The following supplement accompanies the article

Comparative analyses of surplus production dynamics of functional feeding groups across 12 northern hemisphere marine ecosystems

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Marine Ecology Progress Series: 459: 219–229 (2012)

Supplement. Results of model fits and statistical comparisons across ecosystems and aggregate groups

Table S1. Fits of the null and process error models to the data

Region	Group	Model	α	p-value	β	p-value	R^2
Baltic Sea	Pelagic	Null			0.171195	<0.001	0.588
	Pelagic	Process	0.400621	<0.001	–0.0192	0.031	0.647
	Demersal	Null			0.368117	<0.001	0.916
	Demersal	Process	0.518478	<0.001	–0.0476	0.054	0.928
	Planktivore	Null			0.171195	<0.001	0.588
	Planktivore	Process	0.400621	<0.001	–0.0192	0.031	0.647
	Piscivore	Null			0.368117	<0.001	0.916
	Piscivore	Process	0.518478	<0.001	–0.0476	0.054	0.928
	Small	Null			0.171195	<0.001	0.588
	Small	Process	0.400621	<0.001	–0.0192	0.031	0.647
	Large	Null			0.368117	<0.001	0.916
	Large	Process	0.518478	<0.001	–0.0476	0.054	0.928
Barents Sea	Pelagic	Null			0.073303	0.325	0.017
	Pelagic	Process	0.988708	<0.001	–0.11855	<0.001	0.170
	Demersal	Null			0.284402	<0.001	0.818
	Demersal	Process	0.6628	<0.001	–0.09349	<0.001	0.869

Region	Group	Model	α	p-value	β	p-value	R^2
	Planktivore	Null			0.019695	0.816	0.001
	Planktivore	Process	0.851191	0.004	–0.11145	0.002	0.140
	Benthivore	Null			0.200123	<0.001	0.410
	Benthivore	Process	0.685745	<0.001	–0.40183	<0.001	0.585
	Zoopivore	Null			0.163967	<0.001	0.404
	Zoopivore	Process	0.594167	<0.001	–1.05069	<0.001	0.536
	Piscivore	Null			0.281745	<0.001	0.832
	Piscivore	Process	0.67678	<0.001	–0.10009	<0.001	0.895
	Small	Null			0.028418	0.733	0.002
	Small	Process	0.863068	0.003	–0.1102	0.002	0.147
	Medium	Null			0.118586	0.038	0.181
	Medium	Process	1.167281	<0.001	–3.23154	<0.001	0.565
	Large	Null			0.29887	<0.001	0.854
	Large	Process	0.731252	<0.001	–0.09933	<0.001	0.886
Eastern Bering Sea	Pelagic	Null			0.114039	<0.001	0.413
	Pelagic	Process	0.530687	<0.001	–0.01703	0.001	0.537
	Demersal	Null			0.058679	<0.001	0.443
	Demersal	Process	0.282482	0.002	–0.01073	0.009	0.585
	Planktivore	Null			0.113958	<0.001	0.412
	Planktivore	Process	0.531902	<0.001	–0.01709	0.001	0.537
	Benthivore	Null			0.053255	<0.001	0.421
	Benthivore	Process	0.205101	0.006	–0.01048	0.032	0.541
	Piscivore	Null			0.065284	0.007	0.204
	Piscivore	Process	0.272309	0.084	–0.03154	0.180	0.249
	Small	Null			0.049989	<0.001	0.321
	Small	Process	0.16953	0.027	–0.01354	0.099	0.403
	Medium	Null			0.104069	<0.001	0.452
	Medium	Process	0.467776	<0.001	–0.0122	<0.001	0.609
	Large	Null			0.061686	<0.001	0.520
	Large	Process	0.210638	0.055	–0.02923	0.061	0.497
Eastern Scotian Shelf	Pelagic	Null			0.128553	0.145	0.056
	Pelagic	Process	0.825521	<0.001	–0.17509	0.001	0.317
	Demersal	Null			0.141824	0.001	0.272
	Demersal	Process	0.295472	0.052	–0.03579	0.287	0.295
	Planktivore	Null			–0.63894	<0.001	0.316
	Planktivore	Process	0.554985	0.107	–0.38916	<0.001	0.517
	Benthivore	Null			0.041496	0.318	0.027

Region	Group	Model	α	p-value	β	p-value	R^2
	Benthivore	Process	0.742401	<0.001	–0.27253	0.001	0.307
	Zoopivore	Null			0.16702	0.070	0.086
	Zoopivore	Process	1.07177	<0.001	–0.28299	<0.001	0.358
	Piscivore	Null			0.217135	0.009	0.169
	Piscivore	Process	0.757771	<0.001	–0.22647	0.004	0.340
	Small	Null			–0.75841	0.048	0.288
	Small	Process	0.001213	0.999	–55.2451	0.496	0.318
	Medium	Null			0.110835	0.105	0.070
	Medium	Process	0.900243	<0.001	–0.16201	<0.001	0.385
	Large	Null			0.189837	0.002	0.239
	Large	Process	0.4015	0.013	–0.06427	0.148	0.282
Georges Bank	Pelagic	Null			–0.07377	0.493	0.011
	Pelagic	Process	0.69717	<0.001	–0.07029	<0.001	0.266
	Demersal	Null			0.072696	0.301	0.024
	Demersal	Process	0.611296	<0.001	–0.04557	0.004	0.278
	Planktivore	Null			–0.21073	0.109	0.056
	Planktivore	Process	0.845313	<0.001	–0.09676	<0.001	0.361
	Benthivore	Null			0.080935	0.252	0.029
	Benthivore	Process	0.504581	<0.001	–0.05752	0.006	0.243
	Zoopivore	Null			–0.22718	0.055	0.080
	Zoopivore	Process	0.638596	0.002	–0.21424	<0.001	0.415
	Piscivore	Null			0.030769	0.698	0.003
	Piscivore	Process	0.673847	<0.001	–0.11831	0.002	0.260
	Small	Null			–0.20733	0.113	0.055
	Small	Process	0.837394	<0.001	–0.09529	<0.001	0.359
	Medium	Null			0.312914	<0.001	0.433
	Medium	Process	1.531571	<0.001	–0.89085	<0.001	0.484
	Large	Null			0.039778	0.561	0.008
	Large	Process	0.551188	<0.001	–0.04091	0.001	0.303
Gulf of Alaska	Pelagic	Null			0.096136	<0.001	0.323
	Pelagic	Process	0.219193	0.008	–0.01138	0.065	0.389
	Demersal	Null			0.061089	<0.001	0.598
	Demersal	Process	0.161901	<0.001	–0.00826	0.002	0.662
	Planktivore	Null			0.097002	<0.001	0.287
	Planktivore	Process	0.205273	0.010	–0.0105	0.092	0.354
	Benthivore	Null			0.030822	0.242	0.044
	Benthivore	Process	0.811242	0.005	–0.34312	0.007	0.224

Region	Group	Model	α	p-value	β	p-value	R^2
	Piscivore	Null			0.044405	<0.001	0.641
	Piscivore	Process	0.136437	<0.001	–0.143	0.050	0.677
	Small	Null			0.065311	<0.001	0.209
	Small	Process	0.186928	0.025	–0.00706	0.026	0.181
	Medium	Null			0.044668	0.001	0.304
	Medium	Process	0.322734	<0.001	–0.14526	0.062	0.336
	Large	Null			0.048883	<0.001	0.851
	Large	Process	0.278734	<0.001	–0.0179	0.001	0.853
	Zoopivore	Null			0.226832	<0.001	0.295
	Zoopivore	Process	0.181871	0.013	–0.01165	0.439	0.347
Gulf of Maine	Pelagic	Null			0.088634	0.083	0.065
	Pelagic	Process	0.469843	<0.001	–0.03784	0.002	0.219
	Demersal	Null			0.088216	0.047	0.085
	Demersal	Process	0.540162	<0.001	–0.07743	<0.001	0.338
	Planktivore	Null			0.013245	0.878	0.001
	Planktivore	Process	0.557954	0.014	–0.0906	0.049	0.044
	Benthivore	Null			0.064775	0.211	0.035
	Benthivore	Process	0.500767	<0.001	–0.1466	0.001	0.309
	Zoopivore	Null			0.060497	0.220	0.033
	Zoopivore	Process	0.558346	<0.001	–0.08769	<0.001	0.342
	Piscivore	Null			0.087092	0.073	0.070
	Piscivore	Process	0.677175	<0.001	–0.19628	<0.001	0.332
	Small	Null			0.052715	0.365	0.018
	Small	Process	0.336695	0.006	–0.03139	0.043	0.064
	Medium	Null			0.088634	0.240	0.031
	Medium	Process	0.835077	<0.001	–0.27633	<0.001	0.345
	Large	Null			0.088687	0.049	0.083
	Large	Process	0.551613	<0.001	–0.08612	<0.001	0.365
Hecate Strait	Pelagic	Null			0.210553	<0.001	0.472
	Pelagic	Process	0.297009	0.012	–0.0137	0.438	0.478
	Demersal	Null			0.015696	0.624	0.010
	Demersal	Process	0.229065	0.092	–0.02937	0.105	0.119
	Planktivore	Null			0.214708	<0.001	0.481
	Planktivore	Process	0.288718	0.012	–0.01181	0.494	0.486
	Benthivore	Null			0.023562	0.567	0.014
	Benthivore	Process	0.268008	0.107	–0.08325	0.128	0.110
	Zoopivore	Null			0.047992	0.668	0.008

Region	Group	Model	α	p-value	β	p-value	R^2
	Zoopivore	Process	0.658291	0.110	–7.40413	0.123	0.107
	Piscivore	Null			–0.00247	0.943	0.000
	Piscivore	Process	0.197036	0.084	–0.0414	0.068	0.138
	Small	Null			0.207254	<0.001	0.461
	Small	Process	0.275504	0.021	–0.01088	0.543	0.465
	Medium	Null			0.019892	0.556	0.015
	Medium	Process	0.250202	0.092	–0.05067	0.110	0.121
	Large	Null			–0.00147	0.970	0.000
	Large	Process	0.092112	0.423	–0.02792	0.387	0.033
North Sea	Pelagic	Null			0.298977	<0.001	0.647
	Pelagic	Process	0.667845	<0.001	–0.10514	<0.001	0.822
	Demersal	Null			0.326107	<0.001	0.759
	Demersal	Process	1.218975	<0.001	–0.11181	<0.001	0.598
	Piscivore	Null			0.336728	<0.001	0.922
	Piscivore	Process	0.489259	<0.001	–0.12572	<0.001	0.919
	Benthivore	Null			0.238688	<0.001	0.439
	Benthivore	Process	0.76353	<0.001	–0.17854	<0.001	0.434
	Planktivore	Null			0.402792	<0.001	0.738
	Planktivore	Process	1.058265	<0.001	–0.03554	0.344	0.802
	Small	Null			0.335173	<0.001	0.778
	Small	Process	1.147961	<0.001	–0.12469	<0.001	0.838
	Medium	Null			0.232836	<0.001	0.406
	Medium	Process	0.752505	<0.001	–0.18243	<0.001	0.406
	Large	Null			0.440374	<0.001	0.899
	Large	Process	0.658123	<0.001	–0.1285	0.023	0.910
Norwegian Sea	Pelagic	Null			0.084628	<0.001	0.299
	Pelagic	Process	0.358952	<0.001	–0.01802	0.001	0.362
	Planktivore	Null			0.084628	<0.001	0.299
	Planktivore	Process	0.358952	<0.001	–0.01802	0.001	0.362
	Small	Null			0.079107	<0.001	0.271
	Small	Process	0.349218	<0.001	–0.01786	0.001	0.347
	Medium	Null			0.168925	<0.001	0.813
	Medium	Process	0.475856	<0.001	–0.41577	<0.001	0.921
Southern Gulf of St. Lawrence	Pelagic	Null			–0.4157	0.007	0.182
	Pelagic	Process	0.668865	0.005	–0.0205	<0.001	0.473
	Demersal	Null			0.059716	0.213	0.042

Region	Group	Model	α	p-value	β	p-value	R^2
	Demersal	Process	0.34428	0.002	–0.02008	0.010	0.223
	Planktivore	Null			–0.44843	0.004	0.199
	Planktivore	Process	0.701474	0.007	–0.02148	<0.001	0.465
	Benthivore	Null			–0.00586	0.919	0.000
	Benthivore	Process	0.312568	0.007	–0.02741	0.004	0.214
	Zoopivore	Null			–0.12493	0.192	0.046
	Zoopivore	Process	0.208604	0.167	–0.10738	0.076	0.137
	Piscivore	Null			0.11253	0.084	0.079
	Piscivore	Process	0.450531	0.011	–0.06741	0.051	0.181
	Small	Null			–0.40923	0.007	0.179
	Small	Process	0.641445	0.006	–0.01948	<0.001	0.473
	Medium	Null			–0.03825	0.485	0.013
	Medium	Process	0.221308	0.064	–0.02427	0.029	0.165
	Large	Null			0.112527	0.084	0.079
	Large	Process	0.450649	0.011	–0.06742	0.050	0.181
Western Scotian Shelf	Pelagic	Null			0.127772	0.003	0.216
	Pelagic	Process	0.40842	0.005	–0.01948	0.035	0.305
	Demersal	Null			–0.6934	<0.001	0.315
	Demersal	Process	0.194835	0.091	–0.01381	0.005	0.198
	Planktivore	Null			0.18328	<0.001	0.534
	Planktivore	Process	0.52689	<0.001	–0.0326	0.002	0.590
	Benthivore	Null			0.163432	0.054	0.097
	Benthivore	Process	1.152185	<0.001	–0.54374	<0.001	0.572
	Zoopivore	Null			–0.08608	0.373	0.022
	Zoopivore	Process	0.956721	<0.001	–0.22739	<0.001	0.370
	Piscivore	Null			–0.11987	0.213	0.041
	Piscivore	Process	0.75966	<0.001	–0.25722	<0.001	0.439
	Small	Null			0.02826	0.744	0.518
	Small	Process	0.503649	0.001	–0.17771	<0.001	0.554
	Medium	Null			–0.13631	0.219	0.042
	Medium	Process	0.981978	<0.001	–0.19508	<0.001	0.376
	Large	Null			0.175593	<0.001	0.003
	Large	Process	1.029376	<0.001	–0.03139	0.003	0.546

Table S2. Results from Tukey's HSD test on MSY for the ecosystem factor. Diff: the difference in the means (first aggregate group minus second aggregate group); Lower CI: the lower 95% CI around the differences in the means; Upper CI: the upper 95% CI around the differences in the means. Values in **bold** are significant at the $p < 0.05$ level. Ecosystem abbreviations are: Baltic Sea (BALT), Barents Sea (BS), eastern Bering Sea (EBS), eastern Scotian Shelf (ESS), Georges Bank (GB), Gulf of Alaska (GoA), Gulf of Maine (GoM), Hecate Strait (HS), North Sea (NORT), Norwegian Sea (NS), southern Gulf of St. Lawrence (GSL), western Scotian Shelf (WSS)

Ecosystem group	Diff	Lower CI	Upper CI	p-value
BS – BALT	–0.678	–1.653	0.297	0.479
EBS – BALT	0.242	–0.757	1.241	1.000
ESS – BALT	–1.028	–2.003	–0.053	**0.029**
GB – BALT	–0.436	–1.412	0.539	0.943
GoA – BALT	–0.904	–1.879	0.071	0.098
GoM – BALT	–0.858	–1.833	0.117	0.145
HS – BALT	–0.994	–1.969	–0.019	**0.041**
NORT – BALT	–0.068	–1.068	0.931	1.000
NS – BALT	–0.514	–1.708	0.680	0.957
GSL – BALT	–0.001	–0.976	0.974	1.000
WSS – BALT	–0.477	–1.452	0.498	0.899
EBS – BS	0.920	0.021	1.819	**0.040**
ESS – BS	–0.350	–1.222	0.522	0.974
GB – BS	0.241	–0.631	1.113	0.999
GoA – BS	–0.226	–1.098	0.646	0.999
GoM – BS	–0.180	–1.052	0.692	1.000
HS – BS	–0.316	–1.189	0.556	0.988
NORT – BS	0.609	–0.290	1.508	0.519
NS – BS	0.164	–0.948	1.276	1.000
GSL – BS	0.677	–0.195	1.549	0.304
WSS – BS	0.201	–0.671	1.073	1.000
ESS – EBS	–1.270	–2.169	–0.371	**0.000**
GB – EBS	–0.678	–1.577	0.221	0.347
GoA – EBS	–1.146	–2.045	–0.247	**0.002**
GoM – EBS	–1.100	–1.999	–0.201	**0.004**
HS – EBS	–1.236	–2.135	–0.337	**0.001**
NORT – EBS	–0.310	–1.235	0.615	0.994

Ecosystem group	Diff	Lower CI	Upper CI	p-value
NS – EBS	–0.756	–1.889	0.377	0.545
GSL – EBS	–0.243	–1.142	0.656	0.999
WSS – EBS	–0.719	–1.618	0.180	0.261
GB – ESS	0.592	–0.281	1.464	0.518
GoA – ESS	0.124	–0.748	0.996	1.000
GoM – ESS	0.170	–0.702	1.042	1.000
HS – ESS	0.034	–0.838	0.906	1.000
NORT – ESS	0.960	0.061	1.859	**0.025**
NS – ESS	0.514	–0.598	1.626	0.930
GSL – ESS	1.027	0.155	1.899	**0.007**
WSS – ESS	0.551	–0.321	1.423	0.628
GoA – GB	–0.467	–1.340	0.405	0.829
GoM – GB	–0.422	–1.294	0.451	0.907
HS – GB	–0.558	–1.430	0.314	0.610
NORT – GB	0.368	–0.531	1.267	0.970
NS – GB	–0.077	–1.189	1.034	1.000
GSL – GB	0.436	–0.436	1.308	0.886
WSS – GB	–0.040	–0.913	0.832	1.000
GoM – GoA	0.046	–0.826	0.918	1.000
HS – GoA	–0.090	–0.962	0.782	1.000
NORT – GoA	0.836	–0.063	1.735	0.096
NS – GoA	0.390	–0.722	1.502	0.991
GSL – GoA	0.903	0.031	1.775	**0.035**
WSS – GoA	0.427	–0.445	1.299	0.899
HS – GoM	–0.136	–1.008	0.736	1.000
NORT – GoM	0.790	–0.109	1.689	0.147
NS – GoM	0.344	–0.768	1.456	0.997
GSL – GoM	0.857	–0.015	1.729	0.059
WSS – GoM	0.381	–0.491	1.253	0.952
NORT – HS	0.926	0.027	1.825	**0.037**
NS – HS	0.480	–0.631	1.592	0.956
GSL – HS	0.993	0.121	1.866	**0.012**
WSS – HS	0.517	–0.355	1.389	0.716
NS – NORT	–0.446	–1.578	0.687	0.978
GSL – NORT	0.068	–0.831	0.967	1.000
WSS – NORT	–0.409	–1.308	0.490	0.937
GSL – NS	0.513	–0.599	1.625	0.931
WSS – NS	0.037	–1.075	1.149	1.000
WSS – GSL	–0.476	–1.348	0.396	0.811

Table S3. Results from Tukey's HSD test on B_{MSY} for the ecosystem factor. Diff: the difference in the means (first aggregate group minus second aggregate group); Lower CI: the lower 95% CI around the differences in the means; Upper CI: the upper 95% CI around the differences in the means. Values in **bold** are significant at the $p < 0.05$ level. See Table S2 for definition of ecosystem abbreviations

Ecosystem group	Diff	Lower CI	Upper CI	p-value
BS – BALT	–5.293	–11.031	0.445	0.099
EBS – BALT	2.989	–2.890	8.869	0.857
ESS – BALT	–5.937	–11.675	–0.200	**0.036**
GB – BALT	–3.857	–9.595	1.880	0.509
GoA – BALT	–1.017	–6.755	4.721	1.000
GoM – BALT	–4.666	–10.404	1.071	0.227
HS – BALT	–2.632	–8.370	3.106	0.923
NORT – BALT	–4.055	–9.934	1.824	0.469
NS – BALT	–0.374	–7.402	6.653	1.000
GSL – BALT	0.458	–5.279	6.196	1.000
WSS – BALT	–3.101	–8.838	2.637	0.802
EBS – BS	8.283	2.993	13.572	**0.000**
ESS – BS	–0.644	–5.776	4.488	1.000
GB – BS	1.436	–3.696	6.568	0.998
GoA – BS	4.276	–0.856	9.408	0.197
GoM – BS	0.627	–4.505	5.759	1.000
HS – BS	2.661	–2.471	7.793	0.840
NORT – BS	1.238	–4.052	6.528	1.000
NS – BS	4.919	–1.623	11.460	0.336
GSL – BS	5.751	0.620	10.883	**0.015**
WSS – BS	2.192	–2.940	7.324	0.952
ESS – EBS	–8.927	–14.217	–3.637	**0.000**
GB – EBS	–6.847	–12.137	–1.557	**0.002**
GoA – EBS	–4.007	–9.296	1.283	0.325
GoM – EBS	–7.656	–12.945	–2.366	**0.000**
HS – EBS	–5.621	–10.911	–0.332	**0.027**
NORT – EBS	–7.044	–12.488	–1.601	**0.002**
NS – EBS	–3.364	–10.030	3.303	0.863
GSL – EBS	–2.531	–7.821	2.759	0.899
WSS – EBS	–6.090	–11.380	–0.801	0.011
GB – ESS	2.080	–3.052	7.212	0.967

Ecosystem group	Diff	Lower CI	Upper CI	p-value
GoA – ESS	4.920	–0.212	10.052	0.073
GoM – ESS	1.271	–3.861	6.403	0.999
HS – ESS	3.305	–1.827	8.437	0.576
NORT – ESS	1.882	–3.407	7.172	0.988
NS – ESS	5.563	–0.979	12.105	0.174
GSL – ESS	6.396	1.264	11.527	**0.004**
WSS – ESS	2.836	–2.295	7.968	0.778
GoA – GB	2.840	–2.292	7.972	0.777
GoM – GB	–0.809	–5.941	4.323	1.000
HS – GB	1.225	–3.906	6.357	1.000
NORT – GB	–0.198	–5.487	5.092	1.000
NS – GB	3.483	–3.059	10.025	0.816
GSL – GB	4.316	–0.816	9.448	0.187
WSS – GB	0.756	–4.375	5.888	1.000
GoM – GoA	–3.649	–8.781	1.483	0.421
HS – GoA	–1.615	–6.747	3.517	0.995
NORT – GoA	–3.038	–8.328	2.252	0.734
NS – GoA	0.643	–5.899	7.184	1.000
GSL – GoA	1.475	–3.656	6.607	0.998
WSS – GoA	–2.084	–7.216	3.048	0.966
HS – GoM	2.034	–3.098	7.166	0.972
NORT – GoM	0.611	–4.679	5.901	1.000
NS – GoM	4.292	–2.250	10.834	0.547
GSL – GoM	5.125	–0.007	10.256	0.051
WSS – GoM	1.565	–3.567	6.697	0.997
NORT – HS	–1.423	–6.713	3.867	0.999
NS – HS	2.257	–4.284	8.799	0.990
GSL – HS	3.090	–2.042	8.222	0.673
WSS – HS	–0.469	–5.601	4.663	1.000
NS – NORT	3.681	–2.986	10.347	0.779
GSL – NORT	4.513	–0.776	9.803	0.171
WSS – NORT	0.954	–4.336	6.244	1.000
GSL – NS	0.833	–5.709	7.375	1.000
WSS – NS	–2.726	–9.268	3.815	0.959
WSS – GSL	–3.559	–8.691	1.573	0.460

Table S4. Results from Tukey's HSD test on MSY for the aggregate group factor. Diff: the difference in the means (first aggregate group minus second aggregate group); Lower CI: the lower 95% CI around the differences in the means; Upper CI: the upper 95% CI around the differences in the means. Values in **bold** are significant at the $p < 0.05$ level

Aggregate group	Diff	Lower CI	Upper CI	p-value
Demersal – benthivore	0.588	–0.179	1.354	0.286
Large – benthivore	0.279	–0.487	1.046	0.966
Medium – benthivore	0.295	–0.471	1.062	0.953
Pelagic – benthivore	1.167	0.415	1.918	**0.000**
Piscivore – benthivore	0.123	–0.644	0.889	1.000
Planktivore – benthivore	1.117	0.366	1.868	**0.000**
Small – benthivore	0.788	0.036	1.539	**0.032**
Zoopivore – benthivore	–0.013	–0.845	0.819	1.000
Large – demersal	–0.308	–1.056	0.440	0.932
Medium – demersal	–0.292	–1.040	0.456	0.949
Pelagic – demersal	0.579	–0.153	1.311	0.248
Piscivore – demersal	–0.465	–1.213	0.283	0.578
Planktivore – demersal	0.529	–0.203	1.262	0.365
Small – demersal	0.200	–0.532	0.932	0.995
Zoopivore – demersal	–0.601	–1.416	0.215	0.339
Medium – large	0.016	–0.732	0.764	1.000
Pelagic – large	0.887	0.155	1.619	0.006
Piscivore – large	–0.157	–0.905	0.591	0.999
Planktivore – large	0.838	0.106	1.570	**0.012**
Small – large	0.508	–0.224	1.240	0.423
Zoopivore – large	–0.292	–1.107	0.523	0.970
Pelagic – medium	0.871	0.139	1.603	**0.008**
Piscivore – medium	–0.173	–0.921	0.575	0.998
Planktivore – medium	0.822	0.090	1.554	**0.015**
Small – medium	0.492	–0.240	1.224	0.469
Zoopivore – medium	–0.308	–1.123	0.507	0.958
Piscivore – pelagic	–1.044	–1.776	–0.312	**0.000**
Planktivore – pelagic	–0.049	–0.765	0.667	1.000
Small – pelagic	–0.379	–1.095	0.337	0.768
Zoopivore – pelagic	–1.179	–1.980	–0.379	**0.000**
Planktivore – piscivore	0.995	0.262	1.727	**0.001**

Aggregate group	Diff	Lower CI	Upper CI	p-value
Small – piscivore	0.665	–0.067	1.397	0.108
Zoopivore – piscivore	–0.135	–0.950	0.680	1.000
Small – planktivore	–0.330	–1.046	0.386	0.878
Zoopivore – planktivore	–1.130	–1.931	–0.329	**0.001**
Zoopivore – small	–0.800	–1.601	0.000	**0.050**

Table S5. Results from Tukey's HSD test on B_{MSY} for the aggregate group factor. Diff: the difference in the means (first aggregate group minus second aggregate group); Lower CI: the lower 95% CI around the differences in the means; Upper CI: the upper 95% CI around the differences in the means. Values in **bold** are significant at the $p < 0.05$ level

Aggregate group	Diff	Lower CI	Upper CI	p-value
Demersal – benthivore	3.253	–1.252	7.757	0.353
Large – benthivore	1.157	–3.347	5.661	0.996
Medium – benthivore	0.908	–3.597	5.412	0.999
Pelagic – benthivore	5.277	0.863	9.690	**0.008**
Piscivore – benthivore	0.739	–3.765	5.244	1.000
Planktivore – benthivore	4.813	0.399	9.226	**0.022**
Small – benthivore	3.479	–0.935	7.893	0.241
Zoopivore – benthivore	–1.108	–5.998	3.781	0.998
Large – demersal	–2.096	–6.491	2.300	0.842
Medium – demersal	–2.345	–6.741	2.051	0.743
Pelagic – demersal	2.024	–2.279	6.327	0.852
Piscivore – demersal	–2.513	–6.909	1.883	0.666
Planktivore – demersal	1.560	–2.743	5.863	0.963
Small – demersal	0.226	–4.077	4.529	1.000
Zoopivore – demersal	–4.361	–9.151	0.429	0.103
Medium – large	–0.249	–4.645	4.146	1.000
Pelagic – large	4.120	–0.183	8.423	0.071
Piscivore – large	–0.417	–4.813	3.978	1.000
Planktivore – large	3.656	–0.647	7.959	0.161

Aggregate group	Diff	Lower CI	Upper CI	p-value
Small – large	2.322	–1.981	6.625	0.732
Zoopivore – large	–2.265	–7.055	2.525	0.848
Pelagic – medium	4.369	0.066	8.672	**0.044**
Piscivore – medium	–0.168	–4.564	4.228	1.000
Planktivore – medium	3.905	–0.398	8.208	0.106
Small – medium	2.571	–1.732	6.874	0.611
Zoopivore – medium	–2.016	–6.806	2.774	0.915
Piscivore – pelagic	–4.537	–8.840	–0.234	**0.031**
Planktivore – pelagic	–0.464	–4.673	3.745	1.000
Small – pelagic	–1.798	–6.006	2.411	0.908
Zoopivore – pelagic	–6.385	–11.090	–1.680	**0.001**
Planktivore – piscivore	4.073	–0.230	8.376	0.078
Small – piscivore	2.739	–1.564	7.042	0.527
Zoopivore – piscivore	–1.848	–6.638	2.942	0.947
Small – planktivore	–1.334	–5.542	2.875	0.984
Zoopivore – planktivore	–5.921	–10.626	–1.216	**0.004**
Zoopivore – small	–4.587	–9.292	0.118	0.062