vulgaris</i>	11	19	262
<i>Pomatoschistus minutus</i>	3	6	258
<i>Stomias boa</i>	25	45	256
<i>Agonus cataphractus</i>	18	36	253
<i>Scorpaena loppei</i>	8	14	248
<i>Rostroraja alba</i>	73	134	244
<i>Amblyraja radiata</i>	6	11	242
<i>Umbrina canariensis</i>	31	56	241
<i>Sebastes viviparus</i>	28	50	241
<i>Serranus cabrilla</i>	9	17	239
<i>Raja clavata</i>	138	248	239
<i>Pagellus bogaraveo</i>	9	16	239
<i>Halargyreus johnsonii</i>	12	22	234
<i>Dipturus batis</i>	16	30	232
<i>Raja miraletus</i>	26	46	230
<i>Diplodus annularis</i>	15	27	229
<i>Synaphobranchus kaupii</i>	22	38	227
<i>Torpedo torpedo</i>	56	110	223
<i>Callanthias ruber</i>	9	17	223
<i>Aphia minuta</i>	3	5	222

<i>Trachurus trachurus</i>	3	5	219
<i>Rostroraja alba</i>	134	248	219
<i>Mora moro</i>	61	110	218
<i>Acipenser sturio</i>	80	148	218
<i>Chimaera monstrosa</i>	9	16	216
<i>Torpedo marmorata</i>	14	27	207
<i>Torpedo marmorata</i>	51	98	207
<i>Alosa alosa</i>	19	34	207
<i>Echiichthys vipera</i>	17	31	204
<i>Citharus linguatula</i>	6	11	202
<i>Labrus bergylta</i>	17	30	201
<i>Raja asterias</i>	39	69	200
<i>Maurolicus muelleri</i>	3	5	196
<i>Phycis phycis</i>	33	59	193
<i>Pollachius virens</i>	10	19	190
<i>Lycodes vahlii</i>	18	32	189
<i>Maurolicus muelleri</i>	5	9	185
<i>Pagellus bellottii</i>	8	15	179
<i>Lycodes vahlii</i>	10	18	174
<i>Solea senegalensis</i>	18	34	173
<i>Pagellus erythrinus</i>	8	15	172
<i>Leucoraja naevus</i>	73	130	167
<i>Argentina silus</i>	6	11	166
<i>Alepocephalus bairdii</i>	40	72	165
<i>Argentina sphyraena</i>	38	69	162
<i>Acantholabrus palloni</i>	9	16	159
<i>Stomias boa</i>	14	25	158
<i>Anguilla anguilla</i>	32	58	154
<i>Raja miraletus</i>	46	82	153
<i>Dicentrarchus punctatus</i>	21	35	152
<i>Pagrus auriga</i>	27	52	151
<i>Brosme brosme</i>	19	34	149
<i>Xenodermichthys copei</i>	6	11	149
<i>Limanda limanda</i>	3	6	147
<i>Alosa alosa</i>	34	61	147
<i>Taurulus bubalis</i>	5	9	146
<i>Symphodus roissali</i>	28	52	145
<i>Pomadasys incisus</i>	16	31	144
<i>Alosa fallax</i>	6	11	144
<i>Aphanopus carbo</i>	39	69	144
<i>Cyttopsis rosea</i>	14	27	143
<i>Arnoglossus laterna</i>	4	7	143
<i>Nesiarchus nasutus</i>	40	73	142
<i>Sprattus sprattus</i>	71	130	141
<i>Umbrina canariensis</i>	9	17	140
<i>Cepola macrophthalma</i>	8	21	138

<i>Diplodus annularis</i>	8	15	138
<i>Belone belone</i>	61	110	135
<i>Raja montagui</i>	12	21	133
<i>Diplodus cervinus</i>	28	50	132
<i>Raja microocellata</i>	20	37	132
<i>Pagrus pagrus</i>	15	27	130
<i>Galeorhinus galeus</i>	23	44	129
<i>Polymetme thaeocoryla</i>	12	22	128
<i>Mora moro</i>	11	19	127
<i>Echiodon drummondii</i>	18	41	124
<i>Ephippion guttifer</i>	27	51	121
<i>Galeus melastomus</i>	8	14	120
<i>Blennius ocellaris</i>	17	32	120
<i>Gobius niger</i>	5	9	119
<i>Lepidion eques</i>	39	66	119
<i>Etmopterus spinax</i>	7	13	115
<i>Halargyreus johnsonii</i>	7	12	114
<i>Solea solea</i>	6	10	113
<i>Dentex canariensis</i>	28	53	111
<i>Sardinella aurita</i>	19	36	109
<i>Malacocephalus laevis</i>	8	15	109
<i>Rostroraja alba</i>	40	73	108
<i>Galeus atlanticus</i>	50	93	108
<i>Scorpaena loppei</i>	25	45	106
<i>Synchiropus phaeton</i>	13	28	102
<i>Dasyatis tortonesei</i>	34	62	101
<i>Merluccius merluccius</i>	3	6	101
<i>Alepocephalus bairdii</i>	22	40	100
<i>Liparis montagui</i>	8	16	96
<i>Malacocephalus laevis</i>	103	199	94
<i>Dalatias licha</i>	22	41	94
<i>Malacocephalus laevis</i>	4	8	93
<i>Beryx decadactylus</i>	14	26	88
<i>Microchirus boscanion</i>	9	17	85
<i>Ctenolabrus rupestris</i>	10	18	83
<i>Belone belone</i>	34	61	82
<i>Arnoglossus thori</i>	10	18	81
<i>Beryx decadactylus</i>	47	85	80
<i>Engraulis encrasicolus</i>	21	39	80
<i>Zeugopterus punctatus</i>	8	14	80
<i>Molva molva</i>	12	23	78
<i>Callionymus reticulatus</i>	6	12	78
<i>Molva dypterygia</i>	15	27	77
<i>Pagrus auriga</i>	52	98	77
<i>Labrus mixtus</i>	31	55	77
<i>Microchirus boscanion</i>	5	9	74

<i>Serranus hepatus</i>	4	8	74
<i>Microchirus azevia</i>	17	31	72
<i>Gaidropsarus vulgaris</i>	3	6	71
<i>Myxine glutinosa</i>	36	63	69
<i>Lepidopus caudatus</i>	82	150	68
<i>Nezumia aequalis</i>	7	13	67
<i>Callionymus maculatus</i>	3	5	66
<i>Gadiculus argenteus</i>	18	32	66
<i>Polymetme corythaeola</i>	13	23	65
<i>Myxine glutinosa</i>	12	21	65
<i>Buglossidium luteum</i>	16	29	65
<i>Phycis phycis</i>	18	33	65
<i>Hyperoplus lanceolatus</i>	8	15	65
<i>Lycodes gracilis</i>	11	26	63
<i>Maurolicus muelleri</i>	2	3	63
<i>Helicolenus dactylopterus</i>	52	94	63
<i>Osmerus eperlanus</i>	6	11	61
<i>Zoarces viviparus</i>	12	23	61
<i>Synaphobranchus kaupii</i>	12	22	61
<i>Zeugopterus norvegicus</i>	4	8	61
<i>Arnoglossus rueppelii</i>	12	22	57
<i>Trachyrincus scabrus</i>	49	88	56
<i>Arctozenus risso</i>	13	24	56
<i>Oxynotus paradoxus</i>	73	133	55
<i>Stomias boa</i>	82	147	55
<i>Atherina presbyter</i>	3	6	55
<i>Lampanyctus crocodilus</i>	12	23	52
<i>Hygophum benoiti</i>	30	54	51
<i>Pholis gunnellus</i>	24	44	51
<i>Ciliata mustela</i>	7	13	50
<i>Anthias anthias</i>	20	41	50
<i>Caranx rhonchus</i>	8	17	50
<i>Galeus murinus</i>	43	79	49
<i>Pegusa lascaris</i>	10	18	49
<i>Myoxocephalus scorpius</i>	5	8	49
<i>Umbrina cirrosa</i>	31	58	49
<i>Sardina pilchardus</i>	35	64	48
<i>Oxynotus paradoxus</i>	40	73	48
<i>Mugil cephalus</i>	31	59	48
<i>Arnoglossus imperialis</i>	19	35	48
<i>Gobius niger</i>	9	17	46
<i>Ciliata mustela</i>	23	41	46
<i>Deania profundorum</i>	27	48	46
<i>Hyperoplus lanceolatus</i>	4	8	46
<i>Alosa agone</i>	17	33	45
<i>Dicologlossa cuneata</i>	6	11	45

<i>Squalus blainville</i>	25	45	44
<i>Alepocephalus rostratus</i>	12	22	43
<i>Callionymus maculatus</i>	21	41	42
<i>Symphodus bailloni</i>	15	28	41
<i>Labrus mixtus</i>	10	18	41
<i>Rajella bathyphila</i>	39	70	41
<i>Microchirus theophila</i>	17	32	40
<i>Sphyræna sphyraena</i>	36	69	39
<i>Sprattus sprattus</i>	21	38	38
<i>Uranoscopus scaber</i>	29	53	38
<i>Ephippion guttifer</i>	14	27	37
<i>Dipturus nidarosiensis</i>	39	70	37
<i>Trachyrincus scabrus</i>	28	49	37
<i>Syngnathus acus</i>	14	25	36
<i>Citharus linguatula</i>	3	6	36
<i>Alosa alosa</i>	11	19	36
<i>Raja asterias</i>	69	123	35
<i>Coryphaenoides rupestris</i>	27	50	35
<i>Lepidion eques</i>	8	14	35
<i>Pollachius pollachius</i>	11	19	35
<i>Molva macrophthalma</i>	10	17	34
<i>Lampanyctus crocodilus</i>	7	12	34
<i>Halargyreus johnsonii</i>	22	40	34
<i>Scyliorhinus stellaris</i>	13	24	33
<i>Pomadasys incisus</i>	8	16	33
<i>Cyttopsis rosea</i>	8	14	33
<i>Lepidotrigla dieuzeidei</i>	17	31	33
<i>Pagrus pagrus</i>	8	15	31
<i>Lepidotrigla dieuzeidei</i>	5	9	31
<i>Callionymus reticulatus</i>	12	26	31
<i>Trigla lyra</i>	5	10	30
<i>Coryphaenoides rupestris</i>	50	90	29
<i>Myliobatis aquila</i>	18	38	29
<i>Syngnathus rostellatus</i>	9	15	29
<i>Pomatoschistus minutus</i>	33	58	28
<i>Bathysolea profundicola</i>	21	39	28
<i>Callanthias ruber</i>	5	9	28
<i>Spicara smaris</i>	10	18	27
<i>Maurolicus muelleri</i>	9	14	27
<i>Glyptocephalus cynoglossus</i>	7	13	27
<i>Echiodon dentatus</i>	20	36	26
<i>Spicara maena</i>	5	9	26
<i>Scomber scombrus</i>	6	11	26
<i>Liparis liparis</i>	4	7	26
<i>Gnathophis mystax</i>	20	36	26
<i>Ruvettus pretiosus</i>	77	140	26

<i>Pagellus acarne</i>	5	9	25
<i>Aphia minuta</i>	5	8	25
<i>Myoxocephalus scorpioides</i>	18	32	25
<i>Gaidropsarus vulgaris</i>	6	11	24
<i>Trachinus draco</i>	6	11	24
<i>Chaunax pictus</i>	14	27	24
<i>Myctophum punctatum</i>	6	10	24
<i>Hymenocephalus italicus</i>	13	24	24
<i>Galeus melastomus</i>	96	181	24
<i>Galeus murinus</i>	24	43	24
<i>Diplodus sargus</i>	16	30	23
<i>Raja brachyura</i>	12	22	23
<i>Dentex gibbosus</i>	31	57	22
<i>Dipturus oxyrinchus</i>	28	47	22
<i>Petromyzon marinus</i>	63	109	22
<i>Scorpaena scrofa</i>	8	15	21
<i>Liparis montagui</i>	4	8	21
<i>Solea senegalensis</i>	34	62	21
<i>Chaunax pictus</i>	27	49	21
<i>Monochirus hispidus</i>	8	14	20
<i>Lepidorhombus boscii</i>	3	6	20
<i>Hymenocephalus italicus</i>	24	43	20
<i>Pagellus erythrinus</i>	4	8	18
<i>Dasyatis pastinaca</i>	18	34	18
<i>Hyperoplus lanceolatus</i>	53	101	18
<i>Syngnathus acus</i>	4	8	18
<i>Arnoglossus thori</i>	5	10	17
<i>Ciliata septentrionalis</i>	9	16	17
<i>Cyttopsis rosea</i>	27	49	17
<i>Symphurus nigrescens</i>	6	11	17
<i>Nerophis ophidion</i>	25	50	17
<i>Gasterosteus aculeatus</i>	9	17	17
<i>Alosa agone</i>	33	62	17
<i>Micromesistius poutassou</i>	4	6	17
<i>Raja clavata</i>	7	13	17
<i>Nemichthys scolopaceus</i>	36	66	17
<i>Dentex maroccanus</i>	15	29	17
<i>Scorpaena loppei</i>	14	25	17
<i>Polymetme thaeocoryla</i>	22	40	17
<i>Phycis blennoides</i>	6	11	16
<i>Blennius ocellaris</i>	4	9	16
<i>Leucoraja circularis</i>	13	24	16
<i>Uranoscopus scaber</i>	16	29	16
<i>Trachyrincus scabrus</i>	5	9	16
<i>Pterycombus brama</i>	28	53	16
<i>Salmo salar</i>	32	59	16

<i>Dipturus nidarosiensis</i>	22	39	16
<i>Benthodesmus simonyi</i>	60	104	16
<i>Chelidonichthys lastoviza</i>	18	33	15
<i>Hydrolagus mirabilis</i>	13	24	15
<i>Labrus bergylta</i>	9	17	15
<i>Dentex gibbosus</i>	17	31	14
<i>Dentex canariensis</i>	15	28	14
<i>Chelidonichthys lastoviza</i>	10	18	14
<i>Microchirus theophila</i>	9	17	14
<i>Naucrates ductor</i>	28	53	14
<i>Eutrigla gurnardus</i>	3	5	14
<i>Rajella bathyphila</i>	22	39	13
<i>Raja undulata</i>	12	22	13
<i>Ciliata septentrionalis</i>	5	9	13
<i>Stromateus fiatola</i>	27	50	13
<i>Chlorophthalmus agassizi</i>	11	22	13
<i>Scorpaena scrofa</i>	15	27	13
<i>Centrolabrus exoletus</i>	19	33	13
<i>Buglossidium luteum</i>	3	5	13
<i>Helicolenus dactylopterus</i>	3	5	13
<i>Deania calcea</i>	16	28	13
<i>Rajella fyllae</i>	43	80	12
<i>Trachipterus trachipterus</i>	66	123	12
<i>Trachipterus arcticus</i>	32	60	12
<i>Chauliodus sloani</i>	18	33	12
<i>Monochirus hispidus</i>	14	25	12
<i>Lophius piscatorius</i>	4	8	12
<i>Stomias boa</i>	8	14	12
<i>Coryphaenoides rupestris</i>	15	27	12
<i>Chelidonichthys lucerna</i>	5	9	12
<i>Ciliata septentrionalis</i>	16	29	11
<i>Plectorhinchus mediterraneus</i>	30	54	11
<i>Chelidonichthys obscurus</i>	35	62	11
<i>Cyclopterus lumpus</i>	6	11	11
<i>Spratelloides lewisi</i>	11	20	11
<i>Dentex maroccanus</i>	29	56	11
<i>Notoscopelus kroyeri</i>	5	10	11
<i>Macrourus berglax</i>	18	35	11
<i>Zeugopterus punctatus</i>	14	26	11
<i>Pegusa lascaris</i>	5	10	10
<i>Osmerus eperlanus</i>	11	20	10
<i>Hoplostethus mediterraneus</i>	4	8	10
<i>Sarpa salpa</i>	16	29	10
<i>Pholis gunnellus</i>	7	13	10
<i>Lycenchelys sarsii</i>	10	16	10
<i>Dentex gibbosus</i>	9	17	9



<i>Gaidropsarus biscayensis</i>	7	12	9
<i>Torpedo marmorata</i>	7	14	9
<i>Symphurus nigrescens</i>	11	19	9
<i>Gaidropsarus mediterraneus</i>	23	42	9
<i>Mustelus asterias</i>	15	28	9
<i>Macrourus berglax</i>	35	65	9
<i>Triglops murrayi</i>	9	19	9
<i>Raja montagui</i>	7	12	8
<i>Lepidopus caudatus</i>	14	25	8
<i>Alosa agone</i>	9	17	8
<i>Synaphobranchus kaupii</i>	38	66	8
<i>Ophidion barbatum</i>	23	42	8
<i>Sardina pilchardus</i>	3	6	8
<i>Hygophum benoiti</i>	16	30	8
<i>Petromyzon marinus</i>	21	36	8
<i>Arctozenus risso</i>	24	44	7
<i>Brama brama</i>	16	29	7
<i>Coryphaenoides rupestris</i>	8	15	7
<i>Zenopsis conchifer</i>	11	19	7
<i>Melanostomias bartonbeani</i>	22	40	7
<i>Entelurus aequoreus</i>	9	18	7
<i>Agonus cataphractus</i>	2	5	7
<i>Spicara smaris</i>	18	35	7
<i>Parablennius gattorugine</i>	9	17	7
<i>Coelorinchus caelorhincus</i>	2	4	7
<i>Arctozenus risso</i>	7	13	7
<i>Zeugopterus punctatus</i>	4	8	7
<i>Umbrina canariensis</i>	5	9	7
<i>Centrolophus niger</i>	21	36	7
<i>Synaphobranchus kaupii</i>	7	12	7
<i>Arnoglossus rueppelii</i>	6	12	6
<i>Ctenolabrus rupestris</i>	5	10	6
<i>Zeugopterus regius</i>	8	14	6
<i>Zoarces viviparus</i>	23	43	6
<i>Arnoglossus laterna</i>	20	34	6
<i>Echiichthys vipera</i>	31	58	6
<i>Raniceps raninus</i>	17	29	6
<i>Nezumia aequalis</i>	2	4	6
<i>Maurolicus muelleri</i>	14	23	6
<i>Argyrosomus regius</i>	5	9	6
<i>Schedophilus medusophagus</i>	14	27	6
<i>Gaidropsarus mediterraneus</i>	12	23	6
<i>Clupea harengus</i>	2	3	6
<i>Benthodesmus elongatus</i>	35	60	6
<i>Trisopterus minutus</i>	32	59	6
<i>Leucoraja fullonica</i>	14	25	6

<i>Zenopsis conchifer</i>	6	11	6
<i>Epigonus denticulatus</i>	6	10	5
<i>Triglops murrayi</i>	5	9	5
<i>Diaphus dumerilii</i>	6	11	5
<i>Callionymus maculatus</i>	41	81	5
<i>Glyptocephalus cynoglossus</i>	4	7	5
<i>Gaidropsarus biscayensis</i>	12	22	5
<i>Nessorhamphus ingolfianus</i>	36	66	5
<i>Argyropelecus olfersii</i>	4	8	5
<i>Ophidion barbatum</i>	13	23	5
<i>Leucoraja naevus</i>	7	13	5
<i>Serranus scriba</i>	16	30	5
<i>Etmopterus pusillus</i>	24	44	5
<i>Raja miraletus</i>	14	26	5
<i>Anthias anthias</i>	5	10	5
<i>Sigmops bathyphilus</i>	24	43	5
<i>Microstomus kitt</i>	3	5	5
<i>Gaidropsarus macrophthalmus</i>	22	42	5
<i>Capros aper</i>	1	2	5
<i>Spinachia spinachia</i>	30	57	5
<i>Halobatrachus didactylus</i>	28	51	5
<i>Conger conger</i>	12	21	5
<i>Gnathophis mystax</i>	36	67	5
<i>Scorpaena loppei</i>	5	8	5
<i>Syngnathus acus</i>	46	82	4
<i>Petromyzon marinus</i>	36	63	4
<i>Gadella maraldi</i>	20	35	4
<i>Lepidorhombus whiffiagonis</i>	3	6	4
<i>Macrourus berglax</i>	10	18	4
<i>Lampetra fluviatilis</i>	18	32	4
<i>Symphodus bailloni</i>	8	15	4
<i>Serranus hepatus</i>	15	28	4
<i>Lycenchelys sarsii</i>	16	26	4
<i>Raniceps raninus</i>	9	17	4
<i>Pomatoschistus minutus</i>	10	18	4
<i>Magnisudis atlantica</i>	13	24	4
<i>Benthodesmus elongatus</i>	60	104	4
<i>Naucrates ductor</i>	15	28	4
<i>Spinachia spinachia</i>	16	30	4
<i>Argyropelecus olfersii</i>	8	15	4
<i>Lampetra fluviatilis</i>	32	58	4
<i>Microchirus azevia</i>	9	17	4
<i>Chelon labrosus</i>	17	31	3
<i>Chimaera monstrosa</i>	5	9	3
<i>Symphodus melops</i>	9	17	3
<i>Zoarces viviparus</i>	7	12	3

<i>Paraliparis membranaceus</i>	9	17	3
<i>Pontinus kuhlii</i>	16	30	3
<i>Trachurus picturatus</i>	5	9	3
<i>Myoxocephalus scorpioides</i>	10	18	3
<i>Mora moro</i>	6	11	3
<i>Caranx rhonchus</i>	17	32	3
<i>Argentina silus</i>	3	6	3
<i>Belone belone</i>	19	34	3
<i>Synchiropus phaeton</i>	6	13	3
<i>Serrivomer beanii</i>	36	66	3
<i>Gaidropsarus argentatus</i>	21	39	3
<i>Sphoeroides pachygaster</i>	7	14	3
<i>Labrus mixtus</i>	6	10	3
<i>Microchirus ocellatus</i>	9	16	3
<i>Myctophum punctatum</i>	3	6	3
<i>Anguilla anguilla</i>	18	32	3
<i>Boops boops</i>	3	5	3
<i>Notacanthus bonaparte</i>	10	19	3
<i>Sigmops bathyphilus</i>	13	24	3
<i>Scorpaena porcus</i>	8	15	3
<i>Callionymus lyra</i>	2	5	3
<i>Gadella maraldi</i>	11	20	3
<i>Polymetme corythaeola</i>	7	13	2
<i>Epigonus denticulatus</i>	10	18	2
<i>Alosa alosa</i>	6	11	2
<i>Trachurus mediterraneus</i>	3	5	2
<i>Echiodon drummondii</i>	8	18	2
<i>Paraliparis membranaceus</i>	5	9	2
<i>Symphodus roissali</i>	15	28	2
<i>Callionymus reticulatus</i>	3	6	2
<i>Macroramphosus scolopax</i>	3	6	2
<i>Pomatoschistus minutus</i>	2	3	2
<i>Bathysolea profundicola</i>	7	12	2
<i>Centrolabrus exoletus</i>	10	19	2
<i>Pomadasys incisus</i>	4	8	2
<i>Spinachia spinachia</i>	5	9	2
<i>Diplodus vulgaris</i>	5	8	2
<i>Lycodes vahlii</i>	5	10	2
<i>Zeus faber</i>	2	4	2
<i>Pagellus bellottii</i>	4	8	2
<i>Chauliodus sloani</i>	10	18	2
<i>Buglossidium luteum</i>	2	3	2
<i>Arnoglossus thori</i>	18	33	2
<i>Spratelloides lewisi</i>	6	11	2
<i>Melanonus zugmayeri</i>	12	22	2
<i>Neoraja iberica</i>	12	22	2

<i>Chelidonichthys obscurus</i>	6	11	2
<i>Hygophum benoiti</i>	9	16	2
<i>Callanthias ruber</i>	17	31	2
<i>Serranus scriba</i>	9	16	2
<i>Echiodon dentatus</i>	11	20	2
<i>Arnoglossus imperialis</i>	3	6	2
<i>Pagrus pagrus</i>	4	8	2
<i>Nessorhamphus ingolfianus</i>	20	36	2
<i>Macroparalepis affinis</i>	13	24	2
<i>Peristedion cataphractum</i>	23	44	1
<i>Diplecogaster bimaculata</i>	2	4	1
<i>Lycodes gracilis</i>	5	11	1
<i>Petromyzon marinus</i>	12	21	1
<i>Ophichthus rufus</i>	38	72	1
<i>Diplodus sargus</i>	9	16	1
<i>Argyropelecus hemigymnus</i>	2	4	1
<i>Argyropelecus gigas</i>	8	15	1
<i>Echiostoma barbatum</i>	12	22	1
<i>Cepola macrophthalmia</i>	3	8	1
<i>Lestidiops jayakari</i>	11	21	1
<i>Syngnathus rostellatus</i>	15	25	1
<i>Chlorophthalmus agassizi</i>	6	11	1
<i>Limanda limanda</i>	2	3	1
<i>Spondyliosoma cantharus</i>	2	5	1
<i>Mullus surmuletus</i>	3	5	1
<i>Peristedion cataphractum</i>	12	23	1
<i>Benthodesmus simonyi</i>	35	60	1
<i>Scomberesox saurus</i>	28	49	1
<i>Raniceps raninus</i>	5	9	1
<i>Alepocephalus bairdii</i>	12	22	1
<i>Rostroraja alba</i>	21	40	1
<i>Pagrus auriga</i>	14	27	1
<i>Callionymus reticulatus</i>	26	55	1
<i>Lepidion eques</i>	5	8	1
<i>Chaunax pictus</i>	8	14	1
<i>Chelidonichthys lastoviza</i>	6	10	1
<i>Hippocampus hippocampus</i>	8	16	1
<i>Scomberesox saurus</i>	15	28	1
<i>Pleuronectes platessa</i>	3	5	1
<i>Syngnathus rostellatus</i>	5	9	1
<i>Polymetme thaeocoryla</i>	7	12	1
<i>Myxine glutinosa</i>	7	12	1
<i>Hoplostethus atlanticus</i>	6	12	1
<i>Leptoclinus maculatus</i>	8	18	1
<i>Paralepis coregonoides</i>	13	24	1
<i>Zeugopterus regius</i>	14	25	1

<i>Hippocampus hippocampus</i>	5	8	1
<i>Ceratoscopelus maderensis</i>	6	11	1
<i>Raja brachyura</i>	7	12	1
<i>Liparis montagui</i>	16	30	1
<i>Lycodes gracilis</i>	26	59	1
<i>Parasudis fraserbrunneri</i>	12	21	1
<i>Ciliata mustela</i>	4	7	1
<i>Syngnathus typhle</i>	17	31	1
<i>Cyclopterus lumpus</i>	3	6	1
<i>Serranus cabrilla</i>	5	9	1
<i>Squalus blainville</i>	13	25	1
<i>Dipturus oxyrinchus</i>	16	28	1
<i>Ciliata septentrionalis</i>	3	5	1
<i>Osmerus eperlanus</i>	4	6	1
<i>Galeus atlanticus</i>	8	15	1
<i>Alepocephalus rostratus</i>	7	12	1
<i>Centrolabrus exoletus</i>	6	10	1
<i>Hydrolagus mirabilis</i>	7	13	1
<i>Thunnus thynnus</i>	9	18	1
<i>Echiodon drummondii</i>	41	91	1
<i>Microchirus variegatus</i>	3	5	1
<i>Stromateus fiatola</i>	8	15	1
<i>Phycis phycis</i>	10	18	1
<i>Chirostomias pliopterus</i>	12	22	1
<i>Gobius paganellus</i>	5	9	1
<i>Centroscyllium fabricii</i>	15	26	1
<i>Argyroteleus olfersii</i>	2	4	1
<i>Lumpenus lampraeformis</i>	3	8	1
<i>Gadella maraldi</i>	6	11	1
<i>Mustelus mustelus</i>	12	23	1
<i>Parablennius gattorugine</i>	5	9	1
<i>Polymetme corythaeola</i>	23	42	1
<i>Epigonus telescopus</i>	5	9	1
<i>Gaidropsarus mediterraneus</i>	7	12	1
<i>Gadiculus argenteus</i>	2	3	1
<i>Symphodus melops</i>	5	9	1
<i>Symphodus bailloni</i>	5	8	1
<i>Xenodermichthys copei</i>	3	6	1
<i>Trachyscorpia cristulata</i>	9	17	1
<i>Carapus acus</i>	20	36	1
<i>Pontinus kuhlii</i>	9	16	0
<i>Entelurus aequoreus</i>	4	9	0
<i>Molva molva</i>	7	12	0
<i>Echiodon drummondii</i>	4	8	0
<i>Cataetyx alleni</i>	12	22	0
<i>Arnoglossus thori</i>	3	5	0

<i>Diretmus argenteus</i>	8	14	0
<i>Sparus aurata</i>	5	9	0
<i>Etmopterus pusillus</i>	13	24	0
<i>Pagrus pagrus</i>	2	4	0
<i>Lobianchia gemellarii</i>	6	11	0
<i>Deania profundorum</i>	15	27	0
<i>Gaidropsarus macrophthalmus</i>	3	6	0
<i>Pagellus bogaraveo</i>	5	9	0
<i>Myctophum punctatum</i>	10	19	0
<i>Remora brachyptera</i>	10	19	0
<i>Symphodus roissali</i>	8	15	0
<i>Gasterosteus aculeatus</i>	3	5	0
<i>Microchirus theophila</i>	5	9	0
<i>Spinachia spinachia</i>	9	16	0
<i>Enchelyopus cimbrius</i>	4	7	0
<i>Liparis liparis</i>	2	4	0
<i>Scorpaena notata</i>	4	8	0
<i>Gobiidae</i>	11	20	0
<i>Scophthalmus rhombus</i>	5	9	0
<i>Chirolophis ascanii</i>	11	26	0
<i>Liparis montagui</i>	2	4	0
<i>Trisopterus luscus</i>	3	5	0
<i>Howella brodiei</i>	9	17	0
<i>Sebastes viviparus</i>	3	5	0
<i>Zeugopterus norvegicus</i>	2	4	0
<i>Sagamichthys schnakenbecki</i>	12	22	0
<i>Sparus aurata</i>	9	16	0
<i>Dentex maroccanus</i>	8	15	0
<i>Raja undulata</i>	6	12	0
<i>Hymenocephalus italicus</i>	4	7	0
<i>Leptagonus decagonus</i>	9	18	0
<i>Pagellus bellottii</i>	2	4	0
<i>Leucoraja circularis</i>	7	13	0
<i>Callionymus risso</i>	3	5	0
<i>Searsia koefoedi</i>	9	17	0
<i>Micrenophrys lilljeborgii</i>	10	18	0
<i>Nerophis ophidion</i>	13	25	0
<i>Chirolophis ascanii</i>	5	11	0
<i>Alosa alosa</i>	3	6	0
<i>Uranoscopus scaber</i>	8	16	0
<i>Squalus acanthias</i>	7	14	0
<i>Ceratoscopelus maderensis</i>	3	6	0
<i>Lithognathus mormyrus</i>	5	9	0
<i>Ammodytes</i>	4	7	0
<i>Chaunax pictus</i>	4	8	0
<i>Echiostoma barbatum</i>	7	12	0

<i>Carapus acus</i>	11	20	0
<i>Poromitra capito</i>	9	17	0
<i>Scyliorhinus stellaris</i>	7	13	0
<i>Serranus hepatus</i>	2	4	0
<i>Vinciguerria poweriae</i>	5	9	0
<i>Blennius ocellaris</i>	2	4	0
<i>Artediellus atlanticus</i>	5	10	0
<i>Taurulus bubalis</i>	3	5	0
<i>Scorpaena scrofa</i>	4	8	0
<i>Anarhichas lupus</i>	7	12	0
<i>Zenion hololepis</i>	5	9	0
<i>Paraliparis membranaceus</i>	3	5	0
<i>Gobius paganellus</i>	9	16	0
<i>Phycis blennoides</i>	4	6	0
<i>Myoxocephalus scorpius</i>	2	5	0
<i>Howella brodiei</i>	5	9	0
<i>Arctozenus risso</i>	4	7	0
<i>Zeugopterus regius</i>	4	8	0
<i>Dicentrarchus labrax</i>	5	10	0
<i>Aphia minuta</i>	2	3	0
<i>Leptoclinus maculatus</i>	18	41	0
<i>Nezumia sclerorhynchus</i>	10	17	0
<i>Notacanthus bonaparte</i>	5	10	0
<i>Guttigadus latifrons</i>	7	12	0
<i>Merluccius merluccius</i>	2	3	0
<i>Maurolicus muelleri</i>	1	2	0
<i>Torpedo marmorata</i>	4	7	0
<i>Scyliorhinus canicula</i>	5	9	0
<i>Paralepis coregonoides</i>	7	13	0
<i>Argentina sphyraena</i>	2	3	0
<i>Citharus linguatula</i>	2	3	0
<i>Leptoclinus maculatus</i>	4	8	0
<i>Poromitra crassiceps</i>	9	17	0
<i>Cyttopsis rosea</i>	4	8	0
<i>Benthoosema glaciale</i>	5	9	0
<i>Coryphaenoides rupestris</i>	5	8	0
<i>Spratelloides lewisi</i>	3	6	0
<i>Lampanyctus photonotus</i>	6	11	0
<i>Diaphus dumerilii</i>	3	6	0
<i>Evermannella balbo</i>	6	12	0
<i>Brosme brosme</i>	10	19	0
<i>Notoscopelus elongatus</i>	9	16	0
<i>Scomber colias</i>	6	10	0
<i>Monochirus hispidus</i>	4	8	0
<i>Acantholabrus palloni</i>	5	9	0
<i>Scymnodon ringens</i>	6	12	0

<i>Lycenchelys sarsii</i>	7	10	0
<i>Peristedion cataphractum</i>	7	12	0
<i>Sprattus sprattus</i>	2	3	0
<i>Micrenophrys lilljeborgii</i>	5	10	0
<i>Nansenia tenera</i>	7	12	0
<i>Hippoglossoides platessoides</i>	2	3	0
<i>Notoscopelus kroyeri</i>	3	5	0
<i>Trisopterus esmarkii</i>	2	3	0
<i>Hymenocephalus italicus</i>	2	4	0
<i>Trisopterus minutus</i>	2	3	0
<i>Syngnathus typhle</i>	9	17	0
<i>Micrenophrys lilljeborgii</i>	3	5	0
<i>Molva dypterygia</i>	8	15	0
<i>Diplecogaster bimaculata</i>	1	2	0
<i>Hippocampus guttulatus</i>	8	16	0
<i>Lophius budegassa</i>	2	5	0
<i>Lepidorhombus boscii</i>	2	3	0
<i>Gadella maraldi</i>	4	6	0
<i>Pollachius pollachius</i>	6	11	0
<i>Benthoosema glaciale</i>	3	5	0
<i>Lampanyctus crocodilus</i>	4	7	0
<i>Labrus bergylta</i>	5	9	0
<i>Alosa alosa</i>	2	3	0
<i>Molva molva</i>	4	7	0
<i>Brosme brosme</i>	6	10	0
<i>Gaidropsarus biscayensis</i>	4	7	0
<i>Dicologlossa cuneata</i>	3	6	0
<i>Ctenolabrus rupestris</i>	3	5	0
<i>Stomias boa</i>	4	8	0
<i>Arnoglossus rueppelii</i>	3	6	0
<i>Alosa agone</i>	5	9	0
<i>Belone belone</i>	10	19	0
<i>Chelidonichthys lucerna</i>	3	5	0
<i>Raniceps raninus</i>	3	5	0
<i>Microchirus ocellatus</i>	4	9	0
<i>Macrourus berglax</i>	5	10	0
<i>Brama brama</i>	5	9	0
<i>Chauliodus sloani</i>	6	10	0
<i>Centrolophus niger</i>	7	12	0
<i>Lepidotrigla cavillone</i>	3	5	0
<i>Zeugopterus punctatus</i>	2	4	0
<i>Sebastes mentella</i>	4	8	0
<i>Gobius niger</i>	3	5	0
<i>Pagellus acarne</i>	3	5	0
<i>Dysomma brevirostre</i>	11	20	0
<i>Chelidonichthys cuculus</i>	3	6	0

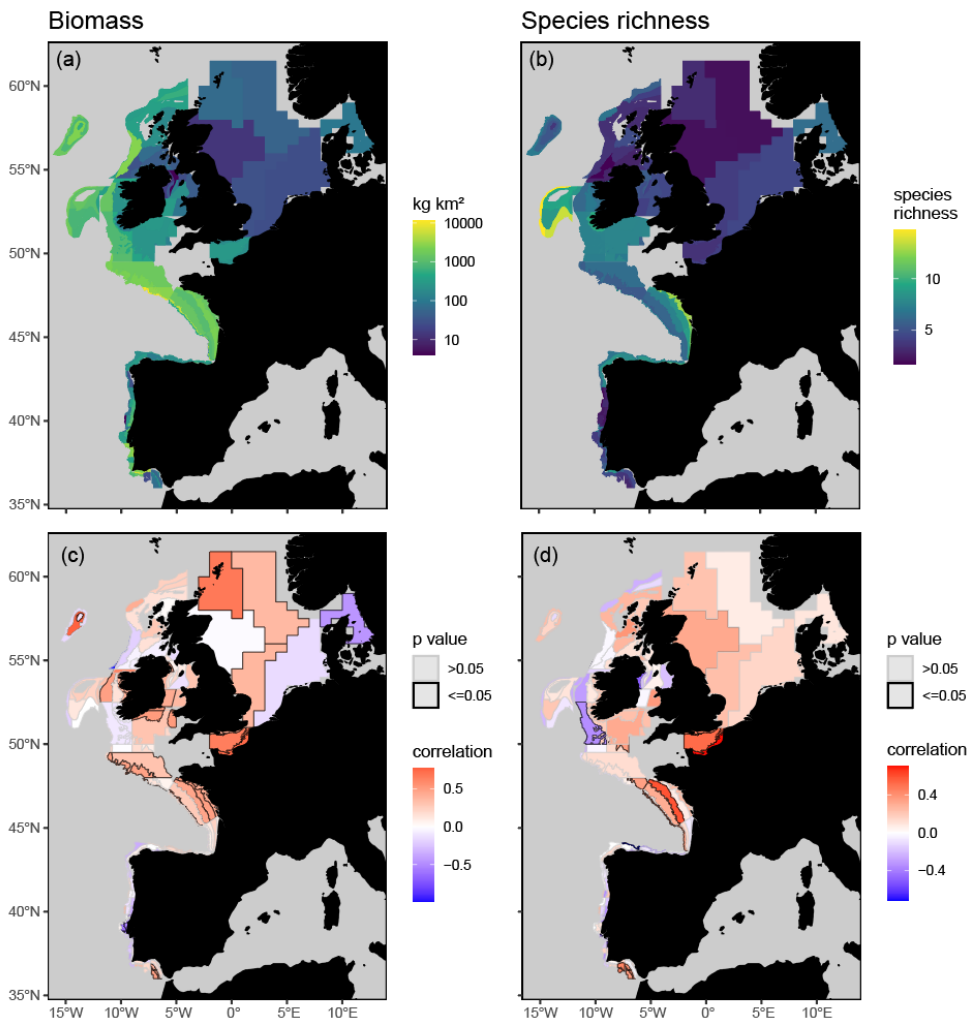


<i>Arnoglossus laterna</i>	2	4	0
<i>Phycis phycis</i>	5	10	0
<i>Nezumia aequalis</i>	1	2	0
<i>Halargyreus johnsonii</i>	4	7	0
<i>Bellottia apoda</i>	5	9	0
<i>Gobiidae</i>	5	10	0
<i>Gnathophis mystax</i>	11	20	0
<i>Glyptocephalus cynoglossus</i>	2	4	0
<i>Galeus melastomus</i>	4	8	0
<i>Echiichthys vipera</i>	3	5	0
<i>Anguilla anguilla</i>	6	10	0
<i>Triglops murrayi</i>	2	5	0
<i>Malacocephalus laevis</i>	2	4	0
<i>Anguilla anguilla</i>	10	18	0
<i>Micromesistius poutassou</i>	2	4	0
<i>Callanthias ruber</i>	3	5	0
<i>Sebastes mentella</i>	2	4	0
<i>Epigonus denticulatus</i>	3	6	0
<i>Setarches guentheri</i>	5	9	0
<i>Notoscopelus bolini</i>	5	9	0
<i>Conger conger</i>	7	12	0
<i>Serranus scriba</i>	3	5	0
<i>Trachinus draco</i>	3	6	0
<i>Pagellus bogaraveo</i>	3	5	0
<i>Molva macrophthalmia</i>	5	10	0
<i>Lepadogaster lepadogaster</i>	2	4	0
<i>Lepidopus caudatus</i>	7	14	0
<i>Sander lucioperca</i>	5	10	0
<i>Chlorophthalmus agassizi</i>	3	6	0
<i>Arnoglossus imperialis</i>	2	3	0
<i>Cubiceps gracilis</i>	5	9	0
<i>Leucoraja naevus</i>	4	7	0
<i>Ammodytes</i>	2	4	0
<i>Gaidropsarus mediterraneus</i>	3	7	0
<i>Etmopterus spinax</i>	4	7	0
<i>Hippocampus hippocampus</i>	2	5	0
<i>Echiodon drummondii</i>	2	4	0
<i>Zeus faber</i>	1	2	0
<i>Argyropelecus aculeatus</i>	2	4	0
<i>Alosa fallax</i>	3	6	0
<i>Argyropelecus aculeatus</i>	4	8	0
<i>Trachurus trachurus</i>	2	3	0
<i>Lepidorhombus whiffiagonis</i>	2	3	0
<i>Squalus acanthias</i>	4	7	0
<i>Alepocephalus rostratus</i>	4	7	0
<i>Argyropelecus hemigymnus</i>	1	2	0

<i>Echiodon dentatus</i>	6	11	0
<i>Pholis gunnellus</i>	4	7	0
<i>Symphodus melops</i>	3	5	0
<i>Trigla lyra</i>	3	5	0
<i>Pomadasys incisus</i>	2	4	0
<i>Polymetme thaeocoryla</i>	4	7	0
<i>Acantholabrus palloni</i>	3	5	0
<i>Electrona risso</i>	4	7	0
<i>Symphurus nigrescens</i>	3	6	0
<i>Labrus mixtus</i>	3	6	0
<i>Amblyraja radiata</i>	3	6	0
<i>Scomber scombrus</i>	3	6	0
<i>Syngnathus rostellatus</i>	3	5	0
<i>Galeus melastomus</i>	2	4	0
<i>Epigonus constanciae</i>	3	6	0
<i>Cepola macrophthalma</i>	1	3	0
<i>Micrenophrys lilljeborgii</i>	2	3	0
<i>Lobianchia dofleini</i>	3	5	0
<i>Lobianchia gemellarii</i>	3	6	0
<i>Symphodus bailloni</i>	3	5	0
<i>Lophius piscatorius</i>	2	4	0
<i>Capros aper</i>	1	1	0
<i>Bathysolea profundicola</i>	4	7	0
<i>Arnoglossus thori</i>	2	3	0
<i>Alepocephalus bairdii</i>	4	7	0
<i>Callionymus lyra</i>	1	2	0
<i>Microstomus kitt</i>	2	3	0
<i>Spicara maena</i>	3	5	0
<i>Nezumia sclerorhynchus</i>	3	5	0
<i>Nezumia sclerorhynchus</i>	5	10	0
<i>Solea solea</i>	3	6	0
<i>Synaphobranchus kaupii</i>	4	7	0
<i>Cubiceps gracilis</i>	3	5	0
<i>Spinachia spinachia</i>	3	5	0
<i>Helicolenus dactylopterus</i>	1	3	0
<i>Apletodon dentatus</i>	2	3	0
<i>Hyperoplus lanceolatus</i>	2	4	0
<i>Phycis blennoides</i>	2	4	0
<i>Raja clavata</i>	2	4	0
<i>Chelidonichthys cuculus</i>	1	2	0
<i>Liparis liparis</i>	1	1	0
<i>Bathysolea profundicola</i>	1	2	0
<i>Nerophis lumbriciformis</i>	6	13	0
<i>Callionymus maculatus</i>	1	3	0
<i>Xenodermichthys copei</i>	2	3	0
<i>Chelidonichthys obscurus</i>	2	3	0

<i>Nerophis lumbriciformis</i>	13	25	0
<i>Coelorinchus caelorhincus</i>	1	2	0
<i>Nerophis ophidion</i>	6	13	0
<i>Hoplostethus atlanticus</i>	1	2	0
<i>Peristedion cataphractum</i>	3	7	0
<i>Ceratospiculus maderensis</i>	2	3	0
<i>Coryphaenoides rupestris</i>	3	5	0
<i>Monochirus hispidus</i>	1	2	0
<i>Syngnathus typhle</i>	5	9	0
<i>Sprattus sprattus</i>	1	2	0
<i>Zeugopterus norvegicus</i>	1	2	0
<i>Nezumia bairdii</i>	2	4	0
<i>Agonus cataphractus</i>	1	2	0
<i>Bathysolea profundicola</i>	2	4	0
<i>Entelurus aequoreus</i>	2	4	0
<i>Callionymus reticulatus</i>	1	3	0
<i>Ctenolabrus rupestris</i>	1	3	0
<i>Gobiidae</i>	1	3	0
<i>Anguilla anguilla</i>	3	6	0
<i>Sardina pilchardus</i>	2	3	0
<i>Callionymus risso</i>	1	3	0
<i>Diaphus dumerilii</i>	2	3	0
<i>Syngnathus acus</i>	2	4	0
<i>Hymenocephalus italicus</i>	1	2	0
<i>Nezumia aequalis</i>	1	1	0
<i>Malacocephalus laevis</i>	1	1	0
<i>Microchirus variegatus</i>	1	2	0
<i>Trisopterus minutus</i>	1	2	0
<i>Argyroteleus olfersii</i>	1	1	0
<i>Zeus faber</i>	1	1	0
<i>Arnoglossus laterna</i>	1	2	0
<i>Arnoglossus laterna</i>	1	1	0
<i>Pholis gunnellus</i>	1	2	0
<i>Conger conger</i>	2	4	0
<i>Gobiidae</i>	1	2	0
<i>Malacocephalus laevis</i>	1	2	0
<i>Maurolicus muelleri</i>	1	1	0
<i>Trachurus trachurus</i>	1	2	0
<i>Merluccius merluccius</i>	1	1	0
<i>Sardina pilchardus</i>	1	2	0
<i>Nezumia bairdii</i>	1	1	0
<i>Coelorinchus caelorhincus</i>	1	1	0
<i>Squalus acanthias</i>	1	1	0
<i>Raja clavata</i>	1	1	0

1  
2



1  
 2 Figure S5: Mean spatial distribution (a, b) and temporal change (c, d) in unclassified fish biomass (a, c)  
 3 and species richness (b, d) by assessment strata based on otter trawl data. Temporal increases and  
 4 decreases are shown by red and blue cells, respectively (Kendall's  $\tau$  scores of  $-1$  to  $+1$  represent a  
 5 100% probability of a decreasing or increasing trend, respectively). Assessment strata where the  
 6 temporal change (correlation) is significant are highlighted with black borders.  
 7