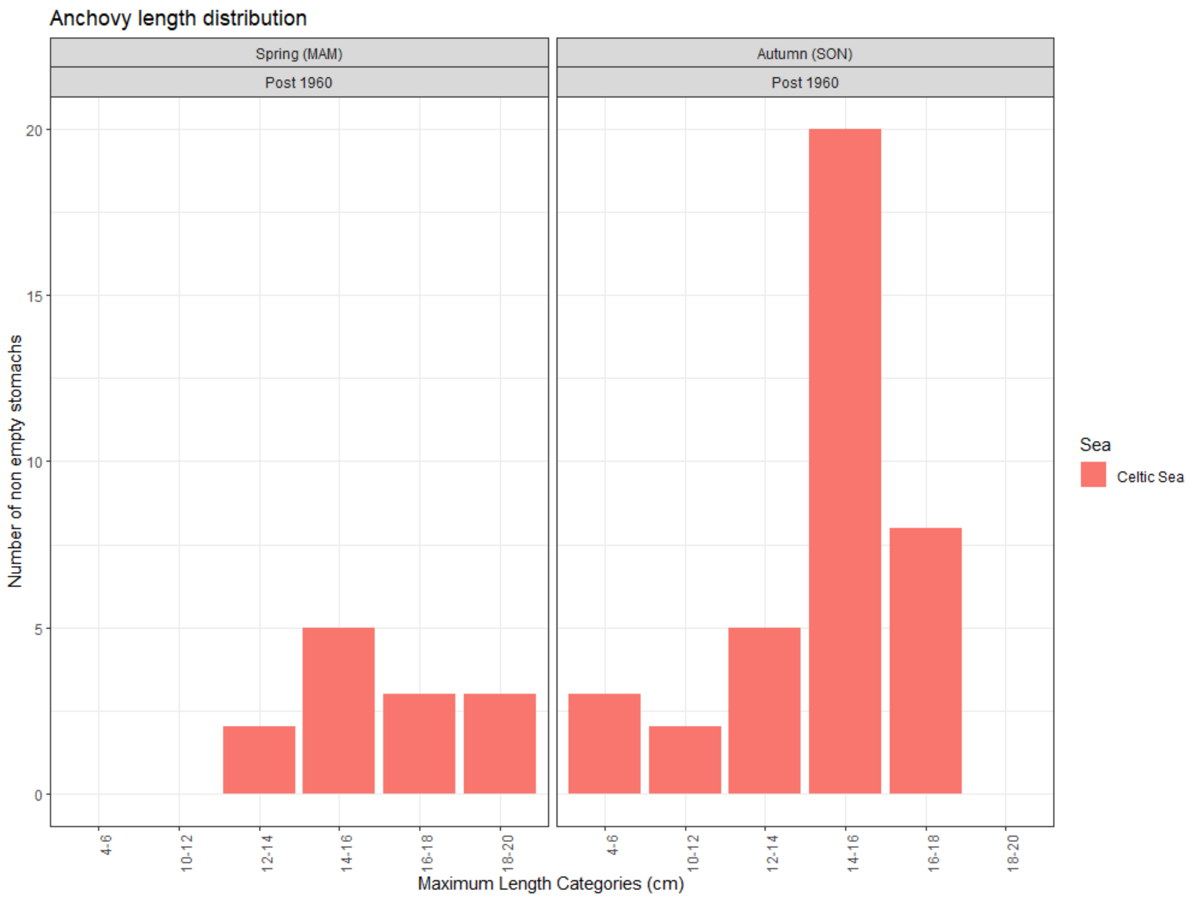
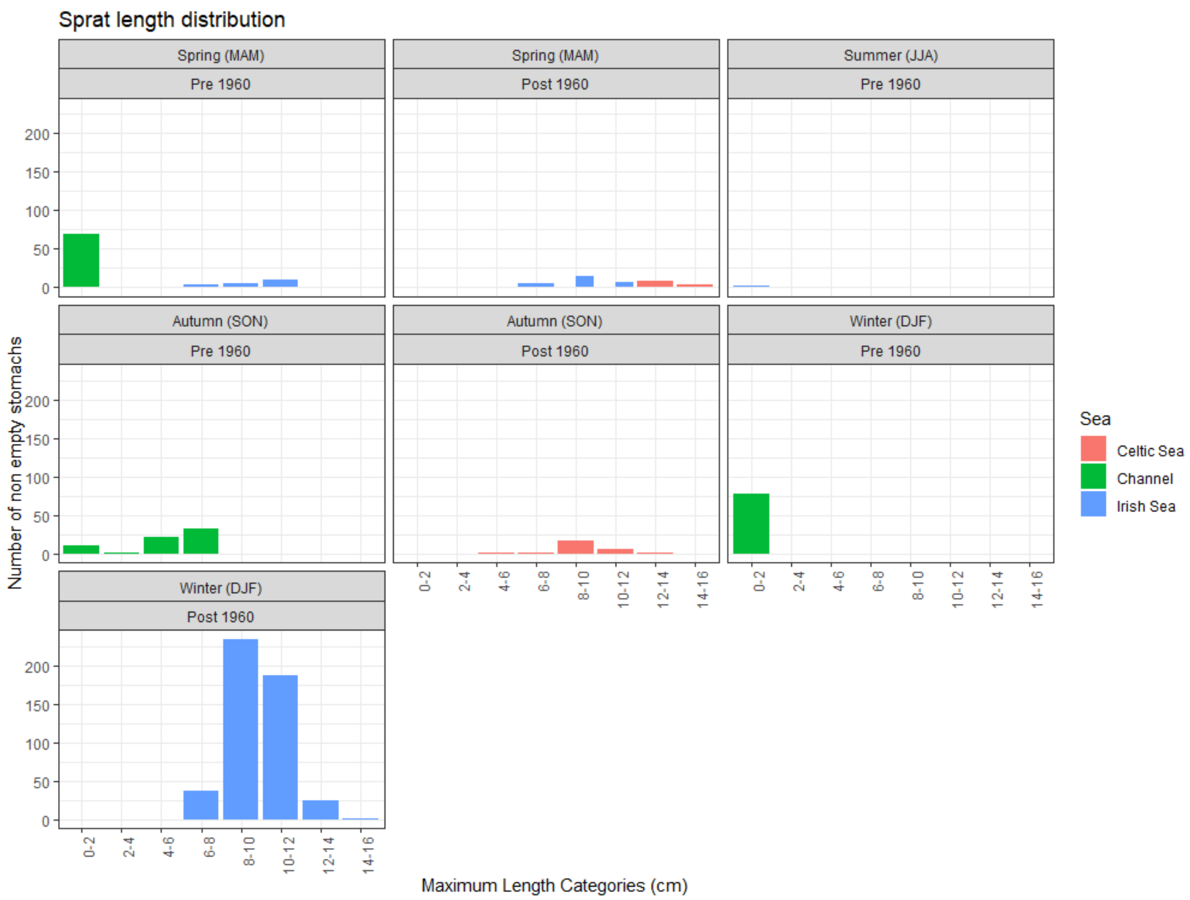
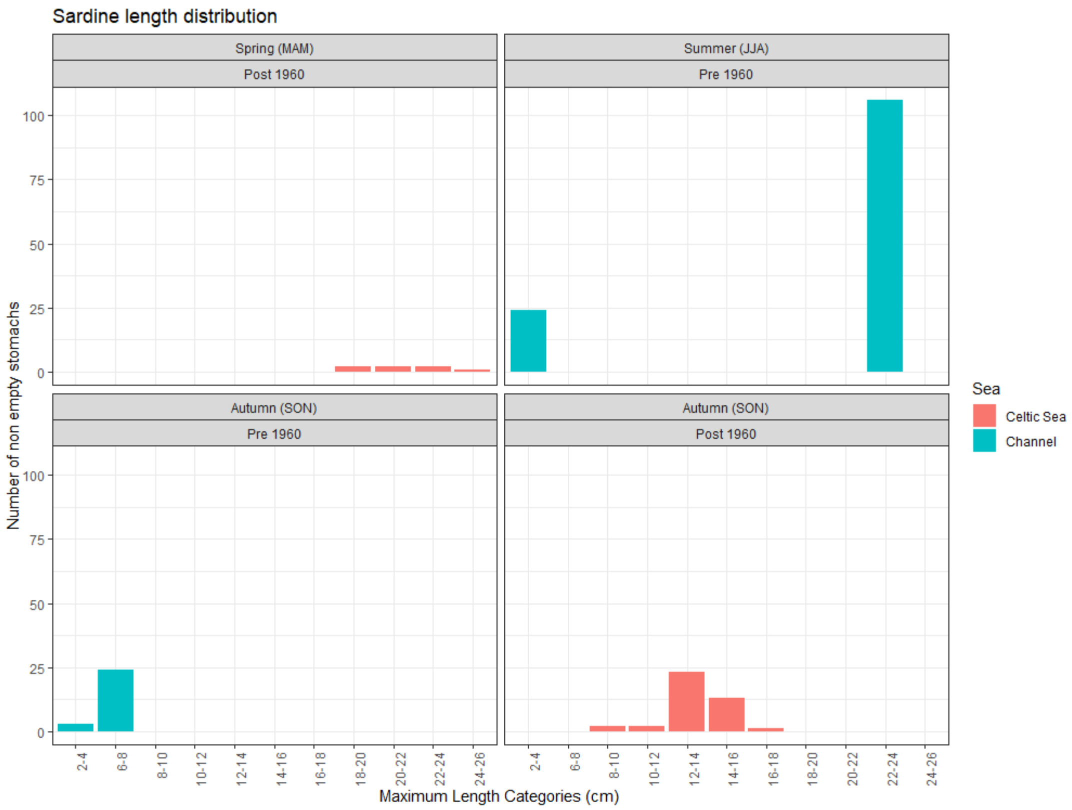
Table S1: Empty stomach by season and species in the Celtic Seas ecoregion. Seasons were defined by Spring (March – May); Summer (June – August); Autumn (September – October); December (December – February).

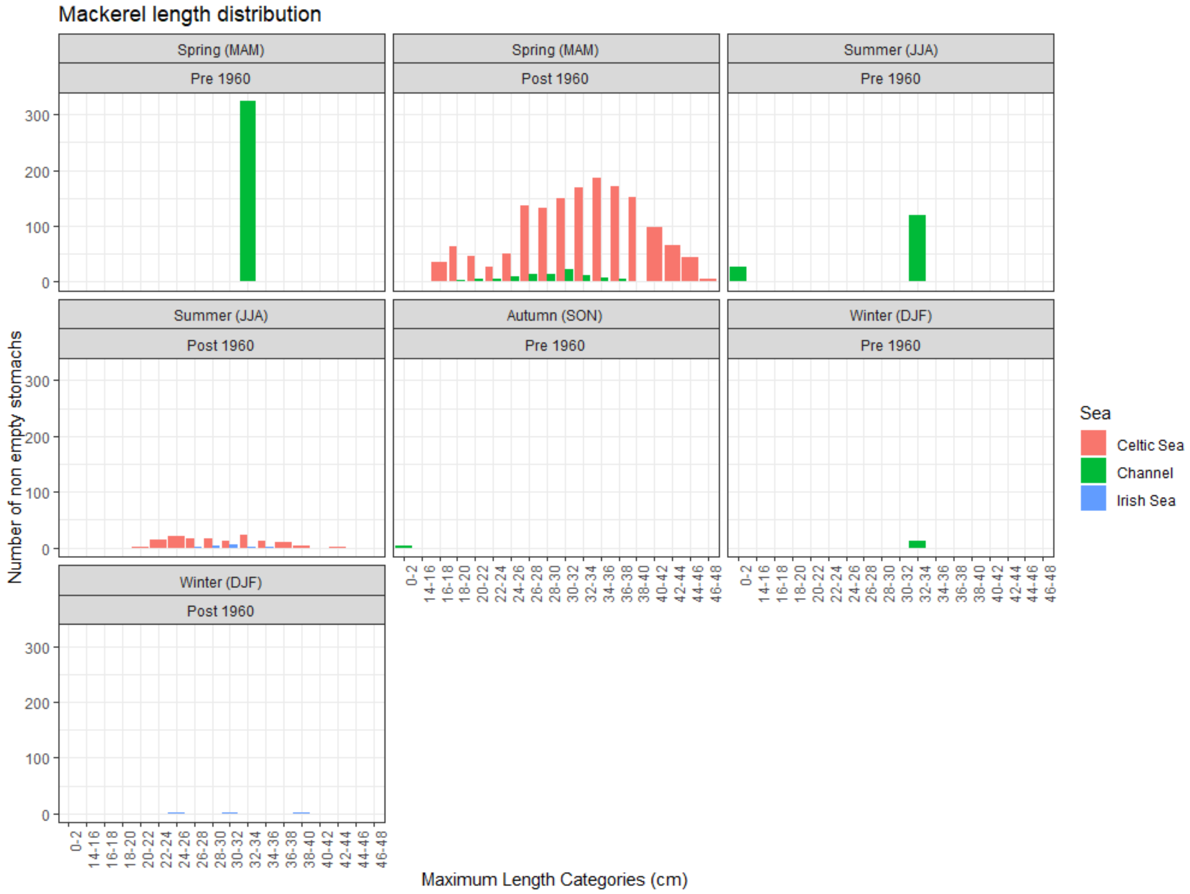
Species	Spring (MAM)	Summer (JJA)	Autumn (SON)	Winter (DJF)	Unknown
Anchovy	7		2		
Herring	31	0	197	676	
Herring larvae	49		17	1393	0
Horse mackerel	364		2	17	2
Horse mackerel larvae		0	0		18
Mackerel	804	2		0	
Mackerel larvae		5	0		70
Sardine	37	0	0		
Sardine larvae		104	11		230
Sprat	36	1	4	518	
Sprat larvae	114	12	6	59	6

Figure S1: Length distribution of species binned in 2cm groups. Seasons were defined by Spring (March – May); Summer (June – August); Autumn (September – October); December (December – February). NA represents unknown season.


Anchovy length distribution
Spring (MAM)
Post 1960
Autumn (SON)
Post 1960
Number of non empty stomachs
0
5
10
15
20
4-6
10-12
12-14
14-16
16-18
18-20
Maximum Length Categories (cm)
Sea
Celtic Sea


Sprat length distribution
Spring (MAM)
Pre 1960
Spring (MAM)
Post 1960
Summer (JJA)
Pre 1960
Autumn (SON)
Pre 1960
Autumn (SON)
Post 1960
Winter (DJF)
Pre 1960
Winter (DJF)
Post 1960
Number of non empty stomachs
0
50
100
150
200
0-2
2-4
4-6
6-8
8-10
10-12
12-14
14-16
Maximum Length Categories (cm)
Sea
Celtic Sea
Channel
Irish Sea


Sardine length distribution
Spring (MAM)
Post 1960
Summer (JJA)
Pre 1960
Autumn (SON)
Pre 1960
Autumn (SON)
Post 1960
Number of non empty stomachs
Maximum Length Categories (cm)
2-4
6-8
8-10
10-12
12-14
14-16
16-18
18-20
20-22
22-24
24-26
Sea
Celtic Sea
Channel


Mackerel length distribution
Spring (MAM)
Pre 1960
Spring (MAM)
Post 1960
Summer (JJA)
Pre 1960
Summer (JJA)
Post 1960
Autumn (SON)
Pre 1960
Winter (DJF)
Pre 1960
Winter (DJF)
Post 1960
Number of non empty stomachs
Maximum Length Categories (cm)
0-2
14-16
16-18
18-20
20-22
22-24
24-26
26-28
28-30
30-32
32-34
34-36
36-38
38-40
40-42
42-44
44-46
46-48
Sea
Celtic Sea
Channel
Irish Sea

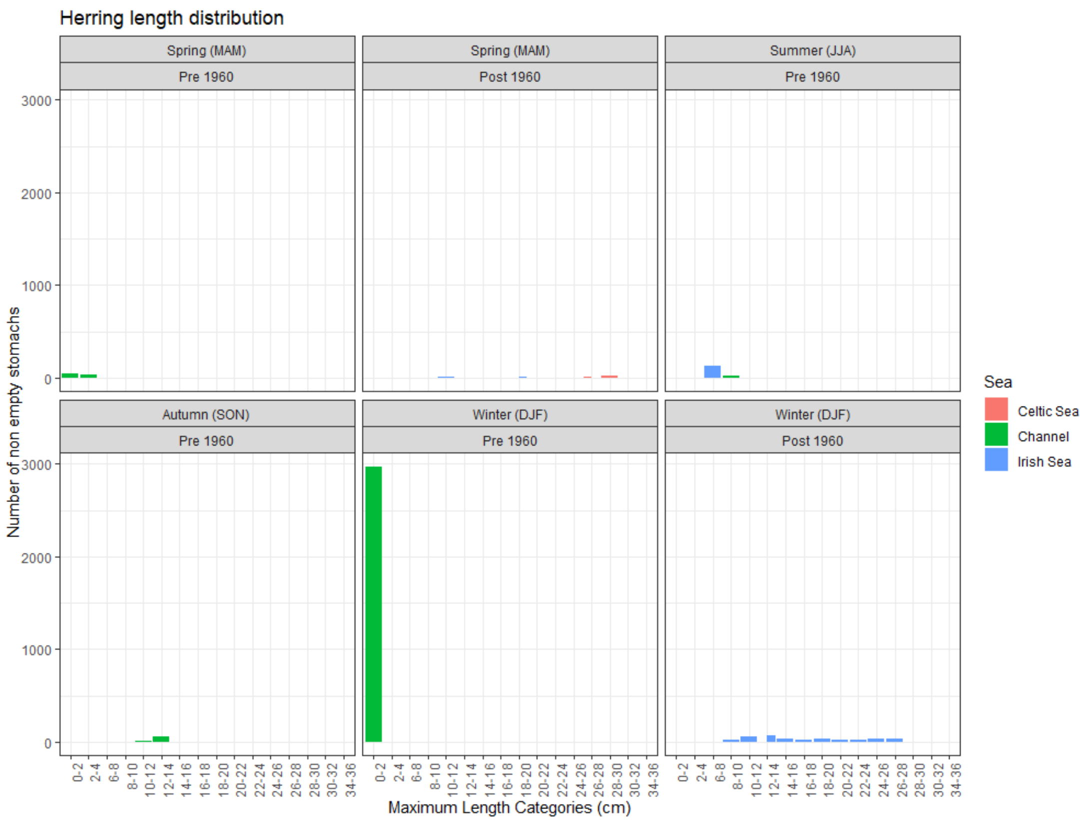


Figure S2: Length distribution of non-empty stomachs split by sea and season and pre-, post-1960. Seasons were defined by Spring (March – May); Summer (June – August); Autumn (September – October); December (December – February).

Table S2: Trophic levels assigned to each prey group.

Prey Group	Trophic Level	Reference/Justification
Amphipod	3	Hyperiidae - Lebour (1922) & Kaestner (1967)
Appendicularia	2.1	Based on the table from Jiming (1982) - Davis (1955)
Bivalve	2.1	Mollusca taken from Cortes (1999)
Chaetognath	3.5	Based on Sagitta from Jiming (1982) - Lebour (1922), Lebour (1924)
Cirripedes	2.1	Based on Barnacle nauplii from Jiming (1982) - Raymont (1963)
Cladocera	2.1	Based on the table from Jiming (1982) - Raymont (1963)
Copepod - Calanoida	2.22	Averaged from Jiming (1982) - Lebour (1922), Raymont (1963), Marshall & Orr (1972), Kaestner (1967)
Copepod - Cyclopoida	2.1	Based on Oithona sp from Jiming (1982) - Lebour (1922)
Copepod - Harpacticoida	2.1	Based on diet from Buffan-Dubau (1996), a particular species of harpacticoids eat purple phototrophic bacteria and phytoplankton (diatoms). Some species however do not just eat primary producers hence the justification for 2.1
Copepod eggs	1.5	Estimated - lower than copepod nauplii
Copepod nauplii	2	Estimated - lower than copepod (adult stage)
Crab	2.52	Decapod crustaceans - Taken from Cortes (1999)
Crustacean	2.52	Decapod crustaceans - Taken from Cortes (1999)
Diatoms	1	Assumed
Dinoflagellates	1	Assumed
Euphausid	2.2	Cortes (1999)
Gastropod	2.1	Mollusca taken from Cortes (1999)
Mollusc larvae	2.1	Mollusca taken from Cortes (1999)
Mysid	2.4	Based on the table from Jiming (1982) - Raymont (1963)
Phytoplankton other	1	Assumed
Shrimp	2.52	Decapod crustaceans - Taken from Cortes (1999)
Teleost	3.5	Pauly et al. (2000)
Teleost eggs	3.5	Pauly et al. (2000)
Teleost larvae	3.5	Pauly et al. (2000)
Tintinnid	2	Calculated from Karayanni et al. (2005), as they just eat primary producers and bacteria

References

Buffan-Dubau E, de Wit R, Castel J, (1996). Feeding selectivity of the harpacticoid copepod *Canuella perplexa* in benthic muddy environments demonstrated by HPLC analyses of chlorin and carotenoid pigments. Marine Ecology Progress Series, 137, pp.71-82

Cortés E (1999) Standardized diet compositions and trophic levels of sharks. – ICES Journal of Marine Science, 56: 707–717

Davis CC (1955) The marine and freshwater plankton, Michigan State University Press, East Lansing, Michigan

Jiming Y (1982). A tentative analysis of the trophic levels of North Sea fish. Mar. Ecol. Prog. Ser, 7, pp.247-252

Kaestner A (1967) Invertebrate zoology, Vol. 1, Interscience Publishers, New York

Karayanni H, Christaki U, Van Wambeke F, Denis M, Moutin T (2005) Influence of ciliated protozoa and heterotrophic nanoflagellates on the fate of primary production in the northeast Atlantic Ocean. Journal of Geophysical Research: Oceans, 110(C7)

Lebour MV (1922) The food of plankton organisms. J. mar. biol. Ass. U. K. 12: 644-677

Lebour MV (1924) The food of plankton organisms, II. J. mar. biol. Ass. U. K. 13: 70-92

Marshall SM, Orr AP (1972) The biology of a marine copepod, Springer-Verlag, Berli

Pauly D, Froese R, Sa-a P, Palomares ML, Christensen V, Rius J (2000) TrophLab manual. ICLARM, Los Baños, Laguna, Philippines

Raymont JG (1963) Plankton and productivity in the oceans, Pergamon Press, Oxford

Table S3: Size ranges of prey lengths used for Predator Prey Selection Ration (PPSR). Where a size range present the mid point of the size range is taken.

Prey Group	Size range	Reference
Amphipod	0.858 cm	DAPSTOM; Pinnegar (2014)
Appendicularia	5 mm (max. length)	Conway (2015) Page 230
Bivalve	0.05-0.2 mm	Peltic 2019; this study
Chaetognath	0.6 - 1.2 cm	DAPSTOM; Pinnegar (2014)
Cirripedes	380-870 µm	Walczyńska et al. (2019)
Cladocera	0.3-1.4 mm	Conway (2012b) Pages 13-16
Copepod - Calanoida	3 mm	Peltic 2019; this study
Copepod - Cyclopoida	0.5–1.5 mm	Peltic 2019; this study
Copepod - Harpacticoida	0.33 - 1.97 mm	Conway (2012b) Pages 120-131
Copepod eggs	0.05-0.08 mm	Conway (2012b) Page 40
Copepod nauplii	0.21-0.61 mm	Conway (2012b) Page 46
Crustacean	0.25-2 cm	DAPSTOM; Pinnegar (2014)
Diatoms	20-200 µm	Omori & Ikeda (1992)
Dinoflagellates	20 -350 µm	Sarjeant (1979)
Euphausid	1.43 cm	Peltic 2019; this study
Gastropod	0.16-0.8 mm	Peltic 2019; this study
Mollusc larvae	0.07 - 1 mm	Conway (2012a) Pages 118-119
Mysid	1.75cm	DAPSTOM; Pinnegar (2014)
Phytoplankton other	2- 20 microns	Finkel et al. (2010)
Shrimp	0.5-9cm	DAPSTOM; Pinnegar (2014)
Teleost	1.96cm	DAPSTOM; Pinnegar (2014)
Teleost eggs	0.91 - 1.7 mm	Conway (2015) Page 251
Teleost larvae	7.2 - 30 mm	Conway (2015) Pages 252-253
Tintinnid	0.02-0.2 mm	Conway. (2012a) Page 18

References

Conway DVP (2012a) Marine zooplankton of southern Britain. Part 1: Radiolaria, Heliozoa, Foraminifera, Ciliophora, Cnidaria, Ctenophora, Platyhelminthes, Nemertea, Rotifera and Mollusca. A.W.G. John (ed.). Occasional Publications. Marine Biological Association of the United Kingdom, No. 25, Plymouth, United Kingdom, 138 pp.

Conway DVP (2012b) Marine zooplankton of southern Britain. Part 2: Arachnida, Pycnogonida, Cladocera, Facetotecta, Cirripedia and Copepoda (ed. A.W.G. John). Occasional Publications. Marine Biological Association of the United Kingdom, No 26 Plymouth, United Kingdom 163 pp.

Conway DVP (2015) Marine zooplankton of southern Britain. Part 3: Ostracoda, Stomatopoda, Nebaliacea, Mysida, Amphipoda, Isopoda, Cumacea, Euphausiacea, Decapoda, Annelida, Tardigrada, Nematoda, Phoronida, Bryozoa, Entoprocta, Brachiopoda, Echinodermata, Chaetognatha, Hemichordata and Chordata. A.W.G. John (ed.). Occasional Publications. Marine Biological Association of the United Kingdom, No. 27, Plymouth, United Kingdom, 271 pp.

Finkel ZV, Beardall J, Flynn KJ, Quigg, A, Rees TAV, Raven JA (2010) Phytoplankton in a changing world: cell size and elemental stoichiometry. Journal of plankton research, 32(1), pp.119-137.

Omori M, Ikeda T (1992) Methods in Marine Zooplankton Ecology. Malabar, USA: Krieger Publishing Company. ISBN 978-0-89464-653-9

Pinnegar JK (2014) DAPSTOM - An Integrated Database & Portal for Fish Stomach Records. Version 4.7. Centre for Environment, Fisheries & Aquaculture Science, Lowestoft, UK. February 2014, 39pp

Sarjeant WAS (1979) Dinoflagellates . In: Paleontology. Encyclopedia of Earth Science. Springer, Berlin, Heidelberg. https://doi.org/10.1007/3-540-31078-9_48

Walczyńska KS, Søreide, JE, Weydmann-Zwolicka A, Ronowicz M, Gabrielsen TM (2019) DNA barcoding of Cirripedia larvae reveals new knowledge on their biology in Arctic coastal ecosystems. Hydrobiologia, 837(1), pp.149-159

Table S4: Frequency of abundance (F%) and occurrence (O%) of six pelagic species in Celtic Sea ecoregion. TL = Total length of fish species, ±- standard deviation (SD). n = number of prey items within in each stomach. Seasons were defined by Spring (March – May); Summer (June – August); Autumn (September – October); December (December – February).

Species/Prey Group	Spring (MAM)				Summer (JJA)				Autumn (SON)				Winter (DJF)			
	TL ±SD	n	F%	O%	TL ±SD	n	F%	O%	TL ±SD	n	F%	O%	TL ±SD	n	F%	O%
Herring	21.81 ± 7.48				7.87 ± 0.32				19.68 ± 5.53				17.25 +/- 5.80			
Copepod - Calanoida		404.00	38.51	25.32		20.82	80.52	100.00		69.25	95.49	64.20		120.00	17.83	19.19
Copepod - Harpacticoida		-	-	-		3.22	12.46	100.00		-	-	-		-	-	
Crustacean		-	-	-		0.80	3.09	12.99		-	-	-		144.00	21.40	20.20
Euphausiid		76.00	7.24	69.62		-	-			-	-	-		258.00	38.34	48.99
Mysid		-	-	-		1.01	3.92	87.01		3.27	4.51	38.27		-	-	
Teleost eggs		569.00	54.24	8.86		-	-	-		-	-	-		151.00	22.44	19.19
Herring larvae	1.97 ± 0.12												0.98 ± 0.07			
Bivalve		1.00	16.17	1.18		-	-	-		-	-	-		12.36	7.02	43.55
Cirripedes		1.00	16.17	1.18		-	-	-		-	-	-		-	-	
Copepod - Calanoida		3.18	51.48	98.82		-	-	-		-	-	-		53.00	30.10	52.51
Copepod eggs		1.00	16.17	1.18		-	-	-		-	-	-		26.00	14.77	1.62
Mollusc larvae		-	-	-		-	-	-		-	-	-		39.00	22.15	6.57
Phytoplankton other		-	-	-		-	-	-		-	-	-		45.71	25.96	37.11
Anchovy	16.42 ± 2.11								14.68 ±3.04							
Amphipod		4.00	18.18	33.33		-	-	-		-	-	-		-	-	-
Copepod - Calanoida		4.00	18.18	33.33		-	-	-		141.00	56.85	73.53		-	-	-
Copepod - Cyclopoida		-	-	-		-	-	-		24.00	9.68	17.65		-	-	-
Crustacean		1.00	4.55	8.33		-	-	-		56.00	22.58	23.53		-	-	-
Diatoms		-	-	-		-	-	-		27.00	10.89	11.76		-	-	-
Euphausid		2.00	9.09	16.67		-	-	-		12.00	4.84	5.88		-	-	-
Shrimp		11.00	50.00	58.33		-	-	-		-	-	-		-	-	-
Sardine	21.93 ±2.21				23.7 ± 0.00				11.12 ± 3.77			-				
Amphipod		3.00	33.33	60.00		-	-	-		-	-	-		-	-	-
Bivalve		-	-	-		-	-	-		30.00	3.69	39.34		-	-	-

Copepod - Calanoida		3.00	33.33	60.00		13020.00	41.33	99.06		623.00	76.54	63.93		-	-	-
Crustacean		-	-	-		1191.00	3.78	36.79		-	-	-		-	-	-
Diatoms		-	-	-		15795.00	50.13	47.17		111.00	13.64	50.82		-	-	-
Dinoflagellates		-	-	-		-	-	-		50.00	6.14	45.90		-	-	-
Gastropod		1.00	11.11	20.00		-	-	-		-	-	-		-	-	-
Phytoplankton other		2.00	22.22	40.00		1500.00	4.76	2.83		-	-	-		-	-	-
Sardine larvae					2.39 +/- 0.00							-				
Copepod eggs	-	-	-	-		2.00	100.00	100.00		-	-	-		-	-	-
Mackerel	32.86 ± 6.17				31.80 ±3.64							-	33.3 ±2.69			
Appendicularia		853.83	11.42	9.24		-	-	-		-	-	-		18.33	28.57	85.71
Chaetognath		359.17	4.80	8.80		-	-	-		-	-	-		-	-	-
Copepod - Calanoida		3926.48	52.53	68.55		2220.83	85.05	76.11		-	-	-		4.50	7.01	85.71
Copepod nauplii		453.50	6.07	18.04		135.17	5.18	31.86		-	-	-		-	-	-
Phytoplankton other		1159.83	15.52	21.11		-	-	-		-	-	-		33.33	51.95	85.71
Teleost		-	-	-		-	-	-		-	-	-		8.00	12.47	14.29
Teleost eggs		361.52	4.84	20.82		170.00	6.51	20.35		-	-	-		-	-	-
Teleost larvae		360.74	4.83	8.43		85.17	3.26	7.96		-	-	-		-	-	-
Mackerel larvae					0.59 +/- 0.19							-				
Cladocera		-	-	-		2.00	12.63	7.41		-	-	-		-	-	-
Copepod - Calanoida		-	-	-		3.25	20.53	74.07		-	-	-		-	-	-
Copepod nauplii		-	-	-		3.17	20.00	3.70		-	-	-		-	-	-
Copepod eggs		-	-	-		6.00	37.89	33.33		-	-	-		-	-	-
Phytoplankton other		-	-	-		1.42	8.95	44.44		-	-	-		-	-	-
Sprat	10.26 ±2.01								7.02			-	10.08			
Copepod - Calanoida		424.00	71.86	77.78		-	-	-		538.00	16.12	49.37		13427.00	28.32	65.23
Copepod - Cyclopoida		-	-	-		-	-	-		2800.00	83.88	12.66		-	-	-
Copepod eggs		71.00	12.03	2.22		-	-	-		-	-	-		-	-	-
Diatoms		95.00	16.10	2.22		-	-	-		-	-	-		-	-	-
Teleost eggs		-	-	-		-	-	-		-	-	-		33983.00	71.68	93.80

Sprat larvae	0.58								0.85 ±2.18				0.48 ±1.40			
Bivalve		-	-	-		-	-	-		-	-	-		1.00	14.41	1.30
Copepod - Calanoida		1.20	12.50	8.57		-	-	-		1.14	25.81	72.73		-	-	-
Copepod - Harpacticoida		1.00	10.42	1.43		-	-	-		-	-	-		-	-	-
Copepod eggs		1.00	10.42	1.43		-	-	-		-	-	-		-	-	-
Diatoms		-	-	-		-	-	-		1.14	25.81	72.73		-	-	-
Phytoplankton other		6.40	66.66	90.00		-	-	-		1.14	25.81	72.73		5.94	85.59	93.51
Tintinnid		-	-	-		-	-	-		1.00	22.58	9.09		-	-	-
Horse mackerel	25.93 +/- 6.46								7.5 +/- 3.25			-				
Copepod - Calanoida		1028.00	79.38	30.77		-	-	-		343.00	70.87	76.19		-	-	-
Copepod - Cyclopoida		-	-	-		-	-	-		45.00	9.30	14.29		-	-	-
Crustacean		-	-	-		-	-	-		78.00	16.12	23.81		-	-	-
Euphausid		267.00	20.62	52.75		-	-	-		18.00	3.72	33.33		-	-	-
Horse mackerel larvae					1.28 +/- 0.27				2.87 +/- 0.71			-				
Cladocera		-	-	-		2.33	15.56	66.67		-	-	-		-	-	-
Copepod - Calanoida		-	-	-		5.67	37.78	100.00		7.00	58.33	85.71		-	-	-
Copepod - Cyclopoida		-	-	-		3.33	22.22	66.67		-	-	-		-	-	-
Crustacean		-	-	-		-	-			2.00	16.67	14.29		-	-	-
Diatoms		-	-	-		3.67	24.44	66.67		-	-	-		-	-	-
Euphausid		-	-	-		-	-	-		3.00	25.00	14.29		-	-	-

Table S5: Pairwise Pianka Index of 6 pelagic species pairs in the Celtic Sea ecoregion bootstrapped with 1000 iterations, 95% confidence interval (CI), and calculated normalised spread across seasons. Dash represents no normalised spread can be calculated. Spread was calculated from bootstrapping outputs, "Boot CI2" – "Boot CI1). Normalised spread was calculated by dividing the spread by the average of the Pianka index multiplied by 100. Boostrapping outputs were generated from 'Spaa' R package: Zhang J (2016) spaa: SPecies Association Analysis. R package version 0.2.2. https: //cran.r-project.org/web/packages/spaa/spaa.pdf.

Season	Species Pair	Pianka Index	Boot CI1	Boot CI2	Iterations	Spread	Normalised Spread
Spring	Anchovy-Herring	0.2	0	0.943	1000	0.943	471.500
Spring	Anchovy-Herring larvae	0.28	0	0.864	1000	0.864	308.571
Spring	Anchovy-Horse mackerel	0.348	0.123	0.985	1000	0.862	247.701
Spring	Anchovy-Mackerel	0.294	0	0.9	1000	0.9	306.122
Spring	Anchovy-Sardine	0.398	0	0.96	1000	0.96	241.206
Spring	Anchovy-Sprat	0.306	0	0.906	1000	0.906	296.078
Spring	Anchovy-Sprat larvae	0.057	0	0.635	1000	0.635	1114.035
Spring	Herring larvae-Horse mackerel	0.85	0	0.984	1000	0.984	115.765
Spring	Herring larvae-Mackerel	0.811	0	0.954	1000	0.954	117.633
Spring	Herring larvae-Sardine	0.549	0	0.908	1000	0.908	165.392
Spring	Herring larvae-Sprat	0.89	0	0.99	1000	0.99	111.236
Spring	Herring larvae-Sprat larvae	0.2	0	0.951	1000	0.951	475.500
Spring	Herring-Herring larvae	0.506	0	0.96	1000	0.96	189.723
Spring	Herring-Horse mackerel	0.584	0.094	1	1000	0.906	155.137
Spring	Herring-Mackerel	0.6	0	0.977	1000	0.977	162.833
Spring	Herring-Sardine	0.36	0	0.905	1000	0.905	251.389
Spring	Herring-Sprat	0.554	0	0.987	1000	0.987	178.159
Spring	Herring-Sprat larvae	0.104	0	0.768	1000	0.768	738.462
Spring	Horse mackerel-Mackerel	0.894	0	0.985	1000	0.985	110.179
Spring	Horse mackerel-Sardine	0.605	0	0.968	1000	0.968	160.000
Spring	Horse mackerel-Sprat	0.932	0	1	1000	1	107.296
Spring	Horse mackerel-Sprat larvae	0.174	0	0.905	1000	0.905	520.115
Spring	Mackerel-Sardine	0.691	0	0.966	1000	0.966	139.797
Spring	Mackerel-Sprat	0.889	0	0.98	1000	0.98	110.236
Spring	Mackerel-Sprat larvae	0.428	0	0.938	1000	0.938	219.159
Spring	Sardine-Sprat	0.602	0	0.963	1000	0.963	159.967
Spring	Sardine-Sprat larvae	0.513	0	0.974	1000	0.974	189.864
Spring	Sprat-Sprat larvae	0.198	0	0.953	1000	0.953	481.313
Summer	Herring-Horse mackerel larvae	0.709	0	0.978	1000	0.978	137.941
Summer	Herring-Mackerel	0.981	0	0.998	1000	0.998	101.733
Summer	Herring-Mackerel larvae	0.405	0	0.903	1000	0.903	222.963
Summer	Herring-Sardine	0.627	0	0.997	1000	0.997	159.011
Summer	Herring-Sardine larvae	0	0	0	1000	0	-
Summer	Horse mackerel larvae-Mackerel	0.715	0	0.991	1000	0.991	138.601
Summer	Horse mackerel larvae-Mackerel larvae	0.37	0	0.832	1000	0.832	224.865
Summer	Horse mackerel larvae-Sardine	0.813	0	0.992	1000	0.992	122.017

Summer	Horse mackerel larvae-Sardine larvae	0	0	0	1000	0	-
Summer	Mackerel larvae-Sardine	0.273	0	0.823	1000	0.823	301.465
Summer	Mackerel larvae-Sardine larvae	0.758	0.656	0.982	1000	0.326	43.008
Summer	Mackerel-Mackerel larvae	0.433	0	0.914	1000	0.914	211.085
Summer	Mackerel-Sardine	0.63	0	0.996	1000	0.996	158.095
Summer	Mackerel-Sardine larvae	0	0	0	1000	0	-
Summer	Sardine-Sardine larvae	0	0	0	1000	0	-
Autumn	Anchovy-Herring	0.903	0	0.994	1000	0.994	110.078
Autumn	Anchovy-Horse mackerel	0.979	0.664	1	1000	0.336	34.321
Autumn	Anchovy-Horse mackerel larvae	0.956	0	0.994	1000	0.994	103.975
Autumn	Anchovy-Sardine	0.917	0	0.999	1000	0.999	108.942
Autumn	Anchovy-Sprat	0.322	0.276	1	1000	0.724	224.845
Autumn	Anchovy-Sprat larvae	0.555	0	0.883	1000	0.883	159.099
Autumn	Herring-Horse mackerel	0.955	0	0.999	1000	0.999	104.607
Autumn	Herring-Horse mackerel larvae	0.861	0	1	1000	1	116.144
Autumn	Herring-Sardine	0.979	0	0.999	1000	0.999	102.043
Autumn	Herring-Sprat	0.188	0	1	1000	1	531.915
Autumn	Herring-Sprat larvae	0.515	0	0.866	1000	0.866	168.155
Autumn	Horse mackerel larvae-Sardine	0.845	0	0.995	1000	0.995	117.751
Autumn	Horse mackerel larvae-Sprat	0.163	0	0.995	1000	0.995	610.429
Autumn	Horse mackerel larvae-Sprat larvae	0.444	0	0.855	1000	0.855	192.568
Autumn	Horse mackerel-Horse mackerel larvae	0.954	0	1	1000	1	104.822
Autumn	Horse mackerel-Sardine	0.937	0	0.995	1000	0.995	106.190
Autumn	Horse mackerel-Sprat	0.304	0.283	1	1000	0.717	235.855
Autumn	Horse mackerel-Sprat larvae	0.493	0	0.904	1000	0.904	183.367
Autumn	Sardine-Sprat	0.185	0	0.999	1000	0.999	540.000
Autumn	Sardine-Sprat larvae	0.595	0	0.989	1000	0.989	166.218
Autumn	Sprat-Sprat larvae	0.097	0	0.793	1000	0.793	817.526
Winter	Herring larvae-Mackerel	0.529	0	0.886	1000	0.886	167.486
Winter	Herring larvae-Sprat	0.229	0	0.853	1000	0.853	372.489
Winter	Herring larvae-Sprat larvae	0.554	0.138	0.988	1000	0.85	153.430
Winter	Herring-Herring larvae	0.212	0	0.635	1000	0.635	299.528
Winter	Herring-Mackerel	0.039	0	0.329	1000	0.329	843.590
Winter	Herring-Sprat	0.523	0.276	1	1000	0.724	138.432
Winter	Herring-Sprat larvae	0	0	0	1000	0	-
Winter	Mackerel-Sprat	0.042	0	0.476	1000	0.476	1133.333
Winter	Mackerel-Sprat larvae	0.84	0	0.991	1000	0.991	117.976
Winter	Sprat-Sprat larvae	0	0	0	1000	0	-