

Exploring Aquatic Food Web

Supplementary Materials

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January 31, 2024

1 Data

Table 1 includes the entire dataset used in the analysis. In all, it consists of 173 graphs taken from 5 sources: the R package `igraphdata` [33], the Cohen et al. book [29], the Ecopath with Ecosim database [31], and two datasets taken directly from the papers [59, 74]

Table 1: Dataset of food webs. S is the number of compartments, L is the number of links, C is the connectance ($C = L/S^2$), and NL is the ratio of non-living compartments to total compartments.

Food web name	Ref	S	L	C	NL
Lower Chesapeake Bay	[33, 49]	29	115	2.19×10^{-3}	10.34%
Middle Chesapeake Bay	[33, 49]	32	149	1.44×10^{-3}	9.38%
Upper Chesapeake Bay	[33, 49]	33	158	1.32×10^{-3}	9.09%
Chesapeake Bay Mesohaline	[33, 12]	36	122	2.42×10^{-3}	8.33%
Crystal River Creek - Control	[33, 108]	21	81	3.20×10^{-3}	4.76%
Crystal River Creek - Delta Temp	[33, 108]	21	60	5.83×10^{-3}	4.76%
Charca de Maspalomas	[33, 5]	21	55	6.94×10^{-3}	14.29%
Lake Michigan	[33, 63]	34	172	1.15×10^{-3}	2.94%
Mondego Estuary - Zostrea site	[33, 89]	43	348	3.55×10^{-4}	2.33%
Narragansett Bay Model	[33, 75]	32	158	1.28×10^{-3}	3.12%
St. Marks River (Florida)	[33, 11]	51	270	7.00×10^{-4}	5.88%
Aegean Sea (2007)	[31, 62]	44	354	3.51×10^{-4}	4.55%
Albatross Bay (1986)	[31, 83]	99	1382	5.18×10^{-5}	7.07%
Aleutian Islands (1963)	[31, 46]	40	391	2.62×10^{-4}	2.50%
Alto Golfo de California	[31, 76]	29	277	3.78×10^{-4}	3.45%
Antarctic (1970)	[31, 56]	59	749	1.05×10^{-4}	1.69%
Apalachicola Bay (2000)	[31, 4]	54	622	1.40×10^{-4}	1.85%
Arctic seas	[31]	22	57	6.77×10^{-3}	4.55%
Australia North West Shelf (1986)	[31, 21]	37	370	2.70×10^{-4}	2.70%
Azores (1997)	[31, 77]	45	450	2.22×10^{-4}	2.22%
Azores archipelago (1997)	[31, 45]	44	381	3.03×10^{-4}	2.27%
Baie de Seine (2000)	[31, 50]	42	374	3.00×10^{-4}	2.38%
Bamboung (2003)	[31, 30]	31	333	2.80×10^{-4}	3.23%
Bamboung (2006)	[31, 30]	31	333	2.80×10^{-4}	3.23%

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Table 1 – continued from previous page

Food web name	Ref	<i>S</i>	<i>L</i>	<i>C</i>	<i>NL</i>
Barneget Bay (1981)	[31, 112]	27	135	1.48×10^{-3}	3.70%
Barra Del Chuy (1992)	[31, 68]	20	77	3.37×10^{-3}	5.00%
Bay of Biscay (1970)	[31, 1]	37	499	1.49×10^{-4}	2.70%
Bay of Biscay (1980)	[31, 79]	43	382	2.95×10^{-4}	4.65%
Bay of Biscay (1994)	[31, 64]	32	223	6.43×10^{-4}	6.25%
Bay of Biscay (1998)	[31, 1]	37	492	1.53×10^{-4}	2.70%
Bay of Biscay (2013)	[31, 79]	43	383	2.93×10^{-4}	4.65%
Florida Bay - dry season	[33, 109]	125	1969	3.22×10^{-5}	2.40%
Florida Bay - wet season	[33, 109]	125	1938	3.33×10^{-5}	2.40%
Bolinao Coral Reef (1980)	[31, 3]	26	133	1.47×10^{-3}	3.85%
British Columbia coast (1950)	[31, 94]	53	513	2.01×10^{-4}	1.89%
Calvi Bay (1998)	[31, 92]	27	195	7.10×10^{-4}	3.70%
Cap de Creus MPA - whole (2008)	[31, 32]	67	768	1.14×10^{-4}	2.99%
Cape Verde (1981)	[31, 102]	31	250	4.96×10^{-4}	3.23%
Celtic Sea-Biscay (1980)	[31, 15]	38	487	1.60×10^{-4}	2.63%
Celtic Sea-Biscay (2012)	[31, 15]	38	490	1.58×10^{-4}	2.63%
Celtic Sea (1980)	[31, 79]	48	522	1.76×10^{-4}	4.17%
Celtic Sea (1985)	[31, 53]	54	760	9.35×10^{-5}	3.70%
Celtic Sea (2013)	[31, 79]	48	531	1.70×10^{-4}	4.17%
Central Atlantic (1950)	[31]	38	270	5.21×10^{-4}	2.63%
Central Atlantic (1990)	[31]	38	271	5.17×10^{-4}	2.63%
Central Baltic Sea (1974)	[31, 107]	22	114	1.69×10^{-3}	4.55%
Central Chile (1998)	[31, 80]	21	80	3.28×10^{-3}	4.76%
Central Gulf of California (1978)	[31, 10]	27	180	8.33×10^{-4}	7.41%
Cerbère-Banyuls MPA (2013)	[31, 32]	64	728	1.21×10^{-4}	3.12%
Chesapeake (1950)	[31, 28]	45	259	6.71×10^{-4}	2.22%
Contemporary Alosine (2000)	[31, 35]	59	991	6.01×10^{-5}	1.69%
Cypress Dry Season	[33, 109]	68	554	2.22×10^{-4}	4.41%
Cypress Wet Season	[33, 109]	68	545	2.29×10^{-4}	4.41%
Deep Western Mediterranean sea (2009)	[31, 106]	21	144	1.01×10^{-3}	9.52%
Denmark, Faroe Islands (1997)	[31, 120]	20	146	9.38×10^{-4}	5.00%
East Bass Strait (1994)	[31, 19]	59	628	1.50×10^{-4}	3.39%
Eastern Corsican Coast (2012)	[31, 111]	39	413	2.29×10^{-4}	2.56%
Falkland Islands (1990)	[31, 25]	44	373	3.16×10^{-4}	2.27%
Lake Paaajarvi, littoral zone, Finland	[29]	27	122	1.81×10^{-3}	7.41%
Lake Pyhajarvi, littoral zone, Finland	[29]	25	115	1.89×10^{-3}	8.00%
Florida Bay (2006)	[31, 101]	47	318	4.65×10^{-4}	4.26%
Galapagos (2006)	[31, 95]	33	183	9.85×10^{-4}	3.03%
Galapagos, Floreana rocky reef (2000)	[31, 84]	43	327	4.02×10^{-4}	2.33%
Everglades Graminoids	[33, 109]	66	793	1.05×10^{-4}	4.55%
Greenland, West Coast (1997)	[31, 90]	22	151	9.65×10^{-4}	4.55%
Guinea (1985)	[31, 42]	35	434	1.86×10^{-4}	2.86%
Guinea (1998)	[31, 88]	44	507	1.71×10^{-4}	2.27%
Guinea (2004)	[31, 42]	35	433	1.87×10^{-4}	2.86%
Gulf of California (1990)	[31, 67]	34	371	2.47×10^{-4}	2.94%
Gulf of Carpentaria (1990)	[31, 85]	83	1138	6.41×10^{-5}	4.82%
Gulf of Gabes (2000)	[31, 52]	41	453	2.00×10^{-4}	4.88%

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Table 1 – continued from previous page

Food web name	Ref	S	L	C	NL
Gulf of Mexico (1950)	[31, 118]	48	337	4.23×10^{-4}	2.08%
Gulf of Thailand (1963)	[31, 26]	29	163	1.09×10^{-3}	3.45%
Hudson Bay (1970)	[31, 57]	40	449	1.98×10^{-4}	5.00%
Huizache-Caimanero (1984)	[31, 122]	26	215	5.62×10^{-4}	3.85%
Humboldt Current (1995)	[31, 103]	33	204	7.93×10^{-4}	3.03%
Iceland (1950)	[31, 18]	24	194	6.38×10^{-4}	4.17%
Icelandic shelf (1997)	[31, 98]	21	140	1.07×10^{-3}	4.76%
Independence Bay (1996)	[31, 104]	20	97	2.13×10^{-3}	5.00%
Irish Sea (1973)	[31, 65]	53	690	1.11×10^{-4}	5.66%
Jalisco and Colima Coast (1995)	[31, 40]	38	396	2.42×10^{-4}	5.26%
Jurien Bay (2007)	[31, 70]	80	749	1.43×10^{-4}	8.75%
Kaloko Honokohau (2005)	[31, 116]	26	141	1.31×10^{-3}	3.85%
Lesser Antilles (2001)	[31, 71]	31	287	3.76×10^{-4}	3.23%
Little Rock Lake, Wisconsin	[74]	182	2612	2.67×10^{-5}	0.55%
Looe Key National Marine Sanctuary (1980)	[31, 113]	20	144	9.65×10^{-4}	5.00%
Malangen Fjord (2017)	[31, 115]	36	240	6.25×10^{-4}	11.11%
Tasek Bera swamp, Malaysia	[29]	27	97	2.87×10^{-3}	7.41%
Mangrove Estuary - Dry Season	[33, 109]	94	1339	5.24×10^{-5}	3.19%
Mangrove Estuary - Wet Season	[33, 109]	94	1340	5.24×10^{-5}	3.19%
Mauritania (1987)	[31, 100]	38	374	2.72×10^{-4}	2.63%
Mauritania (1998)	[31, 100]	38	372	2.75×10^{-4}	2.63%
Mauritanie (1991)	[31, 47]	51	635	1.26×10^{-4}	1.96%
Medes Island MPA (2000)	[31, 32]	67	767	1.14×10^{-4}	2.99%
Morocco (1985)	[31, 45]	38	378	2.66×10^{-4}	2.63%
Mount St Michel Bay (2003)	[31, 66]	24	89	3.03×10^{-3}	4.17%
Ningaloo (2007)	[31, 61]	53	628	1.34×10^{-4}	5.66%
North Atlantic (1950)	[31, 88]	38	269	5.25×10^{-4}	2.63%
North Atlantic (1997)	[31, 88]	38	269	5.25×10^{-4}	2.63%
North Benguela	[31, 119]	26	208	6.01×10^{-4}	3.85%
North Benguela (1967)	[31, 119]	26	208	6.01×10^{-4}	3.85%
North Benguela (1990)	[31, 119]	26	208	6.01×10^{-4}	3.85%
North East Pacific (1950)	[31, 119]	56	559	1.79×10^{-4}	1.79%
North Sea (1974)	[31, 14]	32	241	5.51×10^{-4}	3.12%
North Sea (1981)	[31, 27]	29	152	1.26×10^{-3}	3.45%
North South of China Sea (1970)	[31, 24]	38	471	1.71×10^{-4}	2.63%
Northern Benguela (1956)	[31, 55]	32	234	5.84×10^{-4}	3.12%
Northern British Columbia (1950)	[31, 2]	53	483	2.27×10^{-4}	3.77%
Northern British Columbia (2000)	[31, 2]	53	487	2.23×10^{-4}	3.77%
Northern Californian Current (1960)	[31, 117]	36	152	1.56×10^{-3}	2.78%
Northern Californian Current (1990)	[31, 38]	63	775	1.05×10^{-4}	4.76%
Northern Gulf of Mexico (2005)	[31, 96]	75	2244	1.49×10^{-5}	1.33%
Northern Gulf of St Lawrence (1990)	[31, 99]	32	343	2.72×10^{-4}	3.12%
Northern Gulf St Lawrence (1985)	[31, 78]	32	308	3.37×10^{-4}	3.12%
Northern Humboldt Current (1997)	[31, 103]	33	210	7.48×10^{-4}	3.03%
Paraná River Floodplain (1992)	[31, 6]	40	224	7.97×10^{-4}	2.50%
Peru (1953)	[31, 60]	20	108	1.71×10^{-3}	5.00%
Peru (1960)	[31, 60]	20	109	1.68×10^{-3}	5.00%

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Table 1 – continued from previous page

Food web name	Ref	<i>S</i>	<i>L</i>	<i>C</i>	<i>NL</i>
Peru (1973)	[31, 60]	20	113	1.57×10^{-3}	5.00%
Port Cros (1998)	[31, 110]	41	356	3.24×10^{-4}	2.44%
Port Phillip Bay (1994)	[31, 39]	34	331	3.10×10^{-4}	2.94%
Prince William Sound (1994)	[31, 86]	48	404	2.94×10^{-4}	6.25%
Raja Ampat (1990)	[31, 93]	98	2614	1.43×10^{-5}	2.04%
Raja Ampat (2005)	[31, 93]	98	2612	1.44×10^{-5}	2.04%
Restored Alosine Biomass (2000)	[31]	59	991	6.01×10^{-5}	1.69%
Ria-Lake Tapajos (2013)	[31, 22]	35	341	3.01×10^{-4}	2.86%
River Rheido, Wales	[29]	18	92	2.13×10^{-3}	5.56%
Rocky shore, Monterey Bay, California	[29]	35	167	1.25×10^{-3}	2.86%
Salt meadow, New Zealand	[29]	45	89	5.68×10^{-3}	2.22%
Sand beach, South Africa	[29]	21	76	3.64×10^{-3}	9.52%
Santa Pola Bay (2001)	[31, 13]	41	331	3.74×10^{-4}	4.88%
Sechura Bay (1996)	[31, 105]	21	101	2.06×10^{-3}	4.76%
Shallow sublittoral, Cape Ann, Massachusetts	[29]	25	92	2.95×10^{-3}	8.00%
Sierra Leone (1964)	[31, 54]	44	449	2.18×10^{-4}	2.27%
Sierra Leone (1978)	[31, 54]	44	458	2.10×10^{-4}	2.27%
Sierra Leone (1990)	[31, 54]	44	459	2.09×10^{-4}	2.27%
Sinaloa sur Mexico (1994)	[31, 97]	37	347	3.07×10^{-4}	2.70%
Sirinhaem River (2013)	[31, 69]	25	178	7.89×10^{-4}	4.00%
Sítios Novos reservoir (2011)	[31, 16]	31	206	7.31×10^{-4}	3.23%
Sonda Campeche Act (1988)	[31, 121]	25	187	7.15×10^{-4}	4.00%
South Benguela	[31, 119]	32	263	4.63×10^{-4}	3.12%
South Benguela (1900)	[31, 119]	32	263	4.63×10^{-4}	3.12%
South Benguela (1978)	[31, 119]	32	263	4.63×10^{-4}	3.12%
South East Alaska (1963)	[31, 44]	40	514	1.51×10^{-4}	2.50%
South of Benguela (1960)	[31, 119]	32	263	4.63×10^{-4}	3.12%
South Shetlands (1990)	[31, 17]	30	238	5.30×10^{-4}	3.33%
South western Gulf of Mexico (1970)	[31, 9]	24	152	1.04×10^{-3}	4.17%
Sri Lanka (2000)	[31, 51]	39	375	2.77×10^{-4}	2.56%
Strait of Georgia (1950)	[31, 94, 73]	55	523	2.01×10^{-4}	1.82%
Swamp, south Florida	[29]	27	74	4.93×10^{-3}	3.70%
Sørfjord (1993)	[31, 37]	25	159	9.89×10^{-4}	4.00%
Tampa Bay (1950)	[31, 118]	52	442	2.66×10^{-4}	1.92%
Tagus estuary, Portugal	[29]	29	136	1.57×10^{-3}	6.90%
Tasmanian Seamounts Marine Reserve (1992)	[31, 20]	25	138	1.31×10^{-3}	4.00%
Terminos Lagoon (1980)	[31, 72]	20	163	7.53×10^{-4}	5.00%
Thermaikos Gulf (1998)	[31, 36]	33	357	2.59×10^{-4}	6.06%
Tropical plankton community, Pacific	[29]	23	155	9.57×10^{-4}	4.35%
USA, Mid Atlantic Bight (1995)	[31, 81]	55	650	1.30×10^{-4}	1.82%
USA, South Atlantic Continental Shelf (1995)	[31, 82]	42	514	1.59×10^{-4}	2.38%
Virgin Islands (1960)	[31, 87]	21	161	8.10×10^{-4}	4.76%
West Baffin Bay, Coastal and Shelf (2016)	[31, 91]	30	222	6.09×10^{-4}	3.33%

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Food web name	Ref	S	L	C	NL
West coast of Sabah (1972)	[31, 41]	29	243	4.91×10^{-4}	3.45%
West Florida Shelf (1985)	[31, 114]	83	1045	7.60×10^{-5}	2.41%
West Florida Shelf Historic Model (1950)	[31, 23]	70	1232	4.61×10^{-5}	4.29%
West Scotland (2000)	[31, 48]	37	407	2.23×10^{-4}	2.70%
West scotland DeepSea (1974)	[31, 58]	34	322	3.28×10^{-4}	2.94%
Western Antarctic Peninsula (1996)	[31, 34]	35	198	8.93×10^{-4}	2.86%
Western Channel (1973)	[31, 7]	52	475	2.30×10^{-4}	3.85%
Western Channel (1993)	[31, 7]	52	475	2.30×10^{-4}	3.85%
Western Tropical Pacific Ocean (1990)	[31, 43]	20	150	8.89×10^{-4}	5.00%
Ythan estuary, Aberdeenshire, Scotland	[59]	134	721	2.58×10^{-4}	0.75%
Yucatan (1987)	[31, 8]	21	131	1.22×10^{-3}	4.76%

2 Core Periphery

Food web name	Core periphery composition
Lower Chesapeake Bay	79.3% 13.8% 3.4% 3.4%
Middle Chesapeake Bay	87.5% 12.5%
Upper Chesapeake Bay	72.7% 24.2% 3.0%
Chesapeake Bay Mesohaline	44.4% 55.6%
Crystal River Creek - Control	90.5% 9.5%
Crystal River Creek - Delta Temp	85.7% 14.3%
Charca de Maspalomas	33.3% 66.7%
Lake Michigan	88.2% 11.8%
Mondego Estuary - Zostrea site	81.4% 18.6%
Narragansett Bay Model	93.8% 6.2%
St. Marks River (Florida)	64.7% 23.5% 11.8%
Aegean Sea (2003)	95.5% 4.5%
Albatross Bay (1986)	87.9% 12.1%
Aleutian Islands (1963)	90.0% 10.0%
Alto Golfo de California	86.2% 13.8%
Antarctic (1970)	89.8% 10.2%
Apalachicola Bay (2000)	96.3% 3.7%

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Table 2 – continued from previous page

Food web name	Core periphery composition	
Arctic seas	100.0%	
Australia North West Shelf (1986)	91.9%	8.1%
Azores (1997)	95.6%	4.4%
Azores archipelago (1997)	90.9%	4.5% 4.5%
Baie de Seine (2000)	92.9%	7.1%
Bamboung (2003)	93.5%	6.5%
Bamboung (2006)	93.5%	6.5%
Barnegat Bay (1981)	77.8%	22.2%
Barra Del Chuy (1992)	95.0%	5.0%
Bay of Biscay (1970)	86.5%	13.5%
Bay of Biscay (1980)	90.7%	9.3%
Bay of Biscay (1994)	90.6%	9.4%
Bay of Biscay (1998)	86.5%	13.5%
Bay of Biscay (2013)	90.7%	9.3%
Florida Bay - dry season	82.4%	17.6%
Florida Bay - wet season	82.4%	17.6%
Bolinao Coral Reef (1980)	80.8%	19.2%
British Columbia coast (1950)	83.0%	17.0%
Calvi Bay (1998)	92.6%	7.4%
Cap de Creus MPA - whole (2008)	89.6%	10.4%
Cape Verde (1981)	93.5%	6.5%
Celtic Sea-Biscay (1980)	94.7%	5.3%
Celtic Sea-Biscay (2012)	94.7%	5.3%
Celtic Sea (1980)	91.7%	8.3%
Celtic Sea (1985)	94.4%	5.6%
Celtic Sea (2013)	91.7%	8.3%
Central Atlantic (1950)	97.4%	2.6%
Central Atlantic (1990)	97.4%	2.6%
Central Baltic Sea (1974)	86.4%	13.6%
Central Chile (1998)	52.4%	47.6%

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Table 2 – continued from previous page

Food web name	Core periphery composition
Central Gulf of California (1978)	92.6% 7.4%
Cerbère-Banyuls MPA (2013)	92.2% 7.8%
Chesapeake (1950)	73.3% 24.4% 2.2%
Contemporary Alosine (2000)	98.3% 1.7%
Cypress Dry Season	77.9% 22.1%
Cypress Wet Season	77.9% 22.1%
Deep Western Mediterranean sea (2009)	95.2% 4.8%
Denmark, Faroe Islands (1997)	70.0% 30.0%
East Bass Strait (1994)	86.4% 13.6%
Eastern Corsican Coast (2012)	84.6% 15.4%
Falkland Islands (1990)	75.0% 25.0%
Lake Paajarvi, littoral zone, Finland	88.9% 11.1%
Lake Pyhajarvi, littoral zone, Finland	84.0% 16.0%
Florida Bay (2006)	80.9% 19.1%
Galapagos (2006)	90.9% 9.1%
Galapagos, Floreana rocky reef (2000)	90.7% 9.3%
Everglades Graminoids	90.9% 9.1%
Greenland, West Coast (1997)	95.5% 4.5%
Guinea (1985)	97.1% 2.9%
Guinea (1998)	97.7% 2.3%
Guinea (2004)	97.1% 2.9%
Gulf of California (1990)	94.1% 5.9%
Gulf of Carpentaria (1990)	90.4% 9.6%
Gulf of Gabes (2000)	90.2% 9.8%
Gulf of Mexico (1950)	85.4% 12.5% 2.1%
Gulf of Thailand (1963)	96.6% 3.4%
Hudson Bay (1970)	95.0% 5.0%

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Food web name	Core periphery composition	
Huizache-Caimanero (1984)	92.3%	7.7%
Humboldt Current (1995)	93.9%	6.1%
Iceland (1950)	79.2%	20.8%
Icelandic shelf (1997)	76.2%	23.8%
Independence Bay (1996)	90.0%	10.0%
Irish Sea (1973)	94.3%	5.7%
Jalisco and Colima Coast (1995)	89.5%	10.5%
Jurien Bay (2007)	85.0%	15.0%
Kaloko Honokohau (2005)	80.8%	19.2%
Lesser Antilles (2001)	77.4%	3.2% 19.4%
Little Rock Lake, Wisconsin	52.7%	47.3%
Looe Key National Marine Sanctuary (1980)	90.0%	10.0%
Malangen Fjord (2017)	91.7%	8.3%
Tasek Bera swamp, Malaysia	40.7%	51.9% 8.7% 8.7%
Mangrove Estuary - Dry Season	91.5%	8.5%
Mangrove Estuary - Wet Season	91.5%	8.5%
Mauritania (1987)	94.7%	2.6% 4.6%
Mauritania (1998)	94.7%	2.6% 4.6%
Mauritanie (1991)	94.1%	5.9%
Medes Island MPA (2000)	89.6%	10.4%
Morocco (1985)	94.7%	5.3%
Mount St Michel Bay (2003)	75.0%	25.0%
Ningaloo (2007)	83.0%	17.0%
North Atlantic (1950)	97.4%	2.6%
North Atlantic (1997)	97.4%	2.6%
North Benguela	96.2%	3.8%
North Benguela (1900)	96.2%	3.8%
North Benguela (1967)	96.2%	3.8%
North Benguela (1990)	96.2%	3.8%
North East Pacific (1950)	83.9%	16.1%

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Food web name	Core periphery composition
North Sea (1974)	96.9% 3.1%
North Sea (1981)	89.7% 10.3%
North South of China Sea (1970)	94.7% 5.3%
Northern Benguela (1956)	81.2% 18.8%
Northern British Columbia (1950)	83.0% 17.0%
Northern British Columbia (2000)	83.0% 17.0%
Northern Californian Current (1960)	94.4% 5.6%
Northern Californian Current (1990)	87.3% 12.7%
Northern Gulf of Mexico (2005)	96.0% 4.0%
Northern Gulf of St Lawrence (1990)	96.9% 3.1%
Northern Gulf St Lawrence (1985)	96.9% 3.1%
Northern Humboldt Current (1997)	93.9% 6.1%
Paraná River Floodplain (1992)	87.5% 12.5%
Peru (1953)	90.0% 10.0%
Peru (1960)	90.0% 10.0%
Peru (1973)	90.0% 10.0%
Port Cros (1998)	85.4% 14.6%
Port Phillip Bay (1994)	82.4% 17.6%
Prince William Sound (1994)	79.2% 20.8%
Raja Ampat (1990)	90.8% 9.2%
Raja Ampat (2005)	90.8% 9.2%
Restored Alosine Biomass (2000)	98.3% 1.7%
Ria-Lake Tapajos (2013)	91.4% 8.6%
Rocky shore, Monterey Bay, California	57.1% 42.9%

Continued on next page

Table 2 – continued from previous page

Food web name	Core periphery composition
Salt meadow, New Zealand	44.4% 48.9% 4.4% 2.3%
Sand beach, South Africa	100.0%
Santa Pola Bay (2001)	80.5% 19.5%
Sechura Bay (1996)	90.5% 9.5%
Shallow sublittoral, Cape Ann, Massachusetts	40.0% 56.0% 4.0%
Sierra Leone (1964)	97.7% 2.3%
Sierra Leone 1978 (1978)	97.7% 2.3%
Sierra Leone (1990)	97.7% 2.3%
Sinaloa sur MEXICO (1994)	94.6% 5.4%
Sirinhaém River (2013)	88.0% 12.0%
Sítios Novos reservoir (2011)	96.8% 3.2%
Sonda Campeche Act (1988)	92.0% 8.0%
South Benguela	93.8% 6.2%
South Benguela (1900)	93.8% 6.2%
South Benguela (1978)	93.8% 6.2%
South East Alaska (1963)	87.5% 12.5%
South of Benguela (1960)	93.8% 6.2%
South Shetlands (1990)	96.7% 3.3%
South western Gulf of Mexico (1970)	91.7% 8.3%
Sri Lanka (2000)	94.9% 5.1%
Strait of Georgia (1950)	85.5% 14.5%
Swamp, south Florida	51.9% 48.1%
Sørfjord (1993)	96.0% 4.0%
Tampa Bay (1950)	88.5% 11.5%
Tagus estuary, Portugal	75.9% 20.7% 3.4%
Tasmanian Seamounts Marine Reserve (1992)	96.0% 4.0%
Terminos Lagoon (1980)	90.0% 10.0%
Thermaikos Gulf (1998)	93.9% 6.1%
Tropical plankton community, Pacific	87.0% 13.0%

Continued on next page

Table 2 – continued from previous page

Food web name	Core periphery composition
USA, Mid Atlantic Bight (1995)	89.1% 10.9%
USA, South Atlantic Continental Shelf (1995)	88.1% 11.9%
Virgin Islands (1960)	90.5% 9.5%
West Baffin Bay, Coastal and Shelf (2016)	93.3% 6.7%
West coast of Sabah (1972)	93.1% 6.9%
West Florida Shelf (1985)	94.0% 6.0%
West Florida Shelf Historic Model (1950)	94.3% 5.7%
West Scotland (2000)	97.3% 2.7%
West scotland DeepSea (1974)	94.1% 5.9%
Western Antarctic Peninsula (1996)	91.4% 8.6%
Western Channel (1973)	94.2% 5.8%
Western Channel (1993)	94.2% 5.8%
Western Tropical Pacific Ocean (1990)	85.0% 15.0%
Ythan estuary, Aberdeenshire, Scotland	73.9% 26.1%
Yucatan (1987)	85.7% 14.3%

3 Node sequence of most critical nodes

Table 3: Sequence of most critical nodes. On top the name of the graph and its robustness followed by the sequence of most critical living compartment according to the method described in the section 2.3 of the article. The graphs have been sorted according to the robustness.

Sand beach, South Africa, $\rho = 0.354$
Gastrosaccus, Callianassa, Donax, bacteria, Cumacea, Turbellaria, Nemertea, Bathyporeia, Bullia, Ovalipes, Talorchestia, sedentary polychaeta, errant polychaete, isopods, Larus nematode worms, protozoa, nematode, Curlew sandpiper, Sanderling, elasmobranch fishes, predatory fishes
Sítios Novos reservoir (2011), $\rho = 0.334$
Continued on next page

Table 3 – continued from previous page

A.bimaculatus, A.brasiliensis adulto, A.brasiliensis juvenil, A. gigas 1, A.gigas 2, A. gigas 3, A. gigas 4, Ardea alba, Butorides Striata, Camarão, Caracara plancus, Cichla sp. adulto, Cichla sp. juvenil, Cladocera, Copepoda, Egretta thula, Insecta, L.piau, M. tuberculata, O.niloticus adulto, O.niloticus juvenil, Ostracoda, Other Birds, Outros Invertebrados, P.brevis, Pescada, Poecilia, Rotifera, Phalacrocorax brasilianus, Phytoplankton
Contemporary Alosine (2000), $\rho = 0.332$
Alosines, Anchovies, Atlantic herring, Bacteria, Baleen whales, Butterfish, Croaker, Demersal benthivores - other, Demersal omnivores - other, Demersal piscivores - other, Gelatinous Zooplankton, Haddock, Hake, Large Atlantic menhaden, Large bluefish, Large cod, Large Copepods, Large dogfish, Large pelagics (HMS), Large striped bass, Large summer flounder, Large weakfish, Large yellowtail flounder, Mackerel, Macrobenthos crustaceans, Macrobenthos mollusks, Macrobenthos others, Macrobenthos polychaete, Medium Atlantic menhaden, Medium bluefish, Medium cod, Medium pelagic - other, Medium striped bass, Medium weakfish, Megabenthos filters, Megabenthos others, Mesopelagic, Micronekton, Microzooplankton, Odontocetes, Pinnipeds, Seabird, Sharks - coastal, Sharks - pelagic, Shrimp, Small pelagics, Small Copepods, Small Atlantic menhaden, Squid, Small dogfish, Small weakfish , Small bluefish, Phytoplankton, Skate, Small cod, Small striped bass, Small summer flounder, Small yellowtail flounder
Restored Alosine Biomass (2000), $\rho = 0.330$
Anadromous_alosines, Anchovies, Atlantic_herring, Atlantic_menhaden_L, Atlantic_menhaden_M, Atlantic_menhaden_S, Bacteria, Baleen_whales, Bluefish_L, Bluefish_M, Bluefish_S, Butterfish, Cod_L, Cod_M, Cod_S, Copepods_L, Copepods_S, Croaker, Demersal_benthivores, Demersal_omnivores, Demersal_piscivores, Dogfish_L, Dogfish_S, Gelatinous_Zooplankton, Haddock, Hake, Large_pelagics_HMS, Mackerel, Macrobenthos_crustaceans, Macrobenthos_mollusks, Macrobenthos_others, Macrobenthos_polychaete, Medium_pelagic, Megabenthos_filters, Megabenthos_others, Mesopelagic, Micronekton, Microzooplankton, Odontocetes, Pinnipeds, Seabird, Sharks_coastal, Sharks_pelagic, Shrimp, Small_pelagics, Squid, Weakfish_S , Striped_bass_L, Weakfish_M, Striped_bass_M, Phytoplankton, Skate, Striped_bass_S, Summer_flounder_L, Summer_flounder_S, Weakfish_L, Yellowtail_flounder_L, Yellowtail_flounder_S
Northern Gulf of St Lawrence (1990), $\rho = 0.326$
American plaice, Arctic cod, Capelin, Cetacea, Echinoderms, Flounders, Grey seals, Harbour seals, Harp seals, Hooded seals, Large cod, Large crustacea, Large pelagics, Large zooplankton, L. demersals, L. Greenland halibut, Molluscs, Other bent. invert., Small zooplankton, Shrimp, Polychaetes, Sand lance, Small cod, Redfish, Seabirds, Skates, Piscivorous small pelagics, S. demersals, Phytoplankton, Planktivorous small pelagics, S. Greenland halibut
Northern Gulf St Lawrence (1985), $\rho = 0.325$
American plaice, Arctic cod, Capelin, Cetacea, Echinoderms, Flounders, Grey seals, Harbour seals, Harp seals, Hooded seals, Large cod, Large crustacea, Large demersals, Large Green. halibut, Large pelagics, Large zooplankton, Molluscs, Other ben. inver., Small zooplankton, Shrimp, Polychaetes, Sand lance, Small demersals, Redfish, Seabirds, Skates, Small Green. halibut, Phytoplankton, Pesci. small pelagics, Plank. small pelagics, Small cod
South Shetlands (1990), $\rho = 0.324$
Albatrosses, Antarctic fur seals, Baleen whales, Crabeater seals, Elephant seals, Killer whales, King penguins, Krill, Large demersals, Large invertebrates, Large squid, Leopard seals, Mackerel icefish, Marbled rockcod, Minke whales, Myctophids, Other zooplankton, Salps, Small invertebrates, Small demersals, Other birds, Small pelagics, Small squid, Toothfish, Phytoplankton, penguins, Small cetaceans, Sperm whales, Weddell and Ross seals
North Atlantic (1997), $\rho = 0.320$
Continued on next page

Table 3 – continued from previous page

Sm. Zoop. shlw, Albacore, Baleen whales, Beaked whales, Benth. ceph., Bigeye, Billfishes, Bluefin, Het. bacteria, Lg. Bathyd. abs, Lg. Bathyd. slp, Lg. Bathyp. fish, Lg. Epi. fish, Lg. Meso fish, Lg. Plank. fish, Lg. Squids, Lg. Zoop. deep, Macrobenthos, Md. Bathyp.fish, Md. Epi. fish, Megabenthos, Meiobenthos, Pelagic sharks, Seabirds, Skipjack, Sm. Bathyd. abs, Sm. Bathyd. slp, Sm Squids, Sm. Meso fish, Sm. Epi. fish, Sm. Bathyp. fish, Sm. Zoop. deep, Lg. Zoop. shlw, Phytoplankton, Swordfish, Toothed whales, Yellowfin
Central Atlantic (1950), $\rho = 0.320$
Sm. Zoop. shlw, Albacore, Baleen whales, Beaked whales, Benth. ceph., Bigeye, Billfishes, Bluefin, Het. bacteria, Lg. Bathyd. abs, Lg. Bathyd. slp, Lg. Bathyp. fish, Lg. Epi. fish, Lg. Meso fish, Lg. Plank. fish, Lg. Squids, Lg. Zoop. deep, Macrobenthos, Md. Bathyp.fish, Md. Epi. fish, Megabenthos, Meiobenthos, Pelagic sharks, Seabirds, Skipjack, Sm. Bathyd. abs, Sm. Bathyd. slp, Sm Squids, Sm. Meso fish, Sm. Epi. fish, Sm. Bathyp. fish, Sm. Zoop. deep, Lg. Zoop. shlw, Phytoplankton, Swordfish, Toothed whales, Yellowfin
North Atlantic (1950), $\rho = 0.320$
Sm. Zoop. shlw, Albacore, Baleen whales, Beaked whales, Benth. ceph., Bigeye, Billfishes, Bluefin, Het. bacteria, Lg. Bathyd. abs, Lg. Bathyd. slp, Lg. Bathyp. fish, Lg. Epi. fish, Lg. Meso fish, Lg. Plank. fish, Lg. Squids, Lg. Zoop. deep, Macrobenthos, Md. Bathyp.fish, Md. Epi. fish, Megabenthos, Meiobenthos, Pelagic sharks, Seabirds, Skipjack, Sm. Bathyd. abs, Sm. Bathyd. slp, Sm Squids, Sm. Meso fish, Sm. Epi. fish, Sm. Bathyp. fish, Sm. Zoop. deep, Lg. Zoop. shlw, Phytoplankton, Swordfish, Toothed whales, Yellowfin
Central Atlantic (1990), $\rho = 0.320$
Sm. Zoop. shlw, Albacore, Baleen whales, Beaked whales, Benth. ceph., Bigeye, Billfishes, Bluefin, Het. bacteria, Lg. Bathyd. abs, Lg. Bathyd. slp, Lg. Bathyp. fish, Lg. Epi. fish, Lg. Meso fish, Lg. Plank. fish, Lg. Squids, Lg. Zoop. deep, Macrobenthos, Md. Bathyp.fish, Md. Epi. fish, Megabenthos, Meiobenthos, Pelagic sharks, Seabirds, Skipjack, Sm. Bathyd. abs, Sm. Bathyd. slp, Sm Squids, Sm. Meso fish, Sm. Epi. fish, Sm. Bathyp. fish, Sm. Zoop. deep, Lg. Zoop. shlw, Phytoplankton, Swordfish, Toothed whales, Yellowfin
West Florida Shelf Historic Model (1950), $\rho = 0.318$
red grouper 1, Other Mesozooplankton, coastal omnivores, reef omnivores, Red snapper juv, other snapper, CarnivZooplank, Dolphins, Large Crabs, reef carnivores, Small coastal sharks, oceanic small pelagics, Adult Shrimps, Microbial Heterotrophs, Black sea bass, Yellowedge grouper 1, goliath grouper, Mulletts, red grouper 3, yellowedge grouper 3, small coastal carnivores, Octopods, Billfish Tuna, Rays skates, CarnivJellyfish, Vermilion snapper, black grouper 0, gag 0, red snapper adult, Spanish mackerel adult, Sessile epibenthos, other deep water grouper, red grouper 0, Echinoderms Large gastropods, black grouper 3, Small mobile epifauna, gag 1, Spanish mackerel juv, Meiofauna, Sardine Herring Scad complex, Small Copepods, Ichthyoplankton, Cobia, black grouper 1, yellowedge grouper 0, Small infauna, Stomatopods, Bivalves, Squid, Anchovies and silversides, large coastal carnivores, jacks wahoo dolphinfish tunnies, Large coastal sharks, tilefish, Lobsters, other shallow water grouper, triggerfish, Seabirds, amberjacks/rudderfish, king Mackerel juv, king mackerel adult, Phytoplankton, gag 3, coastal piscivores, Macroalgae, Sea grasses, Microphytobenthos
Northern Gulf of Mexico (2005), $\rho = 0.318$
SWG, GGR0, SM0, ZOO, MUL, LOP, SNB, ReO, OSN, SRF, RD, SHP, BFT, MEN, ReIF, MEP, BUT, CoP, COB, YFT, KM0, ASN, TUN, LOS, RGR0, AMB, GTR, YEG1, GGR1, SWO, DOL, CPH, INF, RGR3, SHS, RSN0, LCS, DCIF, DUS, GGR3, BGR3, TLF, ST, SCS, BGR0, BeP, SBD, ASK, BCIF, TUR, DWG, BKT, VSN, SM3, RAY, YEG3, MSN, RSN6, CRB, ReP, OcP, BIL, KM3, YEG0, BGR1, RGR1, PCP, SEP, GOL, CoO, SGR, PHY, ALG, OPL
Hudson Bay (1970), $\rho = 0.317$
Continued on next page

Table 3 – continued from previous page

Arctic Char, Atlantic Salmon, Bearded Seal, Beluga E, Beluga James, Beluga W, Bivalves, Bowhead, Brackish Fish, Capelin, Cephalopods, Copepods, Crustaceans, Echinoderms, Euphausiids, Gadiformes, Harbour Seal, Harp seal, Killer Whale, MacroZooplankton, Marine Worms, Other Benthos, Sculpins/ Zoarcids, Other Marine Fish, Sandlance, Seabirds, MicroZooplankton, Other MesoZooplankton, Ringed Seal, Narwhal, Polar Bear WHB, SH Polar Bear, Ice Algae, Polar Bear Foxe, Primary Production, Sharks/Rays, Walrus N, Walrus S
Bamboung (2006), $\rho = 0.315$
Barracudas +, Breton africain, Carangues, Crabes, Crevettes, Dauphins, Diagramme +, Elops, Ethmalose, Gerres, Grand capitaine, Mâchoirons mari, Macrobenthos, Meiobenthos, Mulets, Zooplankton, Oiseaux, Otolithes +, Petits benthoph, Pomadasys, Pompaneau +, Raies, Requins, Sardinelle +, Tilapias, Microphytobenth, Phytoplankton, Sole-langue +, Tétrodon +, Vivaneaux +
Bamboung (2003), $\rho = 0.315$
Barracudas +, Breton africain, Carangues, Crabes, Crevettes, Dauphins, Diagramme +, Elops, Ethmalose, Gerres, Grand capitaine, Mâchoirons mari, Macrobenthos, Meiobenthos, Mulets, Zooplankton, Oiseaux, Otolithes +, Petits benthoph, Pomadasys, Pompaneau +, Raies, Requins, Sardinelle +, Tilapias, Microphytobenth, Phytoplankton, Sole-langue +, Tétrodon +, Vivaneaux +
Huizache-Caimanero (1984), $\rho = 0.314$
Ariids, Belonoidei, Bivalvs, Callinectes, Carangids, Centropomids, Chanids, Clupeidei, Elopids, Gastropods, Gerreids, Gobioidei, Haemulids, Lutjanids, Microcrustaceans, Polychaets, Mugilids, Palaemonids, Penaeids, Pleuronectoidei, Sciaenids, Zooplankton, Macrophytes, Phytoplankton, Poeciliids
West Scotland (2000), $\rho = 0.312$
Cephalopods, Cetaceans, Cod, Crabs/lobsters, Echinoderms, Epifauna, Euphausiids, Gurnards, Haddock, Halibut/turbot/brill, Herring, Infauna, Inshore fish, Large zooplankton, Prawns/shrimps, Other demersals, Mackerel, Nephrops, Other benthic inverts, Polychaetes, Small zooplankton, Other pelagics, Saithe, Seals, Sharks, Whiting, Rays/Skates, Seabirds, Salmo, Trachurus, Norway pout, Phytoplankton, Plaice, Sandeel, Sole, Sprat
Gulf of California (1990), $\rho = 0.312$
Benthic inv., Callinectes sp., Cephalopoda, Coastal birds, Elasmobranchi (RAYS), Elasmobranchi (SHARKS), Farfantepenaeus californiensis (ADULTS), Farfantepenaeus californiensis (JUVENILES), Flat fishes, Haemulidae, Litopenaeus stylirostris (ADULTS), Litopenaeus stylirostris (JUVENILES), Zooplankton, Marine birds, Merluccidae, Mojarras, Myctophidos, Polychaeta, Odontoceti, Other fishes, Phocoena sinus, Rhinobatidae, Sciaenidae, Serranidae, Sicyonia penicillata, Stomatopoda, Small pelagics, Totoaba macdonaldi (ADULTS), Totoaba macdonaldi (JUVENILES), Macrophytes, Mysticeti, Phytoplankton, Zalophus californianus
Sinaloa sur MEXICO (1994), $\rho = 0.311$
Ariidae, Aves, Bivalvia, Carangidae, Celenterata, Centropomidae, Cephalopoda, Cheloniidae, Clupeidae, Coryphaenidae, Echinodermata, Gastropoda, Gerreidae, Haemulidae, Lutjanidae, Macrocrustáceos, Serranidae, Mugilidae, Otros peces, Penaeidae, Pleuronectiform, Stomatopoda, Rajiformes, Polychaeta, Zooplankton, Portunidae, Porifera, Macrofitas, Scombridae, Fitoplancton, Palinura, Poly./Mullidae, Sciaenidae, Scorp./Triglida, Synodontidae, Tetraodontidae
Irish Sea (1973), $\rho = 0.310$
Continued on next page

Table 3 – continued from previous page

Adult Cod 2+, Adult Haddock 2+, Adult Plaice 2+, Baleen Whales, Basking Sharks, Bass, Carnivorous Zooplankton, Cephalopods, Dragonets, Epifaunal Macrobenthos, Epifaunal Mesobenthos, Gelatinous Zooplankton, Gurnards, Herbivorous Zooplankton, Infaunal Macrobenthos, Infauna (Polychaete), Infaunal Mesobenthos, Juvenile Cod Age 1, Juvenile Haddock Age 1, Juvenile Plaice Age 1, Large Flatfish, Large Sharks, Lobster and Large Crabs, Mackerel, Medium Flatfish, Meiofauna, Monkfish, Mullet, Nephrops, Prawns and Shrimp, Omnivorous Zooplankton, Sandeels, Other Small Gadoids, Seabirds, Sessile Epifauna, Skates and Rays, Small Pelagic Planktivorous Fish, Toothed Whales, Other Large Gadoids, Whiting, Other Small Demersal, Other Large Demersals, Seatrout, Small Flatfish, Small Sharks, Sole, Microflora, Phytoplankton, Seals, Seaweed
Celtic Sea (1985), $\rho = 0.309$
Anglerfish large, Anglerfish small, Bacteria, Baleen whales, Benthic cephalopods, Benthic meiofauna, Benthivorous demer. elasmobranchs, Blue whiting, Boarfish, Carnivorous demer. elasmobranchs, Carnivorous/Necrophagous benth. inv., Cod large, Cod small, Commercial bivalves, Commercial crustaceans, Endobenthivorous demer. fish, Epibenthivorous demer. fish, Haddock, Hake large, Hake small, Herring, Horse mackerel, Mackerel, Macrozooplankton, Megrim, Mesozooplankton - Large, Mesozooplankton - Small, Suspension/Surface detritus feeder benth. inv., Shrimps, Pelagic fish - Medium, Microzooplankton, Nephrops, Suprabenthos, Subsurface deposit feeder benth. inv., Pouts, Pilchard, Piscivorous demer. fish, Pelagic sharks, Squids, Sea bass, Toothed cetaceans / Seals, Sprat, Small benthivorous demer. fish, Suprabenthivorous demer. fish, Seabirds - Divers, Seabirds - Surface feeders, Pelagic fish - Large, Phytoplankton - Large, Phytoplankton - Small, Plaice, Sole, Whiting
Azores (1997), $\rho = 0.305$
Bahtydemersal L, Baleen whales, Bathydemersal M, Bathydemersal S, Bathypelagic, Benthic filter feeders, Benthic worms, Beryx decadactylus, Beryx splendens, Cephalopods, Conger conger, Crabs, Demersal L, Demersal M, Demersal S, Dolphins, DW sharks, H. dactylopterus, Large Zooplankton, Mesopelagics, Lepidopus caudatus, Mora moro, Other benthos, Shrimp, Small Zooplankton, Shallow water S, Shallow water M, Pelagic S, Pelagic sharks, Pelagic M, Rays and other sharks, Toothed whales, Algae, Pagellus bogaraveo, Phycis phycis, Pagrus pagrus, Pelagic L, Phytoplankton, Pontinus kuhlii, Raja clavata, Seabirds, Shallow water L, Tunas, Turtles
North South of China Sea (1970), $\rho = 0.305$
Zooplanktons, Adult demersal fish (30+cm), Adult groupers, Adult hairtail (Trichiurids), Benthic crustaceans, Benthopelagic fish, Bigeyes (Priacanthids), Cephalopods, Crabs, Croakers (30+cm), Croakers (less than 30cm), Demersal sharks and rays, Demersal fish (less than 30 cm), Echinoderms, Juv demersal fish (30+cm), Juvenile large pelagic fish, Juv Hairtail (Trichiurids), Juv large croakers, Lizard fish (Synodontids), Melon seed, Non-ceph molluscs, Other mammals, Pelagic fish (30+cm), Shrimps, Polychaetes, Pelagic fish (less than 30cm), Sessile/other invertebrates, Seabirds, Seaturtles, Pomfret (Stromateids), Threadfin bream (Nemipterids), Pelagic sharks and rays, Benthic producers, Jellyfish, Phytoplanktons, Pinnipeds, Snappers
Sørfjord (1993), $\rho = 0.304$
small zooplankton, Cormorants, detritivore echinoderms, detritivore polychaetes, euphausiids, other large zooplankton, large bivalves, large cod, large decapoda, Large King crab, large other fish, mammals, other benthic invert, predatory benthos, scyphomedusae, shrimps, small benthic crustaceans, small molluscs, small cod, small king crab, chaetognaths, herring, phytoplankton, small other fish
West coast of Sabah (1972), $\rho = 0.303$
Continued on next page

Table 3 – continued from previous page

Zooplankton, Balistids, Carangids, Crabs Lobsters, Demersal zoobenthos feeders, Engraulids Clupeids, Flatfishes Soles, Intermediate predators, Lactarids, Large predators, Large zoobenthos feeders, Leiognathids, Lutjanids, Macrobenthos, Meiobenthos, Mullids, Nemipterids, Octopus sepia, Sciaenids, Serranids, Shrimps, Small crustaceans, Squids, Phytoplankton, Macrobenthic flora, Small pelagics, Reef associated fish, Tuna
Peru (1960), $\rho = 0.303$
Anchoveta, Bonito, Booby, Cormorant, Fur seal, Hake, Horse Mackerel, Mackerel, Makrobenthos, Meiobenthos, Other mammals, Other pelagics, Sardine, Zooplankton, Other demersals, Benthic prod., Pelican, Phytoplankton, Sea lion
Peru (1973), $\rho = 0.303$
Anchoveta, Bonito, Booby, Cormorant, Fur seal, Hake, Horse mackerel, Mackerel, Makrobenthos, Meiobenthos, Other mammals, Other pelagics, Sardine, Zooplankton, Other demersals, Benthic prod., Pelican, Phytoplankton, Sea lion
Peru (1953), $\rho = 0.303$
Anchoveta, Bonito, Booby, Cormorant, Fur seal, Hake, Horse Mackerel, Mackerel, Makrobenthos, Meiobenthos, Other mammals, Other pelagics, Sardine, Zooplankton, Other demersals, Benthic prod., Pelican, Phytoplankton, Sea lion
Guinea (2004), $\rho = 0.303$
Large zooplankton, Barracudas+, Bathy-dem invert.eaters, Bathy-dem pred.eaters, Benthos, Crustacea, Small zooplankton, Bobo croaker, Carangids, Cephalopods, Dolphins, Giant Afr. threadfin, Grunts+, Horse mackerels+, Large pelagics, L. demersal pred.eaters, Lesser Afr. threadfin, ML demersal invert.eaters, Mulletts+, Other croakers, Rays+, Royal threadfin, Sardinella+, S. demersal invert.eaters, SM demersal pred.eaters, Seabream+, Sea catfish, Sharks+, Primary producers, Sea birds, Ethmalosa, Soles+, Turtles, Whales
Guinea (1985), $\rho = 0.303$
Large zooplankton, Barracudas+, Bathy-dem invert.eaters, Bathy-dem pred.eaters, Benthos, Crustacea, Small zooplankton, Bobo croaker, Carangids, Cephalopods, Dolphins, Giant Afr. threadfin, Grunts+, Horse mackerels+, Large pelagics, L. demersal pred.eaters, Lesser Afr. threadfin, ML demersal invert.eaters, Mulletts+, Other croakers, Rays+, Royal threadfin, Sardinella+, S. demersal invert.eaters, SM demersal pred.eaters, Seabream+, Sharks+, Primary producers, Ethmalosa, Soles+, Sea birds, Sea catfish, Turtles, Whales
Thermaikos Gulf (1998), $\rho = 0.302$
Zooplankton, Benthic small crustaceans, Anglerfish, Benthic invertebrates, Crabs, Demersal fishes 1, Demersal fishes 2, Demersal fishes 3, Demersal fishes 4, Dolphins, Flatfishes, Hake, Horse mackerels, Large pelagics, Loggerhead turtle, Mackerels, Medium pelagics, Octopuses and cuttlefish, Other gadiforms, Other small pelagics, Picarels and bogue, Polychaetes, Rays and skates, Red mullets, Shrimps, Sharks, Seabirds, Sardine, Anchovy, Phytoplankton, Squids
Celtic Sea (1980), $\rho = 0.301$
Anglerfish, Bacteria, Baleen whales, Benthic meiofauna, Blue whitting, Boarfish, Carnivorous and necrophagous invertebrates, Cephalopods, Cod ad, Cod juvenile, Demersal L, Demersal M, Demersal S, Haddock, Hake adulte, Hake juvenile, Herring, Horse Mackerel, Lobsters/Crabs, Mackerel, Macrozooplankton, Mesozooplankton, Microzooplankton, Megrim, Norway lobster, Pelagic L, Pelagic M, Sardine, Plaice, Pouts, Sea bass, Sharks L, Sharks/rays, Shrimps, Sole, Whitting, Sub-surface deposit feeders invertebrates, Surface suspension and deposit feeders, Sprat, Phytoplankton L, Plunge and pursuit divers seabirds, Surface feeders seabirds, Benthic producers, Phytoplankton S, Suprabenthic invertebrates, Toothed whales
Celtic Sea (2013), $\rho = 0.301$
Continued on next page

Table 3 – continued from previous page

Anglerfish, Bacteria, Baleen whales, Benthic meiofauna, Blue whitting, Boarfish, Carnivorous and necrophagous invertebrates, Cephalopods, Cod ad, Cod juvenile, Demersal L, Demersal M, Demersal S, Haddock, Hake adulte, Hake juvenile, Herring, Horse Mackerel, Lobsters/Crabs, Mackerel, Macrozooplankton, Mesozooplankton, Microzooplankton, Megrim, Norway lobster, Pelagic L, Pelagic M, Sardine, Plaice, Pouts, Sea bass, Sharks L, Sharks/rays, Whitting, Shrimps, Sole, Sub-surface deposit feeders invertebrates, Surface suspension and deposit feeders, Sprat, Phytoplankton L, Plunge and pursuit divers seabirds, Surface feeders seabirds, Benthic producers, Phytoplankton S, Suprabenthic invertebrates, Toothed whales
South western Gulf of Mexico (1970), $\rho = 0.300$
Anchovies, Annelids, Catfish, Crabs, Flounder, Grunts, Herrings, Shrimps, Jacks, Lizard fish, Microcrustacean, Mojarra, Molluscs, Zooplankton, Other fishes, Red grouper, Sharks, Benthic prod., Red snapper, King mackerel, Phytoplankton, Seatrout, Span. mackerel
Morocco (1985), $\rho = 0.299$
Lg. zooplankton, Baleen whales, Cephalopods, Crabs, Detrital feeders, Lg. bathypelagic, Lg. deep water bottom, Lg. deep water comm., Lg. demersal, Lg. demersal comm., Lg. demersal sharks/rays, Lg. pelagic, Lobsters, Med. bathypelagic, Med. demersal, Med. demersal comm., Med. pelagic, Med. pelagic comm., Mesopelagic prey, Other benthos, Sm. demersal, Sardines, Pelagic sharks, Shrimp, Worms, Sm. demersal sharks/rays, Predatory echinoderms, Sm. bathypelagic, Tunas, Primary producers, Sm. deep water bottom, Seabirds, Sm. zooplankton, Toothed whales/dolphins, Turtles, V. lg. demersal, V. lg. demersal comm.
Bay of Biscay (2013), $\rho = 0.299$
Anchovy, Anglerfish, Bacteria, Baleen whales, Benthic meiofauna, Blue whitting, Carnivorous and necrophagous benthic invertebrates, Cephalopods, Demersal L, Demersal M, Demersal S, Hake adulte, Hake juv, Horse mackerel, Lobsters/Crabs, Mackerel, Macrozooplankton, Megrim, Mesozooplankton, Microzooplankton, Norway lobster, Pelagic L, Pelagic M, Sardine, Plaice, Pouts, Sole, Sea bass, Sharks L, Sharks/rays, Shrimps, Subsurface deposit feeders invertebrates, Surface suspension and deposit feeders, Whitting, Phytoplankton L, Plunge and pursuit divers seabirds, Surface feeders seabirds, Benthic producers, Phytoplankton S, Suprabenthic invertebrates, Toothed whales
Mauritania (1998), $\rho = 0.297$
bathydem S inv, bathydem S pred, cephalopodes comm, cephalopodes non-comm, chinchards, clupeides, crustaces comm, crustaces non-comm, macrobenthos, dem L pred, dauphins, dem L inv, dem M pred, dem S inv, dem S pred, maquereau, macrozooplancton, merlu, mesopel inv, mesopel pred, mugilides, pel M planc, meso zooplancton, micro zooplancton, dem M inv, Selaciens L pred, sabres, pel L pred, raie M, producteurs primaires, sparides comm, oiseaux, pel L inv, Selaciens L inv, thon cotier, thon hauturier, orque
Mauritanie (1991), $\rho = 0.297$
mesozooplankton, BA mesozooplankton, BA crustaceans, BA L crustaceans, BA macrozooplankton, BA meiobenthos, BA molluscs, BA other inverts, BA worms, Catfish ad, Catfish juv, Cephalopods, Coastal birds, Coastal M, Coastal S, Coastal selacians, Croakers ad, Croakers juv, Grouper juv, Groupers ad, Horse mackerels, Mackerel, macrozooplankton, Marine mammals, Meagre ad, Meagre juv, Mulletts, Octopus vulgaris, Pelagic L, Scianids, Seabreams ad, Seabreams juv., shelf crustaceans, Shelf L, shelf L crustaceans, Shelf M, shelf meiobenthos, shelf molluscs, shelf other inverts, shelf worms, Sparids ad, Shelf selacians, phytoplankton, algae and eelgrass, BA phytoplankton, Shelf S, Sardine, Sardinelles, Shelf soles, Sparids juv
Terminos Lagoon (1980), $\rho = 0.296$
Continued on next page

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Ariidae, Gerreidae, Brachyurans, Haemulidae, Lutjanidae, Meiofauna, Microcrustaceans, Molluscs, Other fish, Other macroinvertebrates, Penaeids, Polychaetes, Scianidae, Sparidae, Tetraodontidae, Zooplankton, Engraulidae, Benthic autotrophs, Phytoplankton
West scotland DeepSea (1974), $\rho = 0.296$
Large zooplankton, Argentine, Bairds smoothhead, Benthic teleosts, Benthopelagic fish, Black scabbard fish, Blue ling, Blue whiting, Bulls eye black cardinalfish, Cephalopods, Cetaceans, Chimeras, Coryphanoides L, Coryphanoides S, Deep sharks, Echinoderms, Greater forkbeard, Intermediate sharks, Kaups arrowtooth eel, Large demersals, Ling, Megrin L. whiffiagonis, Monkfish, Orange roughy, Other benthic inverts, Polychaetes, Prawns and shrimp, Small zooplankton, Gelatinous plankton, Mesopelagic fish, Phytoplankton, Shallow sharks, Skates and rays
Mauritania (1987), $\rho = 0.295$
bathydem S inv, bathydem S pred, cephalopodes comm, cephalopodes non-comm, chinchards, clupeides, crustaces comm, crustaces non-comm, macrobenthos, dem L pred, dauphins, dem L inv, dem M pred, dem S inv, dem S pred, macrozooplankton, maquereau, mugilides, mesopel inv, mesopel pred, pel M planc, meso zooplankton, micro zooplankton, dem M inv, Selaciens L pred, sabres, pel L pred, raie M, merlu, producteurs primaires, sparides comm, oiseaux, pel L inv, Selaciens L inv, thon cotier, thon hauturier, orque
Greenland, West Coast (1997), $\rho = 0.295$
Baleen whales, Benthos, Cod 4+, Cod juv, Grl. halibut 5+, Grl. halibut juv, Large Zooplankton, Small Zooplankton, Northern shrimp, Other bot fish, Long rough Dab, Thorny ray, Squids, Seals, Toothed whales, Other pel fish, Polar cod, Redfish juv less 15cm, Phytoplankton, Redfish larger than 14cm, Seabirds
Western Antarctic Peninsula (1996), $\rho = 0.294$
Adelie Penguins, Antarctic fur seals, Benthic invertbrates, Blue Whales, Cephalopods, C gunnari, Chinstrap Penguins, Crabeater Seal, Emperor Penguins, Fin Whales, Flying Birds, Gentoo Penguins, G gibberifrons, Humpback whales, Killer whales, Krill Large, Myctophids, On-shelf fish, N. rossii, Krill Small, Macaroni Penguins, Macro-zoopl, Other Euphausiids, Meso zooplankton, Micro-Zool, Salps, Ice Algae, Large phytoplankton, Leopard Seal, Minke Whales, S Elephant Seals, Small phytoplankton, Sperm Whales, Weddell Seal
Virgin Islands (1960), $\rho = 0.294$
I7 Decom/Microf, B1 Sea birds, F1 Sharks/Rays, F2 Scombr/Jacks, F3 Schoolfish1, F4 ReefcarnBG, F5 Schoolfish2, F6 ReefomniSM, F7 Biggroupers, F8 ReefherbSM, F9 ReefherbBG, I1 Cephalopods, I2 Echinoderms, I3 Crustacea, I4 Worm/Mollusc, I5 Sess.Animals, Benthic prod., I6 Zoopankton, Phytoplankton, R1 Sea turtles
Jalisco and Colima Coast (1995), $\rho = 0.291$
Otros peces, Adultos Lutjanu, Anguilas y more, Aves marinas, Braquiuros, Carángidos, Dorado, Equinodermos, Escómbridos, Estomatópodos, Gasterosteidos, Gerreidos, Haemúlidos, Infauna, Juveniles Lutja, Mamíferos marin, Tiburones, Moluscos, Ophidiidos, Otros crustáceo, Otros lutjánido, Otros macroinve, Peneidos, Pleuronéctidos, Rayas, Pulpo, Tetraodóntidos, Sciánidos, Serranidos, Sardinias, Sierra, Fitoplancton, Synodontidos, Tortugas marina, Zooplancton, Picudos
West Baffin Bay, Coastal and Shelf (2016), $\rho = 0.289$
Arctic char, Arctic/Polar cod, Bacteria, Bivalves, Bowhead whale, Calanus, Carnivorous zooplankton, Omnivorous zooplankton, Cephalopods, Echinoderms, Polychaetes, Greenland halibut, Greenland shark, Killer whale, Large crustaceans, Other benthos, Microzooplankton, Polar bear, Sculpins/Eelpouts, Small demersal fish, Small pelagic fish, Ice algae, Large demersal fish, Narwhal, Other seals, Phytoplankton, Ringed seal, Seabirds, Walrus
Australia North West Shelf (1986), $\rho = 0.288$
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AdCarangids, Coastal sharks, ComPrawns, DpLgFish, DpLizard, DpMedFish, DpMullidae, Dp-Nemipterids, DpPonyfish, DpSmFish, FryPBream, JuvCarangids, LgZooplankton, Macrofauna, Megabenthos, ShSmFish, Squid, ShNemipterids, SmallPelagics, SessEpibenthos, ShTrigger-Fish, ShLutjanids, ShMedFish, SmZooplankton, ShLgFish, ShSerranids, ShLizard, ShLethrinids, BenPhytoplankton, Microphytobenthos, PelPhytoplankton, Rays, RedEmperor, ShMullidae, ShSweetlip, SmTunas
Sonda Campeche Act (1988), $\rho = 0.288$
Aves marinas, Bagres, Calamar, Camarón, Corvinas, Delfines, Epifauna, Zooplancton, Infauna, Pulpo, Mojarras, Lenguados, Roncos, Meros, Tiburones, Jureles, Otros peces, Pargos, Sierras, Macrofitas bent., Fitoplancton, Sardinas, Sargos, Tortugas marinas
Antarctic (1970), $\rho = 0.288$
Adelie Penguins, Antarctic Fur Seals, Arthropod Crustacea, Arthropod Other, Asteroidea, Blue Whales, Brachiopoda, Bryozoa, Cephalopods, Champsocephalus gunnari, Chinstrap Penguins, Cnidaria, Copepods, Crabeater Seal, Crinoidea, Deep demersals Large, Deep demersals Small, Echinoidea, Emperor penguins, Fin Whales, Flying birds, Gentoo Penguins, Hemichordata, Holothuroidea, Humpback whales, Killer Whales, Krill Adult, Krill Sub-adult, Large Nototheniidae, Leopard Seal, Macaroni Penguin, Macro-Zooplankton, Micro-Zooplankton, Minke whales, Mollusca, Worms, Toothfish, Urochordata, Ophiuroidea, Salps, Other Pelagics, Porifera, Krill Juvenile, Notothenia gibberifrons, Other Icefish, Pleuragramma antarcticum, Krill Larvae, Myctophids, Ross Seal, Small Nototheniidae, Cryptophytes, Diatoms, Ice algae, Other Phytoplankton, Shallow Demersals, Southern Elephant Seals, Sperm whales, Weddell Seal
Albatross Bay (1986), $\rho = 0.287$
Marine meiofauna, Estuary large benthopelagic invert feeders, Thallasinid prawns (Callinassa), Spatangoids, Benthic herbivores, Common terns, Estuarine microbial heterotrophs, Estuarine zooplankton, Estuary insectivores, Dolphins, Sessile epibenthos, Estuary large benthic invert feeders (Rays), Squid and cuttlefishes, Large benthopelagic invert feeders, Sand crab, Sea snakes, Turtles, Polychaete feeders, Scavengers, Estuarine bivalves, Echinoids, Other large crabs, Marine ichthyoplankton, Estuary pelagic herbivores, Estuary large benthic pisc/prawn feeders, Large teleost benthic piscivores, Estuary planktivores, Small pelagic planktivores, Crested terns, Small jellies, Estuary lg elasmobranch benthopelagic pisc/prawn feeders, Small benthic invert feeders, Tiger prawn subadults, Tiger prawn juvenile, Small benthic piscivores, All other commercial prawns, The mud crab, Small benthopelagic piscivores, Lesser frigates, Marine forams, Small benthopelagic invert feeders, Small pelagic piscivores, Banana prawn adult, Large pelagic planktivores, estuarine small crustaceans, Asterioids, Large gastropods, Marine bivalves, Marine zooplankton, Marine worms, Estuary lg teleost benthopelagic pisc/prawn feeder, Large teleost benthic invert feeders, Estuary detritivores, Estuarine small gastropods, Tiger prawn adult, Red mud crab, Large elasmobranch benthopelagic piscivores, Crocodiles, Estuarine meiofauna, Large teleost benthopelagic piscivores, Stomatopods, Marine small crustaceans, Banana prawn juvenile, Crayfish, Insects, Ophioroids, Banana prawn subadults, All other non-commercial prawns, Estuarine ichthyoplankton, Marine small gastropods, Holothurians, Estuarine worms, Marine microbial heterotrophs, Large jellies, Medium pelagic piscivores, Estuary benthic herbivores, Estuary small benthic invert feeders, Octopus, Seagrass, Mangroves, Estuarine macroalgae, Dugongs, Estuarine phytoplankton, Estuary polychaete feeders, Microphytobenthos, Large pelagic piscivores, Marine phytoplankton, Sawfishes, Brown boobies, Marine macroalgae, Large elasmobranch benthic invert feeders, Estuarine forams
Tropical plankton community, Pacific, $\rho = 0.287$
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bacteria, Appendicularia large, Acartia large, nauplii, Appendicularia small, Infusoria, Radiolaria, copepodites, Calanus small, Acartia small, Oithona-Oncaea large, Calanus large, Euchaeta, Centropages, Amphipoda, Euphausia, Medusae, Oithona-Oncaea small, small-size phytoplankton, medium-size phytoplankton, large-size phytoplankton, Chaetognatha
USA, South Atlantic Continental Shelf (1995), $\rho = 0.286$
Baleen whales, Benthic invertebrate-eaters, Benthic macrofauna (and meiofauna), Benthic piscivores, Benthic rays/skates, Billfishes, Bivalves, Crabs, Demersal invertebrate-eaters, Demersal omnivores, Demersal piscivores, Demersal planktivores, Drum and croaker, Echinoderms and gastropods, Flounder, Forage fishes, Groupers, Jacks, Jellies, Sessile epibenthos, Lobsters, Mackerel, Marine birds, Octopods, Other fishes, Pelagic piscivores, Pelagic planktivores, Sharks (and alligators), Shrimp, Snappers, Squid, Zooplankton, Stomatopods, Toothed cetaceans, Macroalgae, Manatees, Microphytobenthos, Phytoplankton, Sea grasses, Sea turtles, Tuna
Barra Del Chuy (1992), $\rho = 0.285$
Birds, Atlantorchestoidea brasiliensis, Carabide, Donax hanleyanus, Emerita brasiliensis, Euzonus furciferus, Excirolana armata, Mesodesma mactroides, Scolelepis gaucha, Excirolana braziliensis, Fishes, Hemipodus olivieri, Macrochiridiotea giambiagiae, Phoxocephalopsis sp., Zooplankton, Buccinanops duartei, Olivella formicacorsii, Phytoplankton, Olivancillaria vesica auricularia
West Florida Shelf (1985), $\rho = 0.285$
anthozoans, black grouper, black sea bass, blueline tilefish, carnivorous zooplankton, coastal dolphins, coastal piscivores, cobia, demersal omnivores, echinoderms, gag 0, gag 1, gag 2, gag 3, gag 4, gag 5+, gastropods, golden tilefish, goliath grouper, gray triggerfish, greater amberjack, grey snapper, herbivorous zooplankton, hogfish, ichthyoplankton, jellyfish, king mackerel adult, king mackerel juv, large crabs, large demersal sharks, lionfish adult, lionfish juv, medium reef omnivores, meiobenthos, microbes, mobile epifauna, omnivorous zooplankton, small infauna, nearshore demersal carnivores, sessile epibenthos, stomatopods, squid, offshore demersal carnivores, shrimp, bivalves, reef planktivores, nearshore small pelagics, reef invertivores, pelagic piscivores, sardine herring scad, small reef omnivores, offshore small pelagics, reef crustacean eaters, reef carnivores, mullet, vermilion snapper, other SWG, other snapper, pelagic sharks, offshore dolphins, yellowedge grouper, seabirds, macroalgae, other DWG, phytoplankton, red grouper 0, red grouper 1, red grouper 2, red grouper 3, red grouper 4, red grouper 5+, red porgy, red snapper 0, red snapper 1-2, red snapper 3+, scamp, small sharks and rays, Spanish mackerel adult, Spanish mackerel juv, microphytobenthos, seagrass
Bay of Biscay (1980), $\rho = 0.285$
Anchovy, Anglerfish, Sharks L, Toothed whales, Bacteria, Baleen whales, Benthic meiofauna, Blue whitting, Carnivorous and necrophagous benthic invertebrates, Cephalopods, Demersal L, Demersal M, Demersal S, Horse mackerel, Lobsters/Crabs, Mackerel, Macrozooplankton, Megrim, Mesozooplankton, Microzooplankton, Norway lobster, Pelagic L, Pelagic M, Sardine, Plaice, Pouts, Sea bass, Sharks/rays, Shrimps, Subsurface deposit feeders invertebrates, Surface suspension and deposit feeders, Whitting, Suprabenthic invertebrates, Plunge and pursuit divers seabirds, Surface feeders seabirds, Benthic producers, Hake adulte, Phytoplankton L, Phytoplankton S, Sole, Hake juvenile
Sierra Leone (1964), $\rho = 0.283$
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Carnivorous zooplankton, Baleen whales, Benthos, Herbivorous zooplankton, Mulletts and other herbivores, Catfish, Cephalopods, Crustaceans, Small demersal invert feeders, Croackers, Gaint African Threadfin, Groupers, Jacks, Large Bathydem predators, Large Bathypelagic predators, Large demersal invert feeders, Large demersal predators, Large pelagic predators, Large Tuna, L Coastal Sharks and Rays, L Deep Sharks and Rays, M Coastal Sharks and Rays, M Deep Sharks and Rays, Medium demersal invert feeders, Medium demersal predators, Royal Threadfin, Sardinellas, Small pelagic invert feeders, Scads and mackerels, Small demersal predators, Sickie and spadefish, Bongo shad, Toothed whales and dolphins, Mesopelagics, Primary producers, Small pelagic predators, Lesser African Threadfin, M Bathypelagic invert feeders, Seabirds, Small Bathypelagic predators, Small Tuna, SM Bathydem invert feeders, Turtles
USA, Mid Atlantic Bight (1995), $\rho = 0.282$
Atlantic salmon, Baleen whales, Benthic invertebrate eaters, Benthic piscivores, Billfishes, Bivalves, Black seabass, Bluefish, Butterfishes, Coastal sharks, Cods and hakes, Crabs, Demersal invertebrate eaters, Demersal piscivores, Demersal planktivores, Dolphins and porpoise, Drum / croaker, Echinoderms, Euphausiids, Mysids, Flounders, Forage fish, Goosefish, Jacks, Jellies, Lobsters, Marine birds, Med. pel. pisc (Mackerel), Ocean pout, Octopods, Polychaetes, Small crustaceans, Shrimp, Stomatopods, Spot, Sessile epibenthos, Rays and skates, Macrozooplankton, Microzooplankton, Spiny dogfish, Snapper / grouper, Squid, Atlantic menhaden, Large pelagic planktivores, Redfish, Striped bass, Macrophytes, Microphytobenthos, Phytoplankton, Scup, Seals, Tilefish, Tunas, Weakfish
Malangen Fjord (2017), $\rho = 0.282$
Bacteria, Benthic detritivore echinoderms, Benthopelagic cephalopods, Benthopelagic shrimps, Blue whiting, Detritivore polychaetes, Greater argentine, Hagfish, Heterotrophic nanofl., Large krill, Suprabenthos, Other benthic detritivore invertebrates, Pelagic shrimps, Large fish feeders, Marine mammals, Meiofauna, Other commercial demersal fishes, Predatory invertebrates, Rabbit fish, Macro mesozooplankton, Redfishes, Sea cucumbers, Witch flounder, Microzooplankton, Small krill, Large phytoplankton, Jellyfish and ctenophores, Mesopelagic fishes, Pouts, Rays and skates, Seabirds, Velvet belly
Deep Western Mediterranean sea (2009), $\rho = 0.282$
Mesopelagic crustacea, Alepocephalus rostratus, Aristeus antennatus, Benthic invertebrates, crustacea, Benthic invertebrates, other, Bluntnose sixgill shark, Demersal sharks, Lepidion lepidion, Macrourids, Meiobenthos, Benthopelagic fish, Monkfish, Mora moro, Other demersal, small, Phycis blennoides, Surface production, Zooplankton, BBL, Cephalopods, Zooplankton, gelatinous
Alto Golfo de California , $\rho = 0.282$
Ballenas barbadas, Ballenas dentadas, C. azul, C. cafe, C. de roca, Cefalópodos, Haemulidos, Infauna, Jaibas, Lobo marino, Mantarayas, Merlucciidos, Otros peces, Mojaras, Peces planos, Poliquetos, Rhinobatidos, Sciaenidos, Stomatópodos, Vaquita, Myctophidos, Serranidos, Fito-plancton, Pelágicos, Macrofitas, Tiburón, Totoaba, Zooplancton
Sierra Leone 1978 (1978), $\rho = 0.281$
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Carnivorous zooplankton, Baleen whales, Benthos, Herbivorous zooplankton, Catfish, Cephalopods, Crustaceans, Small demersal invert feeders, Croackers, Gaint African Threadfin, Groupers, Jacks, Large Bathydem predators, Large Bathypelagic predators, Large demersal invert feeders, Large demersal predators, Large pelagic predators, Large Tuna, L Coastal Sharks and Rays, L Deep Sharks and Rays, M Coastal Sharks and Rays, M Deep Sharks and Rays, Medium demersal invert feeders, Medium demersal predators, Mulletts and other herbivores, Royal Threadfin, Sardinellas, Small pelagic invert feeders, Scads and mackerels, Small demersal predators, Sickle-and spadefish, Small Tuna, Bongo shad, Toothed whales and dolphins, Mesopelagics, Primary producers, Lesser African Threadfin, M Bathypelagic invert feeders, Seabirds, Small Bathypelagic predators, Small pelagic predators, SM Bathydem invert feeders, Turtles
Sierra Leone (1990), $\rho = 0.281$
Carnivorous zooplankton, Baleen whales, Benthos, Herbivorous zooplankton, Catfish, Cephalopods, Crustaceans, Small demersal invert feeders, Croackers, Gaint African Threadfin, Groupers, Jacks, Large Bathydem predators, Large Bathypelagic predators, Large demersal invert feeders, Large demersal predators, Large pelagic predators, Large Tuna, L Coastal Sharks and Rays, L Deep Sharks and Rays, M Coastal Sharks and Rays, M Deep Sharks and Rays, Medium demersal invert feeders, Medium demersal predators, Mulletts and other herbivores, Royal Threadfin, Sardinellas, Small pelagic invert feeders, Scads and mackerels, Small demersal predators, Sickle-and spadefish, Small Tuna, Bongo shad, Toothed whales and dolphins, Mesopelagics, Primary producers, Lesser African Threadfin, M Bathypelagic invert feeders, Seabirds, Small Bathypelagic predators, Small pelagic predators, SM Bathydem invert feeders, Turtles
Sirinhaém River (2013), $\rho = 0.280$
Zooplakton, Bivalves, Blue crab , Croaker, Drum , Fiddler crabs, Flatfish, Gastropods, Grunt, jack, Mojarra(Diapterus spp), Mojarra(Eucinostomus spp), Mullet , Others Catfish, Pemecou sea catfish, Polychaetas, Puffer, Shrimp , Snapper, Snook, Phythoplankton, Epiphyton, Microphytobenthos , Sardines
Raja Ampat (1990), $\rho = 0.278$
Infaunal invertebrates, Jellyfish and hydroids, Shrimps and prawns, Penaeid shrimps, Reef associated turtles, Crown of thorns, Juvenile small reef asociated, Adult small planktivore, Juvenile medium pelagic, Juvenile groupers, Adult coral trout, Whale shark, Sea cucumbers, Adult large demersal, Deepdiving odontocetae, Small crabs, Detritivore fish, Juvenile macro algal browsing, Manta ray, Adult deepwater fish, Adult large sharks, Mysticetae, Juvenile small planktivore, Adult medium reef associated, Juvenile large demersal, Oceanic turtles, Juvenile eroding grazers, Juvenile medium reef associated, Squid, Other tuna, Adult Napoleon wrasse, Adult medium pelagic, Adult macro algal browsing, Juvenile large sharks, Birds, Cleaner wrasse, Adult large pelagic, Juvenile large reef associated, Sessile filter feeders, Juvenile small pelagic, Giant triton, Hermatypic scleractinian corals, Juvenile butterflyfish, Bivalves, Billfish, Adult small pelagic, Azooxanthellate corals, Crocodiles, Piscivorous odontocetae, Juvenile large pelagic, Subadult groupers, Non reef building scleractinian corals, Adult rays, Adult eroding grazers, Octopus, Juvenile Napoleon wrasse, Adult butterflyfish, Subadult Napoleon wrasse, Adult groupers, Adult small reef associated, Large crabs, Juvenile small sharks, Adult scraping grazers, Adult large reef associated, Epifaunal detritivorous invertebrates, Epifaunal carnivorous invertebrates, Adult small demersal, Subadult snappers, Juvenile large planktivore, Skipjack tuna, Adult small sharks, Soft corals, Adult large planktivore, Juvenile scraping grazers, Anemonies, Juvenile deepwater fish, Adult snappers, Juvenile small demersal, Carnivorous zooplankton, Large herbivorous zooplankton, Herbivorous echinoids, Phytoplankton, Small herbivorous zooplankton, Green turtles, Adult anchovy, Juvenile anchovy, Lobsters, Sea grass, Juvenile snappers, Mackerel, Juvenile coral trout, Juvenile rays, Macro algae, Calcareous algae, Mangroves, Dugongs
Raja Ampat (2005), $\rho = 0.278$
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Infaunal invertebrates, Jellyfish and hydroids, Shrimps and prawns, Penaeid shrimps, Reef associated turtles, Crown of thorns, Juvenile small reef asociated, Adult small planktivore, Juvenile medium pelagic, Juvenile groupers, Adult coral trout, Whale shark, Sea cucumbers, Adult large demersal, Deepdiving odontocetae, Small crabs, Detritivore fish, Juvenile macro algal browsing, Manta ray, Adult deepwater fish, Adult large sharks, Mysticetae, Juvenile small planktivore, Adult medium reef associated, Juvenile large demersal, Oceanic turtles, Juvenile eroding grazers, Juvenile medium reef associated, Squid, Other tuna, Adult Napoleon wrasse, Adult medium pelagic, Adult macro algal browsing, Juvenile large sharks, Birds, Cleaner wrasse, Adult large pelagic, Juvenile large reef associated, Sessile filter feeders, Juvenile small pelagic, Giant triton, Hermatypic scleractinian corals, Juvenile butterflyfish, Bivalves, Billfish, Adult small pelagic, Azooxanthellate corals, Crocodiles, Piscivorous odontocetae, Juvenile large pelagic, Subadult groupers, Non reef building scleractinian corals, Adult rays, Adult eroding grazers, Octopus, Juvenile Napoleon wrasse, Adult butterflyfish, Subadult Napoleon wrasse, Adult groupers, Adult small reef associated, Large crabs, Juvenile small sharks, Adult scraping grazers, Adult large reef associated, Epifaunal detritivorous invertebrates, Epifaunal carnivorous invertebrates, Adult small demersal, Subadult snappers, Juvenile large planktivore, Skipjack tuna, Adult small sharks, Soft corals, Adult large planktivore, Juvenile scraping grazers, Anemonies, Juvenile deepwater fish, Adult snappers, Juvenile small demersal, Carnivorous zooplankton, Large herbivorous zooplankton, Herbivorous echinoids, Phytoplankton, Small herbivorous zooplankton, Green turtles, Adult anchovy, Juvenile anchovy, Lobsters, Sea grass, Juvenile snappers, Mackerel, Juvenile coral trout, Juvenile rays, Macro algae, Calcareous algae, Mangroves, Dugongs
Cape Verde (1981), $\rho = 0.278$
Zooplankton, Bathydemersal, Billfish, Crustaceans, Demersal fish, Demersal predat, Demersal sharks, Echinoderms, Flatfish, Herbivores, Heterotrophic b, Molluscs/Worms, Microfauna, Small pelagics, O Demersal fish, Rays, Jacks, Sparids, Pelagic sharks, Flyingfish, Large Tuna, Benthic autotro, Pelagic predato, Small tuna, Moray eels, Mammals, Phytoplankton, Reef feeders, Sea birds, Turtles
Port Cros (1998), $\rho = 0.274$
Amberjack and dentex +, Amphipods, Bivalves, Blennies +, Brittle stars +, Cephalopods, Crabs, Decapods, Diplodus +, Dusky grouper - large, Dusky grouper - medium, Dusky grouper - small, Foraminifera, Gastropods, Gobies, Gorgonians, Horse mackerels and sand smelts +, Large-scaled scorpionfish +, Large zooplankton, Small crustaceans, Mulletts, Pagellus, Pipefishes +, Rays, Scorpionfishes and combers +, Sea cucumbers, Sea stars, Sea urchins, Sea worms, Small zooplankton, Stripped red mullet +, Suspensivores, Wrasses, Posidonia, Deep seaweeds, Salema - juveniles, Phytoplankton, Salema - adults, Seabirds, Shallow seaweeds
Bay of Biscay (1970), $\rho = 0.269$
Small Deepwater, Baleen Whales, Benthic Infauna, Birds, Cephalopods, Crabs, Zooplankton Large, Echinoderms, Extra Large Demersal High Troph, Extra Large Demersal Low Troph, Extra Large Pelagic, Large Deepwater, Large Demersal, Large Pelagic, Large Sharks, Medium (Big end) Demersal High Troph, Medium Deepwater, Medium Pelagic, Medium (Small end) Demersal, Molluscs, Rays/Skates, Really Small Demersal High Troph, Small Demersal, Shrimps/Prawns, Sponges/Epibenthic, Worms, Zooplankton Small, Small Pelagic Low Troph, Small Sharks, Anchovy, Really Small Demersal Low Troph, Sardine, Small Pelagic High Troph, Primary Producers, Toothed Cetaceans, Tuna-like fish
Central Gulf of California (1978), $\rho = 0.268$
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Zooplankton, Shrimp, Carangidae, Other fish, Crabs, Haemulidae, Lutjanidae, Meiobenthos, Myctophidae, Other macrocrust, Stomatopods, Paralichthyidae, Polychaeta, Red crab, Sciaenidae, Scombridae, Serranidae, Clupaeidae, Sharks / Rays, Sea birds, Other molluscs, Sea mammals, Phytoplankton, Scorp/Triglidae, Squid
Western Tropical Pacific Ocean (1990), $\rho = 0.267$
bigeye tuna, Blue shark, cephalopods, crustacea, epipelagic fish, mesopelagic fish, mesozooplankton, piscivorous fish, small sharks, other sharks, skipjack tuna, Other billfish, small billfish, small scombrids, microzooplankton, Swordfish, large phytoplankton, small phytoplankton, yellowfin tuna
Lake Pyhajarvi, littoral zone, Finland, $\rho = 0.267$
Cyclopoida, Keratella, Kellicottia, Codonella, Vorticella, Lymnaea, chironomids, Pisidium, Stylodrilus, Ephemera, Nematoda, Asellus, Polycentropus, Ablabesmyia, Erpobdella, Coregonus albula, Sida, Eurycercus, Coregonus lavaretus, Daphnia, Bosmina, young fish, phytoplankton, aquatic plants, Rutilus rutilus, Gymnocephalus cemus, Perea fluviatilis
Eastern Corsican Coast (2012), $\rho = 0.266$
Benthic cephalopods, Benthic crustaceans, Benthic sharks, BIF, Bivalvia, Bottlenose dolphin, Chromis chromis, Cnidaria, Dentex dentex, Echinoderms, Worms, E. marginatus, European lobster, European Shag, Gelatinous, Labridae, Mullus surmuletus, Piscivorous fish, Planktivorous fish, Rays, Sciaena umbra, Scorpaena scrofa, Seriola, Sparidae, Serranidae, Shrimps, Zooplankton, Spiny lobster, Gasteropods, SIF, Macroalgae, Sarpa salpa, Phytobenthos, Phytoplankton, Purple sea urchin, Sea grass, Sphyranidae, Suprabenthic cephalopods
Aegean Sea (2003), $\rho = 0.265$
Anglerfish, Benthic invertebrates, Benthic small crustaceans, Dolphins, European anchovy, European hake, European pilchard, Flatfishes, Gurnards, Horse mackerels, Jellyfish, Micro/Mesozooplankton, Macrozooplankton, Polychaetes, Norway lobster, Shrimps, Shelf crabs, Lobsters, Slope crabs, Squids, Seabirds, Monk seal, Small demersals 2, Small demersals 1, Large pelagics, Picarels and bogue, Octopus and cuttlefish, Other small pelagics, Phytoplankton, Mackerels, Other gadiforms, Piscivorous deep sea fish, Rays and skates, Sea turtles, Medium-large demersals 1, Medium-large demersals 2, Medium pelagics, Planktivorous deep sea fish, Red mullets, Rockfish, Sharks, Small demersals 3
Looe Key National Marine Sanctuary (1980), $\rho = 0.264$
Decomp/Microf, Cephalopods, Crustaceans, Sessile Animals, Worms/Molluscs, Echinoderms, Lg.Groupers, LgReefCarnivore, LgReefHerbivore, Midwater Pisc., Sharks/Rays, SmReefCarnivore, SmReefHerbivore, Zooplankton, Benthic prod., Phytoplankton, Large Planktiv., Sea Turtles, Sm.Planktivores
Calvi Bay (1998), $\rho = 0.262$
Protozoa, Ot. Crustacea, Amphipods, Gastropods, Blennies, Cephalopods, Decapods, D. puntazzo, Echinoderms, Herb. Fish, Inv. Feeders 1, Inv. Feeders 3, Inv. Feeders 2, Polychaetes, Plankt. Fish, Inv. Feeders 4, Pel. Bacteria, Susp. Feeders, Mugil spp., M-carnivores, Macro-Plankton, Phytoplankton, Macroalgae, Piscivores, Sea Birds, Zooplankton
Ningaloo (2007), $\rho = 0.261$
Adult Turtles, Bananaprawn, Benthos, Coastal seabird, Crabs, Demersal sharks, Dolphins, Dugongs, Foxes, Hatchlings, Herbivores, Kingprawn, Lethrinids adults, Lethrinids juv, Lg Coral, L nebulosus adult, L nebulosus juv, Lobster, Mackerels, Manta Rays, Nemipterids, Octopus, Ospreys, Pelagic sharks, Queenfish, Reef Associated Pelagics, Saurids, Serranids, Shallow demersal fish, Shells, Small lutjanids, Small pelagics, Small reef fish, Squid, Urchins, Zooplankton, Sm Coral, Whales, Buffell grass, Coral Spawn, Native grass, Macrophytes, Phytoplankton, Goats and sheep, Marsupial grazers, Trevallies, Tuna and billfish, Turtle eggs, Tuskfish, Whale sharks
Continued on next page

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Narragansett Bay Model, $\rho = 0.258$
Mesozooplankton, Microzooplankto, Shrimp(Pal,Crg), Bluefish, Striped Bass, Winter Flounder, Windowpane, Scup, Tautog, Dogfish, Skates, Longfin Squid, Menhaden, Bay Anchovy, Mummichog, Hard Clam, Cancer Crabs, Ben Macrofauna, Ben Meiofauna, Hetero Microflag, Pelag Bacteria, SusPoc Bacteria, SedPOC Bacteria, Phytoplankton, Ctenophores, Am. Lobster, Butterfish, Atl Silversides, Softshell Clam, Fish Larvae, Benthic Alage
Bolinao Coral Reef (1980), $\rho = 0.258$
Cardinalfishes, Coral.cons., Crustaceans, Damselishes, Gobies, Groupers (e.m.), Molluscs, Moray, Ot.herbiv.f., Ot.invertebr., Ot.omniv.f., Ot.pisciv.f., Ot.planktiv.f., Siganus fusc., Sea cucumber, Sea Urchins, Siganus spinus, Zooplankton, Parrotfish, Coral.prod., Phytoplankton, Seagrass, Seaweeds, Squid, Wrasse (c.a.)
Bay of Biscay (1998), $\rho = 0.257$
Zooplankton Large, Small Deepwater, Crabs, Baleen Whales, Birds, Cephalopods, Echinoderms, Extra Large Demersal High Troph, Extra Large Demersal Low Troph, Extra Large Pelagic, Large Deepwater, Large Demersal, Large Pelagic, Large Sharks, Medium (Big end) Demersal High Troph, Medium Deepwater, Medium Pelagic, Medium (Small end) Demersal, Molluscs, Rays/Skates, Really Small Demersal High Troph, Small Demersal, Shrimps/Prawns, Sponges/Epibenthic, Worms, Zooplankton Small, Small Pelagic Low Troph, Small Sharks, Small Pelagic High Troph, Tuna-like fish, Anchovy, Primary Producers, Sardine, Benthic Infauna, Really Small Demersal Low Troph, Toothed Cetaceans
Galapagos, Floreana rocky reef (2000), $\rho = 0.255$
Herbivorous zooplankton, Small benthic invertebrate eaters, Anemones, Asteroids, Birds, Chitons, Detritivorous fish, Eucidaris urchin, Filter + suspension feeders, Hexaplex gastropod, Large benthic invertebrate eaters, Lytechinus urchin, Non-commercial reef predators, Octopods, Omnivorous reef fishes, Other commercial reef predators, Other herbivorous fish, Parrotfishes, Pelagic planktivores, Sharks, Other sea cucumbers, Other urchins, Pepino sea cucumber, Shrimps and small crabs, Slipper lobster, Small crustaceans, Small gastropods, Spiny lobsters, Stony corals, Tripneustes urchin, Planktivorous reef fish, Worms and ophioroids, Carnivorous zooplankton, Sea lions, Benthic algae, Toothed cetaceans, Bacalao, Marine iguana, Microphytobenthos, Pelagic predators, Phytoplankton, Sea turtles
Crystal River Creek - Control, $\rho = 0.253$
benthic invertebrates, mullet, zooplankton, stingray, striped anchovy, bay anchovy, needlefish, sheepshead killifish, goldspotted killifish, gulf killifish, silverside, moharra, silver jenny, microphytes, pinfish, macrophytes, blacktip shark, longnosed killifish, sheepshead, gulf flounder
Tagus estuary, Portugal , $\rho = 0.249$
Ulva, Iteromoplla, Chelon labrosus, Liza ramada, L. aurata, Crassostrea angulata, Scrobicularia plana, Cerastodenlla, Mytilus, bacteria, Gammaridae, Coroplium, Cirratulidae, Capitellidae, Maldanidae, meiofauna, Carcillus maellas, Crangon, Nereis diversicolor, Nereis succinea, Conter conger, phytoplankton, birds, Mysidacea, Copepoda, Ciliata mustela, Dacentrarcillus labrax, Pomatoscellistus minutus, Ellgraulis encrasicolus, Sardina pilclardus, Clupeidae, Trigla lucerna, Solea vulgaris
Gulf of Carpentaria (1990), $\rho = 0.248$
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Small crustaceans, Tiger prawn subadults, Sand crab, Other large crabs, Banana prawn adult, Tiger prawn juvenile, Sardines and pilchards, Ponyfishes, pinkies and trumplers, Whitings, goatfishes and flounders, Small tunas and bonitos, Turtles, Lizardfishes, Echinoids, Sawfishes, Banana prawn subadults, Dolphins, Meiofauna, Asteriods, Ichthyoplankton, All other non-commercial prawns, Eagle rays, Black-tip sharks, Manta rays, Small gastropods, Worms, Medium coastal sharks, Squid and cuttlefishes, Octopus, Pelagic scads, Spatangoids, Sessile epibenthos, Bivalves, Forams, Ophioroids, The mud crab, Crocodiles, Zooplankton, All other commercial prawns, Red snappers, Microbial heterotrophs, Thallasinid prawns (Callianassa), Slipper lobsters, Holothurians, Catfish and flatheads, Large trevallies and barracudas, Sweetlips and grunters, Silver biddies and small catfishes, Large mackerels and tunas, Cobia, groupers and jacks, Stomatopods, Insects, Rock lobster, Small jellies, Large jellies, Mangroves, Tiger prawn adult, Large gastropods, Mulletts, Seagrass, Banana prawn juvenile, Jewfishes, Garfishes, rabbitfishes and batfishes, Phytoplankton, Common terns, Sea snakes, Dugongs, Brown boobies, Crested terns, Lesser frigates, Macroalgae, Microphytobenthos, Benthic shark / rays, Reef sharks, Large sharks, Billfishes, Weasel sharks, Large rays, Small rays, Small sharks
Independence Bay (1996), $\rho = 0.247$
zooplankton, littoral fish , benthic detrivores, herbivorous gastropods, misc. filter feeders, octopus , polychaetes, predatory crabs, predatory gastropods, scallops, sea stars, sea urchins, small pelagic fish, small carnivores, marine mammals, macroalgae, pelagic predatory fish , Phytoplankton, sea birds
Mondego Estuary - Zostrea site, $\rho = 0.245$
Hydrobia ulvae, Melita palmata, Ampithoe ferox, Gibulla, Littorina, Cyathura carinata, Scrobicularia plana, Cerastoderma edule, Modiolus, Amage adspersa, Capitella capitata, Heteromastus filifor, Oligochaeta, Other detrivors, Nephtys, Other predatory inve, Idotea chelipes, Sphaeroma hookeri, Nereis diversicolor, Lumbrineris impatien, Carcinus maenas, Diopatra neapolitana, Crangon crangon, Microalgae and detri, Macrofauna predators, Endofauna consumers, Larus fuscus, Zooplankton, Zooplankton consumer, Trigla lucerna, Phytoplankton, Enteromorpha sp, Ulva lactuca, Zostera, Epiphytes, Gracilaria, Pomatoschistus minut, Larus ridibundus, Kentish Plover, Ringed Plover, Grey Plover, Dunlin
Azores archipelago (1997), $\rho = 0.244$
large zoopl, small zoopl, other benthos, baleen whales, cephalop L, cephalop s, coastal L pred, coastal M herb, coastal M inv, coastal M pred, coastal S inv, coastal S pred, deepwater L, deepwater M, deepwater S, demersal L pred, demersal M inv, shrimps crabs, demersal S inv, pelagic S pred, lobsters, sea stars, Loligo, pelagic S inv, mesopelagics, sharks L, demersal M pred, Phycis phycis, killer whales, coastal S herb, rays, pelagic M pred, Dolphins, Helicolenus, macrophytes, Pagellus bogaraveo, pelagic L pred, phytoplankton, sharks M, tunas, birds, Octopus, turtles
Lesser Antilles (2001), $\rho = 0.241$
Albacore, Baleen whales, Bigeye, Billfishes, Blackfin tuna, Coastal predators, Dolphinfish, Flying-fish, Large mesopelagics, Large squids, Large zooplankton, Small zooplankton, Small mesopelagics, Mackerels, Other offshore predators, Shallow-diving cetaceans, Skipjack, Small coastal pelagics, Small offshore pelagics, Pelagic sharks, Small squids, Deep-diving whales, Swordfish, Wahoo, Phytoplankton, Yellowfin, Killer whales, Leatherback turtle, Other turtles, Seabirds
Guinea (1998), $\rho = 0.238$
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Benthos, Zool L, Crustacés, Zool S, Céphalopodes, Côtier pel S inv, Côtier S inv, Mulets, Baleines, Bars, Bathy L pred, Côtier L pred, Côtier M pred, Disques, Côtier pel L pred, Dauphins, Dem L inv, Dem L pred, Dem M inv, Pel S inv, Dem S pred, Pel L pred, Sélaciens L côtiers, Sélaciens L prof, Thons mineurs, Ethmalose, Côtier M inv, Dem M pred, Sélaciens M côtiers, Sélaciens M prof, Capitaine royal, Thons majeurs, Côtier S pred, Mésopélagiques, Gros capitaine, Producteurs primaires, Bathy SM inv, Bathy S pred, Dem S inv, Mâchoiron, Oiseaux, Petit capitaine, Tortues
Gulf of Mexico (1950), $\rho = 0.238$
0-3 Red Drum, 0-3 Sea Trout, 0-6 Mullet, 18-36 Red Drum, 18+ Mullet, 18+ Sea Trout, 3-18 Sea Trout, 36+ Red Drum, 3-8 Red Drum, 6-18 Mullet, 8-18 Red Drum, Atlantic croaker, Bay Anchovy, Benthic Invertebrates, Macro Zooplankton, Shrimp, Caridan Shrimp, Small fish, Pin Fish, Menhaden, juv Menhaden, Stone Crab, Blue Crab, Micro Zoolplankton, Lobster, Jacks, Scaled Sardine, Silver Perch, Infauna, Catfish, Ladyfish 10+, Rays, Attached Microalgae, Grouper 0, Grouper 1-3, Grouper 3+, Ladyfish 0-10, Mackrel 0-3, Mackrel 3+, Phytoplankton, Pigfish, Pompano, red snapper 0-6, red snapper 6-24, red snapper older, Sea Grass, LCsharks
Mangrove Estuary - Wet Season, $\rho = 0.235$
INSCT, MICR. H2O, EPIFN, ZOOPL., BACT.SED., FLA. SED., CIL. SED., MEIOF., MERO, POLY, TGASt, AGAST, BVLVS, MBENTH, SCRUST, AMPHI, PENAI, CARID, OSHMP, LARV, FWINV, JLOBST, OCRAB, PCRAB, TCRAB, DCRAB, SHRK, RAYS, TARP, HERR, ANCH, KILLI, POEC, SNOOK, CUDA, FWFSH, BENTH, SNAP, MOJA, PIN, SCIAE, GOBY, MULL, TURT, VULT, SNKS, COCO, OPSU, OTH. PP, OFISH, MRAPT, CATS, FOX, SLVR, HRSE, SPIDR, K & H, OWLS, BH & E, AMPH, RACO, NEED, EFISH, LZRD, LEAF, BEAR, L & G, PELC, CORM, SE & E, IBIS, DUCK1, DUCK2, DUCK3, GUIF, SSBIRDS, G & T, C & C, WOODP, PASSOMN, PASSPERD, DOLP, MANA, PHY, WOOD, ROOT, RABT, SQIUR, M & R, M & O, DERS
Mangrove Estuary - Dry Season, $\rho = 0.234$
INSCT, MICR. H2O, EPIFN, ZOOPL., BACT.SED., FLA. SED., CIL. SED., MEIOF., MERO, POLY, TGASt, AGAST, BVLVS, MBENTH, SCRUST, AMPHI, PENAI, CARID, OSHMP, LARV, FWINV, JLOBST, OCRAB, PCRAB, TCRAB, DCRAB, SHRK, RAYS, TARP, HERR, ANCH, KILLI, POEC, SNOOK, CUDA, FWFSH, BENTH, SNAP, MOJA, PIN, GOBY, MULL, TURT, SNKS, VULT, OPSU, OTH. PP, COCO, OFISH, SLVR, HRSE, MRAPT, FOX, CATS, K & H, OWLS, SPIDR, BH & E, AMPH, SCIAE, BEAR, RACO, NEED, EFISH, LZRD, LEAF, L & G, PELC, CORM, SE & E, IBIS, DUCK1, DUCK2, DUCK3, GUIF, SSBIRDS, G & T, C & C, WOODP, PASSOMN, PASSPERD, DOLP, MANA, PHY, WOOD, ROOT, RABT, SQIUR, M & R, M & O, DERS
South East Alaska (1963), $\rho = 0.234$
Arrowtooth, Baleen whales, Benthic inverts, L zoo, Epibenthic carnivorous, Birds, Cephalopods, Pel S, Shrimps, Deep L, Dem L, Dem S, Flatfish, Pollock adult, Halibut, Pacific cod, Rockfish shelf, Rockfish slope, Sablefish, Shark and skate, S zoo, Shark mammal eater, Pel L, Transient orca, Salmon, Deep S, Herring, Pollock juv, POP, Sandlance, Marine plants, Phyto, Sea lions adults, Sea lions embryo, Sea lions juv, Sea lions pup, Sea otters, Small mammals, Toothed whales
Sechura Bay (1996), $\rho = 0.233$
Zooplankton, littoral fish, Benthic detritivores, Herbivorous gastropods, Misc. filter feeders, octopus, Pedratory gastropods, Polychates, Predatory crabs, Scallops, sea stars, small pelagic fish, Sea urchins, Small carnivores, marine mammals, cephalopods, Macroalgae, pelagic predatory fish, Phytoplankton, sea birds
Mount St Michel Bay (2003), $\rho = 0.231$
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céphalopodes, Crepidule, gros crustacés, huîtres, huîtres2, juvenile cephal, juvéniles poiss, macrobenthos, Moules, Macrobenthos2, Meiobenthos, Mulets, poissons adulte, petites espèces, zooplankton her, Macrophytes, anatisés, mouton, oiseaux limicol, phoques, Phytobenthos1, phytobenthos 2, Phytoplankton
Sri Lanka (2000), $\rho = 0.231$
zooplankton, zoobenthos, molluscs, crabs, annelids, shrimps, bigeye scad, dolphinfishes, drums, false trevallie, large barracudas, Large tunas, medium tunas, milk fish , mugilids, needlefish, other carangids, thrissa spp, other clupeids, ponyfishes, ribbonfish, sea cat fish, small barracudas, phytoplankton, yellowstripe, pomfrets, torps, small tunas, wolf herrings, phytobenthos, anchovies, cephalopods, flying fishes, halfbeaks, herrings, indian mackerel, sardines, soles, terapontids
Galapagos (2006), $\rho = 0.230$
Predatory zooplankton, Herbivorous zooplankton, Mulletts, Anemones and zoanthids, Benthic omnivorous fishes, Small benthic predatory fishes, Benthic predatory fishes, Herbivorous benthic fishes, Groupers, Lobsters, Parrotfishes, Rays, Predatory macroinvertebrates, Sea cucumbers, Sea stars and sea urchins, Sharks, Shrimps and small crabs, Small herbivorous gastropods, Small predators gastropods, Sponges and polychaetes, Stony corals, Planktivorous reef fishes, Small planktivorous reef fishes, Hammerhead sharks, Macroalgae, Dolphins, Pelagic predatory fish, Phytoplankton, Predatory marine mammals, Seabirds, Sea turtles, Zooxanthella
North Sea (1974), $\rho = 0.228$
Birds, Cod, Copepods, Euphausiids, O.crustaceans, Whiting, Dab, O.invertebrates, Haddock, Echinoderms, Polychaetes, O.macro-benthos, Herring, Gurnards, Juv. cod, Juv. whiting, Norway pout, Sandeel, Seals, Juv. haddock, Sprat, Horse-mackerel, Juv. saithe, Mackerel, O. predators, Phytoplankton, Plaice, Raja, Saithe, Sole, West mackerel
Gulf of Gabes (2000), $\rho = 0.228$
Micro and mesozooplankton, Alien shrimps , Amphipoda and Isopoda, Polychaetes, Benthic molluscs, Atlantic bluefin tuna, Benthic cephalopods, Crabs, Benthic invertebrate feeders (1), Benthic invertebrate feeders (2), Sparidae, Caramote prawn, Deep shrimps , Medium pelagic fish, Dolphins, Echinoderms, Invertebrate suspension feeders , Mulletts, Macro-carnivorous Fish (1), Sharks, Foraminifera, Horse mackerel, Benthopelagic cephalopods, Macrozooplankton, European anchovy, Picarel, Piscivorous Fish, Sea birds, Rays (1), Rays (2) , Small tuna , Macro-carnivorous Fish (2), Bogue, European pilchard, Macro-algae, Mantis shrimp, Phytoplankton, Posidonia oceanica, Round sardinella
Middle Chesapeake Bay, $\rho = 0.226$
Free Bacteria, Particle Attached Bacteria, Meroplankton, Mesozooplankton, Bay anchovy, Benthic Bacteria, Meiofauna, Deposit Feeding Benthos, Suspension Feeding Benthos, Blue Crab, Menhaden, Spot, Croaker, White Perch, Hogchoker, Catfish, Ciliates, Rotifers, Ctenophores, Net Phytoplankton, Picoplankton, Heteroflagellates, Chrysaora, American eel, Striped Bass, Bluefish, Weakfish, Microphytobenthos, SAV
British Columbia coast (1950), $\rho = 0.226$
arrowtooth ad., arrowtooth juv., birds demer pisciv, birds pelag pisciv, bivalves, chinook, chum, coho, crabs, dogfish, echinoderms, flatfish other, herring juv., large squids, lingcod, misc. pred. pelagics, misc. small demersals, misc. small pelagics, other benthos, shrimps, sablefish ad., carn. zooplankton, krill, herb. zooplankton, jellies, small squids, pollock ad., sea lions, seals, odontocetae, P. halibut ad., myctophids, herring ad., pink, pollock juv., sockeye, P. halibut juv., birds zooplanktiv, macrophytes, mysticetae, Pac. hake, Pac. Ocean perch, P. cod ad., P. cod juv., pelagic sharks, phytoplankton, rajidae / ratfish, rockfish other, rock sole, sablefish juv., salmon shark, yellowfin sole
Paraná River Floodplain (1992), $\rho = 0.225$
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Insects, Zooplankton, Astyanax altiparanae, Other benthos feeders, Acestrorhynchus lacustris, Prochilodus lineatus, Benthos, Cyphocharax modesta, Hemisorubini platyrhynchos, Hoplias malabaricus, Hoplosternum littorale, Hypostomus spp, Iheringichthys labrosus, Leporinus friderici, Leporinus obtusidens, Loricariichthys platymetopon, Other omnivores, Serrasalmus marginatus, Serrasalmus spiloptera, Other detritus feeders, P. maculatus, Pterodoras granulosus, Steindachnerina inculpta, Other piscivores, Trachydoras paraguayensis, Aquatic macrophytes, Phytoplankton, Brycon orbignyanus, Parauchenipterus galeatus, Auchenipterus nuchalis, Other insectivores, Salminus brasiliensis, Hypophthalmus edentatus, Periphyton, Plagioscion squamisissimus, Pseudoplatystoma corruscans, Rhabdodon vulpinus, Schizodon altoparanae, Schizodon borelii
Port Phillip Bay (1994), $\rho = 0.225$
Large zooplankton, Birds, Deposit Feeders, Filter Feeders, Epi. Predators, Flatfish, Juvenile Flatfish, Juvenile Mullet, Juvenile Piscivores, Juvenile Snapper, Marine mammals, Mullet and Garfish, Other cephalopods, Other demersals, Snapper, Other Grazers, Rays, Scallops and mussels, Scavengers, Sharks, Southern calamari, Inf. Predators, Abalone, Clupeoids, Piscivores, Phytoplankton, Juvenile KG Whiting, KG Whiting, Macroalgae, Microphytobenthos, Seagrass, Small zooplankton, Sth Rock Lobster
River Rheido, Wales, $\rho = 0.225$
Rhithrogena, Baetis, Chironomidae, Leuctra, Protonemura, Amphinemura, Oligochaeta, Copercidae, Cladocera, Chloroperla, Hydropsyche, Simulium, Isoperla, Dystiscidae (Deronectes, Oreonectes), Polycentropus, green algae, agmented leaf, stem tissue, moss, diatoms, Batrachospermum, Lemanea, Perlodes
North Benguela (1900), $\rho = 0.224$
Microzooplankto, Meiobenthos, Pelagic Goby, Benthic-feeding, cephalopods, Other small pel, Large M. parado, Chondrichthyans, Gelatinous zoop, Macrobenthos, Cetaceans, Large M. capens, Macrozooplankto, Meso zooplankton, Seabirds, Large pelagics, Seals, Pelagic-feeding, Mesopelagics, Phytoplankton, Adult horse mac, Anchovy, Juvenile horse, Sardine, Small M. capens
North Benguela (1967), $\rho = 0.224$
Microzooplankto, Meiobenthos, Pelagic Goby, Benthic-feeding, cephalopods, Other small pel, Large M. parado, Chondrichthyans, Gelatinous zoop, Macrobenthos, Cetaceans, Large M. capens, Macrozooplankto, Meso zooplankton, Seabirds, Large pelagics, Seals, Pelagic-feeding, Mesopelagics, Phytoplankton, Adult horse mac, Anchovy, Juvenile horse, Sardine, Small M. capens
North Benguela (1990), $\rho = 0.224$
Microzooplankto, Meiobenthos, Pelagic Goby, Benthic-feeding, cephalopods, Other small pel, Large M. parado, Chondrichthyans, Gelatinous zoop, Macrobenthos, Cetaceans, Large M. capens, Macrozooplankto, Meso zooplankton, Seabirds, Large pelagics, Seals, Pelagic-feeding, Mesopelagics, Phytoplankton, Adult horse mac, Anchovy, Juvenile horse, Sardine, Small M. capens
North Benguela , $\rho = 0.224$
Microzooplankto, Meiobenthos, Pelagic Goby, Benthic-feeding, cephalopods, Other small pel, Large M. parado, Chondrichtians, Gelatinous zoop, Macrobenthos, Cetaceans, Large M. capens, Macrozooplankto, Meso zooplankton, Seabirds, Large pelagics, Seals, Pelagic-feeding, Mesopelagics, Phytoplankton, Anchovy, Large horse mac, Sardine, Small Horse mac, Small M. capens
Jurien Bay (2007), $\rho = 0.223$
Continued on next page

Table 3 – continued from previous page

Small Zooplankton, Chaetognaths, Small mobil epifauna, Octopus, Lobster Adult, Roe abalone, NDR seagrass ass. carnivore, Pink snapper, Large coastal sharks, Inshore seagrass ass. omnivore, Inshore reef ass. zoobenthos feed., NDR reef ass. omnivore, Dolphins, Large Herb. Gastropods, NDR pelagic zooplankton Feed., Western foxfish, Sessile epibenthos, Large Crabs, Rays, Inshore sand ass. omnivore, Deposit feed. invert., Inshore seagrass ass. zoob. feed., NDR benthopelagic carnivore, Inshore reef ass. herbivore, Microbial heterotrophs, Small Gastropods, Large mobile herb. invert., Small mobile herbivores, NDR sand ass. omnivore, NDR reef ass. zoobenthos feed., Infauna, Lobster - Adolescent, Lobster- Juvenile, NDR sand ass. zoobenthos feed., Lobster-post puerulus, Sessile bivalves, Inshore ass. carnivore, Inshore reef ass. omnivore, NDR seagrass ass. omnivore, Baldchin grouper, Large mobile carn. invert., Photo. corals/sponges, Infaunal bivalves, Large Zooplankton, Cuttlefish, NDR reef ass. herbivore, Dhufish, Squid, Sea turtles, King wrasse, Small coastal sharks, Small Phytoplankton, Ecklonia, Sargassum, Surface diving birds, NDR reef ass. carnivore, Large Carn. Gastropods, Large Phytoplankton, Perennial seagrasses, Corraline algae, NDR reef aa. zooplankton feed, Microphytobenthos, Ephemeral seagrasses, Turfs, Low algae, Sea lions, NDR sand ass. carnivore, Intertidal birds, Inshore pelagic zooplankton feed, Carnivorous Jellyfish, Breaksea cod, Inshore benthopelagic carnivore, Seagrass epiphytes
Icelandic shelf (1997), $\rho = 0.223$
Benthos, Nothern shrimp, Other flatfish, Cod, Grenland halibut, Marine mammals, Molluscs, Nekton, Nephros, Other dem fish, Saithe, Redfish, Seabirds, Phytoplankton, Zooplankton, Capelin, Haddock, Herring, Juvenile cod, Other pelagics
Tampa Bay (1950), $\rho = 0.220$
Benthic Invertebrates, Macro Zooplankton, Caridan Shrimp, Catfish, Bay Anchovy, 0-12 Snook, 0-3 Red Drum, 0-6 Mullet, 12-48 Snook, 12+ Sand Trout, 18-36 Red Drum, 18+ Mullet, 18+ Sea Trout, 3-12 Sand Trout, 3-12 Snook, 3-18 Sea Trout, 36+ Red Drum, 3-8 Red Drum, 48-90 Snook, 6-18 Mullet, 8-18 Red Drum, 90+ Snook, Blue Crab, Bumper, Jacks, Ladyfish 10+, Mackrel 0-3, Mackrel 3+, Manhaden, Menidia (silverside), Pigfish, Pin Fish, Micro Zoolplankton, Shrimp, Spot, Stone Crab, Ladyfish 0-10, Infauna, Attached Microalgae, Silver Perch, Phytoplankton, 0-3 Sand Trout, 0-3 Sea Trout, Cyprinodontids, Gobies, Mojarra, Poecilids, Rays, Scaled Sardine, Sea Grass, Threadfin Herring
Barnegat Bay (1981), $\rho = 0.219$
Benthic infauna/epifauna, Bay anchovy, Amphipods, Atlantic Menhaden, Atlantic silversides, Blue crabs, Spot, Hard clams, Bluefish, Mummichog, Non-piscivorous seabirds, Oyster, Copepods, Piscivorous seabirds, River herring, Summer flounder, Winter flounder, Ctenophores, Atlantic Croaker, Microzooplankton, Striped bass, Benthic algae, Phytoplankton, SAV, Sea nettles, Weakfish
Bay of Biscay (1994), $\rho = 0.217$
Mesozooplankton, Microzooplankton, Bacteria, Benthic cephalopods, Benthic meiofauna, Benthivorous demersal fish, Bottlenose dolphins, Carnivorous benthic invertebrates, Piscivorous and benthivorous demersal fish, Necrophagous benthic invertebrates, Sub-surface deposit feeders invertebrates, Horse mackerel, Mackerel, Suprabenthivorous demersal fish, Pelagic cephalopods, Surface suspension and deposit feeders inv, Piscivorous demersal fish, Sardine, Anchovy, Macrozooplankton, Sprat, Large phytoplankton, Pursuit divers seabirds, Surface feeders seabirds, Common dolphins, Harbour porpoises, Long-finned pilot whales, Small phytoplankton, Striped dolphins, Suprabenthic invertebrates
Baie de Seine (2000), $\rho = 0.215$
Continued on next page

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Mesozooplankton and Macrozooplankton, Suprabenthos, Bacteria, Benthic cephalopods, Benthic feeders seabirds, Benthic inv. bivalves filter feeders, Benthic inv. deposit feeders (Subsurface), Benthic inv. deposit feeders (Surface), Benthic inv. predators, Fish benthos feeders, Benthic inv. filter feeders, Fish piscivorous, King scallop, Meiofauna, Benthopelagic cephalopods, Microzooplankton, Fish planctivorous, Fish sharks, Fish atlantic horse mackerel, Fish atlantic cod, Fish european pilchard, Fish european sprat, Bottlenose dolphins, Harbour porpoises, Phocidae, Fish mackerel, Discards, Fish poor cod, Fish pouting, Fish rays, Fish european plaice, Fish european seabass, Fish flounder, Fish gurnard, Fish limande , Fish sea bream, Fish sole, Fish whiting, Phytoplankton, Plunge and pursuit divers seabirds, Surface feeders seabirds
Cerbère-Banyuls MPA (2013), $\rho = 0.213$
Meso and microzooplankton, Macrozooplankton, Other macro-benthos, Suprabenthos, Anglerfish, Benthopelagic cephalopods, Gastropods, Non-commercial decapods, No commercial small demersal fish, Other medium pelagic fishes, Mugilidae, Bivalves, Coastal benthic cephalopods, Labridae and Serranidae, Other commercial decapods, Bottlenose dolphins, Brown meagre, Common dentex, Common pandora, Common two-banded seabream, European conger, European hake, European lobster, Flatfishes, Groupers, Gulls and cormorants, No commercial medium demersal fish, Other commercial medium demersal fish, Sparidae, Rays and skates, Other corals and gorgonians, Other sea urchin, Purple sea urchin, White seabream, Red coral, Sea cucumbers, Horse mackerels, Mackerels, European sardine, Other benthic cephalopods, European anchovy, Jellyfish, Salps and other gelatinous zooplankton, Other small pelagic fish, Salema, Striped dolphins, Torpedos, Endangered and pelagic seabirds, Terns, Large phytoplankton, Loggerhead turtles, Mediterranean seagrass, Non-commercial large pelagic fishes, Other large pelagic fishes, Poor cod, Red mullet, Red scorpionfish, Scorpaenidae, Seaweeds, Small phytoplankton, Small-spotted catshark, Surmulet
Lake Paajarvi, littoral zone, Finland, $\rho = 0.212$
bacterioplankton, Copepoda, Mollusca, Anodonta, Nematoda, Asellus, Ephemeroptera, Chironomidae - Microtendipes, Sida, Perea, Asplanchna, Polyphemus, Acanthocyclops, Chironomidae - Procladius, Rutilus rutilus, terrestrial adult insects, phytoplankton, Potamogeton, Lobelia, Isoetes, Sparganiwn, Hirudinea, Mermithidae, Trichoptera, Turbellaria, Coregonus lavaretus, salakka, Perca fluviatilis, Gymnocephalus cemus
Tasmanian Seamounts Marine Reserve (1992), $\rho = 0.212$
Zooplankton, Gelatinous zooplankton, Benthopelagic fish, Megabenthos, Epibenthos, Infauna, Corals, Pelagic crustaceans, Small squid, Demersal sharks, Pelagic sharks, Scavengers, Deep migratory small fish, Shallow migratory small fish, Non-migratory small fish, Lge squid, Lge pelagic fishes, Alepocephalids, Benthic fish, Other oreos, Phytoplankton, Roughy, Tunas billfishes, Warty oreo
Ria-Lake Tapajos (2013), $\rho = 0.210$
Zooplankton, Aquatic invertebrates, Acarichthys heckelii, Acaronia nassa, Arapaima gigas, Brachyplatystoma filamentosum, Brachyplatystoma rousseauxii, Cichla spp., Geophagus spp., Hemiodus spp., Laemolyta spp., Loricariichthys spp., Mesonauta festivus, Others algivores/detritivores, Others piscivores, Otters, Pellona castelnaeana, Plagioscion squamosissimus, River dolphins, Satanoperca acuticeps, Schizodon spp., Semaprochilodus spp. , Igapo Forest, Terrestrial invertebrates, Periphyton, Bryconops spp., Colossoma macropomum, Hypophthalmus marginatus, Leporinus spp., Others frugivores, Others invertivores, Pacu, Phytoplankton, Turtles
Iceland (1950), $\rho = 0.209$
Continued on next page

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Benthos, Northern Shrimp, Adult Cod, Baleen whales, Greenland Halibut, Molluscs, Nephrops, Other Dem. Fish, Other Fish, Pinnipeds, Redfish, Saithe, Seabirds, Phytoplankton, Toothed whales, Zooplankton, Other Flatfish, Capelin, Herring, Benthic producers, Haddock, Juvenile Cod, Other Pelagics
Celtic Sea-Biscay (1980), $\rho = 0.208$
Benthos, Shrimps/crabs, Zooplankton S, Zooplankton L, Lobsters/crabs, Cephalopods, Demersal M, Demersal L, Whiting, Cod, Pouts, sharks/rays, Demersal S, Sharks L, Herring, Bathy L, Mackerel, Hake juv, Monkfish, Pelagic L, Bathy M, Sprat, Hake, Toothed whales, Bathy S, Horse mackerel, Anchovy, Baleen whales, Benthic producers, Blue whiting, Cod juv, Megrim, Pelagic M, Phytoplankton, Plaice, Sardine, Sole
Celtic Sea-Biscay (2012), $\rho = 0.207$
Benthos, Shrimps/crabs, Zooplankton S, Zooplankton L, Lobsters/crabs, Cephalopods, Demersal M, Demersal L, Whiting, Cod, Pouts, sharks/rays, Demersal S, Sharks L, Herring, Hake, Hake juv, Mackerel, Monkfish, Bathy M, Sprat, Toothed whales, Bathy S, Horse mackerel, Anchovy, Pelagic L, Bathy L, Baleen whales, Benthic producers, Blue whiting, Cod juv, Megrim, Pelagic M, Phytoplankton, Plaice, Sardine, Sole
Northern British Columbia (2000), $\rho = 0.204$
Carnivorous jellyfish, Epifaunal invertebrates, Forage fish, Infaunal carnivorous invertebrates, Infaunal invertebrate detritivores, Commercial shrimp, Juvenile lingcod, Adult halibut, Adult lingcod, Adult Pacific cod, Adult picivorous rockfish, Adult planktivorous rockfish, Adult POP, Adult sablefish, Adult turbot, Coho salmon, Corals and sponges, Dogfish, Inshore rockfish, Juvenile halibut, Juvenile Pacific cod, Juvenile sablefish, Juvenile turbot, Large crabs, Odontocetae, Pollock, Seabirds, Seals, sea lions, Sea Otters, Shallowwater benthic fish, Skates, Small squid, Squid, Copepods, Euphausiids, Eulachon, Small crabs, Adult herring, Adult flatfish, Chinook salmon, Juvenile flatfish, Juvenile herring, Juvenile picivorous rockfish, Juvenile planktivorous rockfish, Juvenile pollock, Juvenile POP, Macrophytes, Mysticetae, Phytoplankton, Ratfish, Transient salmon
Florida Bay (2006), $\rho = 0.204$
Caridean shrimp, Small crustaceans, Bivalves, Annelids, Mud crabs, Gastropods, Sessile epibenthos, Atlantic tarpon, Bonnethead shark, Clown goby, Common snook, Crevalle jack, Echinoderm, Pink shrimp, Gray snapper, Great barracuda, Gulf toadfish, Lemon shark, Lobster, Portunid crab, Mojarras, Sheepshead minnow, Pinfish, Mullet, Mesozooplankton, Rainwater killifish, Spider crabs, Hardhead catfish, Clupeids, Seabirds, Goldspotted killifish, Bay anchovy, Hardhead silverside, Phytoplankton, Hardhead halfbeak, Seagrass, Epiphytes, Grunts, Macroalgae, Microzooplankton, Octopods, Red drum, Redfin needlefish, Sheepshead, Spotted seatrout
Denmark, Faroe Islands (1997), $\rho = 0.199$
Benthos, Other demersal fish, Other deep water, Cod, Saithe, Greenland Halibut, Nekton, Seabirds, Lrg. Zooplankton, Other pelagics, Toothed mammals, Sm. Zooplankton, Herring, Baleen whales, Blue Whiting, Haddock, Mackerel, Phytoplankton, Redfish
Cap de Creus MPA - whole (2008), $\rho = 0.198$
Continued on next page

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Meso and microzooplankton, Macrozooplankton, Other macro-benthos, Suprabenthos, Anglerfish, Benthopelagic cephalopods, Gastropods, Non-commercial decapods, No commercial small demersal fish, Other medium pelagic fishes, Mugilidae, Bivalves, Coastal benthic cephalopods, Labridae and serranidae, Other commercial decapods, Bottlenose dolphins, Brown meagre, Common dentex, Common pandora, Common two-banded seabream, European conger, European hake, European lobster, Flatfishes, Groupers, Gulls and cormorants, No commercial medium demersal fish, Other commercial medium demersal fish, Sparidae, Rays and skates, Other corals and gorgonians, Other sea urchin, Purple sea urchin, Sea cucumbers, Red coral, Horse mackerels, Mackerels, European sardine, Torpedos, Other benthic cephalopods, Other large pelagic fishes, European anchovy, Jellyfish, Salps and other gelatinous zooplankton, Salema, Other small pelagic fish, Round sardinella, White seabream, Striped dolphins, Endangered and pelagic seabirds, Terns, Erected algae, Large phytoplankton, Loggerhead turtles, Mediterranean seagrass, Non-commercial large pelagic fishes, Other seagrasses, Poor cod, Red mullet, Red scorpionfish, Scorpaenidae, Seaweeds, Small phytoplankton, Small-spotted catshark, Surmulet
Medes Island MPA (2000), $\rho = 0.198$
Meso and microzooplankton, Macrozooplankton, Other macro-benthos, Suprabenthos, Anglerfish, Benthopelagic cephalopods, Gastropods, Non-commercial decapods, No commercial small demersal fish, Other medium pelagic fishes, Mugilidae, Bivalves, Coastal benthic cephalopods, Labridae and serranidae, Other commercial decapods, Bottlenose dolphins, Brown meagre, Common dentex, Common pandora, Common two-banded seabream, European conger, European hake, European lobster, Flatfishes, Groupers, Gulls and cormorants, No commercial medium demersal fish, Other commercial medium demersal fish, Sparidae, Rays and skates, Other corals and gorgonians, Other sea urchin, Purple sea urchin, Sea cucumbers, Red coral, Horse mackerels, Mackerels, European sardine, Torpedos, Other benthic cephalopods, Other large pelagic fishes, European anchovy, Jellyfish, Salps and other gelatinous zooplankton, Salema, Other small pelagic fish, Round sardinella, White seabream, Striped dolphins, Endangered and pelagic seabirds, Terns, Erected algae, Large phytoplankton, Loggerhead turtles, Mediterranean seagrass, Non-commercial large pelagic fishes, Other seagrasses, Poor cod, Red mullet, Red scorpionfish, Scorpaenidae, Seaweeds, Small phytoplankton, Small-spotted catshark, Surmulet
Northern British Columbia (1950), $\rho = 0.197$
Carnivorous jellyfish, Epifaunal invertebrates, Forage fish, Infaunal carnivorous invertebrates, Infaunal invertebrate detritivores, Commercial shrimp, Juvenile lingcod, Odontocetae, Adult halibut, Adult lingcod, Adult Pacific cod, Adult picivorous rockfish, Adult planktivorous rockfish, Adult POP, Adult sablefish, Adult turbot, Coho salmon, Corals and sponges, Dogfish, Inshore rockfish, Juvenile halibut, Juvenile Pacific cod, Juvenile sablefish, Juvenile turbot, Large crabs, Pollock, Seabirds, Seals, sea lions, Shallowwater benthic fish, Squid, Small squid, Skates, Copepods, Euphausiids, Eulachon, Small crabs, Adult herring, Juvenile pollock, Adult flatfish, Chinook salmon, Juvenile flatfish, Juvenile herring, Juvenile picivorous rockfish, Juvenile planktivorous rockfish, Juvenile POP, Mysticetae, Phytoplankton, Ratfish, Macrophytes, Sea Otters, Transient salmon
Apalachicola Bay (2000), $\rho = 0.197$
Continued on next page

Table 3 – continued from previous page

Macrozooplankton, Microzooplankton, Zoobenthos, Blue crab, Oysters, Adult Atlantic croaker, Adult hardhead catfish, Adult pigfish, Adult sand seatrout, Adult silver perch, Adult spot, Adult striped anchovy, Brief squid, Adult white shrimp, Arrow shrimp, Atlantic bumper, Brown shrimp, Pink shrimp, Dolphins, Hogchoker, Juvenile Atlantic croaker, Juvenile spot, Juvenile pigfish, Juvenile silver perch, Mullet, Roughback shrimp, Large coastal sharks, Red drum, Snapper, Southern kingfish, Small coastal sharks, Seabirds, Inshore lizardfish, Seagrass, Juvenile white shrimp, Adult bay anchovy, Menhaden, Adult pinfish, Atlantic stingray, Black drum, Fringed flounder, Gulf butterfly, Gulf flounder, Juvenile bay anchovy, Juvenile hardhead catfish, Juvenile pinfish, Juvenile sand seatrout, Juvenile striped anchovy, Mantis shrimp, Menidia silversides, Mojarra, Phytoplankton, Sardines
Lower Chesapeake Bay, $\rho = 0.196$
Free Bacteria, Ctenophores, Particle Attached Bacteria, Meroplankton, Mesozooplankton, Benthic Bacteria, Meiofauna, Deposit Feeding Benthos, Suspension Feeding Benthos, Striped Bass, Menhaden, Bay anchovy, Blue Crab, Ciliates, Spot, Net Phytoplankton, Croaker, Picoplankton, Heteroflagellates, Hogchoker, Bluefish, Weakfish, Microphytobenthos, SAV, Rotifers, Chrysaora
Aleutian Islands (1963), $\rho = 0.196$
Small zooplankton, Benthic inverts, Cephalopods, Shrimps, Adult pollock, Arrowtooth, Atka mackerel, Baleen whales, Birds, Dem S M, Epiben carnivores, Large pred demersals, Halibut, Large zooplankton, Pacific cod, Rockfish, Shark and skates, Shark mammal eater, Flatfish, Macrophytes, Transient orca, Myctophids, Small mammals, Large pelagics, Toothed whales, SSL Adults, SSL juveniles, Deep L, Sandlance, Herring, Juvenile pollock, Phytoplankton, POP, Sablefish, Salmon, Sea otters, Small pelagics, SSL embryo, SSL pups
Gulf of Thailand (1963), $\rho = 0.192$
Zooplankton, Scad, Benthos, O.fish, Shrimps, Sm.dem.benth., Med.dem.benth., Flatfish, Crab, lobster, Rays, Tuna, Cephalopods, Phytoplankton, M. mammals, Sharks, Lg. piscivores, Mackerel, Sm. pelagics, Grouper/snapper, Med.dem.pisc., Juv. groupers, Jellyfish, Juv.Lg.Pisciv., Juv. sharks, Molluscs, Ponyfishes, Scomberomorus, Sm.dem.pisc.
Central Baltic Sea (1974), $\rho = 0.188$
Mysids, macrozoobenthos, Detritus-water column, Ad. Sprat, meiozoobenthos, microzooplankton, Ad. Cod, Cod 0 / Cod 1, Cod 2 / Cod 3, Ad. Herring, Herring 0 / Herring 1 / Herring, Sprat 0 / Sprat 1, Cod larvae, Cyanobacteria, other phytoplankton, spring phytoplankton, Acartia sp, other mesozooplankton, Pseudocalanus sp., Seals, Temora sp
North Sea (1981), $\rho = 0.188$
PT pico, Cod, Copepoda, O.crustaceans, O.invertebrates, Echinodermata, Polychaeta, O.macrobenthos, O.prey fish, Whiting, Haddock, Juvenile fish, Mackerel, Saithe, PT micro, Euphausiacea, PS pico, Ray, Herring, Norway pout, O.pred.fish, Plaice, PS micro, PS nano, PT nano, Sandeel, Sole, Sprat
Everglades Graminoids, $\rho = 0.182$
Mesoinverts, Terrestrial Inverts, Fishing spider, Passerines, Mink, Living Sediments, Living POC, Other Macroinverts, Crayfish, Tadpoles, Turtles, Gar, Shiners & Minnows, Chubsuckers, Catfish, Flagfish, Bluefin killifish, Killifishes, Mosquitofishes, Poecilids, Other Small Fishes, Other Centrarchids, Large Aquatic Insects, Freshwater Prawn, Apple snail, Alligators, Raccoons, Opossum, Rats&Mice, Otter, Gruiformes, Snakes, Macrophytes, Topminnows, Floating Veg., Periphyton, Pigmy Sunfish, Small frogs, Utricularia, Salamanders, Salamander larvae, Bobcat, Panthers, Bluespotted Sunfish, Warmouth, Dollar Sunfish, Redear Sunfish, Spotted sunfish, Largemouth Bass, Cichlids, Other Large Fishes, Large frogs, Medium frogs, Lizards, Muskrats, Rabbits, W-T Deer, Grebes, Bitterns, Ducks, Snailkites, Nighthawks, CSSsparrow
Western Channel (1973), $\rho = 0.181$
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Table 3 – continued from previous page

Mesozooplankton, deposit feeders, Bass, Bivalves, Cephalopods, Cod Ad, Cod Juv, Commercial crab, Crab, Shrimp and Prawn, Echinoderms, suspension feed, scallops, Sharks, small demersals, Scad, Microzooplankton, Pollack, Sprat, Mackerel, small gadoids, Herring, pilchard, Whiting Juv, Sandeels, seals, Dab, Dogfish, Flatfish 1, Flatfish 2, lobster, Whiting Ad, Gurnards, John Dory, seabirds, Seabreams, Basking shark, Hake, Large bottom, Marozooplankton, Monkfishes, mullet, Plaice Ad, Plaice Juv, Primary produce, Rays, Sole Ad, Sole Juv, toothed mammals, Whelk
Western Channel (1993), $\rho = 0.181$
Mesozooplankton, deposit feeders, Bass, Bivalves, Cephalopods, Cod Ad, Cod Juv, Commercial crab, Crab, Shrimp and Prawn, Echinoderms, suspension feed, Scallops, Sharks, Small demersals, Scad, Microzooplankton, Pollack, Sprat, Mackerel, Small gadoids, Herring, Pilchard, Whiting Juv, Sandeels, Seals, Dab, Dogfish, John Dory, Hake, Lemon Sole, Lobster, Whiting Ad, Seabirds, Seabreams, Basking shark, Gurnards, Large bottom, Large Flatfish, Marozooplankton, Monkfishes, Mullet, Plaice Ad, Plaice Juv, Primary produce, Rays, Sole Ad, Sole Juv, Toothed cetaceans, Whelk
Upper Chesapeake Bay, $\rho = 0.180$
Free Bacteria, Ctenophores, Suspension Feeding Benthos, Bay anchovy, Particle Attached Bacteria, Meroplankton, Mesozooplankton, Menhaden, Herrings and Shads, White Perch, Spot, Hogchoker, Croaker, Deposit Feeding Benthos, Blue Crab, Benthic Bacteria, Meiofauna, Net Phytoplankton, Ciliates, Catfish, Rotifers, Microphytobenthos, SAV, Picoplankton, Heteroflagellates, American Eel, Striped Bass, Bluefish, Weakfish, Chrysaora
Yucatan (1987), $\rho = 0.178$
Annelids, Microcrustacean, Octopus, Shrimps, Zooplankton, Other mollusks, Red grouper, Benthic prod., Grunts, Sharks, Herrings, Snappers, Crabs, King mackerel, Jacks, Lobsters, Mojarra, Phytoplankton, Porgies, Seatrout
Kaloko Honokohau (2005), $\rho = 0.177$
Sharks and jacks, Zooplankton, Benthic Invts, Corals, Urchins, Octocoral, Zoo, Detritivores, Herbivores, MIF, Sea birds, Piscivores, Green sea turtles, SIF, CCA, Corallivores, Crown of thorns, Macroalgae, Monk seals, Phytoplankton, Spinner dolphins, Turf algae, Hawksbills, Rays, Turf algae_LB
Lake Michigan, $\rho = 0.174$
Rotifers, Cyclopoids, Cladocerans, Diporeia, Mysis, Other fish, Oligoch/Chiron, Calanoids, Sphae/Gast, Benthic microin, Leptodora, Alewife, Rainbow smelt, Bloater, Slimy sculpin, Deep-water sculp, Sea lamprey, Flagellates, Blue-greenGree, Diatoms, Lake Whitefish, Yellow perch, Juv. Brown trou, Juv. Steelhead, Juv. Coho, Juv. Chinook, Juv. Lake Trout, Burbot, Brown trout, Steelhead, Coho, Chinook, Lake trout
Northern Californian Current (1990), $\rho = 0.173$
amphipods, cephalopods, juv rock, mackerel, pandalid shp, orcas, infauna, epibenthic, benthic shp, dungeness, small flat, benthic fish, sablefish, tanner crb, halibut, sperm whales, macrourids, lsthorny, shelf rock, micro-zoop, small jellies, carniv-zoops, arrowtooth, salmon, phytoplankton, copepods, euphausiids, mesopelagics, forage fish, toothed whales, coastal sharks, sea lions, dogfish, harbor seals, lingcod, fur seals, albacore, ssthorny, gulls, skates, yellowtail, widow, black, petrale, murre, large jellies, baleen whales, hake, shearwaters, canary, english, juv flat, POP, juv thorny, dover, sardine, grey whales, slope rock, rex, juv round
Florida Bay - dry season, $\rho = 0.170$
Continued on next page

Table 3 – continued from previous page

Water Flagellates, Water Cilataes, Acartia Tonsa, Oithona nana, Paracalanus, Other Copepoda, Other Zooplankton, Meroplankton, Benthic Flagellates, Benthic Ciliates, Meiofauna, Sponges, Other Cnidaridae, Echinoderma, Bivalves, Detritivorous Gastropods, Predatory Gastropods, Detritivorous Polychaetes, Predatory Polychaetes, Suspension Feeding Polych, Macrobenthos, Benthic Crustaceans, Detritivorous Amphipods, Herbivorous Amphipods, Omnivorous Crabs, Predatory Shrimp, Pink Shrimp, Detritivorous Crabs, Callinectes sapidus, Predatory Crabs, Mullet, Catfish, Eels, Isopods, Other Demersal Fishes, Herbivorous Shrimp, Other Pelagic Fishes, Sailfin Molly, Pinfish, Rainwater killifish, Other Killifish, Epiphytes, Raptors, Crocodiles, Thor Floridanus, Epiphytic Gastropods, Halfbeaks, Coral, Dolphin, Goldspotted killifish, Code Goby, Barracuda, Clown Goby, Bay Anchovy, Blennies, Mojarra, Free Bacteria, Parrotfish, Sardines, Lobster, Flatfish, Silverside, Gulf Pipefish, Other Horsefish, Dwarf Seahorse, Toadfish, Anchovy, Puffer, Grunt, Filefishes, Needlefish, Lizardfish, Other Snapper, Scianids, Thalassia, Brotalus, Porgy, Halodule, Syringodium, Stone Crab, Spotted Seatrout, Drift Algae, Gray Snapper, Sharks, Rays, Tarpon, Bonefish, Snook, Grouper, Jacks, Pompano, Red Drum, Spadefish, Mackerel, Loon, Grebb, Pelican, Comorant, Big Herons & Egrets, Small Herons & Egrets, Ibis, Roseate Spoonbill, Herbivorous Ducks, Omnivorous Ducks, Predatory Ducks, Gruiformes, Small Shorebirds, Gulls & Terns, Kingfisher, Loggerhead Turtle, Green Turtle, Hawksbill Turtle, Manatee, 2um Spherical Phytoplankt, Synedococcus, Oscillatoria, Small Diatoms (<20um), Big Diatoms (>20um), Dinoflagellates, Other Phytoplankton, Benthic Phytoplankton, Roots
Florida Bay - wet season, $\rho = 0.170$
Water Flagellates, Water Cilataes, Acartia Tonsa, Oithona nana, Paracalanus, Other Copepoda, Other Zooplankton, Meroplankton, Benthic Flagellates, Benthic Ciliates, Meiofauna, Sponges, Other Cnidaridae, Echinoderma, Bivalves, Detritivorous Gastropods, Predatory Gastropods, Detritivorous Polychaetes, Predatory Polychaetes, Suspension Feeding Polych, Macrobenthos, Benthic Crustaceans, Detritivorous Amphipods, Herbivorous Amphipods, Omnivorous Crabs, Predatory Shrimp, Pink Shrimp, Detritivorous Crabs, Callinectes sapidus, Predatory Crabs, Mullet, Catfish, Eels, Isopods, Other Demersal Fishes, Herbivorous Shrimp, Other Pelagic Fishes, Sailfin Molly, Rainwater killifish, Other Killifish, Pinfish, Epiphytes, Raptors, Crocodiles, Thor Floridanus, Epiphytic Gastropods, Halfbeaks, Coral, Barracuda, Goldspotted killifish, Code Goby, Parrotfish, Clown Goby, Free Bacteria, Bay Anchovy, Blennies, Mojarra, Sardines, Lobster, Flatfish, Silverside, Gulf Pipefish, Other Horsefish, Dwarf Seahorse, Toadfish, Anchovy, Puffer, Dolphin, Grunt, Filefishes, Needlefish, Other Snapper, Scianids, Lizardfish, Thalassia, Halodule, Syringodium, Stone Crab, Brotalus, Spotted Seatrout, Drift Algae, Tarpon, Sharks, Rays, Bonefish, Snook, Grouper, Jacks, Pompano, Gray Snapper, Porgy, Red Drum, Spadefish, Mackerel, Loon, Grebb, Pelican, Comorant, Big Herons & Egrets, Small Herons & Egrets, Ibis, Roseate Spoonbill, Herbivorous Ducks, Omnivorous Ducks, Predatory Ducks, Gruiformes, Small Shorebirds, Gulls & Terns, Kingfisher, Loggerhead Turtle, Green Turtle, Hawksbill Turtle, Manatee, 2um Spherical Phytoplankt, Synedococcus, Oscillatoria, Small Diatoms (<20um), Big Diatoms (>20um), Dinoflagellates, Other Phytoplankton, Benthic Phytoplankton, Roots
Prince William Sound (1994), $\rho = 0.170$
Shal Sm Epibent, Shal sm Infauna, Deep Epibent, Shal Lg Epibent, Rockfish, Sharks, Avian Predators, Deep demersals, Deep Lg Infauna, Shal lg infauna, Deep sm infauna, Pinnipeds, Transient Orca, Meiofauna, Halibut, Pac. Cod, Sablefish, Pollock 1+, Seabirds, Adult Salmon, Herbi-Zooplankt, Omni-zooplankto, Near Omni-zoo, Near Herbi-zoo, Porpoise, Salmon Fry 0-12, Nshore Demersal, Adult Herring, Juv. Herring, Eulachon, Sandlance, Capelin, Pollock 0, Jellies, Baleen Whales, Resident Orca, Invert-eat Bird, Juv. Atooth., Lingcod, Macroalgae/gras, Near Phytoplanktn, Offshore Phyto., Sea otters, Adult Atooth, Squid
Northern Benguela (1956), $\rho = 0.166$
Continued on next page

Table 3 – continued from previous page

Mesozooplankton, Macrobenthos, Cephalopods, A hake, Anchovy adults, Jellyfish adults, Sardine adults, Other demersals, Crabs, Gobies adults, Macrozooplankton, Snoek, Seals, Mesopelagics, Sharks, J hake, Other sm pelagics, Phytoplankton, Juv. h mackerel, Adult h mackerel, Benthic producers, Anchovy juvs, Birds, Gobies juvs, Jellyfish juvs, Lobster, Marine Mammals, Monkfish, Other linefish, Sardine juvs, Tuna
South Benguela (1978), $\rho = 0.165$
Microzooplank., Gelatinous zoo., Macrobenthos, Benthicdemers, SmallM.parad, LargeM.capens, Snoek, Meiobenthos, Macrozooplank., Mesozooplank., Seals, Apexchond, SmallM.capens, Pelagicchond, Cephalopods, Pelagicdemers, Ad.hmack., Otherlargepel, Seabirds, Cetaceans, LargeM.parad, Chubmackerel, Phytoplankton, Benthicchond, Anchovy, Benth.producers, Juv.hmack., Mesopelagics, Othersmallpel, Redeye, Sardine
South Benguela (1900), $\rho = 0.165$
Microzooplankto, Gelatinous zoop, Macrobenthos, Benthic-feedi23, Small M. parado, Large M. capens, Snoek, Meiobenthos, Macrozooplankto, Mesozooplankton, Seals, Apex chondricht, Small M. capens, Pelagic-feeding, Cephalopods, Pelagic-feedi22, Adult horse mac, Other large pel, Seabirds, Cetaceans, Large M. parado, Chub mackerel, Phytoplankton, Benthic-feeding, Anchovy, Benthic produce, Juvenile horse, Mesopelagics, Other small pel, Redeye, Sardine
South of Benguela (1960), $\rho = 0.165$
Microzooplankto, Gelatinous zooz, Macrobenthos, Benthic-feedi23, Small M. parado, Large M. capens, Snoek, Meiobenthos, Macrozooplank, Mesozooplank, Seals, Apex chondricht, Small M. capens, Pelagic-feeding, Cephalopods, Pelagic-feedi22, Adult horse mac, Other large pel, Seabirds, Cetaceans, Large M. parado, Chub mackerel, Phytoplankton, Benthic-feeding, Anchovy, Benthic produce, Juvenile horse, Mesopelagics, Other small pel, Redeye, Sardine
South Benguela , $\rho = 0.165$
Microzooplank., Gelatinous zoo., Macrobenthos, Benthicdemers, SmallM.parad, LargeM.capens, Snoek, Meiobenthos, Macrozooplank., Mesozooplank., Seals, Apexchond, SmallM.capens, Pelagicchond, Cephalopods, Pelagicdemers, Ad.hmack., Otherlargepel, Seabirds, Cetaceans, LargeM.parad, Chubmackerel, Phytoplankton, Benthicchond, Anchovy, Benth.producers, Juv.hmack., Mesopelagics, Othersmallpel, Redeye, Sardine
Humboldt Current (1995), $\rho = 0.158$
Microzooplankton, macrobenthos, horse mackerels, large hake, medium sciaenids, jumbo squid, benthic elasmobranchs, butter fishes, catfish, conger, gelatinous zooplankton, mesozooplankton, macrozooplankton, anchovy, Diatoms, small hake, medium demersal fish, small demersals, mackerels, medium hake, other small pelagics, other cephalopods, Dino and silicoflagellates, mesopelagics, cetaceans, chondrichtlyans, flatfishes, other large pelagics, pinnipeds, sardine, seabirds, sea robin
Santa Pola Bay (2001), $\rho = 0.154$
Anfipodos, Copepodos planct., Misidaceos, Poliquetos, Balistes capriscus, Bivalvos, Cefalópodos, Shrimps, Crabs, Gastropodos, Equinodermos, Pomatomus saltarix, Sphyaena sphyaena, Seriola dumerilii, juv Pelag. planct., Serranus, juv. T. mediterraneus, Trachurus mediterraneus, juv. T. ovatus, S. scrofa, A regius cultiv., Boops boops, D. labrax cultiv., Mugilidae, Mullus surmeletus, Pelágicos planctivoros, Sardinella aurita, S. aurata cultiv., S. aurata salvaje, Sparidae, Trachinotus ovatus, Algas, Fitoplancton, G. buccichi, juv. B. boops, juv. Mugilidae, juv S. aurata, juv Sparidae, Myliobatis aquila
Central Chile (1998), $\rho = 0.153$
Continued on next page

Table 3 – continued from previous page

Big-eye flounder, Black conger, Carrot prawn (a), Carrot prawn (j), Yellow prawn, Chilean hake (a), Chilean hake (j), Copepods, Phytoplankton, Sea Lion, Euphausiids, Anchovy (a), Anchovy (j), Cardinal fish, Horse mackerel, Pacific sand perch, Pilchard (a), Pilchard (j), Rattail fish, Skates
Falkland Islands (1990), $\rho = 0.153$
benthic crustaceans, small demersal, grenadier, small cephalopods, dogfish, codling, flounder, hagfish, large bathydemersal fish, large demersal, large zoobenthos, small zoobenthos, toothfish ad, carnivorous zooplank, krill, Herbivorous zooplank, seals and sea lions, hoki juv, hoki ad, rays and sharks, jellyfish, toothed whales, penguins, merluccius hubbsi, myctophidae, merluccius australis, large cephalopods, rock cod, baleen whales, bathypelagic fish, pelagic fish, basking shark, illex squid, patagonian squid, Phytopl, seabirds, shorebirds, small bathydemersal fish, snoek ad, snoek juv, southern blue whiting ad, southern blue whiting juv, toothfish juv
Northern Humboldt Current (1997), $\rho = 0.150$
Microzooplankton, macrobenthos, gelatinous zooplankton, horse mackerels, medium sciaenids, benthic elasmobranchs, catfish, conger, small hake, mesozooplankton, macrozooplankton, anchovy, Diatoms, mackerels, jumbo squid, medium demersal fish, chondrichthyans, other small pelagics, small demersals, large hake, sardine, medium hake, mesopelagics, butter fishes, cetaceans, Dino and silicoflagellates, flatfishes, other cephalopods, other large pelagics, pinnipeds, seabirds, sea robin
Chesapeake (1950), $\rho = 0.148$
Other in/epi fauna, Littoral forage fish, Reef assoc. fish, Atl. croaker, Other suspension feeders, Spot, Non reef assoc. fish, Blue crab YOY, American eel, Other flatfish, Blue crab adult, Black drum, Weakfish Adult, American shad, Hard clam, Non-piscivorous seabirds, Mesozooplankton, Microzooplankton, Soft clam, Oyster 1+, Phytoplankton, Piscivorous birds, Bay anchovy, Menhaden adult, Striped bass migratory, Menhaden 0-1, Striped bass resident, Catfish, Sandbar shark, Summer flounder, Ctenophores, Striped bass YOY, Alewife and herring, Benthic algae, Bluefish adult, Bluefish YOY, Gizzard shad, Other elasmobranchs, SAV, Sea nettles, Weakfish YOY, White perch adult, White perch YOY, Oyster YOY
Rocky shore, Monterey Bay, California, $\rho = 0.148$
other phytoplankton, Suidasia sp., Tegula funebris, Littorina planaxis, Littorina littorea, Acmaea digitalis, Acmaea pella, Acmaea scabra, Cyanoplar dientens, Dynamenella, Diaulota densissima, Pagurus samuelis, zooplankton, Chthamalus dalli, C. microtretus, Lasaea cistula, Mytilus californianus, Filicrisia franciscana, Musculus, Ptilocercus, diatoms, blue-green algae, Gigartina, Endocladia muricata, Balanus glandula, Perinereis monterea, Nereis grubei, Notoplana acticola, Syllis vittata, Nemenopsis gracilis, Syllis spencer, Thais emarginata, Acanthina spirata, Rhombognathus, Tipulidae, Pachygrapsus, Embletonema gracili
Crystal River Creek - Delta Temp, $\rho = 0.144$
benthic invertebrates, bay anchovy, zooplankton, sheepshead killifish, goldspotted killifish, silverside, moharra, mullet, microphytes, gulf killifish, macrophytes, stingray, catfish, needlefish, longnosed killifish, molly, pinfish, spot, black drum, red drum
Charca de Maspalomas, $\rho = 0.128$
Benthic Deposit Feeders, Benthic Microfauna, Liza Aurata, Dicentrurus punctatus, Pelagic Bacteria, Microzooplankton, Mesozooplankton, Diplodus Sargus, Cyanobacteria, Eukaryotic Phyto, Gallinula chloropus, Macrozooplankton, Benthic Suspension Feeder, Chara globularis, Ruppia Maritima, Cladophora, Periphyton, Benthic Invertebrate Car.
Arctic seas, $\rho = 0.119$
Continued on next page

Table 3 – continued from previous page

phytoplankton, benthonic invertebrates, larger zooplankton, bacteria, killer whale, Greenland shark, caplin, smaller zooplankton, benthoni vertebrates, right whales, clupeid fishes, rorquals, artic char, cod, bearded seals, beluga, narwhal, walrus, harp seal, harbour seal, ringed seal
East Bass Strait (1994), $\rho = 0.117$
Squid, Macrobenthos, Cardinal, Megabenthos, Polychaeta, ShMedPredator, ShLPredator, ShSm-Predator, ShMedInvertFeeder, SlopeMPredator, Pelagic sharks, Primary producers, Sm zooplankton, Mesopelagics, Toothed whale, L zooplankton, Demersal sharks, Gelatinous nekton, Euphausiids, PelagicPrawns, Redfish, SlopeLPredator, Seal, ShSmInvertFeeder, SlopeSmPredator, Flathead, PelSmInvertFeeder, SlopeSmInvertFeeder, Cucumberfish, Redbait, Blue grenadier, Jack mackerel, Ling, Penguins, Rays, SlopeMInverFeeder, Benthic producer, Dories, Gemfish, PelLPredator, PelMPredator, Seabirds, ShOceanPerch, Baleen whale, Blue-eye trevalla, Chinaman leatherjacket, Deepsea Cod, Jackass morwong, Oreos, PelLInvertFeeder, PelMInvertFeeder, ShLInvertFeeder, SlopeLInvertFeeder, SlopeOceanPerch, Tuna/billfish, Warehouse, Whiting
North East Pacific (1950), $\rho = 0.117$
other benthos, shrimps, misc. small pelagics, misc. small demersals, crabs, echinoderms, bivalves, sablefish ad., carn. zooplankton, krill, herb. zooplankton, jellies, small squids, arrowtooth ad., odontocetae, sea lions, salmon shark, myctophids, seals, lingcod, chinook, P. halibut ad., dogfish, pollock juv., herring ad., herring juv., pelagic sharks, P. halibut juv., pollock ad., flatfish other, large squids, P. cod ad., arrowtooth juv., atka mackerel, birds demer pisciv, birds pelag pisciv, birds zooplanktiv, coho, macrophytes, misc. pred. pelagics, mysticetae, northern rockfish, Pac. hake, Pac. Ocean perch, P. cod juv., phytoplankton, plaice, rajidae / ratfish, rockfish other, rock sole, sablefish juv., sockeye, yellowfin sole, chum, pink
Cypress Dry Season, $\rho = 0.116$
Ter. Invertebrates, Aquatic Invertebrates, Mink, Living POC, Living sediment, Crayfish, Apple Snail, Prawn, Small Fish, herb + omniv, Small Fish, prim. carniv, Tadpoles, Snakes, Turtles, Alligators, Other herons, Vultures, Opossum, Raccoon, Understory, Hardwoods Leaves, G. Fox, Wood stork, Egrets, White ibis, Mice & Rats, Kites & Hawks, Bobcat, Owls, Great blue heron, Pelecaniformes, Florida Panther, Anseriformes, Gruiformes, Black Bear, Squirrels, Otter, Galliformes, Passeriformes onniv., Large Fish, Lizards, Salamanders, Large Frogs, Medium Frogs, Small Frogs, Salamander L, Caprimulgiformes, Hummingbirds, Woodpeckers, Passeriformes pred., Shrews, Bats, Rabbits, White-Tailed Deer, Hogs, Armadillo, Phytoplankton, Float. vegetation, Periphyton/Macroalgae, Macrophytes, Epiphytes, Vine Leaves, Cypress Leaves, Cypress Wood, HW Wood, Roots
Northern Californian Current (1960), $\rho = 0.115$
zooplankton, forage fish and mesopels, benthic invertebrates, shrimps, cephalopods, abalone adult, abalone juvenile, benthic fish, hake, jellyfish, flatfish, sardine, crabs, cabezon juvenile, shortbelly rockfish adult, cabezon adult, cabezon larvae, dogfish, lingcod adult, lingcod juvenile, lingcod larvae, mackarel, nearshore rockfish adult, nearshore rockfish juvenile, nearshore rockfish larvae, Phytoplankton, sablefish, salmon, seals and sealions, shortbelly rockfish juvenile, shortbelly rockfish larvae, widow rockfish adult, widow rockfish juvenile, widow rockfish larvae, Macroalgae
Cypress Wet Season, $\rho = 0.114$
Continued on next page

Table 3 – continued from previous page

Terrst. I, White ibis, Aquatic I, Raccoon, Living POC, Living SED, Crayfish, Apple Snail, Prawn, Fish HO, Fish PC, Tadpoles, Snakes, Alligators, Turtles, Vultures, Opossum, G Fox, Understory, Hardwood L, Mice & Rats, Anseriformes, Salamanders, M Frog, S Frog, Rabbits, Lizards, Passeriformes onniv., Passeriformes pred., Squirrels, L Fish, Galliformes, L Frog, Egrets, Other Herons, Florida Panther, Black Bear, Salam. L, Bobcat, Pelecaniformes, Kites & Hawks, GB Heron, Wood stork, Gruiformes, Owls, Caprimulgiformes, Hummingbirds, Woodpeckers, Shrews, Bats, Mink, Otter, White-Tailed Deer, Hogs, Armadillo, Phytoplankton, Float Veg., Periphyton, Macrophytes, Epiphytes, Vine L, Cypress L, Cypress W, Hardwood W, Roots
Shallow sublittoral, Cape Ann, Massachusetts, $\rho = 0.112$
annelids, Myoxocephalus, Pomatomus, Poronatus, isopods, Gammarus, Caprella, Crago, Pagurus, Cancer, plankton and detritus, Polinices, Fundulus, fish fry, macroalgae, Mytilus, Gemma, Scomber, Qupea, Loligo, Chalina, Abietinaria, Sertularia, Metridium, Lichenophora, Littorina littorea, Strongylocentrotus, Limulus, Raja, Asterias, Phoca, Sterna
Strait of Georgia (1950), $\rho = 0.112$
other benthos, crabs, misc. small demersals, shrimps, bivalves, echinoderms, sablefish ad., carn. zooplankton, krill, herb. zooplankton, jellies, misc. small pelagics, herring ad., pollock ad., small squids, dogfish, herring juv., myctophids, flatfish other, sea lions, arrowtooth ad., odontocetae, seals, pelagic sharks, P. halibut ad., salmon shark, lingcod, P. halibut juv., birds pelag pisciv, Pac. hake, pollock juv., birds demer pisciv, chinook ad., arrowtooth juv., birds zooplanktiv, coho ad., large squids, macrophytes, misc. pred. pelagics, mysticetae, Pac. Ocean perch, P. cod ad., P. cod juv., phytoplankton, rajidae / ratfish, rockfish other, rock sole, sablefish juv., sockeye, yellowfin sole, chinook juv., chum, coho juv., pink
Little Rock Lake, Wisconsin, $\rho = 0.107$
Continued on next page

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<p>Yellow perch (<i>Perca flavescens</i>), Yellow perch (<i>Perca flavescens</i>), Largemouth bass (<i>Micropterus salmoides</i>), Largemouth bass (<i>Micropterus salmoides</i>), Rock bass (<i>Ambloplites rupestris</i>), Rock bass (<i>Ambloplites rupestris</i>), Black crappie (<i>Pomoxis nigromaculatus</i>), Black crappie (<i>Pomoxis nigromaculatus</i>), Mudminnow (<i>Umbra</i>), Shiner (<i>Notemigonus crysoleucus</i>), Diaptomus *bithomasi, Mesocyclops edax, Tropocyclops prasinus, Epischura lacustris, Leptodora kindtii, Polyphemus pediculus, Cyclopoid *copepodids, Alona affinis, Alona quadrangularis, Alona rustica, Alona intermedia, Alonella excisa, Disparalona acutirostris, Chydorus sp1, Chydorus sp2, Acantholeberis curvirostris, Ophryoxus gracilis, Scapholeberis kingi, Sida crystallina, Tanytarsus, Oligochaete, Campeloma decisum, Harpacticoid copepods, Harpacticoid copepodids, Sphaeromais, Leptophlebia, Caenis, Limnephilus, Banksiola, Molanna, Polycentropus, Anisoptera epitheca, Libellula, Sympetrum, Enallagma, Climacia, Gyrinus, Sialis, Ablabesmyia, Clinotanypus, *Djalmabatista, Guttipelopia, Larsia, Macropelopsis, Procladius, Chaetocladius, Corynoneura, Cricotopus, Nanocladius, Micropsectra, Paratanytarsus, Chironomus, Cladopelma, Endochironomus, Glyptotendipes, Microtendipes, Parachironomus, Paratendipes, Polypedilum, Pseudochironomus, Stenochironomus, Xenochironomus, Stictochironomus, Bivalvia, Sphaeriidae, Spongilla lacustris, Ephydatia muelleri, Corvomyenia everetti, Diaptomus minutus, Gerris, Veliidae, Notonectids, Asplanchna, Daphnia galeata mendotae, Daphnia parvula, Diaphanosoma birgei, Holopedium gibberum, Crangonyx gracilis, Bosmina longirostris, Eubosmina, Conochilus unicornis, Conochiloides, Kellicottia longispina, Kellicottia bostoniensis, Keratella cochlearis, Keratella taurocephala, Keratella crassa, Keratella hiemalis, Polyarthra remata, Polyarthra vulgaris, Trichocerca cylindrica, Gastropus, Synchaeta, Nauplii, Calanoid *copepodids, Cryptochironomus, Hydracarina, Eucyclops serrulatus, Acanthocyclops, Fish eggs, Macrocyclops albidus, Microcyclops rubellus, Hydroporus, Oecetis, Mystacides, Agrypnia, LEPIDOPTERA Pyralidae eoparagyractis, Bezzia, Chaoborus *albatus, Chaoborus *punctipennis, Hirudinea, Tricladida, Bambusina, Batrachospermum, Binuclearia, Bulbochaete, Desmidium, Geminella, *Greonbladia, Hapalosiphon, Hyalotheca, Lyngbya, Microchaete, Microcoleus, Mougeotia, Oedogonium, Oscillatoria, Phormidium, Plectonema, Radiofilum, Rhizoclonium, Schizothrix, Scytonema, Sphaerosozma, Spirogyra, Tribonema, Zygnema, Chroococcus, Gloeotheca, Merismopedia, Aphanocapsa, Gomphosphaeria, Coelosphaerium, Rhabdoderma, Aphanotheca, Anabaena, Arthrodesmus, Cosmarium, Crucigenia, Euastrum, O’cystis, Pediatrum, Quadrigula, Schroederia, Spondylosium, Staurastrum, Tetra%edron, Ankistrodesmus, Xanthidium, Elaktothrix, Scenedesmus, Phacus, Trachelomonas, Chroomonas, Cryptomonas, Asterionella, Dinobryon, Mallomonas, Synedra, Synura, Tabellaria</p>
Ythan estuary, Aberdeenshire, Scotland, $\rho = 0.104$
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Flounder <i>Platichthys flesus</i> , Corophium <i>volutator</i> , Ragworm <i>Nereis diversicolor</i> , Butterfish <i>Pholis gunnellus</i> , Fatherlasher <i>Myxocephalus scorpius</i> , Calanoid copepods, Five bearded rockling <i>Ciliata mustella</i> , Sand goby <i>Pomatoschistus minutus</i> , Sandeel <i>Ammodytes tobianus</i> , Barnacles <i>Semibalanus balanoides</i> , Gammurus sp., Viviparous blenny <i>Zoarces viviparus</i> , Trout <i>Salmo trutta</i> , <i>Hydrobia ulvae</i> , <i>Macoma balthica</i> , <i>Mytilus edulis</i> , <i>Cerastoderma edule</i> , Nematodes, Herring <i>Clupea harengus</i> , Brown shrimp <i>Crangon crangon</i> , Opposum shrimp <i>Neomysis integer</i> , Ostracods, Common goby <i>Pomatoschistus microps</i> , Jaera <i>albifrons</i> , <i>Formaifera</i> , Harpacticoid copepods, Redshank <i>Tringa totanus</i> , Plaice juvenile <i>Pleuronectes platessa</i> , Flounder juvenile, King ragworm <i>Nereis virens</i> , <i>Phyllodoce mucosa</i> , <i>Talitrus saltator</i> , <i>Bathyporeia pilosa</i> , <i>Idotea emarginata</i> , <i>Eurydice pulchra</i> , <i>Nototropis</i> sp., <i>Pygospio elegans</i> , <i>Parathemisto</i> sp., <i>Capitella capitata</i> , <i>Manayunkia aestuarina</i> , <i>Aricia</i> sp., <i>Arenicola marina</i> , <i>Mya arenaria</i> , Chironomidae, Dipteran larvae, Acarina, Hesionidae, Brown shrimp <i>Crangon crangon</i> , <i>Littorina littorea</i> , <i>Spratt Sprattus sprattus</i> , Eel <i>Anguilla anguilla</i> , Common gull <i>Larus canus</i> , Saithe <i>Pollachius virens</i> , Herring gull <i>Larus argentatus</i> , <i>Littorina saxatilis</i> , Oystercatcher <i>Haematopus ostralegus</i> , <i>Catatropis verrucosa</i> , Black headed gull <i>Larus ridibundus</i> , <i>Podocotyle staffordi</i> , <i>Levinseniella brachysoma</i> , <i>Enteromorpha</i> , <i>Amidostomum</i> sp., <i>Maritrema gratiosum</i> , <i>Hysterothylacium aduncum</i> , <i>Spelotrema claviforma</i> , <i>Cryptocotyle lingua</i> , <i>Himasthla elongata</i> , <i>Profilicollis botulus</i> , <i>Haploparaksis crassirostris</i> , <i>Renicola roscovita</i> , <i>Maritrema subdolum</i> , <i>Levinseniella</i> sp. no.17, <i>Psilostomum brevicolle</i> , <i>Hymenolepis</i> sp. 1, <i>Cercariae lebouri</i> , <i>Cryptocotyle jejuna</i> , <i>Himasthla continua</i> , <i>Maritrema oocysta</i> , <i>Microphallid</i> sp. no.15, <i>Notocotyledae</i> sp. no.14, <i>Himasthla interrupt</i> , <i>Ophryocotyle insignis</i> , <i>Parvatrema affine</i> , <i>Apophallus lerouxii</i> , <i>Maritrema humile</i> , <i>Hemiuris communis</i> , <i>Lecithaster gibbosus</i> , <i>Derogenes varicus</i> , <i>Opacelididii</i> sp., Tetraphyllidean larvae, Cestode sp.1, <i>Lacunovermis macomae</i> , <i>Cucullanus heterochrous</i> , <i>Anisakis</i> sp., <i>Zoogonoides viviparus</i> , Spiruroid larvae, <i>Cucullanus minutus</i> , <i>Pomphorynchus</i> sp., <i>Corynosoma strumosum</i> , <i>Echinorhynchus gadi</i> , Otter <i>Lutra lutra</i> , Cormorant <i>Phalacrocorax carbo</i> , Heron <i>Ardea cinerea</i> , Mute swan <i>Cygnus olor</i> , Shelduck <i>Tadorna tadorna</i> , Wigeon <i>Anas penelope</i> , Eider <i>Somateria mollissima</i> , Eider juvenile, Ringed plover <i>Charadrius hiaticula</i> , Golden plover <i>Pluvialis apricaria</i> , Grey plover <i>Pluvialis squatarola</i> , Lapwing <i>Vanellus vanellus</i> , Dunlin <i>Calidris alpina</i> , Bar-tailed godwit <i>Limosa lapponica</i> , Curlew <i>Numenius arquata</i> , Turnstone <i>Arenaria interpres</i> , Great black-backed gull <i>Larus marinus</i> , Sandwich tern <i>Sterna sandvicensis</i> , Common tern <i>Sterna hirundo</i> , Arctic tern <i>Sterna paradise</i> , Rook <i>Corvus frugilegus</i> , Crow <i>Corvus corone</i> , Nilsson's pipefish <i>Syngnathus rostellatus</i> , Pogge <i>Agonus cataphractus</i> , Three-spined stickleback <i>Gasterosteus aculeatus</i> , <i>Eteone longa</i> , <i>Hyale nilssoni</i> , <i>Tubificoides benedini</i> , <i>Tubifex costatus</i> , <i>Alderia modesta</i> , <i>Retusa obtusa</i> , Phytoplankton, Brown algae
Tasek Bera swamp, Malaysia, $\rho = 0.095$
bacteria, fungi, carnivorous fishes, detritivorous invertebrates, detritivorous fishes, emergent herbivorous insects, benthic carnivores, snakes, invertebrate defoliators, benthic herbivores, emergent carnivorous insects, periphyton, submerged macrophytes, vertebrate herbivores, spiders, phytoplankton, <i>Utricularia</i> , <i>Pandanus</i> , swamp forest, zooplankton, herbivorous fishes, shrimps, carnivorous invertebrates, frogs, swallows, Martin pescatore
Swamp, south Florida, $\rho = 0.089$
insect larvae, crayfish, plecopterans, odonates, hemipterans, cyprinodontids, amphipods, bobcats, snakes, turtles, centrarchids, dipterans, alligators, phytoplankton, periphyton, vascular plants, coleopterans, pickerel, copepods, coadocerans, waterfowl, marsh rabbits, deer, water rat, mosquitofish, hemipterans, bowfin, gar, raccoons, opossum, <i>Accipitridae</i> , herons, ibises, egrets
Chesapeake Bay Mesohaline, $\rho = 0.075$
Continued on next page

Table 3 – continued from previous page

bacteria in sediment poc, zooplankton, blue crab, bay anchovy, menhaden, free bacteria, ctenophores, mya arenaria, bacteria in suspended poc, spot, ciliates, phytoplankton, other polychaetes, nereis, crustacean deposit feeder, heterotrophic microflagel, sea nettle, benthic diatoms, other suspension feeders, oysters, alewife & blue herring, weakfish, macoma spp., meio-fauna, fish larvae, shad, croaker, hogchoker, white perch, catfish, bluefish, summer flounder, striped bass
St. Marks River (Florida), $\rho = 0.070$
Benthic bact, Bacterio plankton, Micro protozoa, Predatory polycht, Predatory gastropod, Benthic algae, Omnivorous crabs, Zooplankton, Micro-epiphytes, Microfauna, Halodule, Predatory shrimp, Meiofauna, Spot, Pinfish, Atl. silverside & bay anc, Benthos-eating birds, suspension-feed molluscs, Epiphyte-graz amphipods, Deposit feed amphipods, Herbivorous shrimp, Hermit crab, Macro-epiphytes, Deposit-feed polycht, Sheepshead minnow, Phytoplankton, Isopod, Spider crab, Gulf flound & needle fish, Killifish, Blue crab, Deposit-feed gastropod, Catfish & stingrays, Southrn hake & sea robins, Gobies & blennies, Suspension-feed polychts, Detritus feed crust., Brittle stars, Epiphyte-graz gastropod, Other gastropods, Tongue fish, Pipefish & seahorses, Red Drum, Herbivorous ducks, Fish-eating birds, Fish & crust. eating bird, Gulls, Raptors
Salt meadow, New Zealand, $\rho = 0.053$
amphipods, collembola, mites, fungi, harpacticoids, staphylinids, dipterous larvae, haplotaxid worms, oribatids, leaves, Dotterel, roots, phytophagus nematodes, rabbits, flowers, rotifers, parasitic hymenopterous larvae, seeds, algae, bacteria, weevil larvae, coccids, lepidopterus larvae, other hemiptera, Uromyces scaevolae, bumblebees, adult hymenopterans, carnivorous namatodes, tartigrades, Trichostrongylus retortaeformis, Graphidium strigosum, Passalurus ambiguus, stoats, trombidiform mites, spiders, ants, Hymenolepididae, nematode, analgesid mites, other mites, lice, redpolls, harrier hawks, starlings

4 Motif representation

Table 4: Z-scores sorted by $S2$

Food web name	$S1$	$S2$	$S3$	$S4$	$S5$	$D1$	$D2$	$D3$	$D4$	$D5$	$D6$	$D7$	$D8$
Cape Verde (1981)	↓	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Independence Bay (1996)	↓	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Charca de Maspalomas	↓	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Narragansett Bay Model	↓	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Tasek Bera swamp, Malaysia	↓	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Sechura Bay (1996)	↓	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Falkland Islands (1990)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↓	↑
North Atlantic (1950)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
Central Atlantic (1950)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
North Atlantic (1997)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
Salt meadow, New Zealand	↓	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Middle Chesapeake Bay	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Sand beach, South Africa	↓	↑	—	↓	↓	—	—	—	—	—	—	—	—
Central Atlantic (1990)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
West Scotland (2000)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
North Benguela (1967)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Chesapeake Bay Mesohaline	↓	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Chesapeake (1950)	↓	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Bay of Biscay (2013)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↓	↑
Sørfjord (1993)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
Guinea (1998)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Iceland (1950)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
North Benguela	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
East Bass Strait (1994)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
Alto Golfo de California	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
North Benguela (1900)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Celtic Sea (2013)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Bay of Biscay (1980)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↓	↑
Sierra Leone (1990)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↓	↑
North Benguela (1990)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
St. Marks River (Florida)	↑	↑	↓	↓	↓	—	↓	↑	↑	↓	—	—	—
Bay of Biscay (1998)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↓	↑
Mount St Michel Bay (2003)	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Upper Chesapeake Bay	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Celtic Sea (1980)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Northern Californian Current (1990)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↑
Galapagos, Floreana rocky reef (2000)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓

Continued on next page

Table 4 – continued from previous page

Food web name	S1	S2	S3	S4	S5	D1	D2	D3	D4	D5	D6	D7	D8
Northern Humboldt Current (1997)	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Northern Californian Current (1960)	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Mauritanie (1991)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↓	↑
Sierra Leone 1978 (1978)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↓	↑
North Sea (1974)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Galapagos (2006)	↑	↑	↓	↓	↓	—	↑	—	↓	—	—	—	—
Bay of Biscay (1970)	↑	↑	↓	↓	↓	↑	↑	↑	↓	↓	↑	↓	↑
Cerbère-Banyuls MPA (2013)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Ningaloo (2007)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Western Tropical Pacific Ocean (1990)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Azores archipelago (1997)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↑
Central Gulf of California (1978)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
Prince William Sound (1994)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	—	—	—
Sierra Leone (1964)	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↓	↑
Lower Chesapeake Bay	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Jurien Bay (2007)	↑	↑	↓	↓	↓	↑	↑	↑	↓	↓	—	—	—
North Sea (1981)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
West Baffin Bay, Coastal and Shelf (2016)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
Cap de Creus MPA - whole (2008)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
South western Gulf of Mexico (1970)	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Port Phillip Bay (1994)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Azores (1997)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	↑	↓	↑
Malangen Fjord (2017)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	—	—	—
Western Antarctic Peninsula (1996)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
Thermaikos Gulf (1998)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
Northern Benguela (1956)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
Terminos Lagoon (1980)	↑	↑	↓	↓	↓	↑	↑	↑	↓	↓	—	—	—
USA, South Atlantic Continental Shelf (1995)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
Medes Island MPA (2000)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
Albatross Bay (1986)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Shallow sublittoral, Cape Ann, Massachusetts	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
USA, Mid Atlantic Bight (1995)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
Aleutian Islands (1963)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
South East Alaska (1963)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
Mauritania (1998)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	↑	↓	↓
Mauritania (1987)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	↑	↓	↓
Central Baltic Sea (1974)	↑	↑	↓	↓	↓	—	↑	↑	↓	↑	—	↓	↑

Continued on next page

Table 4 – continued from previous page

Food web name	S1	S2	S3	S4	S5	D1	D2	D3	D4	D5	D6	D7	D8
Celtic Sea-Biscay (1980)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
South of Benguela (1960)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Tropical plankton community, Pacific	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Celtic Sea-Biscay (2012)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
Northern Gulf St Lawrence (1985)	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Antarctic (1970)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Contemporary Alosine (2000)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
Icelandic shelf (1997)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↓	↑
Rocky shore, Monterey Bay, California	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Port Cros (1998)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	—	—	—
West Florida Shelf Historic Model (1950)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Raja Ampat (2005)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Bay of Biscay (1994)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Jalisco and Colima Coast (1995)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Gulf of California (1990)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
Mondego Estuary - Zostrea site	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
South Benguela (1900)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Raja Ampat (1990)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Restored Alosine Biomass (2000)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
South Benguela	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
Gulf of Carpentaria (1990)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Sonda Campeche Act (1988)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
Hudson Bay (1970)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Guinea (1985)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Little Rock Lake, Wisconsin	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
Baie de Seine (2000)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Guinea (2004)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Celtic Sea (1985)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Deep Western Mediterranean sea (2009)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
Northern Gulf of St Lawrence (1990)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	—	↑	↓
Yucatan (1987)	↑	↑	↓	↓	↓	↑	↓	↓	↑	↓	—	—	—
Gulf of Thailand (1963)	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Northern British Columbia (1950)	↑	↑	↓	↓	↓	↑	↓	↓	↑	↓	—	↑	↓
Virgin Islands (1960)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↑
North South of China Sea (1970)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	↑	↓	↑
South Benguela (1978)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
Morocco (1985)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↑
Eastern Corsican Coast (2012)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↑
Western Channel (1993)	↑	↑	↓	↓	↓	↑	↓	↓	↑	↓	—	↑	↓
Western Channel (1973)	↑	↑	↓	↓	↓	↑	↓	↓	↑	↓	—	↑	↓

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Table 4 – continued from previous page

Food web name	S1	S2	S3	S4	S5	D1	D2	D3	D4	D5	D6	D7	D8
Calvi Bay (1998)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↓
Cypress Dry Season	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Northern British Columbia (2000)	↑	↑	↓	↓	↓	↑	↓	↓	↑	↓	—	↑	↓
Sinaloa sur Mexico (1994)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	↑	↑	↓
Gulf of Gabes (2000)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↑
Northern Gulf of Mexico (2005)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
Greenland, West Coast (1997)	↑	↑	↓	↓	↓	↑	↑	↓	↑	↓	—	—	—
Lesser Antilles (2001)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Australia North West Shelf (1986)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↓	↑	↑
Bolinao Coral Reef (1980)	↑	↑	↓	↓	↓	↑	↑	↑	↓	↓	—	↑	↓
Cypress Wet Season	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Tasmanian Seamounts Marine Reserve (1992)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Aegean Sea (2003)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
Looe Key National Marine Sanctuary (1980)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
Sirinhaém River (2013)	↑	↑	↓	↓	↓	↑	↑	↑	↓	↓	—	—	—
Denmark, Faroe Islands (1997)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↑	↓
Irish Sea (1973)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
South Shetlands (1990)	↑	↑	↓	↓	↓	—	—	—	—	—	—	—	—
Humboldt Current (1995)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	—	—
Kaloko Honokohau (2005)	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	—	↓	↑
West Florida Shelf (1985)	↑	↓	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	↓
Mangrove Estuary - Wet Season	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	↑	↓
Mangrove Estuary - Dry Season	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	↑	↓
Huizache-Caimanero (1984)	↑	↓	↓	↑	↑	↓	↑	↑	↓	↓	—	↓	↑
Peru (1973)	↑	↓	↓	↓	↑	↑	↑	↓	↓	↓	—	↓	↑
West coast of Sabah (1972)	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Strait of Georgia (1950)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	—	—
West scotland DeepSea (1974)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	↑	↑	↓
Barnegat Bay (1981)	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
British Columbia coast (1950)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	↓	↑
North East Pacific (1950)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	↓	↑
Peru (1960)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	↓	↑
Peru (1953)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	↓	↑
Florida Bay (2006)	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Sri Lanka (2000)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	—	—
Santa Pola Bay (2001)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	↑	↑	↓
Bamboung (2006)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	—	—
Gulf of Mexico (1950)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	—	—

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Table 4 – continued from previous page

Food web name	S1	S2	S3	S4	S5	D1	D2	D3	D4	D5	D6	D7	D8
Florida Bay - dry season	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	—	—
Bamboung (2003)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	—	—
Tagus estuary, Portugal	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Florida Bay - wet season	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	—	—
Central Chile (1998)	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Everglades Graminoids	↑	↓	↓	↑	↑	↑	↑	↓	↓	↑	—	—	—
Apalachicola Bay (2000)	↑	↓	↓	↑	↑	↑	↑	↑	↓	↓	↑	↓	↑
Ria-Lake Tapajos (2013)	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Tampa Bay (1950)	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	—	—
Arctic seas	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Lake Michigan	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Swamp, south Florida	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Paraná River Floodplain (1992)	↑	↓	↓	↑	↑	↑	↑	↑	↓	↓	↓	↓	↑
Ythan estuary, Aberdeenshire, Scotland	↑	↓	↓	↑	↑	↑	↑	↓	↓	↓	—	—	—
Crystal River Creek - Control	↑	↓	↓	↑	↑	—	↑	↑	↓	↓	—	—	—
Sítios Novos reservoir (2011)	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Lake Pyhajarvi, littoral zone, Finland	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Lake Paaajarvi, littoral zone, Finland	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Crystal River Creek - Delta Temp	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—
Barra Del Chuy (1992)	↑	↓	↓	↑	↑	—	—	—	—	—	—	—	—

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