

Supplementary Material

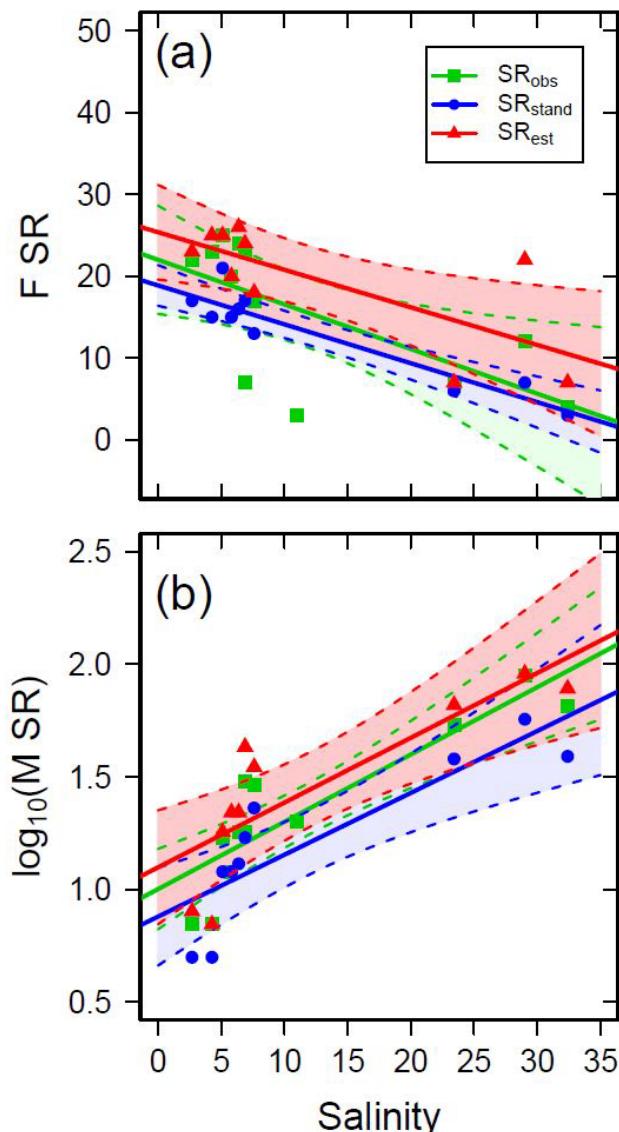


Figure S1. Scatterplots of the species richness (SR) of fish with (a) freshwater (F) and (b) marine (M, \log_{10} -transformed) origin against mean water salinity. Each plot shows the observed, standardized and estimated SR, and, when significant ($P < 0.05$), the linear regression lines (solid) and 95%-confidence intervals (shaded areas surrounded by dashed lines). For regression equations and statistics see Table 5.

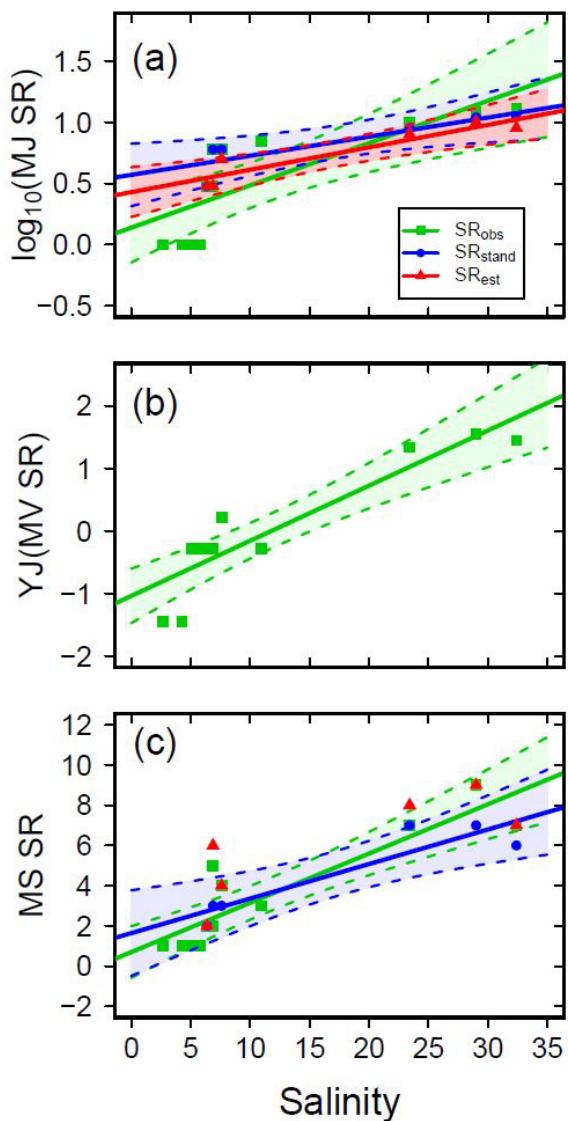


Figure S2. Scatterplots of the fish species richness (SR) of (a) marine juvenile migrants (MJ, \log_{10} -transformed), (b) marine visitors (MV, Yeo-Johnson-transformed) and (c) marine seasonal migrants (MS) against mean water salinity. Symbols are the observed, standardized and estimated SR, and, when significant ($P<0.05$), the linear regression lines (solid) and 95%-confidence intervals (shaded areas surrounded by dashed lines). For regression equations and statistics see Table 5. In (b), for clarity following transformation, only the observed SR is shown (no transformation needed for the standardized and estimates values and no significant relationships, Table 5). Relationships between the SR of coastal resident (CR) and catadromous or anadromous migrants (CA) with salinity were not significant and are therefore not shown (Table 5).

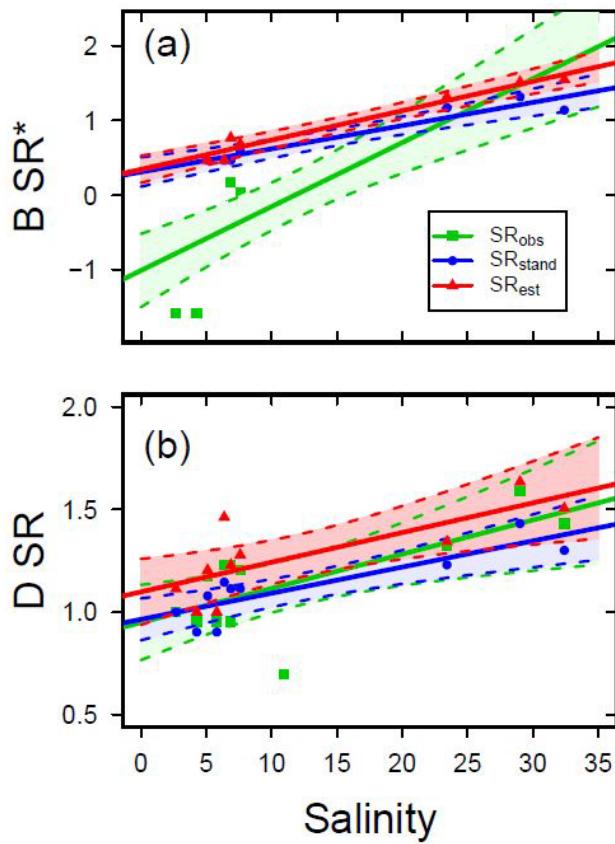


Figure S3. Scatterplots of the species richness (SR) of (a) benthic (B, Yeo-Johnson-transformed for SR_{obs} , and \log_{10} -transformed for SR_{std} and SR_{est}) and (b) demersal (D) fish against mean water salinity. Each plot shows the observed, standardized and estimated SR, and, when significant ($P < 0.05$), the linear regression lines (solid) and 95%-confidence intervals (shaded areas surrounded by dashed lines). The different lines and shaded confidence intervals are partly overlying each other within the panels in some cases, indicating very similar regression statistics. For regression equations and statistics see Table 5. Relationships between the SR of demersal-pelagic (DP) and pelagic (P) fish and salinity were not significant and are therefore not shown (Table 5).

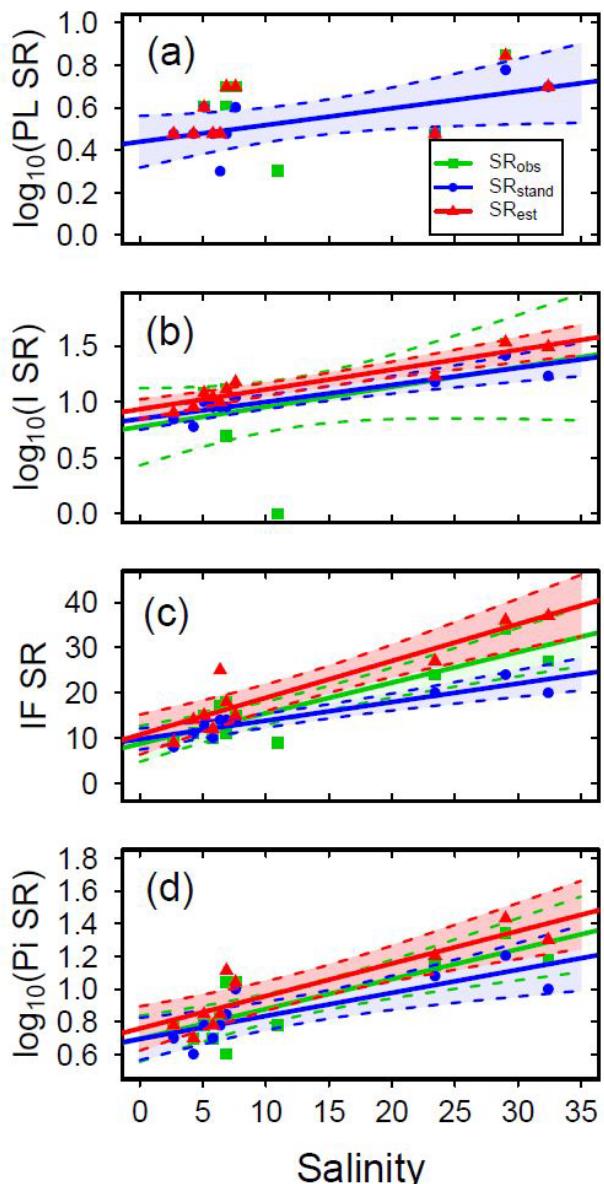


Figure S3. Scatterplots of the species richness (SR) of (a) planktivorous (PL, \log_{10} -transformed), (b) invertebrate feeding (I, \log_{10} -transformed), (c) invertebrate and fish feeding (IF) and (d) piscivorous (P, \log_{10} -transformed) fish against mean water salinity. Each plot shows the observed, standardized and estimated SR, and, when significant ($P<0.05$), the linear regression lines (solid) and 95%-confidence intervals (shaded areas surrounded by dashed lines). The different lines and shaded confidence intervals are partly overlying each other within the panels in some cases, indicating very similar regression statistics. For regression equations and statistics see Table 5. Relationships between omnivorous fish (O) and salinity were not significant and are therefore not shown (Table 5).

Table S1. Number of samples (fishing occasions) per fishing gear type/method for each sub-basin, separately for shallow coastal and offshore waters (<30 m). NA: not available.

Sub-basin	Coastal						Offshore							
	Gill nets	Trap and traps	nets	Trawls	Low impact detonations	Beach seine	NA	Gill nets	Trap and traps	nets	Trawls	Low impact detonations	Beach seine	NA
Bothnian Bay	37	13	11	3		6	0	1	0	3	0		0	0
The Quark	60	0	0	4		0	7	0	0	0	0		0	0
Bothnian Sea	86	23	0	51		18	16	4	6	0	0		7	0
Åland Sea	21	0	0	6		1	3	0	0	0	0		0	0
N Baltic Proper	45	5	0	23		0	4	4	0	0	0		0	0
E Gotland Basin	10	0	0	0		0	3	6	0	0	0		0	0
W Gotland Basin	240	108	0	47		0	16	4	0	0	0		0	0
Bornholm Basin	40	20	0	8		0	5	11	3	0	0		0	0
Arkona Basin	0	3	0	0		0	4	2	15	0	0		0	0
The Sound	2	58	59	0		0	0	0	0	0	0		0	0
Kattegat	0	120	227	0		0	6	0	4	133	0		0	0
Skagerrak	0	99	140	0		0	0	0	0	5	0		0	0

Table S2. Coastal fish SR per functional attribute across the studied sub-basins. Numbers give the observed SR, the values in brackets are the standardized SR (first value, with confidence interval), estimated SR (second value, with standard error), and observed SR when presence only observations are also included (third value). Standardization was conducted across sub-basins to the lowest inventory completeness within each functional attribute. *n*=denotes sample size, i.e. number of unique fishing occasions during which fish species incidence with the respective functional attribute were reported. Observed values are given for all sub-basins with available data, but standardized and estimated values are only given for sub-basins with data from at least 25 fishing occasions (NA: not available; n.d.: not determined). This analysis was conducted for shallow coastal waters, and the sub-basins are sorted according to increasing salinity (see Table 1). For acronyms see Sect. 2.4.

Sub-basin	Origin		Habitat preference				Vertical distribution				Feeding habit						
	F	M	CR	CA	MJ	MS	MV	B	D	DP	P	PL	O	I	IF	Pi	
Bothnia	22	7	23	4 (3 ³ ₃ ;	1	1 (n.d.;	0	0 (n.d.;	10	11	8 (7 ⁸ ₇ ;	3 (3 ³ ₂ ;	3 (2 ² ₂ ;	8 (7 ⁸ ₆ ;	9	6 (5 ⁶ ₅ ;	
n Bay	(17 ¹⁸ ₁₆ ;	(5 ⁶ ₅ ;	(19 ²⁰ ₁₇ ;	4 ± 1;	(	n.d. ; 1);	(	n.d.;	(10 ¹² ₈ ;	(9 ¹⁰ ₈ ;	8	3	3 ± 1;	8 ± 1;	(8 ⁹ ₇ ;	6 ± 1;
	23 ± 8 ± 26	7);	n.d. ; n.d. ; n=6	n.d. ; n.d. ; 2); n=0	n.d. ; n.d. ; 2); n=0	n.d. ; n.d. ; 2); n=0	n.d. ; n.d. ; 2); n=0	n.d. ; n.d. ; 2); n=0	13	11	± 0.1;	± 0.1;	4); n=39	9); n=70	9	6); n=63	
	2; 24);	2;	± 5;	n=49	1); n=48	0); n=0	0); n=0	0); n=0	± 4;	± 1;	8);	4); n=54			± 1;		
	n=70	10);	25);						11);	13);	n=67				11);		
			n=54	n=70					n=45 ^a	n=7					n=6		
									0						2		
The Quark	23	7	25	3 (3 ³ ₂ ;	1	1 (n.d.;	0	0	9 (8 ⁹ ₇ ;	12	9 (7 ⁸ ₆ ;	3 (3 ³ ₃ ;	3 (3 ³ ₂ ;	8 (6 ⁷ ₆ ;	11	5 (4 ⁵ ₄ ;	
	(15 ¹⁶ ₁₄ ;	(5 ⁵ ₄ ;	(18 ¹⁹ ₁₇ ;	3	(	n.d. ; 1);	(n.d.	(n.d.	10	(8 ⁹ ₈ ;	10	3 ±	3	9 ± 1;	(	5
	25 ± 7 ± 29	± 0.1;	n.d. ; n.d. ; n=20	n.d. ; n.d. ; n=20	n.d. ; n.d. ; n=20	n.d. ; n.d. ; n=20	n.d. ; n.d. ; n=20	n.d. ; n.d. ; n=20	± 2;	13	± 1;	< 0.1;	± 0.1;	9); n=64	11 ¹³ ₉ ;	± 0.4;	
	3; 23);	1;	± 5;	3);	1); n=62	0); n=0	2); n=0	9);	± 1;	9);	5); n=62	3); n=71			14	5); n=64	
	n=71	12);	28);	n=27					n=59	13);	n=63				± 4;		
			n=71	n=64					n=6						11);		
									4						n=5		
															4		
Bothnia	25	17	35	4 (4 ⁴ ₄ ;	1	1	1 (n.d.;	3 (3 ³ ₃ ;	15	15	9 (8 ⁸ ₇ ;	4 (4 ⁴ ₄ ;	5 (4 ⁵ ₄ ;	12	15	6 (6 ⁶ ₅ ;	
n Sea	(21 ²¹ ₂₀;	(	(28 ²⁸ ₂₇ ;	4 ±	(n.d.	(n.d.	n.d. ; 1);	3	(12 ¹² ₁₁;	(	9	4 ±	5	(10 ¹⁰ ₁₀;	(	6
	25 ± 12 ¹² ₁₁	36	< 0.1;	;	n.d. ;	;	n.d. ;	n=9	± 0.001;	16	12 ¹³ ₁₂ ;	± 0.02;	< 0.1;	± 0.03;	12 ± 1;	13 ¹³ ₁₂ ;	± 0.01;
	0.1; 28 ;	18	± 2;			1); n=42		6); n=35	± 2;								

	13);	24);	n=5	n=13			n=10	11);	12);	7);	n=7		14);			
W	23	30	36	4	6 (3 ₃ ³ ;	5 (3 ₃ ⁴ ;	1 (n.d.;	6 (3 ₃ ³ ;	17	18	11	5 (3 ₃ ³ ;	5 (5 ₄ ⁵ ;	13 (9 ₉ ¹⁰ ;	18	11 (7 ₇ ⁷ ;
Gotland	(17 ₁₆ ¹⁷ ;	((26 ₂₆ ²⁷ ;	(7 ±	6 ±	n. d.;	6 ± 1;	(13 ₁₃ ¹³ ;	((7 ₆ ⁷ ;	5 ± 1;	5 ± 1;	13	(13 ± 4;
Basin	24 ±	17 ₁₆ ¹⁷	37	3 ₃ ³ ; 4 ± 2; 7);	2; 5);	1); n=28	11);	17	14 ₁₄ ¹⁴ ;	13	6);	8);	± 0.4;	14 ₁₄ ¹⁵ ;	11);	
	1; 28);	;	43	± 1;	0.3; 7)	n=303	n=149	n=306	± 0.4;	19	± 4;	n=289	n=284	15);	18 n=380	
	n=395	± 17;	39);	;				17);	± 2;	11);			n=360	± 1;		
			33);	n=389	n=259			n=379	19);	n=336				19);		
			n=39						n=3					n=3		
			0						78					75		
Bornho	17	29	30	4	6 (5 ₅ ⁶ ;	4 (3 ₃ ⁴ ;	2 (1 ₁ ² ;	5 (4 ₄ ⁴ ;	16	17	8 (7 ₆ ⁸ ;	5 (4 ₄ ⁵ ;	3 (3 ₂ ³ ;	12	15 11	
lm	(13 ₁₂ ¹³ ;	((25 ₂₄ ²⁶ ;	(6 ±	4 ±	2 ±	5 ± 1;	(13 ₁₃ ¹⁴ ;	(9	5 ± 1;	3	(11 ₉ ¹² ;	((10 ₉ ¹¹ ;
Basin	18 ±	23 ₂₂ ²⁴	33	4 ₃ ⁵ ; 4 ± 0.1; 7);	1; 4);	1; 2);	9); n=44	19	15 ₁₄ ¹⁶ ;	± 1;	5); n=50	± 0.2;	15 ± 4;	14 ₁₄ ¹⁵ ;	11 ± 1;	
	1; 23);	;	35	± 5;	0.4; 7)	n=50	n=36	n=27	± 5;	17	9);		5); n=53	14);	15 11);	
	n=57	± 7;	34);	;	n=31			18);	± 0.4;	n=54			n=54	± 0.3;	n=56	
			36);	n=56				n=67	17);					19);		
			n=72						n=5					n=6		
									6					7		
Arkona	3	20	4 (n.d.;	3	7	3 (n. d.;	1	5 (n. d.;	5 (n. d.;	2	6	2	0	1	9 6	
Basin	(n. d.;	(n. d.	n. d.;	17	(n. d.;	(n. d.	n. d. ; 3);	(n. d.	n. d. ; 7);	n. d.;	(	(n. d.;	(n. d.	(n. d.	(n. d.
	n. d.;	;	)	n=3	n. d. ; 3	n. d. ;	n=2	n. d. ;	n=3	8); n=3	n. d.;	n. d. ; 8	n. d. ;	n. d. ;	n. d. ;
	6);	n.d.;		); n=4	7); n=3		1); n=1			n. d. ;	n=3	4);	0); n=0	6); n=1	n. d. ; 7); n=3
	n=3	31);							8);		n=3			14);		
		n=7							n=3					n=3		

The Sound	7 (6 ₅ ⁸ ; n=36 ;	54	26	2	10 (8 ₈ ⁹ ; n=94	7 (7 ₅ ⁸ ; n=48	15 (15 ₁₁ ¹⁹ ; n=53 ^a	19	21	14	6 (6 ₄ ⁸ ; n=95	3 (3 ₃ ³ ; n=25	3	16	24	14
	7 ± 1; 9);	(21 ₂₀ ²² ;	(10 ± 2 ₂ ; 2 ± 1; 10);	8 ± 1; 7);	23 ± 11; 17);	(15 ₁₄ ¹⁶ ;	(17 ₁₆ ¹⁹ ;	(7	3 ± ± 1;	< 0.1;	; n. d.	(15 ₁₃ ¹⁶ ;	(12 ₁₀ ¹⁴ ;			
	38 ₃₇ ⁴⁰	27	2 ₂ ; 2 ± 1;	0.03; 2	n=94	n=48	n=53 ^a	21 ± 4;	22	11 ₉ ¹² ;	± 1;	< 0.1;	; n. d.	17 ± 2;	20 ₁₉ ²¹ ;	16 ± 3;
	66 ± 1;	0.03; 2	n=94	n=48	n=53 ^a	n=95	n=95	21);	± 2;	16	7);	4); n=29	4); n=7	16);	27	14);
	± 13;	28 );	);					21);	± 3;	n=25				n=81	± 5;	n=95
	62);	n=93	n=59					n=79	15);						26);	
	n=11								n=9							n=1
	9								5							01
Kattega t	12 (7 ₆ ⁸ ; n=109	89	42	7	12 (10 ₉ ¹⁰ ; n=96);	9 (7 ₆ ⁷ ; n=312	31 (23 ₂₂ ²⁴ ;	31	39	15	16	7 (6 ₆ ⁶ ;	5 (5 ₃ ⁷ ;	33	34	22
	(26 ₂₅ ²⁷ ;	(12 ± 57 ₅₆ ⁵⁸	45	6 ₅ ; 7 ± 0.3; 13);	0.4; 9);	12; 34);	39 ± n=230	(21 ₂₀ ²² ;	(27 ₂₆ ²⁸ ;	(12 ₁₁ ¹² ;	7 ± 1;	6 ± 1;	(26 ₂₅ ²⁷ ;	(16 ₁₆ ¹⁷ ;		
	22 ± 10;	91 ± 3;	1; 8);	n=323	n=230	n=299	33 ± 4;	43	10 ₉ ¹⁰ ;	16	9);	5);	34 ± 2;	24 ₂₃ ²⁴ ;	27 ± 7;	
	± 10;	91 ± 3;	1; 8);	n=323	n=230	n=299	33);	± 5;	20	± 1;	n=222	n=36 ^a	36);	36	25);	
	19);	± 3;	49);	n=171			n=320	40);	± 7;	22);			n=241	± 2;	n=319	
	n=109	96);	n=312				n=302	18);	n=251						38);	
	n=35								n=3						n=3	
	4								22						32	
Skagerr ak	4 (3 ₂ ⁵ ; n=64	65	24	4	13 (9 ₉ ¹⁰ ; n=217	7 (6 ₅ ⁶ ; n=106	21 (15 ₁₄ ¹⁶ ;	24	27	8	10	5 (5 ₄ ⁶ ;	0	22	27	15
	7 (16 ₁₆ ¹⁷ ;	(14 ± 39 ₃₈ ⁴⁰	30	4 ₃ ⁴ ; 5 ± 2; 14);	1; 8);	7; 39);	27 ± n=170	(14 ₁₄ ¹⁵ ;	(20 ₁₉ ²¹ ;	(5 ₅ ⁵ ;	(7 ₆ ⁸ ;	5 ± 1;	(n. d.	(17 ₁₅ ¹⁸ ;	(10 ₁₀ ¹¹ ;	
	± 4;	39 ₃₈ ⁴⁰	30	4 ₃ ⁴ ; 5 ± 2; 14);	1; 8);	7; 39);	36	32	8	16	8); n=45	; n. d.	31	20 ₁₉ ²⁰ ;	20 ± 7;	
	10);	78 ± 7;	2; 6);	n=217	n=106	n=170	± 13;	± 7;	± 1;	± 7;		1); n=0	± 10;	37	23);	
	n=64	± 11;	39);	n=103			34);	44);	11);	17);		1); n=0	± 10;	37	23);	
	96);	n=217					n=217	n=225	n=2	n=131			n=164	± 10;	n=213	
	n=23								12					n=2		
	9													30		

^a Standardization of the SR of this functional attribute was conducted to the inventory completeness of this sub-basin.

Table S3. Observed fish species incidence and assigned functional attributes per sub-basin for Swedish shallow coastal waters (< 30 m), summarized from the incidence dataset compiled for the years 1979–2020. Please note that the information in this table does not directly correspond to the information in figures 3 to 6, which shows standardized species richness.

Species	Åland Sea	Arkona Basin	Bornholm Basin	Bothnian Bay	Bothnian Sea	E Gotland Basin	Kattegat	N Baltic Proper	Skagerrak	The Quark	The Sound	W Gotland Basin	Origin	Habitat	Vertical	Feeding
<i>Abramis brama</i>	24	0	11	19	61	0	0	41	0	1	0	109	F	CR	D	I
<i>Acipenser sturio</i>	0	0	0	1	0	0	0	0	0	0	0	0	F	CA	D	Pi
<i>Agonus cataphractus</i>	0	2	0	0	0	0	114	0	29	0	17	3	M	CR	D	I
<i>Alburnus alburnus</i>	23	0	38	22	150	1	3	67	0	62	0	170	F	CR	P	I
<i>Alosa fallax</i>	0	0	0	0	0	0	1	0	0	0	0	0	F	CA	DP	IF
<i>Amblyraja radiata</i>	0	0	0	0	0	0	6	0	1	0	23	0	M	CR	B	IF
<i>Ammodytes marinus</i>	0	0	1	0	0	0	0	0	0	0	0	0	M	CR	B	PL
<i>Ammodytes tobianus</i>	1	0	13	0	15	1	1	3	1	0	0	6	M	CR	B	PL
<i>Anarhichas lupus</i>	0	0	0	0	0	0	41	0	0	0	0	0	M	MV	D	I
<i>Anguilla anguilla</i>	0	3	24	0	24	0	165	6	99	0	59	119	M	CA	D	IF
<i>Aphia minuta</i>	0	0	0	0	0	0	54	0	0	0	0	0	M	CR	P	PL
<i>Argentina sphyraena</i>	0	0	0	0	0	0	1	0	0	0	0	0	M	MV	D	IF
<i>Arnoglossus laterna</i>	0	0	0	0	0	0	71	0	58	0	12	0	M	MV	B	IF
<i>Atherina presbyter</i>	0	0	0	0	0	0	2	0	0	0	0	0	M	CR	P	IF
<i>Belone belone</i>	0	1	7	0	0	0	4	0	1	0	3	11	M	MS	P	Pi
<i>Blicca bjoerkna</i>	24	0	33	0	80	0	0	58	0	1	1	199	F	CR	DP	IF
<i>Buglossidium luteum</i>	0	0	0	0	0	0	14	0	1	0	0	0	M	MV	B	I
<i>Callionymus lyra</i>	0	0	0	0	0	0	60	0	33	0	4	0	M	MV	B	I
<i>Callionymus maculatus</i>	0	0	0	0	0	0	55	0	10	0	6	0	M	MV	B	I
<i>Callionymus reticulatus</i>	0	0	0	0	0	0	1	0	0	0	0	0	M	CR	B	I
<i>Carassius carassius</i>	2	0	0	1	24	0	0	26	0	4	2	67	F	CR	DP	O
<i>Centrolabrus exoletus</i>	0	0	0	0	0	0	23	0	11	0	3	0	M	CR	D	I
<i>Chelon labrosus</i>	0	0	0	0	0	0	8	0	0	0	2	1	M	MS	DP	O
<i>Chondrostoma nasus</i>	0	0	0	0	0	0	0	1	0	0	0	0	F	CR	D	O
<i>Ciliata mustela</i>	0	0	0	0	0	0	116	0	45	0	1	0	M	MV	D	IF

<i>Cirolophis ascanii</i>	0	0	0	0	0	0	2	0	0	0	0	0	M	CR	D	O
<i>Clupea harengus</i>	29	7	52	48	131	10	212	66	31	69	12	298	M	MJ	P	PL
<i>Coregonus albula</i>	0	0	0	38	10	0	0	0	0	23	0	1	F	CR	P	PL
<i>Coregonus maraena</i>	22	0	26	62	108	1	0	29	1	67	0	225	F	CR	D P	I
<i>Cottus gobio</i>	0	0	1	3	29	0	0	3	0	7	0	5	F	CR	D	I
<i>Cottus poecilopus</i>	1	0	0	7	14	0	0	1	0	3	0	0	F	CR	D	IF
<i>Ctenolabrus rupestris</i>	0	0	0	0	0	0	141	0	97	0	36	0	M	CR	D	I
<i>Cyclopterus lumpus</i>	0	2	8	0	0	2	83	1	10	0	25	10	M	MS	D	IF
<i>Dicentrarchus Labrax</i>	0	0	0	0	0	0	20	0	4	0	0	0	M	MJ	D	Pi
<i>Enchelyopus cimbrius</i>	0	0	0	0	0	0	15	0	2	0	0	0	M	MV	D	I
<i>Engraulis encrasiculus</i>	0	0	0	0	0	0	29	0	3	0	0	0	M	MS	P	PL
<i>Entelurus aequoreus</i>	0	0	0	0	0	0	43	0	6	0	7	0	M	MV	D	IF
<i>Esox lucius</i>	18	0	37	23	92	0	1	64	0	44	2	298	F	CR	D	Pi
<i>Eutrigla gurnardus</i>	0	0	0	0	0	0	105	0	79	0	26	0	M	MS	B	IF
<i>Gadus morhua</i>	0	7	39	0	0	8	316	5	212	0	110	145	M	MJ	D P	Pi
<i>Gasterosteus aculeatus</i>	8	0	15	23	134	5	38	32	8	51	7	121	M	CR	D P	IF
<i>Glyptocephalus cynoglossus</i>	0	0	0	0	0	0	2	0	1	0	1	0	M	MV	B	I
<i>Gobio gobio</i>	0	0	0	0	0	0	1	0	0	0	0	0	F	CR	D	I
<i>Gobius niger</i>	13	4	31	0	58	3	161	38	154	1	38	109	M	CR	D	IF
<i>Gobiusculus flavescens</i>	0	0	3	0	0	1	54	0	3	0	17	9	M	CR	D P	PL
<i>Gymnocephalus cernuus</i>	29	0	27	48	141	0	0	67	0	69	0	263	F	CR	D P	I
<i>Hippoglossoides platessoides</i>	0	0	0	0	0	0	175	0	85	0	46	0	M	MV	B	IF
<i>Hippoglossus hippoglossus</i>	0	0	0	0	0	0	2	0	0	0	0	0	M	MS	D P	Pi
<i>Hyperoplus lanceolatus</i>	1	4	29	0	9	6	24	2	0	0	1	31	M	MV	D P	Pi
<i>Labrus bergylta</i>	0	0	0	0	0	0	70	0	44	0	0	0	M	CR	D	I
<i>Labrus mixtus</i>	0	0	0	0	0	0	7	0	1	0	0	0	M	CR	D	I
<i>Lampetra fluviatilis</i>	0	0	0	0	0	0	18	0	0	0	0	0	F	CA	B	O
<i>Leptoclinus maculatus</i>	0	0	0	0	0	0	0	0	2	0	0	0	M	MJ	D	I
<i>Lesueurigobius Friesii</i>	0	0	0	0	0	0	12	0	0	0	0	0	M	CR	B	I
<i>Leuciscus idus</i>	9	1	31	15	73	1	1	14	0	32	6	154	F	CR	D P	IF
<i>Leuciscus leuciscus</i>	0	0	0	21	7	0	0	0	0	33	0	0	F	CR	D P	O
<i>Limanda limanda</i>	0	2	0	0	0	0	260	0	161	0	83	0	M	MJ	B	IF
<i>Liparis liparis</i>	0	0	1	0	1	0	9	0	0	0	0	0	M	CR	D	I

<i>Liparis montagui</i>	0	0	1	0	0	0	14	0	0	0	4	0	M	MV	D	I
<i>Liza aurata</i>	0	0	0	0	0	0	2	0	0	0	0	0	M	CR	P	I
<i>Lophius piscatorius</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	B	IF
<i>Lota lota</i>	2	0	0	11	13	0	0	2	0	15	0	79	F	CR	D	Pi
<i>Lumpenus lampretaeformis</i>	0	0	0	0	0	0	41	0	3	0	0	0	M	MV	B	I
<i>Lycodes vahlii</i>	0	0	0	0	0	0	1	0	0	0	0	0	M	MV	D	I
<i>Maurolicus muelleri</i>	0	0	0	0	0	0	38	0	0	0	0	0	M	MV	P	PL
<i>Melanogrammus aeglefinus</i>	0	0	0	0	0	0	56	0	59	0	24	0	M	MV	B	Pi
<i>Merlangius merlangus</i>	0	0	8	0	0	0	258	0	210	0	66	1	M	MJ	D P	Pi
<i>Merluccius merluccius</i>	0	0	0	0	0	0	91	0	41	0	9	0	M	MV	D	Pi
<i>Microstomus kitt</i>	0	0	0	0	0	0	47	0	29	0	30	0	M	MV	B	I
<i>Molva molva</i>	0	0	0	0	0	0	7	0	0	0	0	0	M	MV	D	Pi
<i>Mullus surmuletus</i>	0	0	0	0	0	0	11	0	1	0	3	0	M	MV	B	I
<i>Myoxocephalus scorpius</i>	0	7	26	1	7	7	264	6	215	0	56	112	M	CR	D	IF
<i>Myxine glutinosa</i>	0	0	0	0	0	0	4	0	0	0	0	0	M	CR	B	IF
<i>Neogobius melanostomus</i>	0	0	12	0	0	4	2	0	0	0	0	21	M	CR	D	IF
<i>Nerophis lumbriciformis</i>	0	0	0	0	0	0	3	0	0	0	0	0	M	CR	D	IF
<i>Nerophis ophidion</i>	4	0	9	1	38	0	40	9	5	5	7	44	M	CR	D	I
<i>Oncorhynchus mykiss</i>	0	0	0	0	8	0	0	2	0	1	0	9	F	CR	P	IF
<i>Osmerus eperlanus</i>	25	0	2	36	84	0	32	37	1	26	0	149	F	CA	P	IF
<i>Perca fluviatilis</i>	31	0	53	51	167	3	16	74	0	71	31	382	F	CR	D P	Pi
<i>Petromyzon marinus</i>	0	0	0	0	0	0	14	0	0	0	0	0	F	CA	B	O
<i>Pholis gunnellus</i>	0	0	3	0	0	2	96	1	38	0	10	2	M	CR	D	I
<i>Phoxinus phoxinus</i>	3	0	0	4	66	0	0	9	0	2	0	18	F	CR	P	I
<i>Phrynorhombus norvegicus</i>	0	0	0	0	0	0	6	0	0	0	1	0	M	MV	B	I
<i>Platichthys flesus</i>	1	6	49	0	15	11	312	28	218	0	103	310	M	CR	B	IF
<i>Pleuronectes platessa</i>	0	2	11	0	0	0	302	0	224	0	96	3	M	MJ	B	IF
<i>Pollachius pollachius</i>	0	0	0	0	0	0	27	0	38	0	1	0	M	MJ	D	Pi
<i>Pollachius virens</i>	0	4	4	0	0	0	82	0	79	0	22	1	M	MJ	D P	Pi
<i>Pomatoschistus microps</i>	0	0	0	0	0	0	2	0	0	0	0	0	M	CR	B	I
<i>Pomatoschistus minutus</i>	1	0	0	0	17	1	50	0	8	0	2	6	M	CR	B	I
<i>Pomatoschistus pictus</i>	0	0	0	0	0	0	10	0	0	0	0	0	M	CR	D	I
<i>Psetta maxima</i>	0	2	21	0	0	8	88	8	50	0	24	105	M	MJ	B	Pi

<i>Pungitius pungitius</i>	6	0	8	4	68	0	36	20	0	3	1	48	M	CR	D	P	IF
<i>Raja clavata</i>	0	0	0	0	0	0	1	0	0	0	0	0	M	MV	B	Pi	
<i>Raniceps raninus</i>	0	0	0	0	0	0	29	0	9	0	0	0	M	CR	D		IF
<i>Rutilus rutilus</i>	31	0	53	36	167	0	1	73	0	71	4	283	F	CR	D	P	O
<i>Salmo salar</i>	0	1	3	14	17	0	16	0	1	4	0	2	F	CA	P	Pi	
<i>Salmo trutta</i>	2	2	9	20	39	2	60	8	62	17	7	48	F	CA	P		IF
<i>Sander lucioperca</i>	24	0	4	5	41	0	0	28	0	2	0	193	F	CR	D	P	Pi
<i>Sardina pilchardus</i>	0	0	0	0	0	0	4	0	0	0	0	0	M	MV	P		I
<i>Scardinius erythrophthalmus</i>	3	0	29	0	81	2	0	59	0	0	0	180	F	CR	D	P	O
<i>Scomber scombrus</i>	0	1	1	0	0	0	26	0	48	0	1	1	M	MS	P	Pi	
<i>Scophthalmus rhombus</i>	0	2	0	0	0	0	133	0	84	0	46	1	M	MJ	B		IF
<i>Solea solea</i>	0	0	0	0	0	0	197	0	130	0	58	0	M	MJ	B		IF
<i>Spinachia spinachia</i>	1	0	7	0	3	0	80	0	26	0	29	18	M	CR	D	P	I
<i>Sprattus sprattus</i>	19	1	31	6	44	2	185	32	20	23	10	139	M	MS	P	PL	
<i>Squalius cephalus</i>	0	0	0	0	0	0	0	1	0	0	0	0	F	CR	D	P	IF
<i>Squalus acanthias</i>	0	0	0	0	0	0	13	0	6	0	0	0	M	MV	D	P	Pi
<i>Syphodus melops</i>	0	0	0	0	0	0	148	0	87	0	35	0	M	CR	D		I
<i>Syngnathus acus</i>	0	0	0	0	0	0	81	0	37	0	20	0	M	CR	D		IF
<i>Syngnathus rostellatus</i>	0	0	0	0	0	0	53	0	5	0	8	0	M	CR	D		I
<i>Syngnathus typhle</i>	0	0	8	0	3	1	51	11	31	0	16	31	M	CR	D		IF
<i>Taurulus bubalis</i>	0	1	15	0	1	4	118	1	57	0	34	93	M	CR	D		IF
<i>Thymallus thymallus</i>	0	0	0	3	0	0	0	0	0	3	0	0	F	CR	D	P	IF
<i>Tinca tinca</i>	4	0	3	0	36	0	0	56	0	0	0	134	F	CR	D	P	O
<i>Trachinus draco</i>	0	0	0	0	0	0	72	0	2	0	3	0	M	MV	B	Pi	
<i>Trachurus trachurus</i>	0	1	0	0	0	0	70	0	27	0	5	0	M	MV	P	Pi	
<i>Trigla lucerna</i>	0	0	0	0	0	0	10	0	15	0	6	0	M	MS	B		IF
<i>Triglopsis quadricornis</i>	21	0	0	23	37	1	0	24	0	20	0	83	F	CR	D		IF
<i>Trisopterus esmarkii</i>	0	0	0	0	0	0	7	0	1	0	0	0	M	MV	P		IF
<i>Trisopterus luscus</i>	0	0	0	0	0	0	2	0	1	0	0	0	M	MJ	D		IF
<i>Trisopterus minutus</i>	0	0	0	0	0	0	10	0	14	0	0	0	M	MV	D		IF
<i>Vimba vimba</i>	6	0	16	0	47	0	0	6	0	0	0	124	F	CR	D		I
<i>Zeugopterus punctatus</i>	0	0	0	0	0	0	5	0	2	0	0	0	M	MV	B	Pi	
<i>Zeus faber</i>	0	0	0	0	0	0	1	0	0	0	0	0	M	MV	D	Pi	

<i>Zoarces viviparus</i>	6	4	24	7	62	7	146	27	117	24	51	149	M	CR	D	I
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Table S4. Fish species reported to occur in the studied sub-basins and assigned functional attributes, based on Swedish species observation databases (SLU Swedish Species Information Centre and SMHI SharkWeb), from Swedish shallow coastal waters (< 30 m) and for the years 1979-2020, with “1” denoting “reported” and “0” not reported. This data did not include incidence information and was not included in the statistical analyses but only used to complement the SR information.

Species	Åland Sea	Arkona Basin	Bornholm Basin	Bothnian Bay	Bothnian Sea	E Gotland Basin	Kattegat	N Baltic Proper	Skagerrak	The Quark	The Sound	W Gotland Basin	Origin	Habitat	Vertical	Feeding
<i>Abramis brama</i>	1	0	1	1	1	0	0	1	0	1	1	1	F	CR	D	I
<i>Acantholabrus palloni</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	P	PL
<i>Acipenser gueldenstaedtii</i>	0	0	1	1	0	0	0	0	0	0	0	0	F	CA	D	IF
<i>Acipenser oxyrinchus</i>	0	0	1	0	0	0	0	0	0	0	0	0	F	CA	D	IF
<i>Agonus cataphractus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	CR	D	I
<i>Alburnus Alburnus</i>	1	1	1	1	1	0	1	1	0	0	0	1	F	CR	P	I
<i>Alosa fallax</i>	0	0	0	0	0	0	0	0	1	0	0	0	F	CA	D	IF
<i>Amblyraja radiata</i>	0	0	0	0	0	0	1	0	1	0	1	0	M	CR	B	IF
<i>Ammodytes marinus</i>	0	0	0	0	0	0	0	0	1	0	1	0	M	CR	B	PL
<i>Ammodytes tobianus</i>	1	1	1	0	1	1	1	1	1	1	1	1	M	CR	B	PL
<i>Anarhichas lupus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	D	I
<i>Anguilla anguilla</i>	1	1	1	1	1	0	1	1	1	0	1	1	M	CA	D	IF
<i>Aphia minuta</i>	0	0	1	0	0	0	1	0	1	0	0	0	M	CR	P	PL
<i>Argentina silus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	D	IF
<i>Arnoglossus laterna</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	B	IF
<i>Belone belone</i>	0	1	1	0	0	1	1	1	1	0	1	1	M	MS	P	Pi
<i>Blicca bjoerkna</i>	0	0	0	0	1	0	0	1	0	0	0	1	F	CR	D	IF
<i>Buglossidium luteum</i>	0	0	0	0	0	0	1	0	0	0	0	0	M	MV	B	I
<i>Callionymus lyra</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	B	I
<i>Callionymus maculatus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	B	I
<i>Callionymus reticulatus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	CR	B	I
<i>Carassius auratus</i>	0	0	0	0	0	0	0	0	0	0	0	1	F	CR	D	O
<i>Carassius carassius</i>	0	0	0	0	1	0	0	1	0	0	0	1	F	CR	D	O
<i>Centrolabrus exoletus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	CR	D	I
<i>Cetorhinus maximus</i>	0	0	0	0	0	0	1	0	0	0	0	0	M	MV	P	PL

<i>Chelon labrosus</i>	0	0	1	0	0	0	1	0	0	0	1	1	M	MS	D	P	O
<i>Chimaera monstrosa</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MS	D	I	
<i>Ciliata mustela</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	D	IF	
<i>Cirolophis ascanii</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	CR	D	O	
<i>Clupea harengus</i>	1	1	1	1	1	0	1	1	1	1	1	1	M	MJ	P	PL	
<i>Cobitis taenia</i>	0	0	0	0	0	0	0	1	0	0	0	1	F	CR	B	I	
<i>Conger conger</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	B	Pi	
<i>Coregonus albula</i>	0	0	0	1	0	0	0	1	0	1	0	1	F	CR	P	PL	
<i>Coregonus maraena</i>	1	0	1	1	1	0	1	1	0	1	0	1	F	CR	D	P	I
<i>Cottus gobio</i>	0	0	1	1	1	0	0	1	1	1	0	1	F	CR	D	I	
<i>Cottus poecilopus</i>	0	0	0	0	0	0	0	0	1	1	0	0	F	CR	D	IF	
<i>Ctenolabrus rupestris</i>	0	0	0	0	0	0	1	0	1	0	1	0	M	CR	D	I	
<i>Ctenopharyngodon idella</i>	0	0	0	0	0	1	0	0	0	0	0	0	F	CR	D	P	H
<i>Cyclopterus lumpus</i>	1	0	1	0	0	0	1	1	1	0	0	1	M	MS	D	IF	
<i>Dicentrarchus Labrax</i>	0	0	0	0	0	0	1	0	0	0	0	0	M	MJ	D	Pi	
<i>Dipturus linteus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	D	IF	
<i>Enchelyopus cimbrius</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	D	I	
<i>Engraulis encrasiculus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MS	P	PL	
<i>Entelurus aequoreus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	D	IF	
<i>Esox lucius</i>	1	0	1	1	1	0	1	0	1	0	1	0	F	CR	D	Pi	
<i>Etmopterus spinax</i>	0	0	1	0	0	0	0	0	1	0	0	0	M	MV	D	IF	
<i>Eutrigla gurnardus</i>	0	0	0	0	0	0	1	0	1	0	1	0	M	MS	B	IF	
<i>Gadus morhua</i>	1	1	1	0	1	1	1	1	1	1	1	1	M	MJ	D	Pi	
<i>Gaidropsarus vulgaris</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	D	IF	
<i>Gasterosteus aculeatus</i>	1	1	1	1	1	1	1	1	1	1	1	1	M	CR	D	P	IF
<i>Glyptocephalus cynoglossus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	B	I	
<i>Gobius niger</i>	0	0	1	0	1	1	1	1	1	0	0	1	M	CR	D	IF	
<i>Gobiusculus flavescens</i>	1	1	1	1	1	1	1	1	1	1	1	1	M	CR	D	P	PL
<i>Gymnocephalus cernuus</i>	1	0	1	1	1	0	0	1	0	1	0	1	F	CR	D	P	I
<i>Hippoglossoides platessoides</i>	0	0	0	0	0	0	1	0	1	0	1	0	M	MV	B	IF	
<i>Hyperoplus lanceolatus</i>	1	0	0	0	0	0	0	1	0	1	0	1	M	MV	D	P	Pi
<i>Labrus bergylta</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	CR	D	I	
<i>Labrus mixtus</i>	0	0	0	0	0	0	1	0	1	0	1	0	M	CR	D	I	

<i>Lamna nasus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	P	Pi
<i>Lampetra fluviatilis</i>	1	0	1	1	1	1	1	1	0	0	0	1	F	CA	B	O
<i>Lampetra planeri</i>	0	0	0	0	1	0	1	1	0	0	0	1	F	CA	B	PL
<i>Lepidorhombus whiffagonis</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	B	Pi
<i>Leptoclinus maculatus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MJ	D	I
<i>Lesueurigobius Friesii</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	CR	B	I
<i>Leuciscus idus</i>	1	1	1	0	1	1	1	1	0	1	1	1	F	CR	DP	IF
<i>Leuciscus leuciscus</i>	0	0	0	1	1	0	0	0	0	0	0	0	F	CR	DP	O
<i>Limanda limanda</i>	0	1	1	0	0	1	1	1	1	0	1	1	M	MJ	B	IF
<i>Liparis liparis</i>	0	0	0	0	1	0	1	0	0	0	0	0	M	CR	D	I
<i>Liparis montagui</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	D	I
<i>Lophius piscatorius</i>	0	0	0	0	0	0	0	0	1	0	1	0	M	MV	B	IF
<i>Lota lota</i>	1	0	1	0	1	0	0	1	0	1	0	1	F	CR	D	Pi
<i>Lumpenus lampretaeformis</i>	0	0	0	0	0	0	0	1	0	1	0	0	M	MV	B	I
<i>Lycodes vahlii</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	D	I
<i>Maurolicus muelleri</i>	0	0	0	0	0	0	0	1	0	0	0	0	M	MV	P	PL
<i>Melanogrammus aeglefinus</i>	0	0	0	0	0	0	0	1	0	1	0	1	M	MV	B	Pi
<i>Merlangius merlangus</i>	0	0	0	0	0	0	0	1	0	1	0	1	M	MJ	DP	Pi
<i>Merluccius merluccius</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	D	Pi
<i>Microstomus kitt</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	B	I
<i>Mola mola</i>	0	0	0	0	0	0	0	1	0	1	0	1	M	MV	P	IF
<i>Molva molva</i>	0	0	0	0	0	0	0	1	0	1	0	0	M	MV	D	Pi
<i>Mullus surmuletus</i>	0	0	0	0	0	0	0	1	0	1	0	0	M	MV	B	I
<i>Myoxocephalus scorpius</i>	1	0	0	0	1	1	1	1	1	0	1	1	M	CR	D	IF
<i>Myxine glutinosa</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	CR	B	IF
<i>Neogobius melanostomus</i>	1	1	1	0	1	1	1	1	1	0	1	1	M	CR	D	IF
<i>Nerophis ophidion</i>	1	1	1	0	1	1	1	1	1	1	1	1	M	CR	D	I
<i>Oncorhynchus gorbuscha</i>	0	0	0	0	0	0	0	0	1	0	0	0	F	CA	P	Pi
<i>Oncorhynchus mykiss</i>	0	0	1	0	1	1	1	1	1	0	1	1	F	CR	P	IF
<i>Osmerus eperlanus</i>	1	0	0	1	1	0	0	1	0	1	0	1	F	CA	P	IF
<i>Pelecus cultratus</i>	1	0	0	0	0	0	0	1	0	0	0	0	F	CR	P	IF
<i>Perca fluviatilis</i>	1	1	1	1	1	1	0	1	0	1	1	1	F	CR	DP	Pi
<i>Petromyzon marinus</i>	0	0	0	0	0	0	1	0	0	0	0	0	F	CA	B	O

<i>Pholis gunnellus</i>	1	0	1	0	1	0	1	0	1	0	0	1	M	CR	D	I
<i>Phoxinus phoxinus</i>	1	1	0	1	1	1	1	1	0	1	0	1	F	CR	P	I
<i>Phrynorhombus norvegicus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	B	I
<i>Platichthys flesus</i>	1	1	1	0	1	1	1	1	1	1	1	1	M	CR	B	IF
<i>Pleuronectes platessa</i>	1	1	1	0	1	0	1	1	1	0	1	1	M	MJ	B	IF
<i>Pollachius pollachius</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MJ	D	Pi
<i>Pollachius virens</i>	0	0	0	0	0	0	1	0	1	0	1	0	M	MJ	DP	Pi
<i>Pomatoschistus microps</i>	1	0	1	0	0	1	1	1	1	0	0	1	M	CR	B	I
<i>Pomatoschistus minutus</i>	0	1	1	1	1	1	1	1	1	1	1	1	M	CR	B	I
<i>Pomatoschistus pictus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	CR	D	I
<i>Psetta maxima</i>	1	1	1	0	0	1	1	1	1	0	1	1	M	MJ	B	Pi
<i>Pungitius pungitius</i>	1	1	1	1	1	1	1	1	1	1	0	1	M	CR	DP	IF
<i>Raja clavata</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	B	Pi
<i>Raniceps raninus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	CR	D	IF
<i>Rutilus rutilus</i>	1	0	1	1	1	1	1	1	0	1	0	1	F	CR	DP	O
<i>Salmo salar</i>	0	0	1	1	1	0	1	1	0	1	0	1	F	CA	P	Pi
<i>Salmo trutta</i>	1	1	1	1	1	1	1	1	1	1	1	1	F	CA	P	IF
<i>Sander lucioperca</i>	1	0	0	0	1	0	1	1	0	0	0	1	F	CR	DP	Pi
<i>Sarda sarda</i>	0	0	0	0	0	0	1	0	0	0	0	0	M	CR	P	Pi
<i>Scardinius erythrophthalmus</i>	1	0	1	0	1	1	0	1	0	0	0	1	F	CR	DP	O
<i>Scomber scombrus</i>	0	0	1	0	0	0	1	0	1	0	1	0	M	MS	P	Pi
<i>Scophthalmus rhombus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MJ	B	IF
<i>Scyliorhinus canicula</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	D	IF
<i>Sebastes viviparus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MJ	D	IF
<i>Silurus glanis</i>	0	0	1	0	0	0	0	0	0	0	0	0	F	CR	D	IF
<i>Solea solea</i>	0	1	0	0	0	0	1	0	1	0	0	0	M	MJ	B	IF
<i>Spinacia spinachia</i>	1	1	1	0	0	1	1	1	1	0	0	1	M	CR	DP	I
<i>Sprattus sprattus</i>	1	0	0	0	0	0	1	0	1	0	0	1	M	MS	P	PL
<i>Squalius cephalus</i>	0	0	0	0	0	0	1	0	0	0	0	0	F	CR	DP	IF
<i>Squalus acanthias</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	DP	Pi
<i>Syphodus melops</i>	0	0	0	0	0	0	1	0	1	0	1	0	M	CR	D	I
<i>Syngnathus acus</i>	0	0	0	0	0	0	1	0	1	0	1	0	M	CR	D	IF
<i>Syngnathus rostellatus</i>	0	1	1	0	0	0	1	0	1	0	0	1	M	CR	D	I

<i>Syngnathus typhle</i>	1	1	1	0	1	0	1	1	1	0	1	1	M	CR	D	IF
<i>Taurulus bubalis</i>	0	0	0	0	0	0	1	1	1	0	0	1	M	CR	D	IF
<i>Thorogobius ephippiatus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	CR	B	I
<i>Thunnus thynnus</i>	0	0	0	0	0	0	1	0	1	0	1	0	M	MV	P	Pi
<i>Thymallus thymallus</i>	0	0	0	1	1	0	0	0	0	1	0	0	F	CR	D P	IF
<i>Tinca tinca</i>	1	0	1	0	1	0	0	1	0	0	0	1	F	CR	D P	O
<i>Trachinus draco</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	B	Pi
<i>Trachurus trachurus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	P	Pi
<i>Trigla lucerna</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MS	B	IF
<i>Triglopsis quadricornis</i>	1	0	0	1	1	0	0	1	1	1	0	1	F	CR	D	IF
<i>Trisopterus esmarkii</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MV	P	IF
<i>Trisopterus luscus</i>	0	0	0	0	0	0	0	0	1	0	0	0	M	MJ	D	IF
<i>Trisopterus minutus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	D	IF
<i>Vimba vimba</i>	0	0	1	0	1	0	0	0	0	0	0	1	F	CR	D	I
<i>Zeugopterus punctatus</i>	0	0	0	0	0	0	1	0	1	0	0	0	M	MV	B	Pi
<i>Zoarces viviparus</i>	1	1	1	1	1	1	1	1	1	1	0	1	M	CR	D	I

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25 **Table S5. Observed fish species incidence and assigned functional attributes per sub-basin for Swedish shallow offshore waters (< 30 m), summarized from the incidence dataset compiled for the years 1979-2020.**

Species	Arkona Basin	Bornholm Basin	Bothnian Bay	Bothnian Sea	E Gotland Basin	Kattegat	N Baltic Proper	Skagerrak	W Gotland Basin	Origin	Habitat	Vertical	Feeding
<i>Agonus cataphractus</i>	7	0	0	0	0	11	0	1	0	M	CR	D	I
<i>Alburnus Alburnus</i>	0	1	0	4	0	0	0	0	0	F	CR	P	I
<i>Alosa fallax</i>	0	0	0	0	0	1	0	0	0	F	CA	D P	IF
<i>Amblyraja radiata</i>	0	0	0	0	0	2	0	0	0	M	CR	B	IF
<i>Ammodytes tobianus</i>	0	1	0	5	0	2	0	0	0	M	CR	B	PL
<i>Anarhichas lupus</i>	0	0	0	0	0	11	0	0	0	M	MV	D	I
<i>Anguilla anguilla</i>	17	3	0	0	0	19	0	0	0	M	CA	D	IF
<i>Aphia minuta</i>	0	0	0	0	0	15	0	0	0	M	CR	P	PL
<i>Argentina sphyraena</i>	0	0	0	0	0	1	0	0	0	M	MV	D	IF
<i>Arnoglossus laterna</i>	0	0	0	0	0	56	0	2	0	M	MV	B	IF
<i>Belone belone</i>	0	2	0	0	0	0	0	0	0	M	MS	P	Pi
<i>Buglossidium luteum</i>	0	0	0	0	0	13	0	3	0	M	MV	B	I
<i>Callionymus lyra</i>	0	0	0	0	0	19	0	2	0	M	MV	B	I
<i>Callionymus maculatus</i>	0	0	0	0	0	59	0	0	0	M	MV	B	I
<i>Centrolabrus exoletus</i>	0	0	0	0	0	3	0	0	0	M	CR	D	I
<i>Ciliata mustela</i>	0	0	0	0	0	1	0	0	0	M	MV	D	IF
<i>Cirolophis ascanii</i>	0	0	0	0	0	1	0	0	0	M	CR	D	O
<i>Clupea harengus</i>	3	12	4	4	5	108	2	2	2	M	MJ	P	PL
<i>Coregonus maraena</i>	0	2	4	11	0	0	0	0	0	F	CR	D P	I
<i>Ctenolabrus rupestris</i>	14	0	0	0	0	5	0	0	0	M	CR	D	I
<i>Cyclopterus lumpus</i>	5	3	0	0	2	38	0	0	1	M	MS	D	IF
<i>Echiichthys vipera</i>	0	0	0	0	0	0	0	2	0	M	MV	D	Pi
<i>Enchelyopus cimbrius</i>	0	2	0	0	1	13	0	0	0	M	MV	D	I
<i>Engraulis encrasicolus</i>	0	0	0	0	0	23	0	1	0	M	MS	P	PL
<i>Entelurus aequoreus</i>	1	0	0	0	0	5	0	0	0	M	MV	D	IF
<i>Esox lucius</i>	1	1	0	1	0	0	0	0	0	F	CR	D	Pi

<i>Eutrigla gurnardus</i>	0	0	0	0	0	92	0	4	0	M	MS	B	IF
<i>Gadus morhua</i>	17	14	0	2	6	126	2	2	4	M	MJ	D P	Pi
<i>Gasterosteus aculeatus</i>	4	0	0	6	1	2	0	0	0	M	CR	D P	IF
<i>Glyptocephalus cynoglossus</i>	0	0	0	0	0	2	0	0	0	M	MV	B	I
<i>Gobius niger</i>	17	1	0	0	0	0	0	1	0	M	CR	D	IF
<i>Gobiusculus flavescens</i>	14	0	0	0	0	0	0	0	0	M	CR	D P	PL
<i>Gymnocephalus cernuus</i>	0	0	3	1	0	0	0	0	0	F	CR	D P	I
<i>Hippoglossoides platessoides</i>	0	0	0	0	0	117	0	1	0	M	MV	B	IF
<i>Hippoglossus hippoglossus</i>	0	0	0	0	0	2	0	0	0	M	MS	D P	Pi
<i>Hyperoplus lanceolatus</i>	0	7	0	0	1	14	0	1	0	M	MV	D P	Pi
<i>Labrus bergylta</i>	0	0	0	0	0	1	0	0	0	M	CR	D	I
<i>Labrus mixtus</i>	0	0	0	0	0	2	0	0	0	M	CR	D	I
<i>Lampetra fluviatilis</i>	0	0	0	0	0	1	0	0	0	F	CA	B	O
<i>Lesueurigobius Friesii</i>	0	0	0	0	0	5	0	0	0	M	CR	B	I
<i>Leuciscus idus</i>	0	1	0	1	0	0	0	0	0	F	CR	D P	IF
<i>Leuciscus leuciscus</i>	0	0	0	1	0	0	0	0	0	F	CR	D P	O
<i>Limanda limanda</i>	13	2	0	0	0	135	0	5	0	M	MJ	B	IF
<i>Lumpenus lampretaeformis</i>	0	0	0	0	0	38	0	0	0	M	MV	B	I
<i>Lycodes vahlii</i>	0	0	0	0	0	1	0	0	0	M	MV	D	I
<i>Maurolicus muelleri</i>	0	0	0	0	0	3	0	0	0	M	MV	P	PL
<i>Melanogrammus aeglefinus</i>	0	0	0	0	0	39	0	2	0	M	MV	B	Pi
<i>Merlangius merlangus</i>	2	4	0	0	0	133	0	5	0	M	MJ	D P	Pi
<i>Merluccius merluccius</i>	0	0	0	0	0	58	0	1	0	M	MV	D	Pi
<i>Microstomus kitt</i>	0	0	0	0	0	23	0	4	0	M	MV	B	I
<i>Molva molva</i>	0	0	0	0	0	1	0	1	0	M	MV	D	Pi
<i>Mullus surmuletus</i>	0	0	0	0	0	2	0	0	0	M	MV	B	I
<i>Myoxocephalus scorpius</i>	17	12	0	3	6	68	0	0	3	M	CR	D	IF
<i>Myxine glutinosa</i>	0	0	0	0	0	6	0	0	0	M	CR	B	IF
<i>Nerophis ophidion</i>	2	0	0	3	0	0	0	0	0	M	CR	D	I
<i>Oncorhynchus mykiss</i>	0	1	0	2	0	0	0	0	0	F	CR	P	IF
<i>Osmorus eperlanus</i>	0	0	3	1	0	0	0	0	0	F	CA	P	IF
<i>Perca fluviatilis</i>	1	1	3	4	0	0	0	0	0	F	CR	D P	Pi
<i>Petromyzon marinus</i>	0	0	0	0	0	1	0	0	0	F	CA	B	O

<i>Pholis gunnellus</i>	1	0	0	0	0	4	0	0	0	M	CR	D	I
<i>Phoxinus phoxinus</i>	0	0	0	5	0	0	0	0	0	F	CR	P	I
<i>Phrynorhombus norvegicus</i>	0	0	0	0	0	1	0	0	0	M	MV	B	I
<i>Platichthys flesus</i>	17	13	0	4	6	109	4	0	4	M	CR	B	IF
<i>Pleuronectes platessa</i>	11	7	0	0	3	132	0	5	0	M	MJ	B	IF
<i>Pollachius pollachius</i>	0	1	0	0	0	6	0	0	0	M	MJ	D	Pi
<i>Pollachius virens</i>	0	0	0	0	0	16	0	0	0	M	MJ	DP	Pi
<i>Pomatoschistus minutus</i>	0	0	0	4	0	2	0	0	0	M	CR	B	I
<i>Psetta maxima</i>	8	8	0	0	4	55	3	1	4	M	MJ	B	Pi
<i>Pungitius pungitius</i>	0	0	0	4	0	0	0	0	0	M	CR	DP	IF
<i>Raniceps raninus</i>	1	0	0	0	0	2	0	0	0	M	CR	D	IF
<i>Rutilus rutilus</i>	0	3	3	2	0	0	0	0	0	F	CR	DP	O
<i>Salmo salar</i>	0	0	0	6	0	0	0	0	0	F	CA	P	Pi
<i>Salmo trutta</i>	1	3	0	5	0	0	0	0	0	F	CA	P	IF
<i>Sardina pilchardus</i>	0	0	0	0	0	2	0	1	0	M	MV	P	I
<i>Scomber scombrus</i>	0	0	0	0	0	15	0	3	0	M	MS	P	Pi
<i>Scophthalmus rhombus</i>	1	0	0	0	0	75	0	1	0	M	MJ	B	IF
<i>Solea solea</i>	5	0	0	0	0	85	0	4	0	M	MJ	B	IF
<i>Spinachia spinachia</i>	15	0	0	0	0	1	0	0	0	M	CR	DP	I
<i>Sprattus sprattus</i>	0	4	2	0	2	107	0	1	0	M	MS	P	PL
<i>Squalus acanthias</i>	0	0	0	0	0	3	0	1	0	M	MV	DP	Pi
<i>Syphodus melops</i>	2	0	0	0	0	5	0	0	0	M	CR	D	I
<i>Syngnathus acus</i>	0	0	0	0	0	2	0	0	0	M	CR	D	IF
<i>Syngnathus rostellatus</i>	0	0	0	0	0	6	0	0	0	M	CR	D	I
<i>Syngnathus typhle</i>	2	0	0	0	0	1	0	0	0	M	CR	D	IF
<i>Taurulus bubalis</i>	16	2	0	0	1	2	0	0	0	M	CR	D	IF
<i>Trachinus draco</i>	0	0	0	0	0	61	0	3	0	M	MV	B	Pi
<i>Trachurus trachurus</i>	0	0	0	0	0	40	0	3	0	M	MV	P	Pi
<i>Trigla lucerna</i>	0	0	0	0	0	5	0	1	0	M	MS	B	IF
<i>Triglopsis quadricornis</i>	0	0	1	3	2	0	0	0	0	F	CR	D	IF
<i>Trisopterus esmarkii</i>	0	0	0	0	0	12	0	0	0	M	MV	P	IF
<i>Trisopterus luscus</i>	0	0	0	0	0	1	0	0	0	M	MJ	D	IF
<i>Trisopterus minutus</i>	0	0	0	0	0	9	0	1	0	M	MV	D	IF

<i>Vimba vimba</i>	0	2	0	0	0	0	0	0	F	CR	D	I
<i>Zeugopterus punctatus</i>	2	0	0	0	0	0	0	0	M	MV	B	Pi
<i>Zoarces viviparus</i>	17	8	0	5	5	1	0	0	2	M	CR	D

Table S6. Fish species reported to occur in the studied sub-basins and assigned functional attributes, based on Swedish species observation databases (SLU Swedish Species Information Centre and SMHI SharkWeb), from Swedish shallow offshore waters (< 30 m) and for the years 1979-2020, with “1” denoting “reported” and “0” not reported. This data did not include incidence information and was not included in the statistical analyses but only used to complement the SR information.

Species	Arkona Basin	Bornholm Basin	Bothnian Bay	Bothnian Sea	Kattegat	N Baltic Proper	Skagerrak	W Gotland Basin	Origin	Habitat	Vertical	Feeding
<i>Acantholabrus palloni</i>	0	0	0	0	0	0	1	0	M	MV	P	PL
<i>Acipenser oxyrinchus</i>	0	1	0	0	0	0	0	0	F	CA	D	IF
<i>Agonus cataphractus</i>	0	0	0	0	0	0	1	0	M	CR	D	I
<i>Amblyraja radiata</i>	0	0	0	0	0	0	1	0	M	CR	B	IF
<i>Anarhichas lupus</i>	0	0	0	0	0	0	1	0	M	MV	D	I
<i>Arnoglossus laterna</i>	0	0	0	0	1	0	0	0	M	MV	B	IF
<i>Brosme brosme</i>	0	0	0	0	0	0	1	0	M	MV	D	IF
<i>Callionymus lyra</i>	0	0	0	0	1	0	1	0	M	MV	B	I
<i>Callionymus reticulatus</i>	0	0	0	0	1	0	0	0	M	CR	B	I
<i>Centrolabrus exoletus</i>	0	0	0	0	0	0	1	0	M	CR	D	I
<i>Chimaera monstrosa</i>	0	0	0	0	0	0	1	0	M	MS	D	I
<i>Clupea harengus</i>	0	0	0	0	1	0	0	0	M	MJ	P	PL
<i>Coregonus maraena</i>	0	0	0	0	1	0	0	0	F	CR	D P	I
<i>Ctenolabrus rupestris</i>	0	0	0	0	1	0	1	0	M	CR	D	I
<i>Dipturus linteus</i>	0	0	0	0	0	0	1	0	M	MV	D	IF
<i>Enchelyopus cimbrius</i>	0	0	0	0	0	0	1	0	M	MV	D	I
<i>Etmopterus spinax</i>	0	0	0	0	0	0	1	0	M	MV	D	IF
<i>Eutrigla gurnardus</i>	0	0	0	0	1	0	0	0	M	MS	B	IF
<i>Gadus morhua</i>	1	1	0	0	1	0	1	1	M	MJ	D P	Pi
<i>Gasterosteus aculeatus</i>	0	0	0	0	0	0	0	1	M	CR	D P	IF
<i>Glyptocephalus cynoglossus</i>	0	0	0	0	0	0	1	0	M	MV	B	I
<i>Gobiusculus flavescens</i>	1	1	0	0	0	0	1	0	M	CR	D P	PL
<i>Hyperoplus lanceolatus</i>	0	1	0	0	0	0	0	0	M	MV	D P	Pi
<i>Labrus bergylta</i>	0	0	0	0	0	0	1	0	M	CR	D	I
<i>Labrus mixtus</i>	0	0	0	0	1	0	1	0	M	CR	D	I

<i>Leptoclinus maculatus</i>	0	0	0	0	0	0	1	0	M	MJ	D	I
<i>Limanda limanda</i>	0	0	0	0	1	0	0	0	M	MJ	B	IF
<i>Lophius piscatorius</i>	0	0	0	0	0	0	1	0	M	MV	B	IF
<i>Lumpenus lampretaeformis</i>	0	0	0	0	0	0	1	0	M	MV	B	I
<i>Melanogrammus aeglefinus</i>	0	0	0	0	0	0	1	0	M	MV	B	Pi
<i>Merlangius merlangus</i>	0	0	0	0	1	0	1	0	M	MJ	D P	Pi
<i>Microstomus kitt</i>	0	0	0	0	1	0	1	0	M	MV	B	I
<i>Molva dypterygia</i>	0	0	0	0	0	0	1	0	M	MV	D	Pi
<i>Molva molva</i>	0	0	0	0	1	0	1	0	M	MV	D	Pi
<i>Myoxocephalus scorpius</i>	0	1	1	0	0	0	0	1	M	CR	D	IF
<i>Myxine glutinosa</i>	0	0	0	0	1	0	1	0	M	CR	B	IF
<i>Oncorhynchus mykiss</i>	0	0	0	0	1	0	0	0	F	CR	P	IF
<i>Pholis gunnellus</i>	0	0	0	0	1	1	1	0	M	CR	D	I
<i>Phrynorhombus norvegicus</i>	0	0	0	0	1	0	0	0	M	MV	B	I
<i>Platichthys flesus</i>	0	1	0	1	0	0	0	0	M	CR	B	IF
<i>Pleuronectes platessa</i>	0	0	0	0	1	0	1	0	M	MJ	B	IF
<i>Pollachius virens</i>	0	1	0	0	1	0	1	0	M	MJ	D P	Pi
<i>Pomatoschistus minutus</i>	0	0	1	0	0	0	0	0	M	CR	B	I
<i>Raja clavata</i>	0	0	0	0	0	0	1	0	M	MV	B	Pi
<i>Scomber scombrus</i>	0	0	0	0	1	0	0	0	M	MS	P	Pi
<i>Scophthalmus rhombus</i>	0	0	0	0	1	0	0	0	M	MJ	B	IF
<i>Sebastes viviparus</i>	0	0	0	0	0	0	1	0	M	MJ	D	IF
<i>Solea solea</i>	0	0	0	0	1	0	0	0	M	MJ	B	IF
<i>Somniosus microcephalus</i>	0	0	0	0	0	0	1	0	M	MV	P	Pi
<i>Squalus acanthias</i>	0	0	0	0	1	0	1	0	M	MV	D P	Pi
<i>Syphodus melops</i>	0	0	0	0	0	0	1	0	M	CR	D	I
<i>Taurulus bubalis</i>	0	0	0	0	0	0	1	0	M	CR	D	IF
<i>Thorogobius ephippiatus</i>	0	0	0	0	0	0	1	0	M	CR	B	I
<i>Trachinus draco</i>	0	0	0	0	1	0	1	0	M	MV	B	Pi
<i>Trachurus trachurus</i>	0	0	0	0	1	0	1	0	M	MV	P	Pi
<i>Trigla lucerna</i>	0	0	0	0	1	0	0	0	M	MS	B	IF
<i>Triglopsis quadricornis</i>	0	0	1	1	0	0	0	0	F	CR	D	IF
<i>Trisopterus esmarkii</i>	0	0	0	0	0	0	1	0	M	MV	P	IF

<i>Trisopterus luscus</i>	0	0	0	0	0	0	1	0	M	MJ	D	IF
<i>Trisopterus minutus</i>	0	0	0	0	0	0	1	0	M	MV	D	IF
<i>Zeugopterus punctatus</i>	0	0	0	0	0	0	1	0	M	MV	B	Pi
<i>Zoarces viviparus</i>	0	0	1	1	0	0	0	0	M	CR	D	I