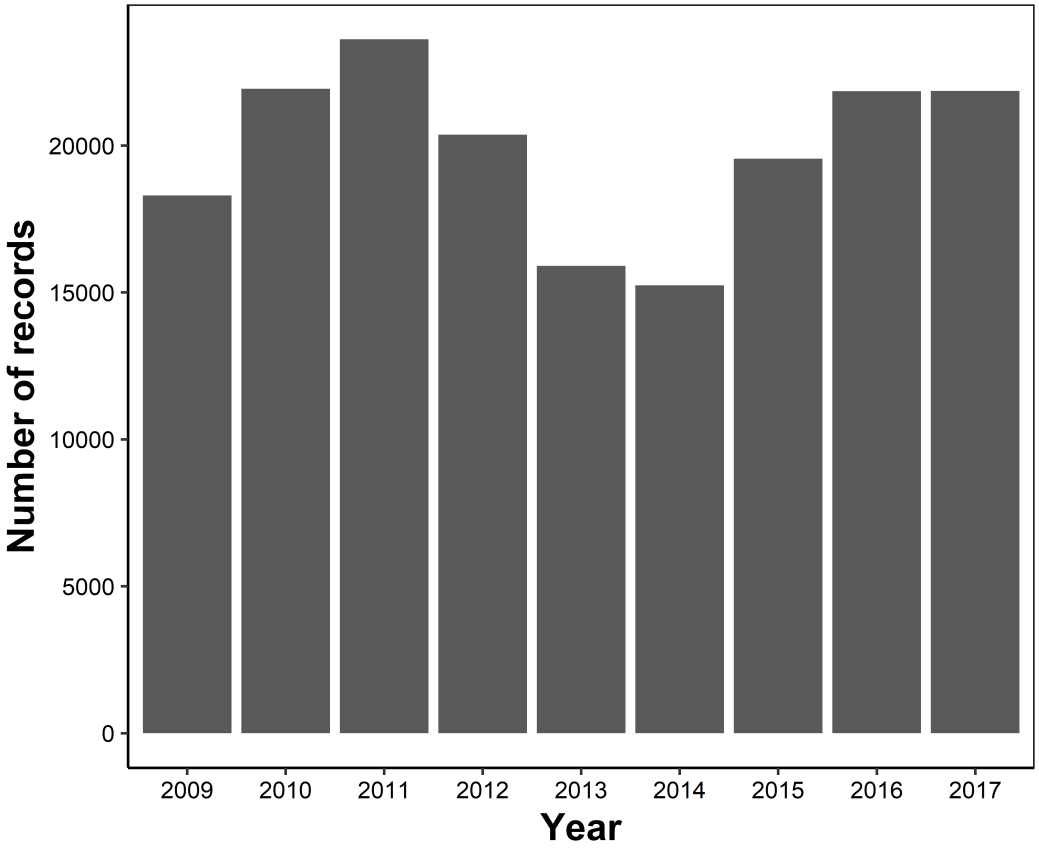
ICES VMS datacall quality check report for FIN

25 April, 2018

Quality of the VMS data from FIN

Years & number of records for which data has been submitted:

year	freq
2009	18299
2010	21930
2011	23617
2012	20372
2013	15903
2014	15241
2015	19551
2016	21851
2017	21859

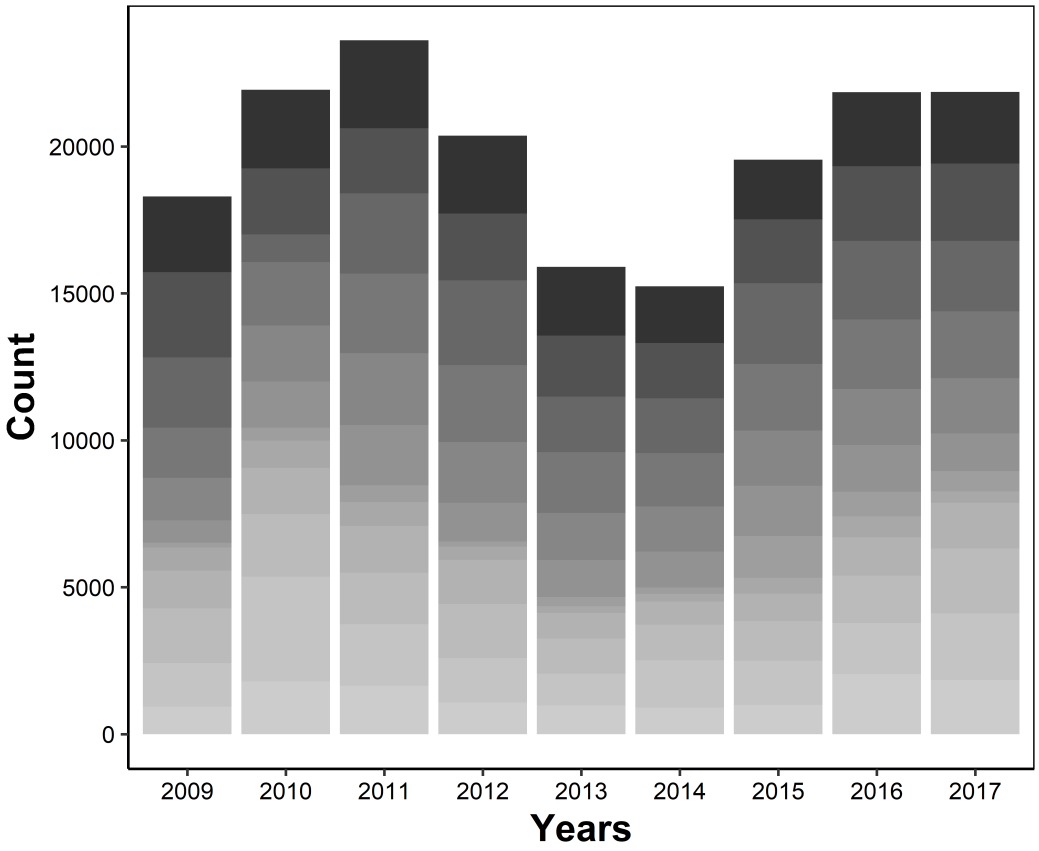


Records assigned to invalid Statistical Rectangles

There were no invalid Statistical Rectangles reported

Distribution of pings by month:

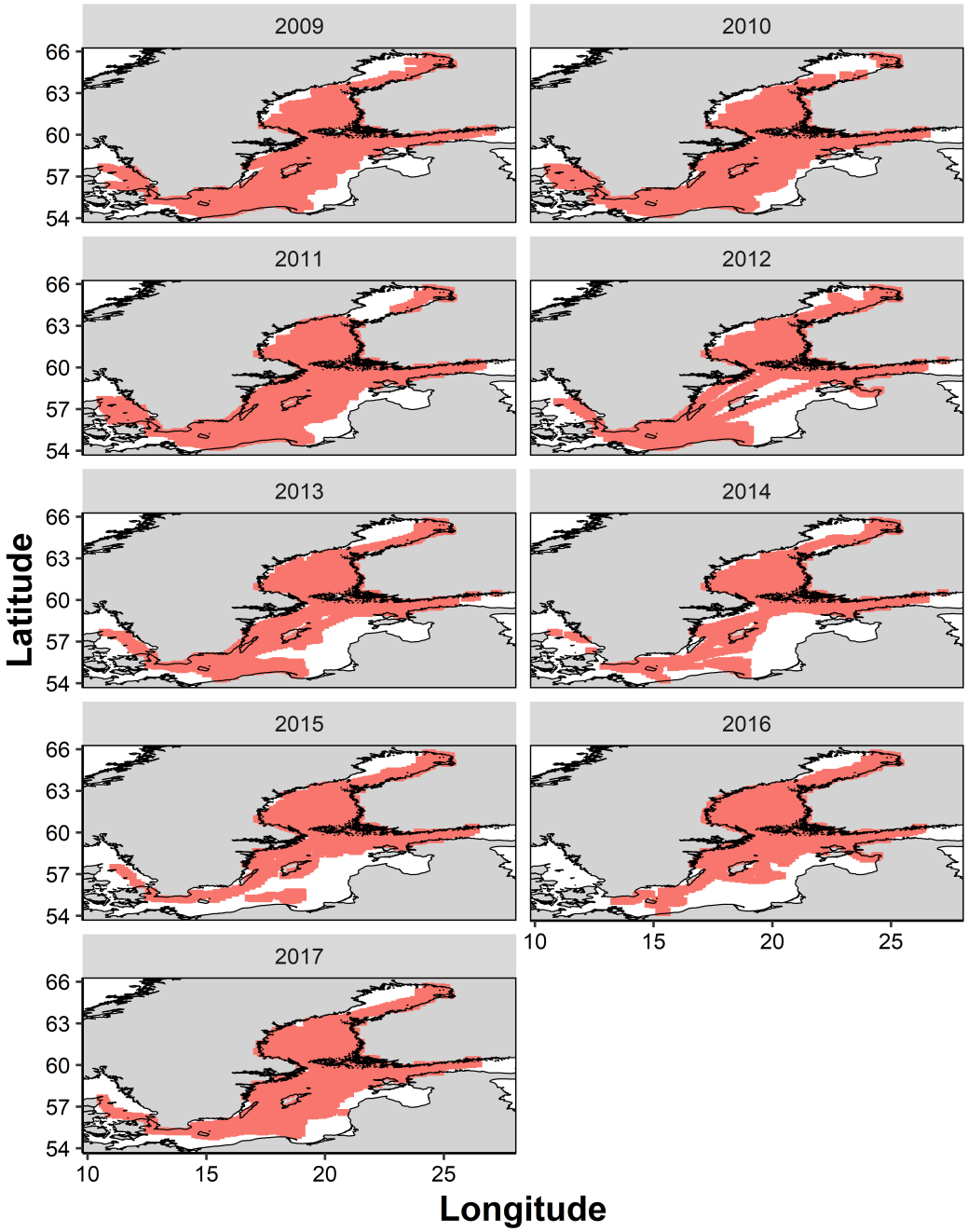
2009	2010	2011	2012	2013	2014	2015	2016	2017
2577	2672	2992	2655	2337	1929	2030	2523	2438
2905	2248	2223	2269	2083	1883	2171	2543	2635
2384	945	2732	2892	1885	1868	2754	2672	2392
1713	2155	2703	2619	2069	1810	2260	2363	2279
1442	1907	2449	2068	1606	1536	1884	1908	1882
763	1569	2051	1315	1258	1220	1707	1595	1279
161	440	570	168	310	221	1425	835	691
786	930	814	452	226	261	538	708	388
1290	1577	1587	1501	879	789	936	1314	1560
1861	2126	1756	1847	1192	1208	1345	1608	2202
1482	3564	2089	1509	1081	1609	1505	1743	2271
935	1797	1651	1077	977	907	996	2039	1842

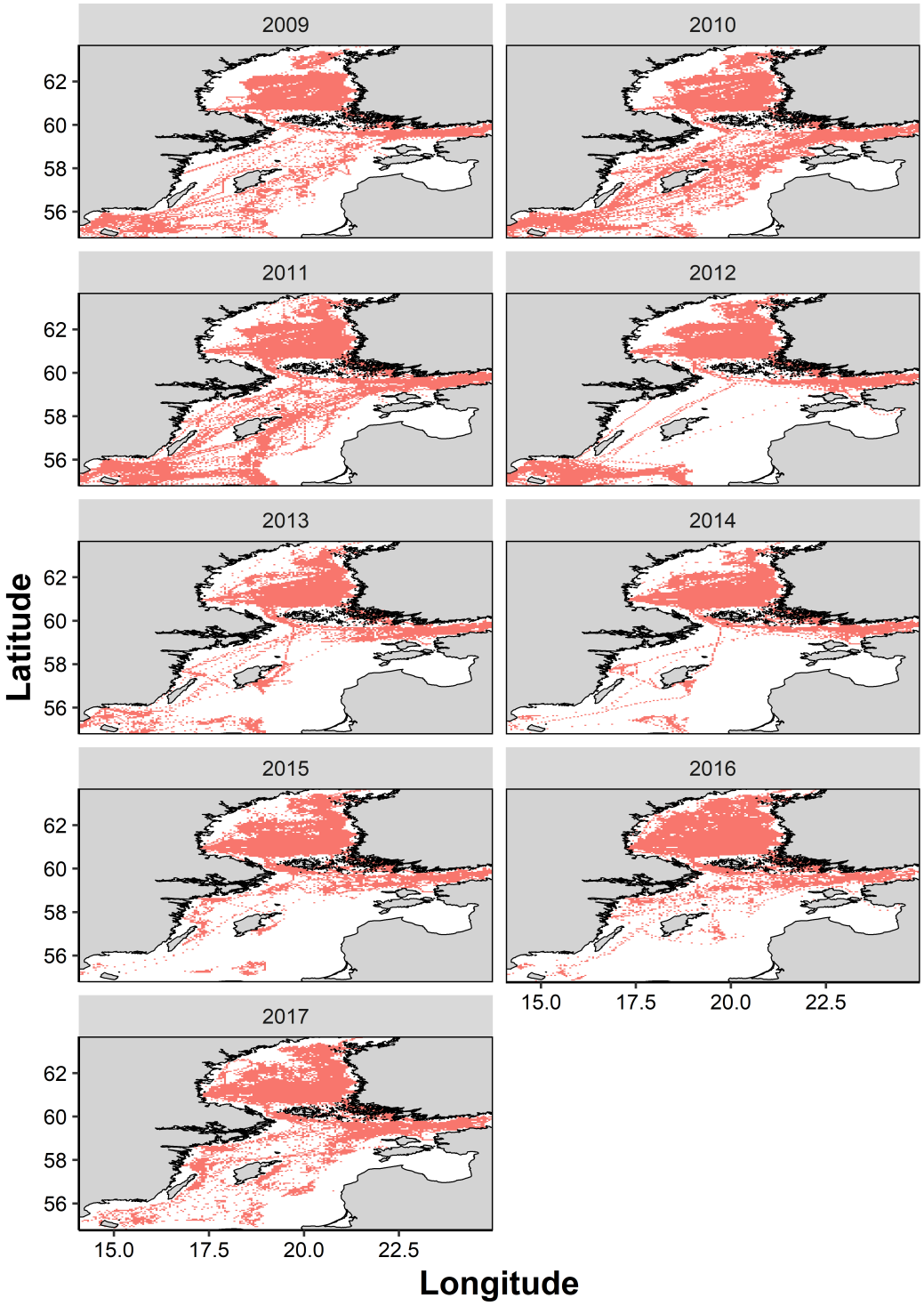


Spatial extent of data submitted by year:

Year	min lon	max lon	min lat	max lat
2009	10.68	26.98	54.23	65.72
2010	10.62	26.43	54.23	65.72
2011	10.62	26.57	54.23	65.72
2012	11.03	27.23	54.23	65.72
2013	10.72	27.23	54.27	65.67
2014	10.78	27.18	54.23	65.72
2015	11.18	26.27	55.08	65.72
2016	13.43	26.27	54.23	65.72
2017	10.62	26.38	54.83	65.67

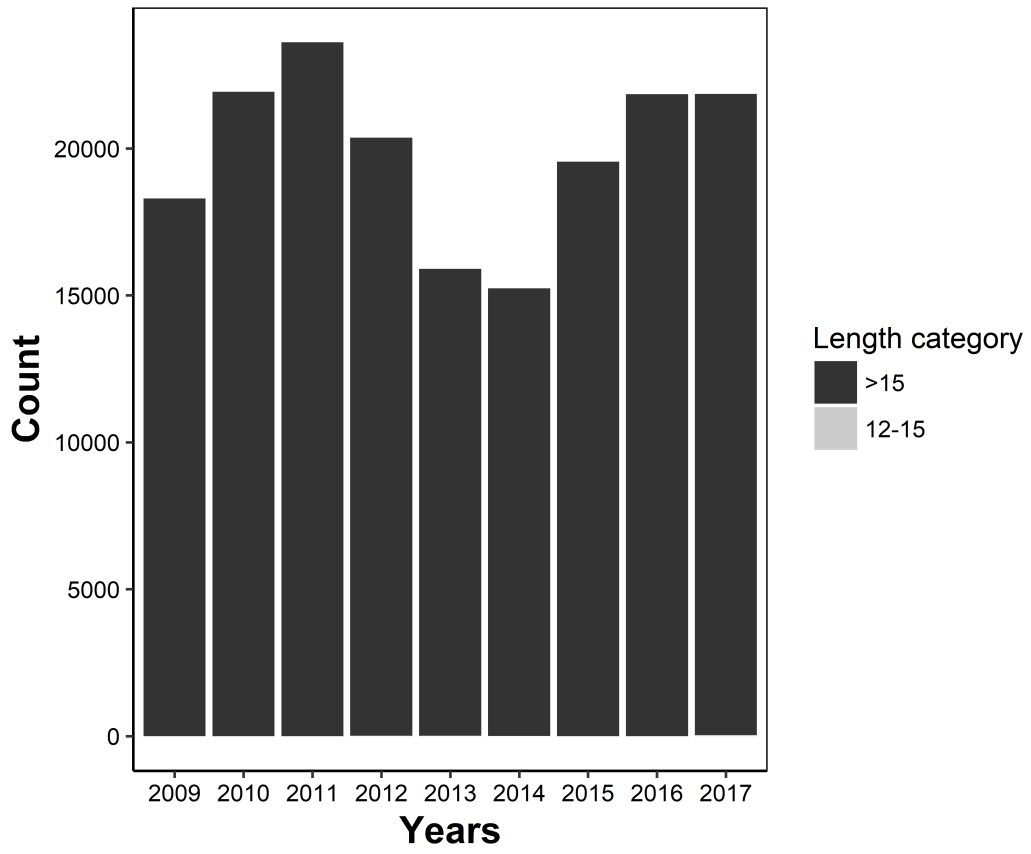
Area for which data has been submitted:




2009
2010
2011
2012
2013
2014
2015
2016
2017
62
60
58
56
15.0
17.5
20.0
22.5
Latitude
Longitude

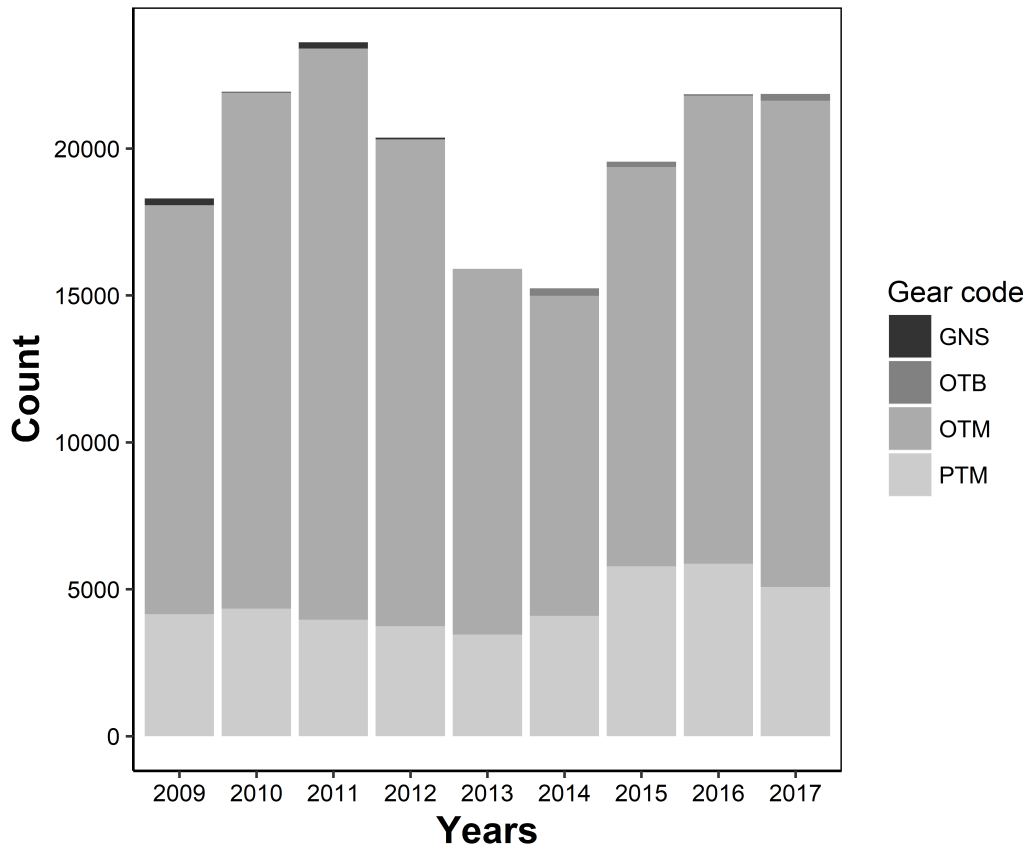
Frequency of vessel length categories by year:

	2009	2010	2011	2012	2013	2014	2015	2016	2017
>15	18299	21930	23617	20362	15890	15240	19551	21851	21824
12-15	0	0	0	10	13	1	0	0	35

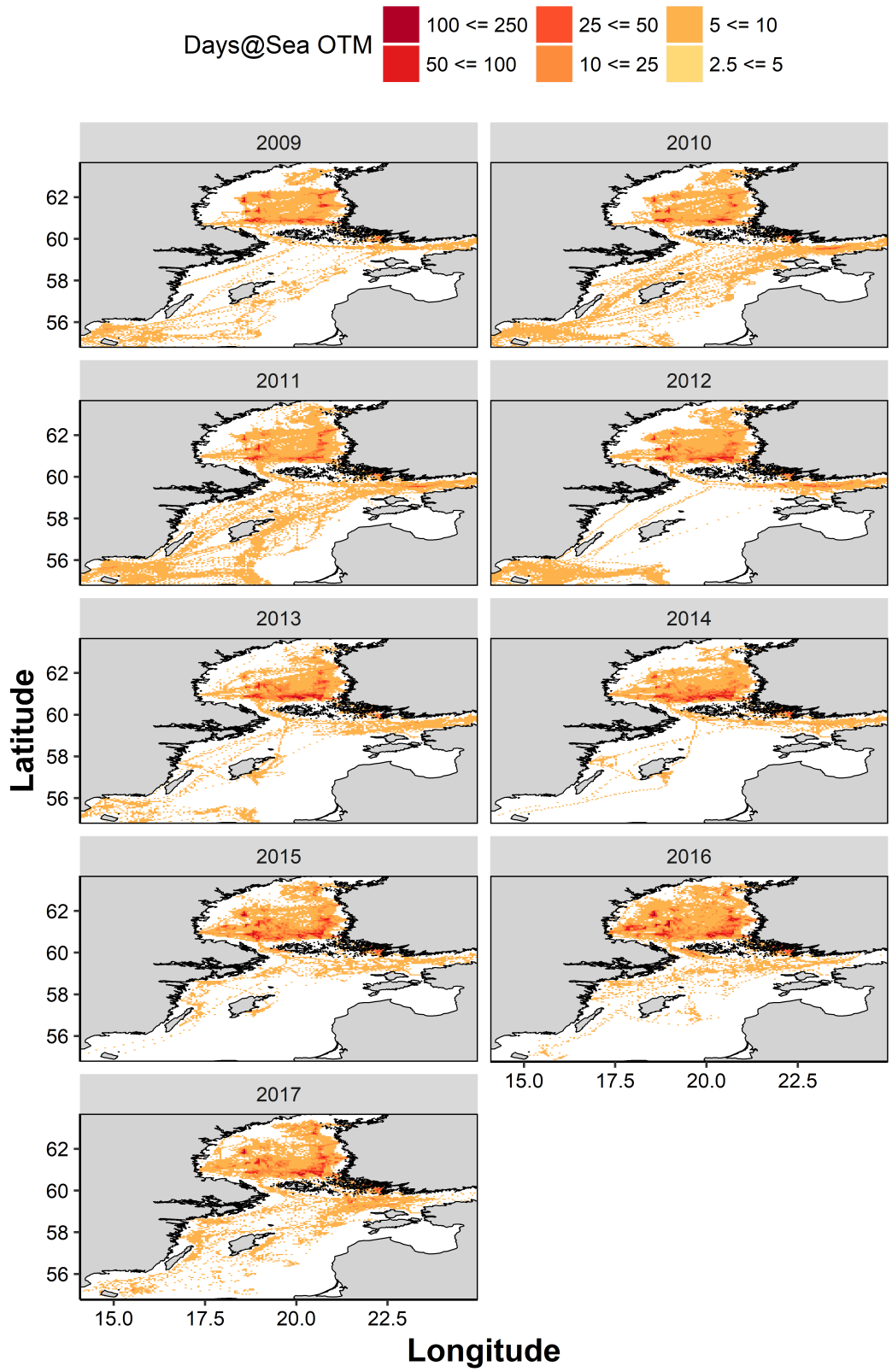


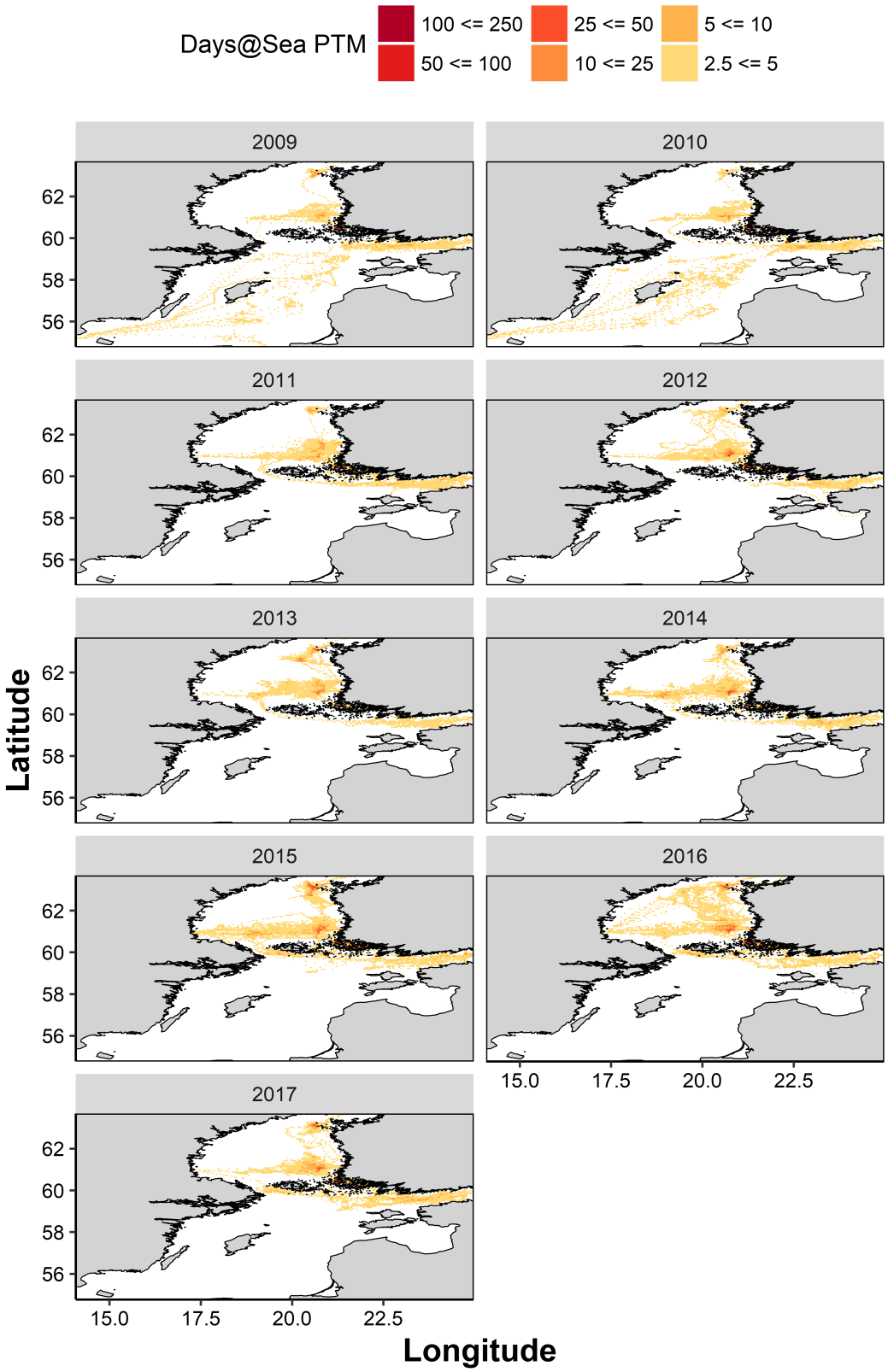
Frequency of gear codes by year:

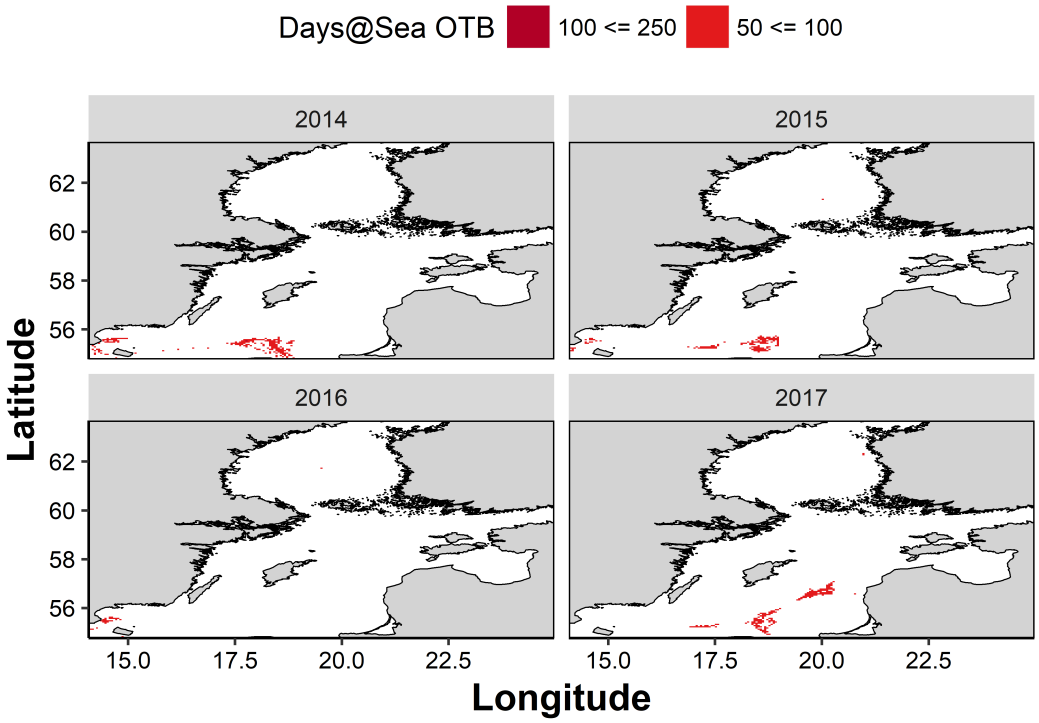
	2009	2010	2011	2012	2013	2014	2015	2016	2017
GNS	225	27	213	57	1	1	0	0	0
OTB	0	0	0	0	0	251	184	57	228
OTM	13926	17565	19438	16570	12448	10893	13589	15927	16556
PTM	4148	4338	3966	3745	3454	4096	5778	5867	5075



Spatial extend of 3 most dominant gears:




Days@Sea PTM
100 <= 250
50 <= 100
25 <= 50
10 <= 25
5 <= 10
2.5 <= 5
2009
2010
2011
2012
2013
2014
2015
2016
2017
62
60
58
56
15.0
17.5
20.0
22.5
Latitude
Longitude

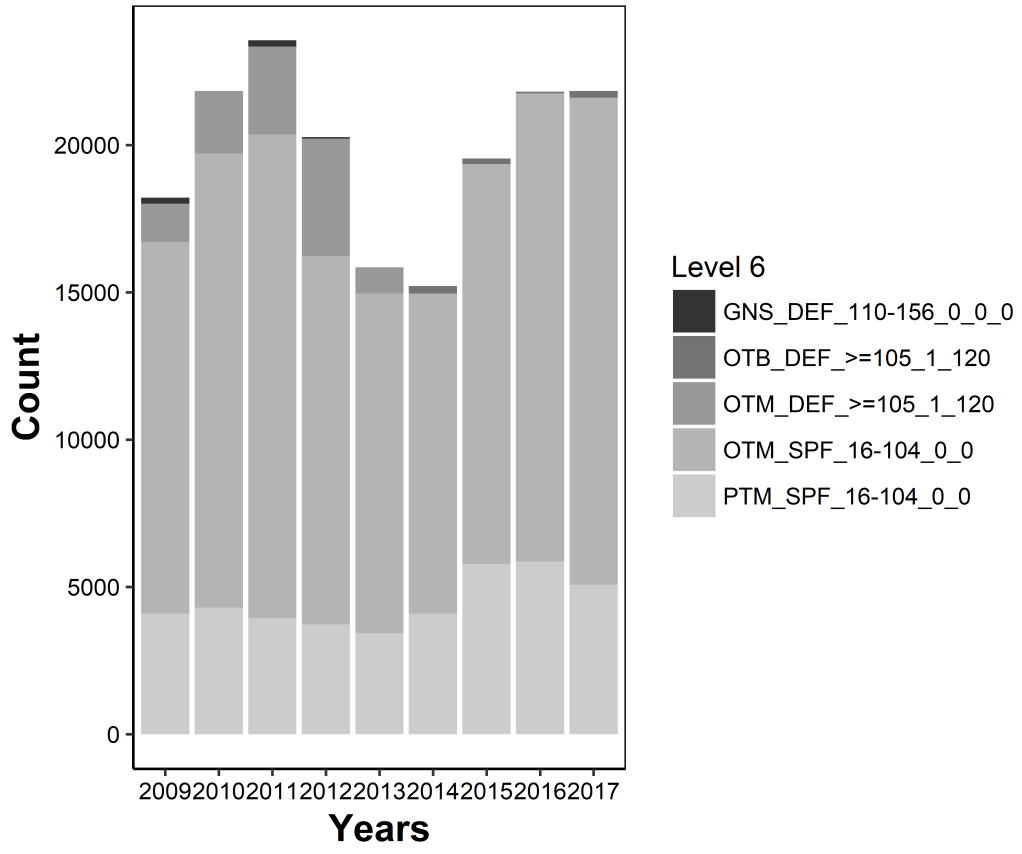

Days@Sea OTB
100 <= 250
50 <= 100
2014
2015
2016
2017
Latitude
62
60
58
56
15.0
17.5
20.0
22.5
Longitude

Number of unique DCF Level 6 codes by year:

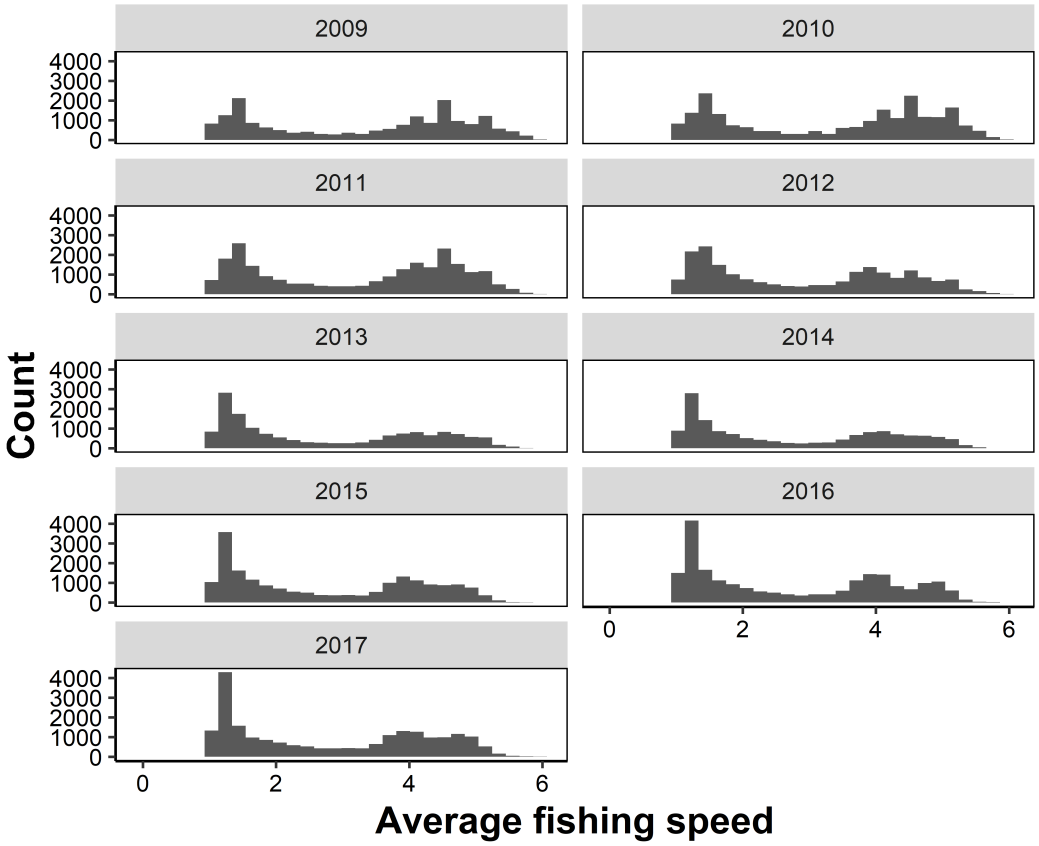
year	freq
2009	7
2010	7
2011	6
2012	8
2013	6
2014	6
2015	5
2016	5
2017	5

Top 5 DCF Level 6 codes by year:

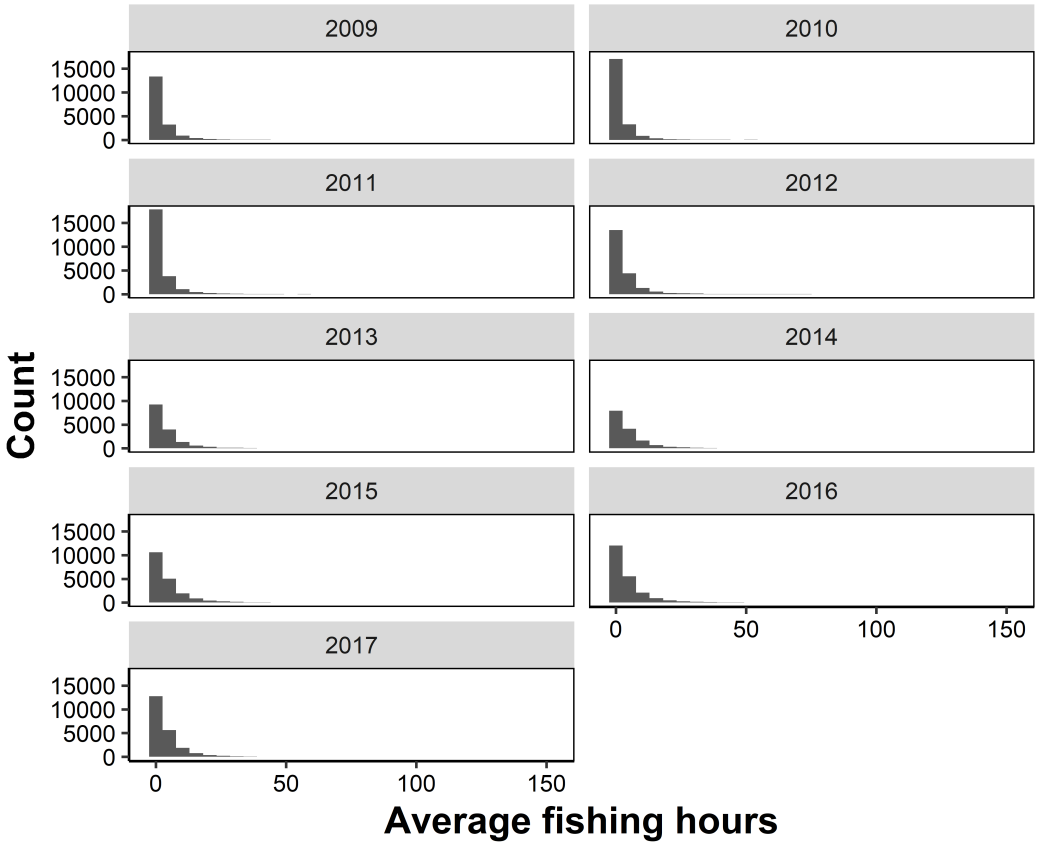
	2009	2010	2011	2012	2013	2014	2015	2016	2017
OTM_SPF_16-104_0_0	12611	15417	16418	12509	11530	10872	13581	15894	16538
PTM_SPF_16-104_0_0	4095	4294	3939	3723	3429	4087	5775	5858	5068
OTM_DEF_>=105_1_120	1298	2124	2985	3982	887	0	0	0	0
OTB_DEF_>=105_1_120	0	0	0	0	0	251	184	57	228
GNS_DEF_110-156_0_0_0	207	0	213	55	0	0	0	0	0



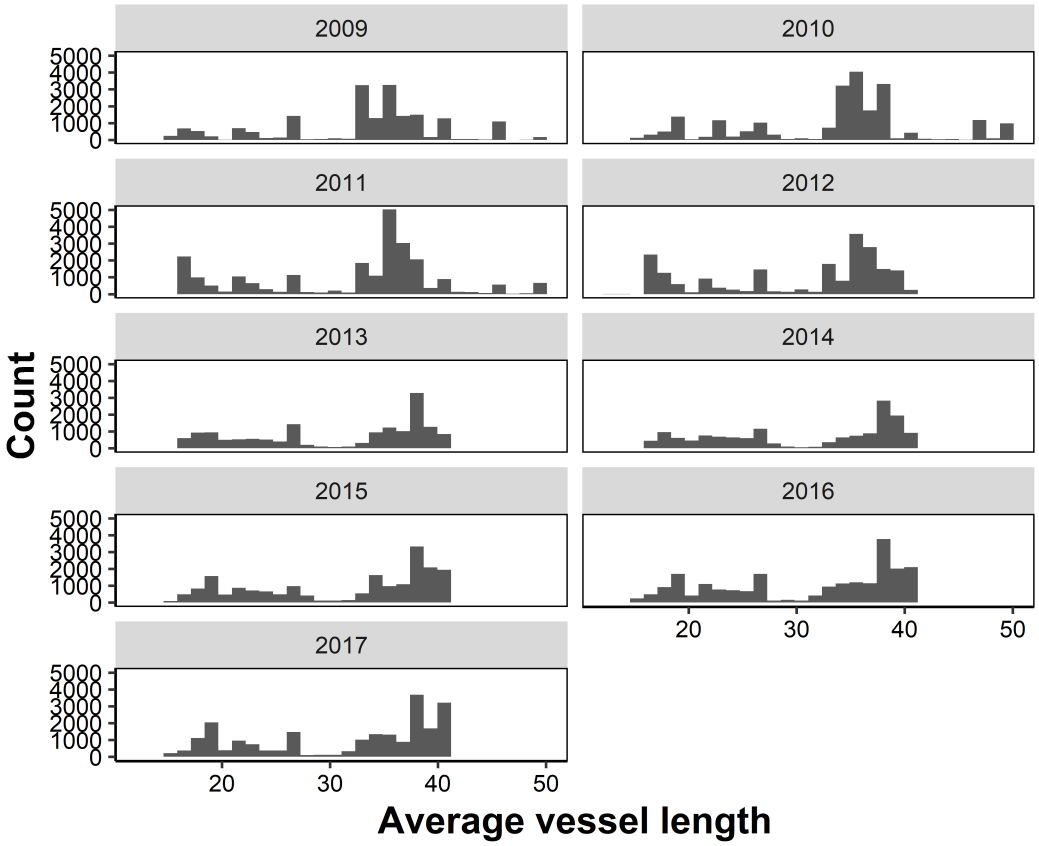
Average fishing speed:



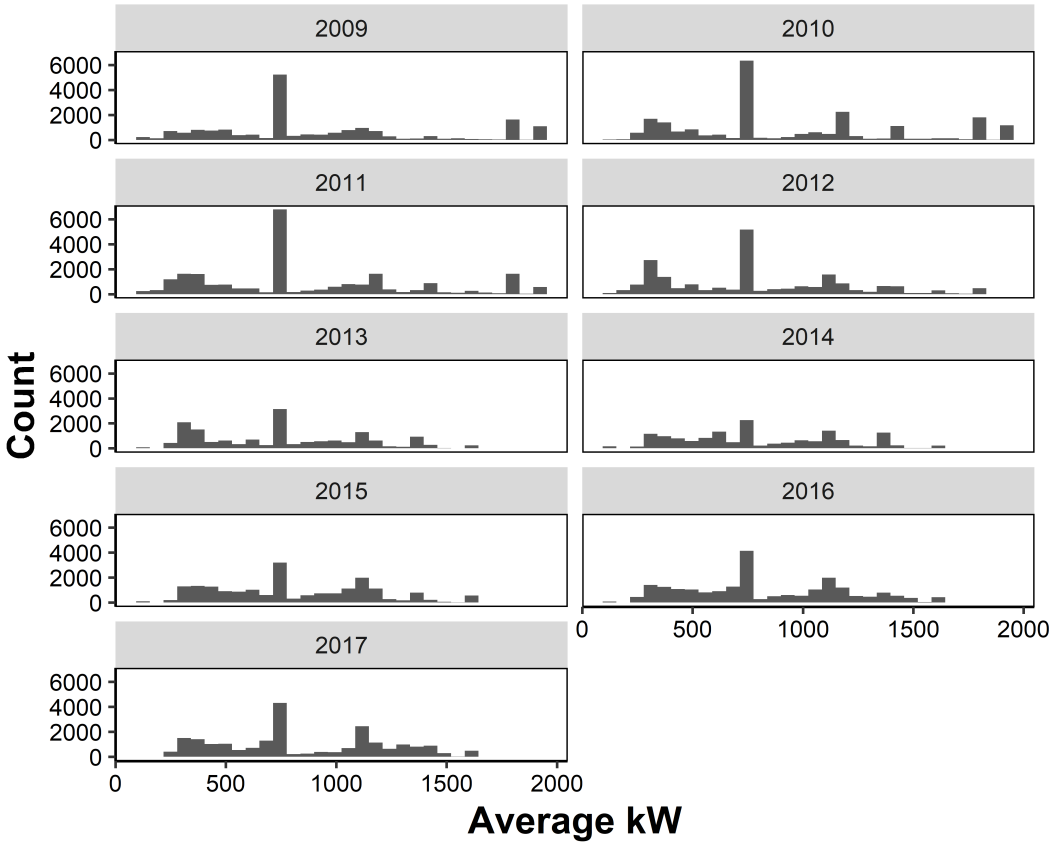
Average fishing hours:



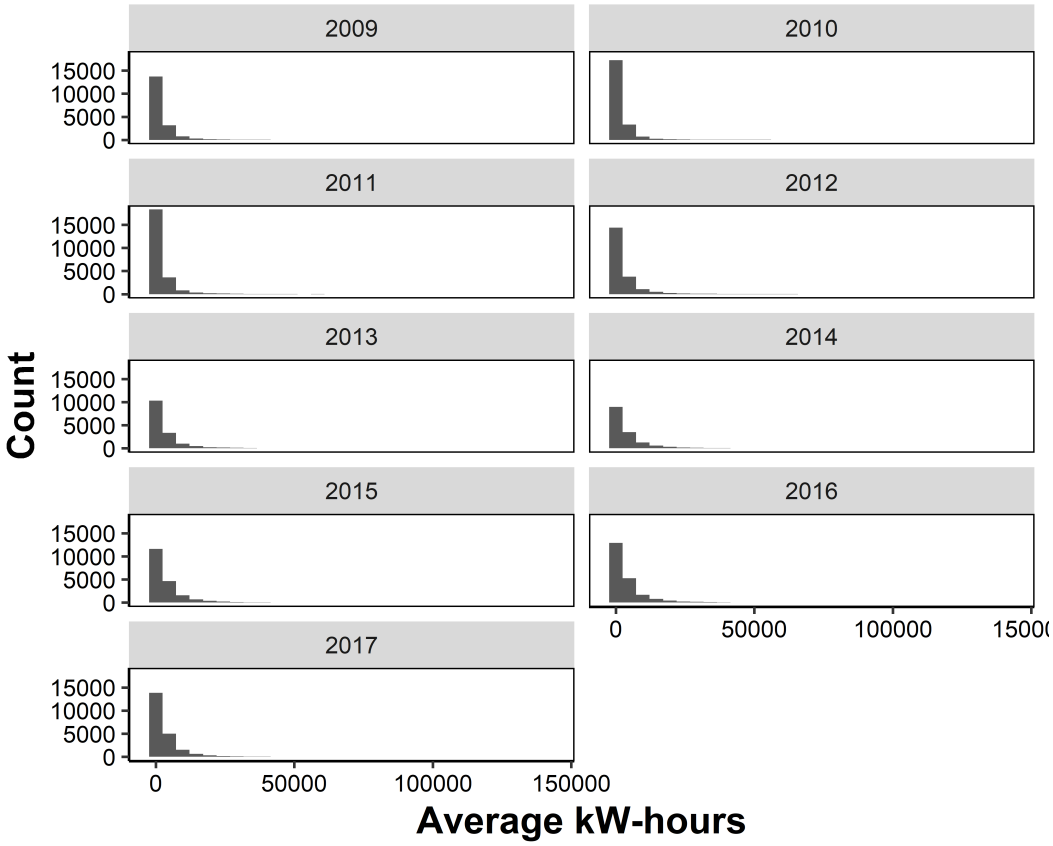
Average length:



Average kW:

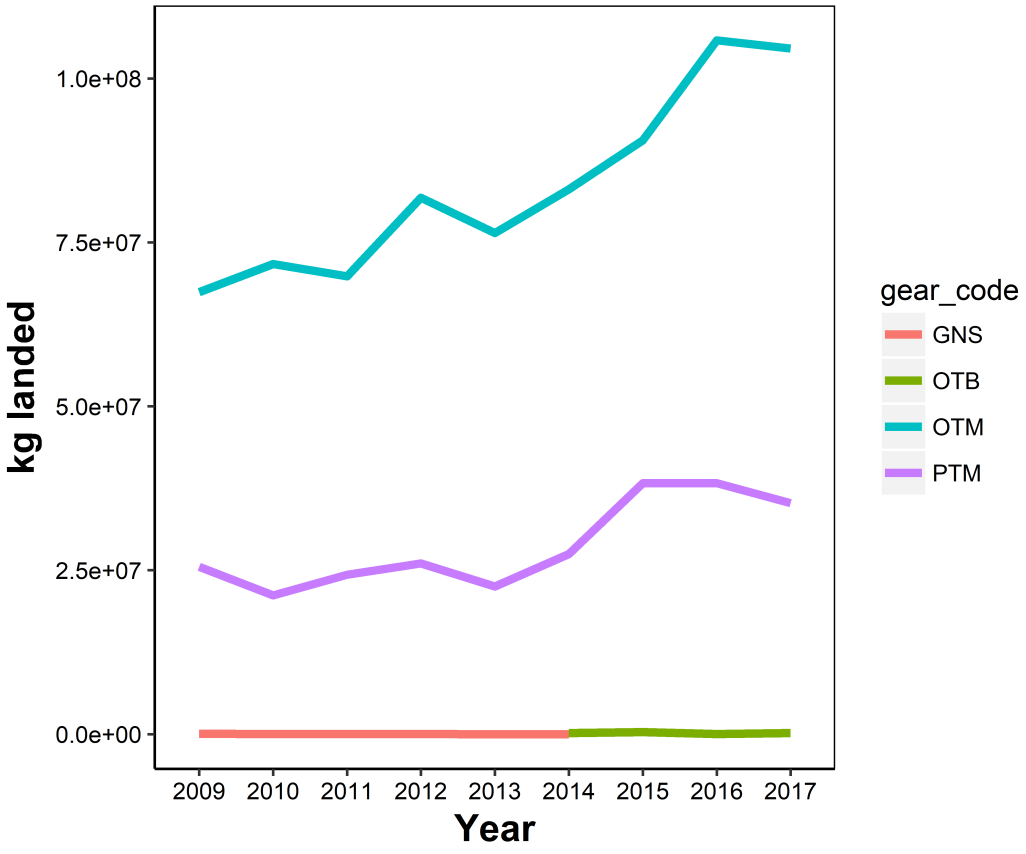

2009
2010
2011
2012
2013
2014
2015
2016
2017
6000
4000
2000
0
Count
0
500
1000
1500
2000
Average kW

Average kW-hours:

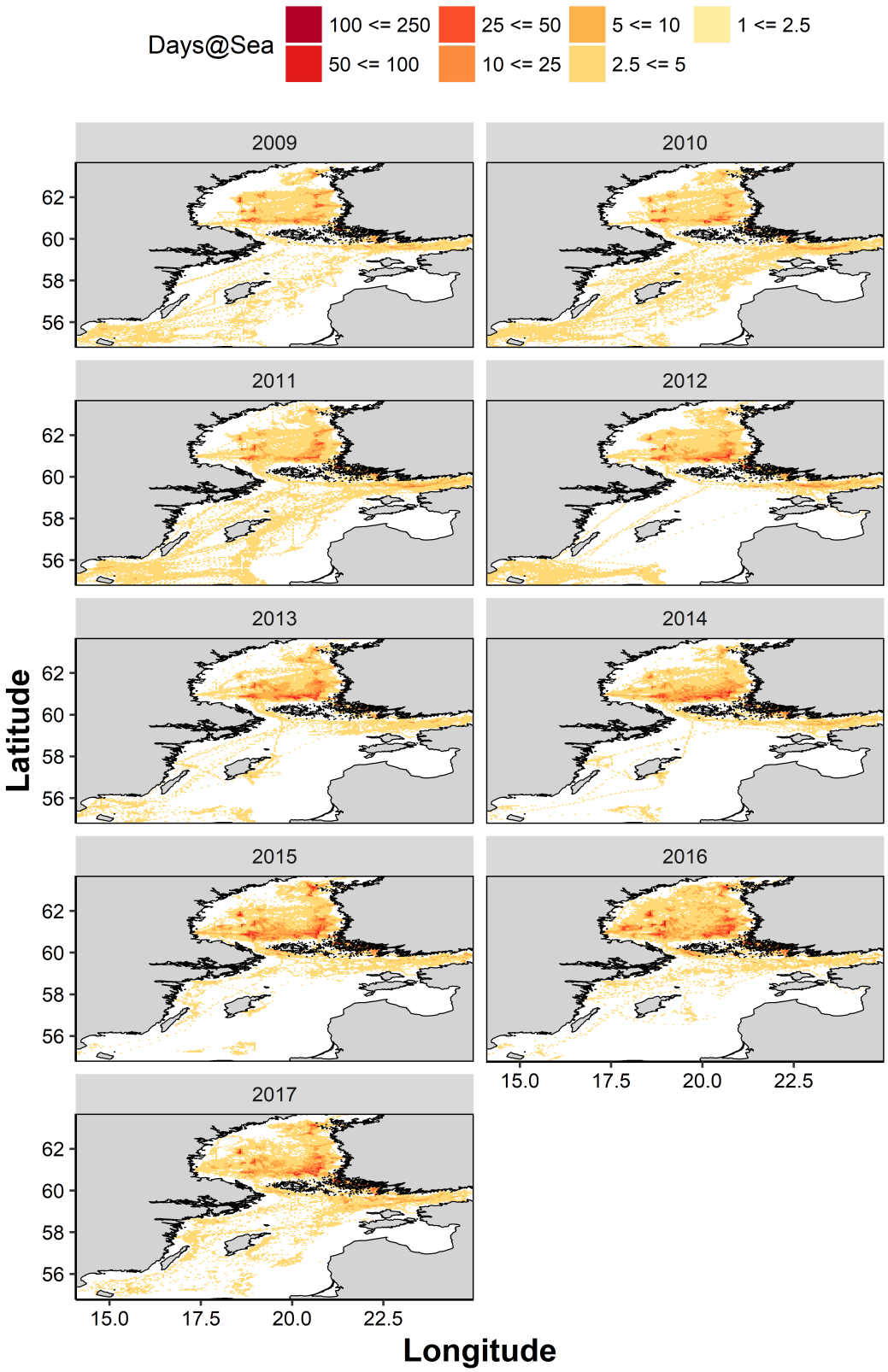


Landings by gear by year:

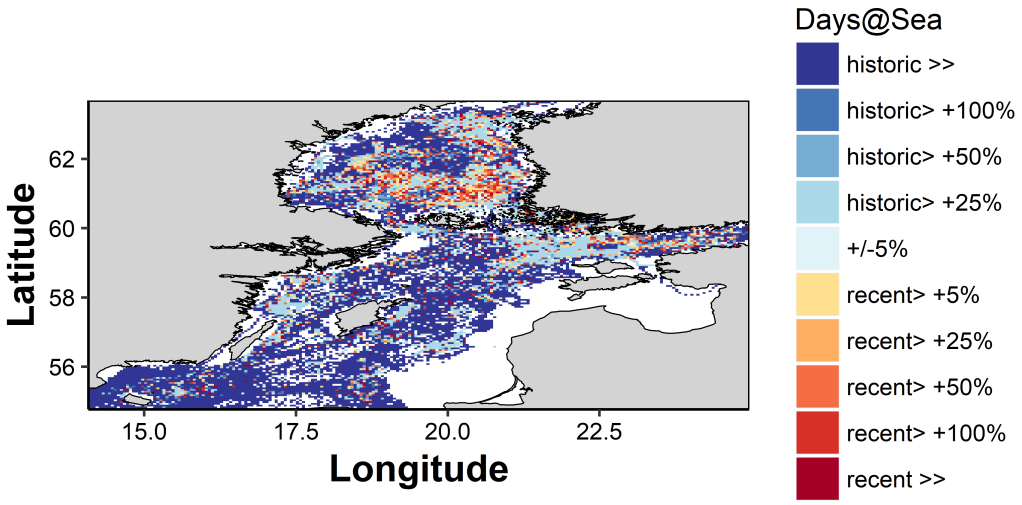
	2009	2010	2011	2012	2013	2014	2015	2016	2017
GNS	69468	26098	37434	7162	308	7.533e+01	-	-	-
OTB	-	-	-	-	-	1.578e+05	313035	31845	150128
OTM	67405242	71693637	69839177	81828806	76409159	8.308e+07	90568805	105824912	104568298
PTM	25543047	21157486	24319136	26035063	22517583	2.748e+07	38280542	38286815	35222428



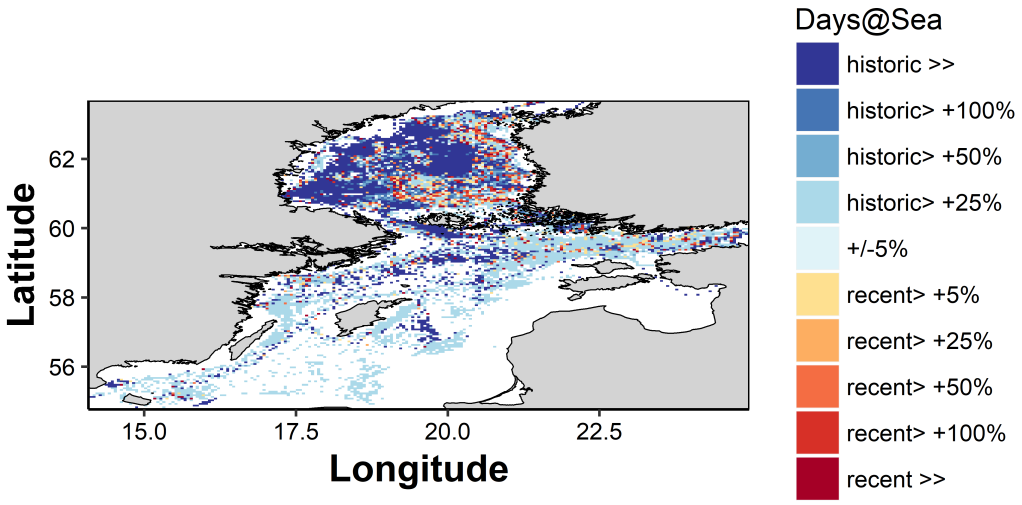
Spatial distribution of effort by year:



Spatial difference of effort 2009:2016 vs 2017

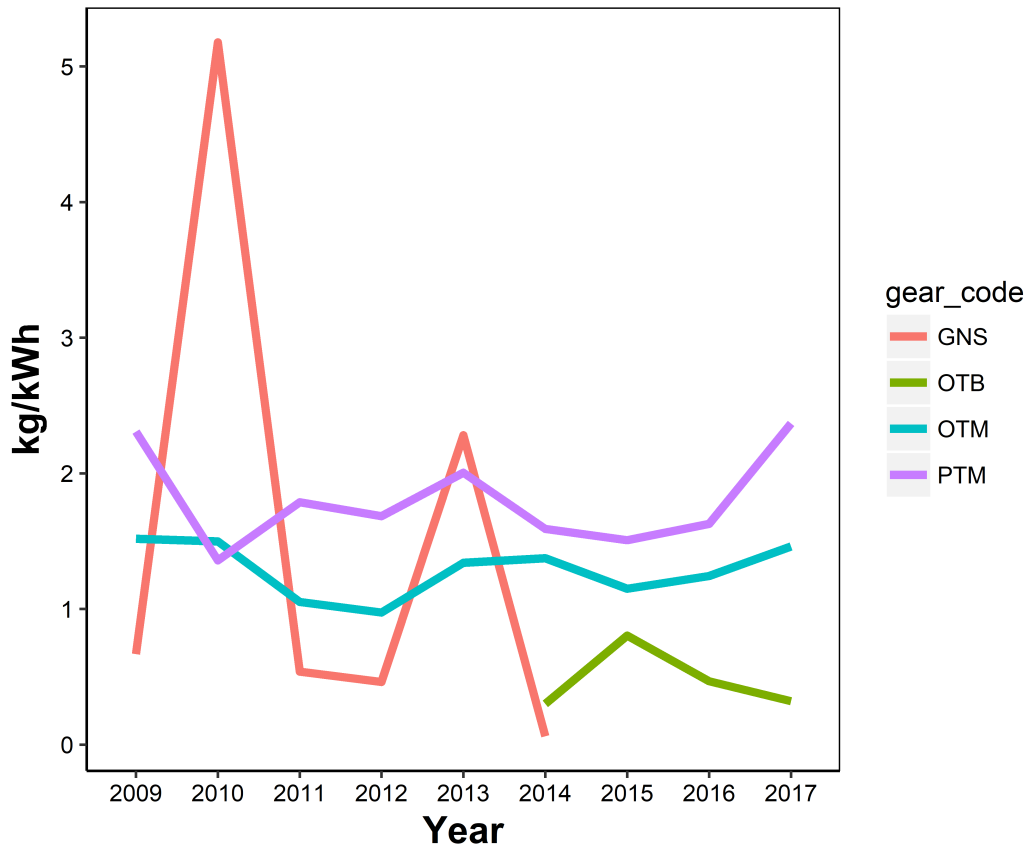


Spatial difference of effort 2016 vs 2017



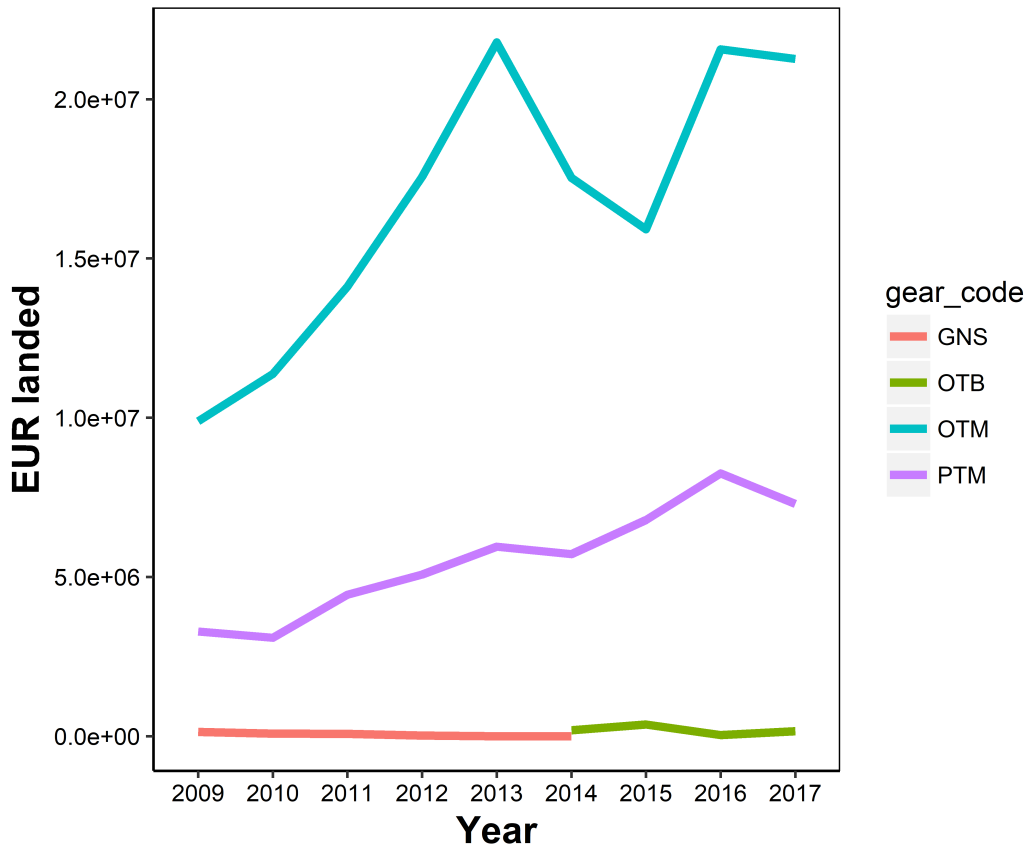
Mean landing per kW fishing hours by year:

	2009	2010	2011	2012	2013	2014	2015	2016	2017
GNS	0.6682	5.178	0.5393	0.4621	2.281	0.0628	-	-	-
OTB	-	-	-	-	-	0.3006	0.8035	0.4684	0.3211
OTM	1.5175	1.498	1.0523	0.9747	1.341	1.3747	1.1503	1.2431	1.4609
PTM	2.3084	1.358	1.7872	1.6836	2.005	1.5907	1.5069	1.6273	2.3690



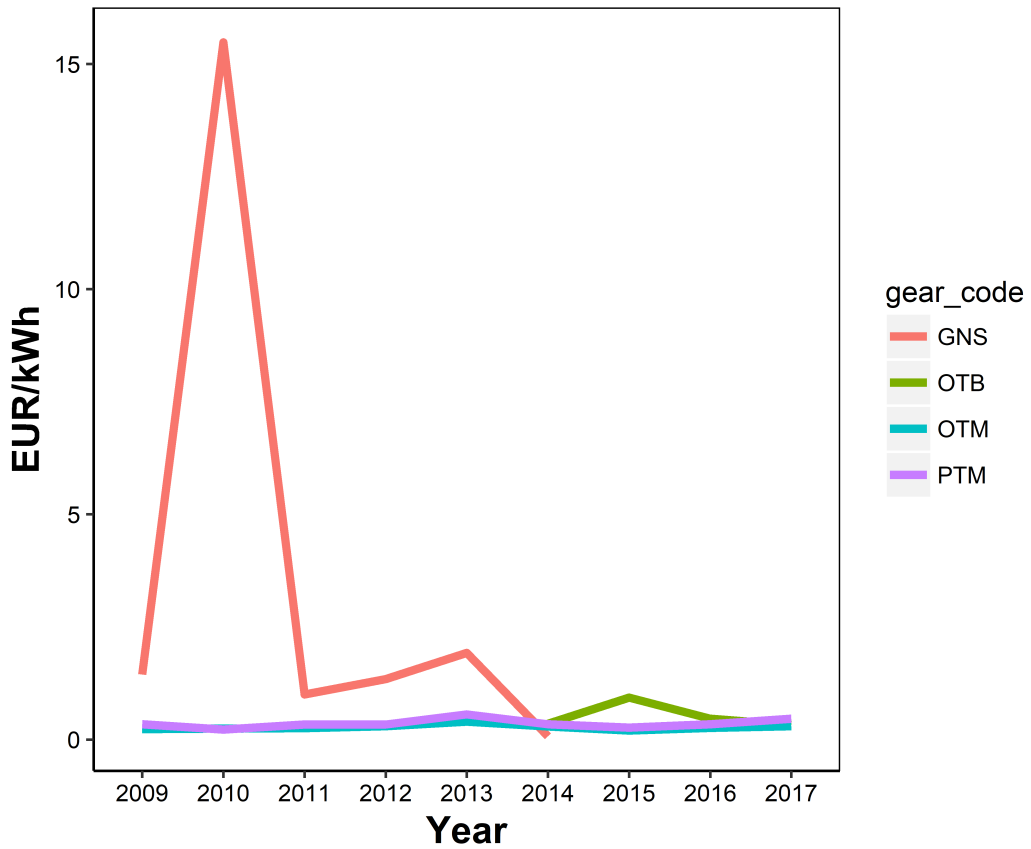
Value by gear by year:

	2009	2010	2011	2012	2013	2014	2015	2016	2017
GNS	133976	78095	68876	19547	2.597e+02	8.963e+01	-	-	-
OTB	-	-	-	-	-	1.835e+05	362990	31348	151431
OTM	9886387	11376689	14110340	17559839	2.179e+07	1.753e+07	15916834	21566318	21263150
PTM	3284164	3090290	4436604	5075783	5.949e+06	5.714e+06	6785090	8250719	7294499



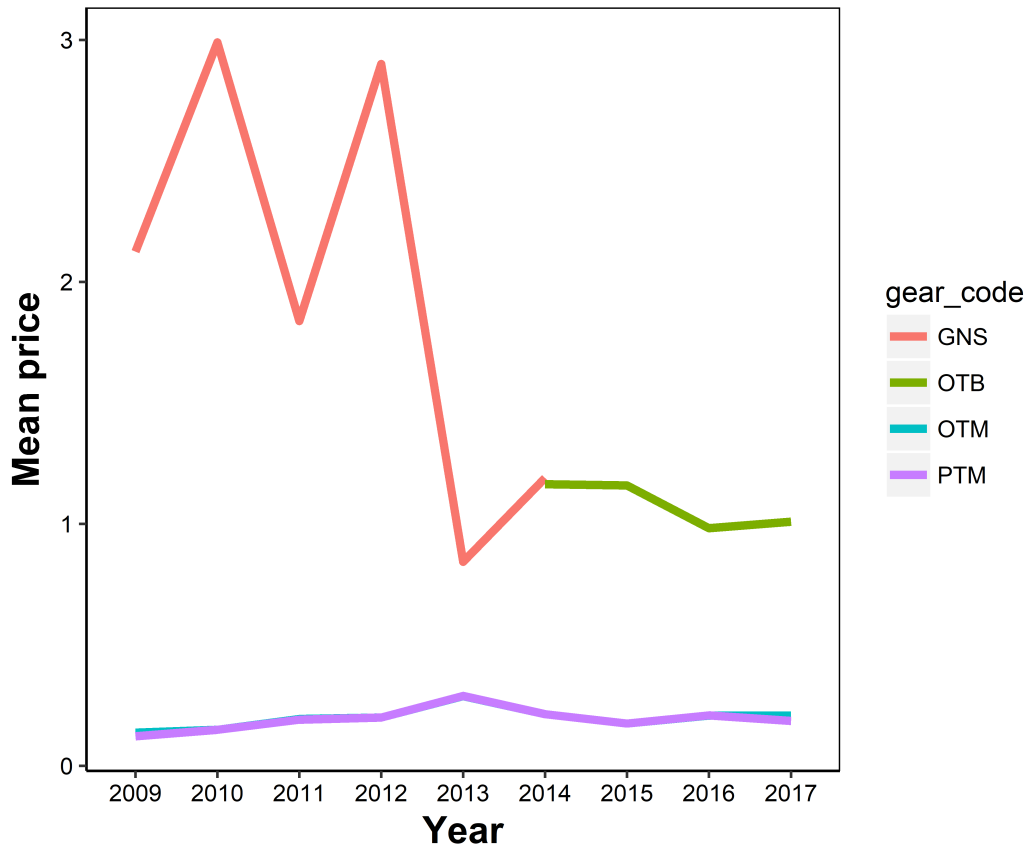
Median value per KW fishing hours by year:

	2009	2010	2011	2012	2013	2014	2015	2016	2017
GNS	1.4426	15.4821	0.9991	1.3403	1.9234	0.0747	-	-	-
OTB	-	-	-	-	-	0.3499	0.9311	0.4602	0.3239
OTM	0.2345	0.2455	0.2513	0.2948	0.3994	0.2925	0.2013	0.2573	0.2978
PTM	0.3389	0.2201	0.3316	0.3339	0.5563	0.3365	0.2669	0.3403	0.4613



Average price:

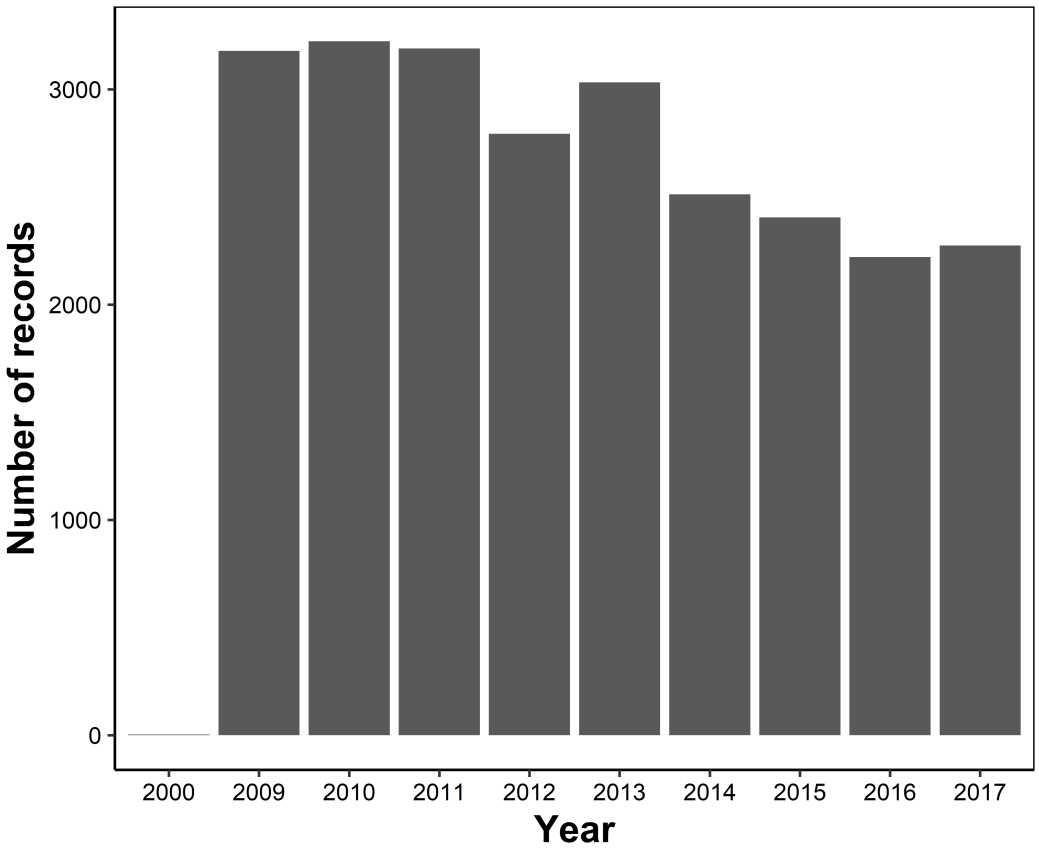
	2009	2010	2011	2012	2013	2014	2015	2016	2017
GNS	2.1249	2.990	1.8378	2.9005	0.843	1.1898	-	-	-
OTB	-	-	-	-	-	1.1641	1.159	0.9824	1.0085
OTM	0.1371	0.149	0.1930	0.1998	0.288	0.2132	0.175	0.2079	0.2078
PTM	0.1224	0.149	0.1907	0.1998	0.289	0.2131	0.175	0.2081	0.1852



Quality of the logbook

Years & number of records for which data has been submitted:

year	freq
2000	3
2009	3178
2010	3223
2011	3189
2012	2793
2013	3032
2014	2512
2015	2405
2016	2220
2017	2274

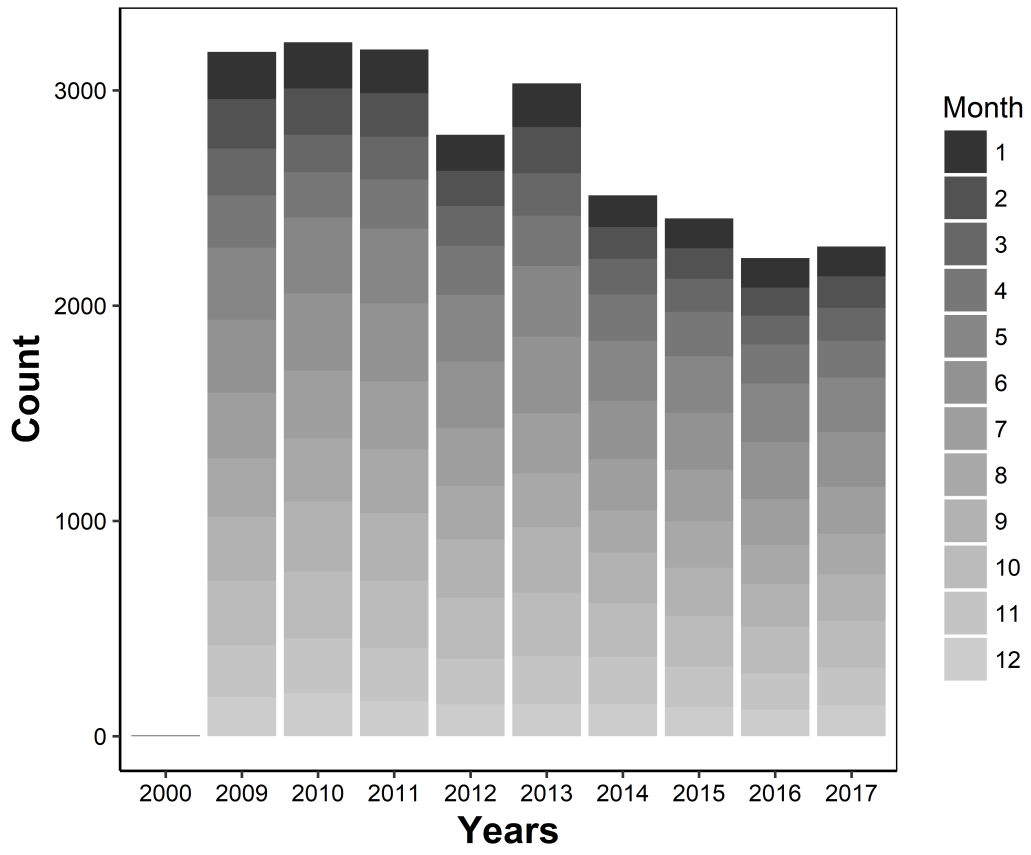


Records assigned to invalid Statistical Rectangles

	2009	2010	2011	2013
NA	1	1	1	1

Distribution of logbook entries by month:

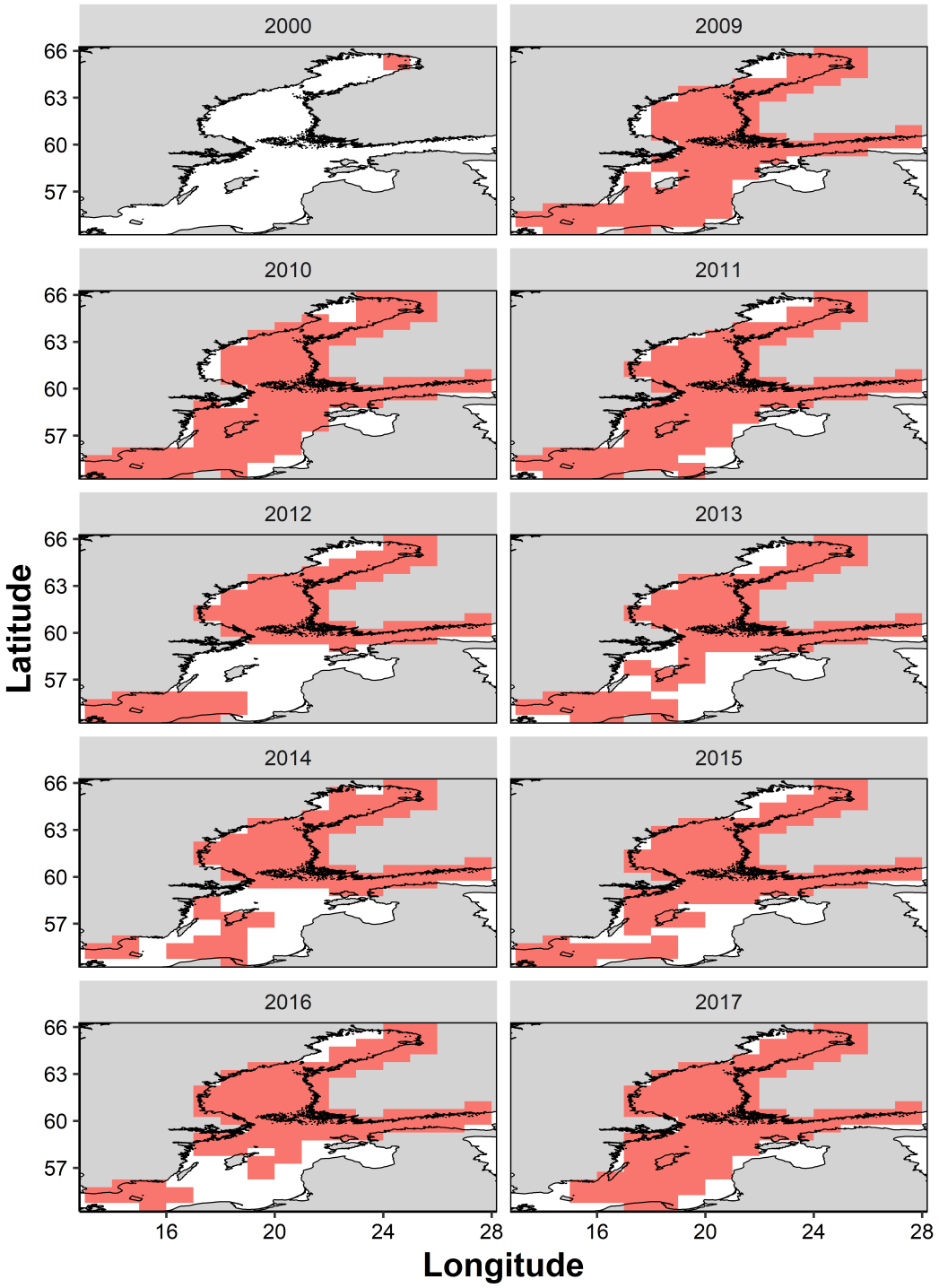
2000	2009	2010	2011	2012	2013	2014	2015	2016	2017
3	219	214	203	167	203	148	139	137	138
0	230	216	202	163	215	147	141	130	146
0	217	174	199	186	197	166	155	133	153
0	243	211	227	227	233	215	206	182	171
0	335	353	348	311	329	279	262	271	254
0	338	357	362	308	355	271	265	265	254
0	305	315	316	268	280	238	240	214	219
0	273	294	296	249	251	195	215	182	187
0	295	325	313	272	302	235	223	198	217
0	301	310	314	282	295	249	236	216	216
0	241	254	247	212	223	220	189	171	175
0	181	200	162	148	149	149	134	121	144

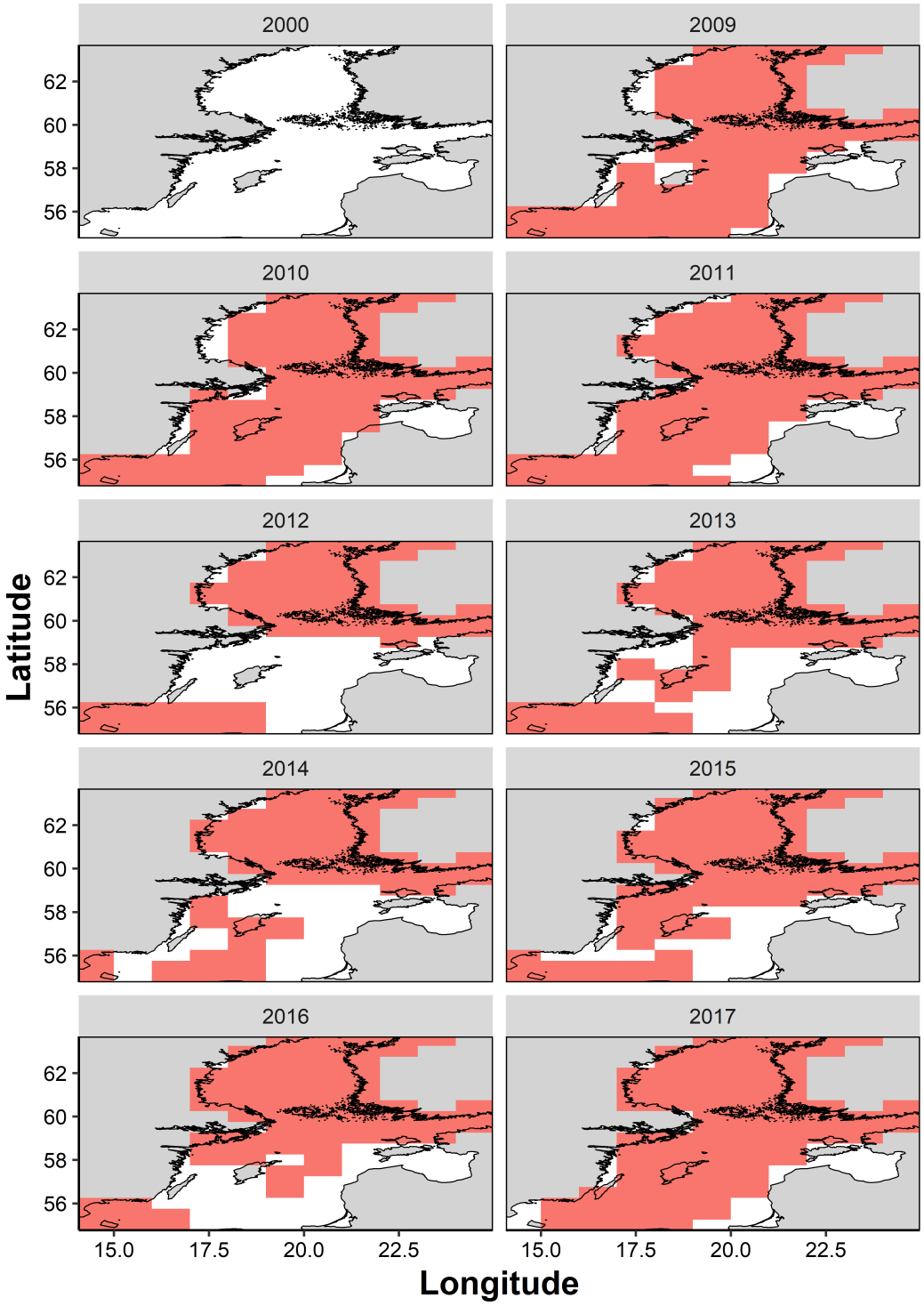


Area extent of data submitted by year:

Year	min lon	max lon	min lat	max lat
2000	24.5	24.5	65.25	65.25
2009	13.5	27.5	54.75	65.75
2010	13.5	27.5	54.75	65.75
2011	13.5	27.5	54.75	65.75
2012	13.5	27.5	54.75	65.75
2013	13.5	27.5	54.75	65.75
2014	13.5	27.5	54.75	65.75
2015	13.5	27.5	54.75	65.75
2016	13.5	27.5	54.75	65.75
2017	15.5	27.5	54.75	65.75

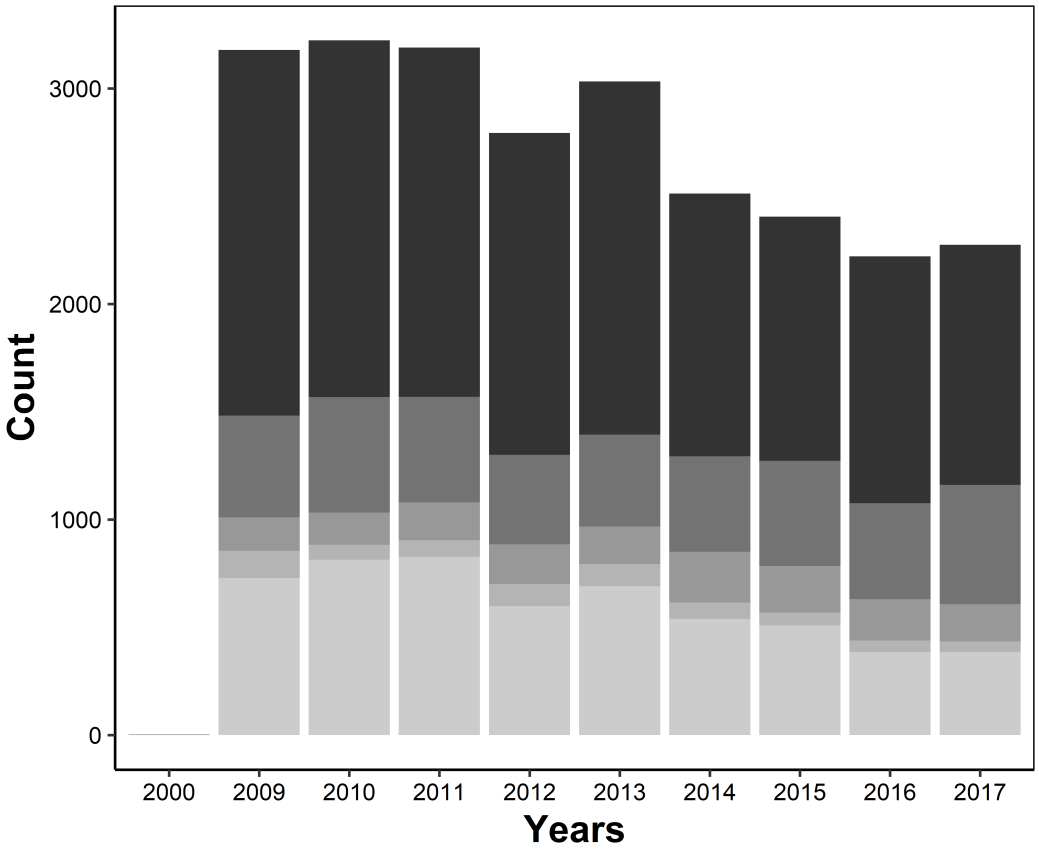
Area for which data has been submitted:




2000
2009
2010
2011
2012
2013
2014
2015
2016
2017
62
60
58
56
Latitude
15.0
17.5
20.0
22.5
Longitude

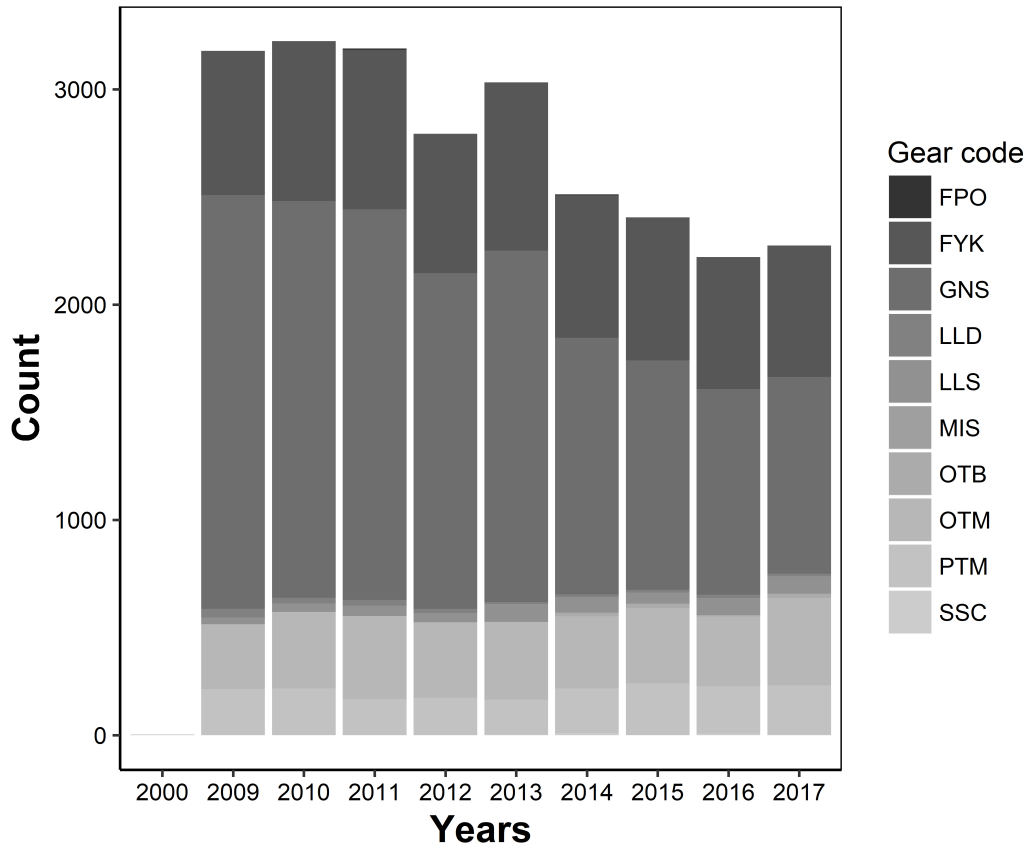
Frequency of vessel length categories by year:

	2000	2009	2010	2011	2012	2013	2014	2015	2016	2017
<8	0	1696	1655	1620	1493	1639	1219	1133	1145	1114
>15	0	473	536	490	416	426	443	488	445	553
10-12	3	155	150	175	184	174	235	216	192	173
12-15	0	126	69	77	102	103	76	60	54	48
8-10	0	728	813	827	598	690	539	508	384	386



Frequency of gear codes by year:

	2000	2009	2010	2011	2012	2013	2014	2015	2016	2017
FPO	0	0	4	6	0	0	5	1	0	0
FYK	0	670	738	740	647	781	662	663	612	610
GNS	0	1921	1843	1815	1559	1633	1192	1066	956	915
LLD	0	41	26	27	19	9	12	13	15	11
LLS	0	31	40	48	44	83	72	51	79	81
MIS	0	0	0	0	0	1	0	1	1	0
OTB	0	0	0	0	0	0	17	20	6	20
OTM	0	301	355	385	350	360	335	349	324	407
PTM	3	214	216	168	173	163	207	240	220	228
SSC	0	0	1	0	1	2	10	1	7	2

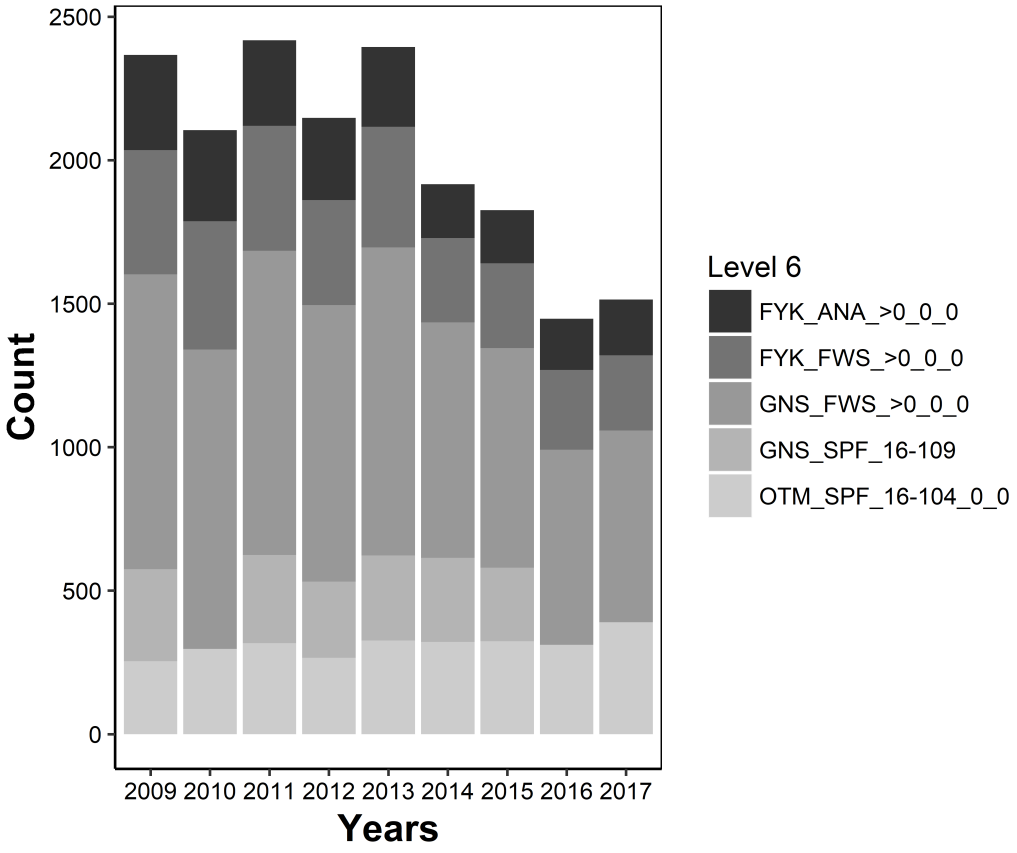


Number of unique DCF Level 6 codes by year:

year	freq
2000	1
2009	16
2010	17
2011	16
2012	17
2013	15
2014	16
2015	17
2016	17
2017	17

Top 5 DCF Level 6 codes by year:

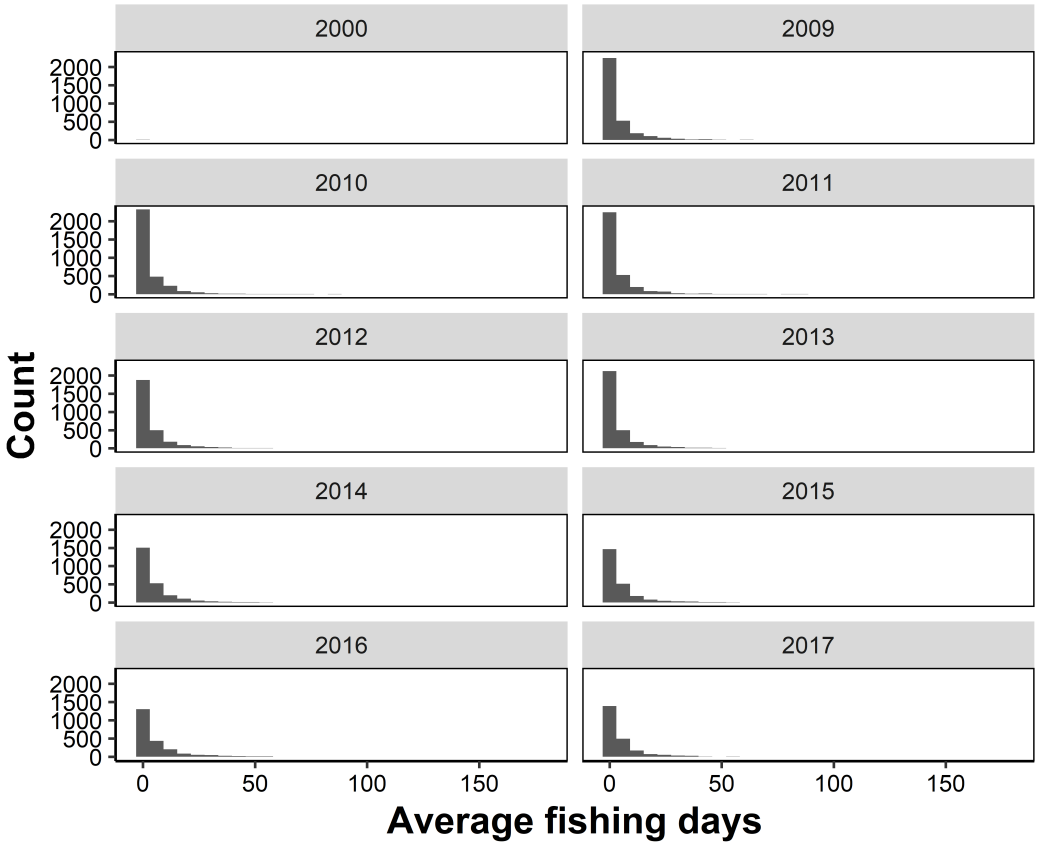
	2000	2009	2010	2011	2012	2013	2014	2015	2016	2017
GNS_FWS_>0_0_0	0	1027	1043	1060	964	1073	821	765	680	668
FYK_FWS_>0_0_0	0	433	447	436	366	420	294	296	278	262
OTM_SPF_16-104_0_0	0	254	297	317	266	326	321	324	311	390
FYK_ANA_>0_0_0	0	332	318	298	286	278	187	185	178	194
GNS_SPF_16-109	0	321	0	307	265	297	293	256	0	0



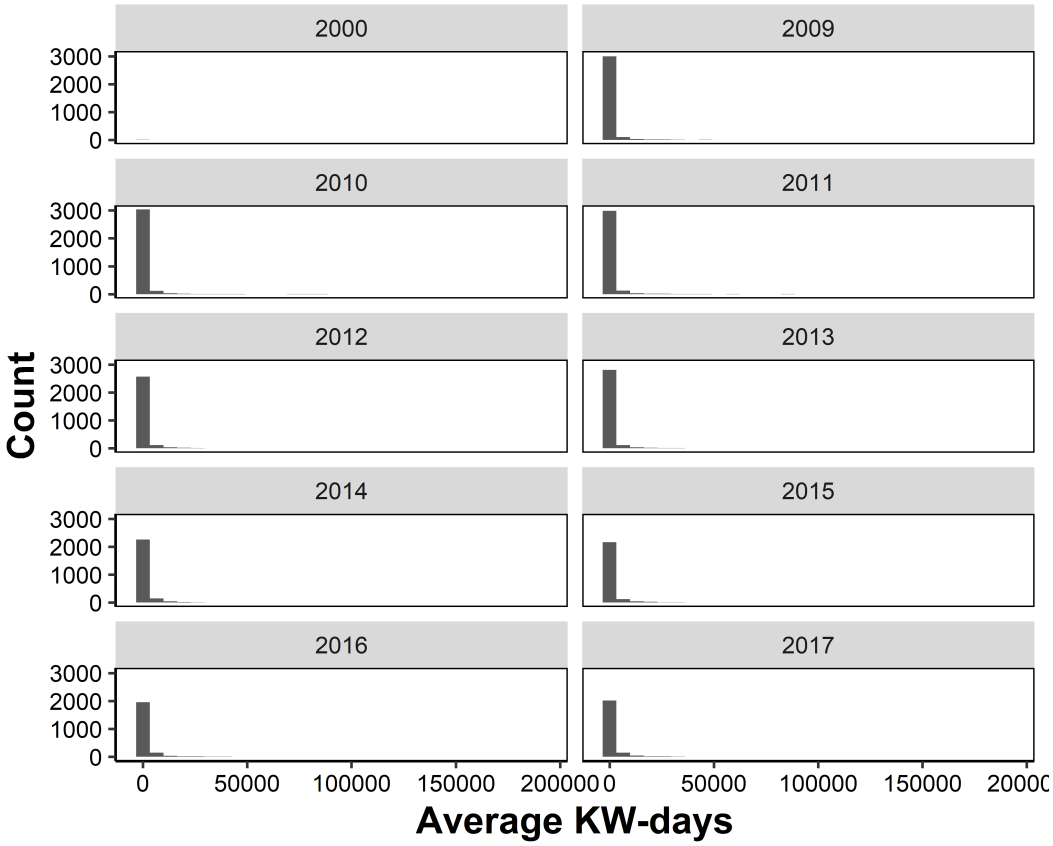
Frequency of VMS enabled category

	<8	>15	10-12	12-15	8-10
No	12714	974	1657	681	5473
Yes	0	3296	0	34	0

Average fishing days:

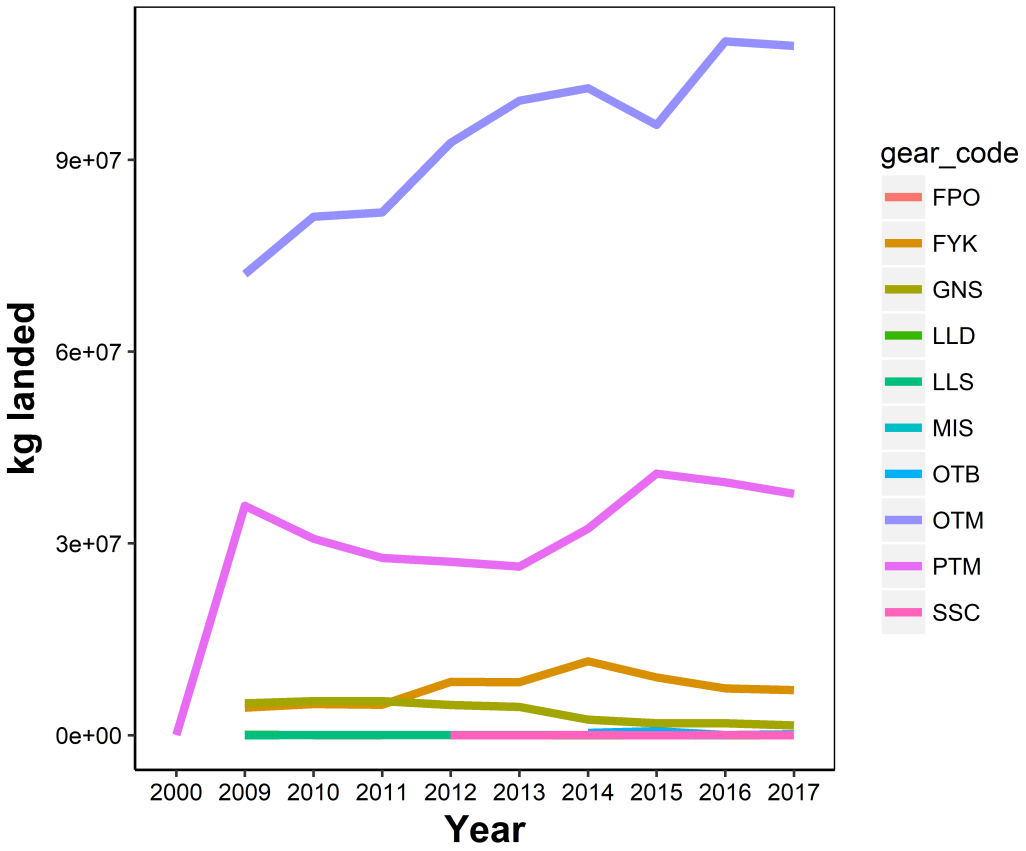


Average KW-hours:

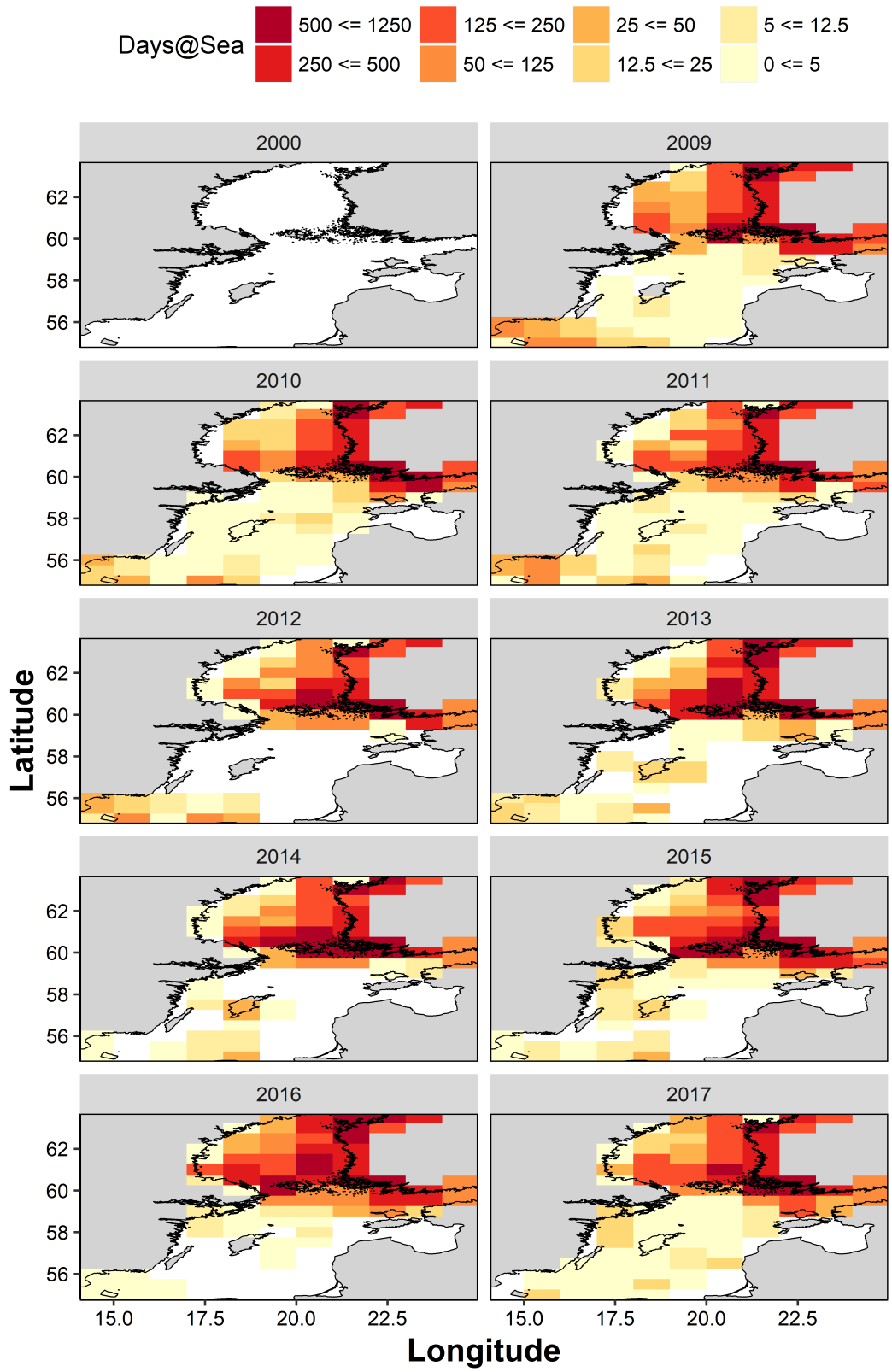


Landings by gear by year:

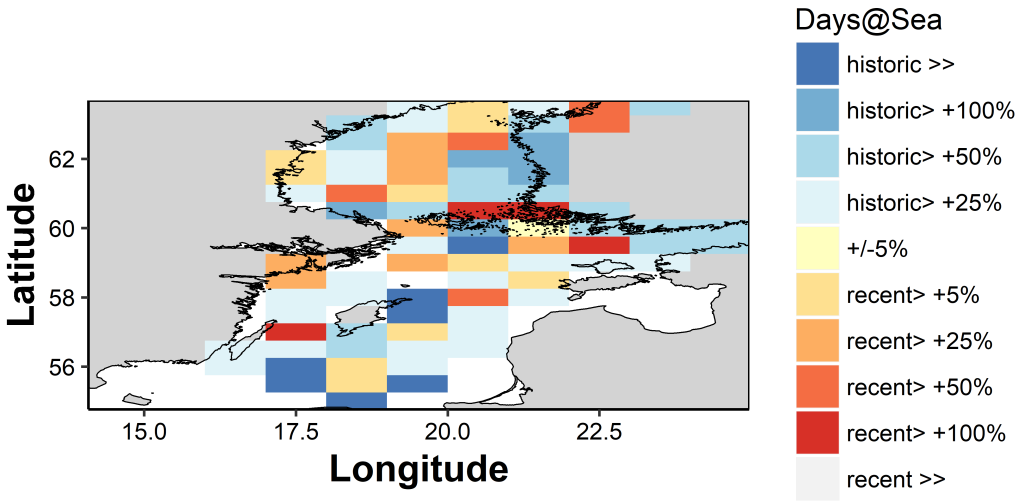
	2000	2009	2010	2011	2012	2013	2014	2015	2016	2
FPO	-	-	94	214	-	-	1.950e+02	7	-	
FYK	-	4.301e+06	4859551	4756444	8334212	8.283e+06	1.157e+07	9048941	7.314e+06	7.055e
GNS	-	4.969e+06	5310495	5323322	4707671	4.437e+06	2.436e+06	1869743	1.855e+06	1.534e
LLD	-	4.016e+04	36709	38020	23087	4.615e+02	6.538e+02	1248	7.859e+02	7.053e
LLS	-	1.311e+02	2867	5706	4820	1.563e+04	1.022e+04	2801	1.771e+04	2.079e
MIS	-	-	-	-	-	3.240e+01	-	55	1.512e+01	
OTB	-	-	-	-	-	-	3.698e+05	616190	3.210e+04	1.501e
OTM	-	7.210e+07	81110046	81790303	92689287	9.927e+07	1.012e+08	95455002	1.085e+08	1.078e
PTM	10620	3.590e+07	30711183	27717703	27113142	2.637e+07	3.230e+07	40907952	3.956e+07	3.774e
SSC	-	-	20	-	5	0.000e+00	6.109e+03	1612	3.409e+03	1.462e



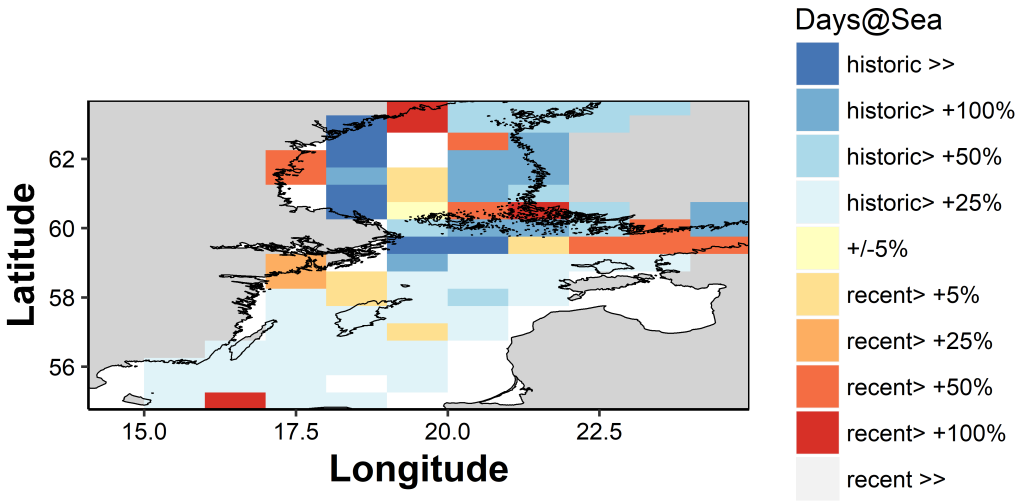
Spatial distribution of effort by year:



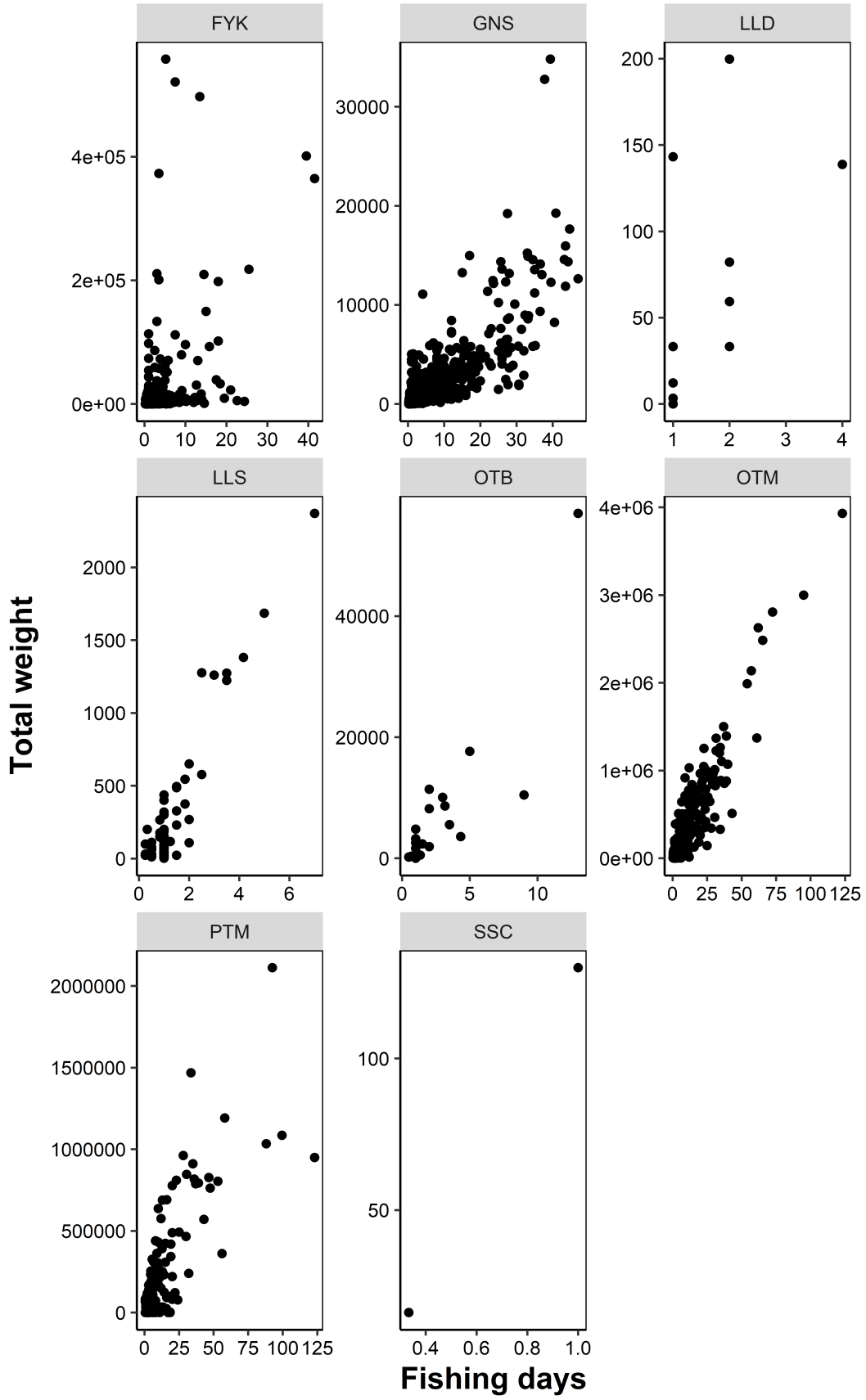
Spatial difference of effort 2009:2016 vs 2017



Spatial difference of effort 2016 vs 2017

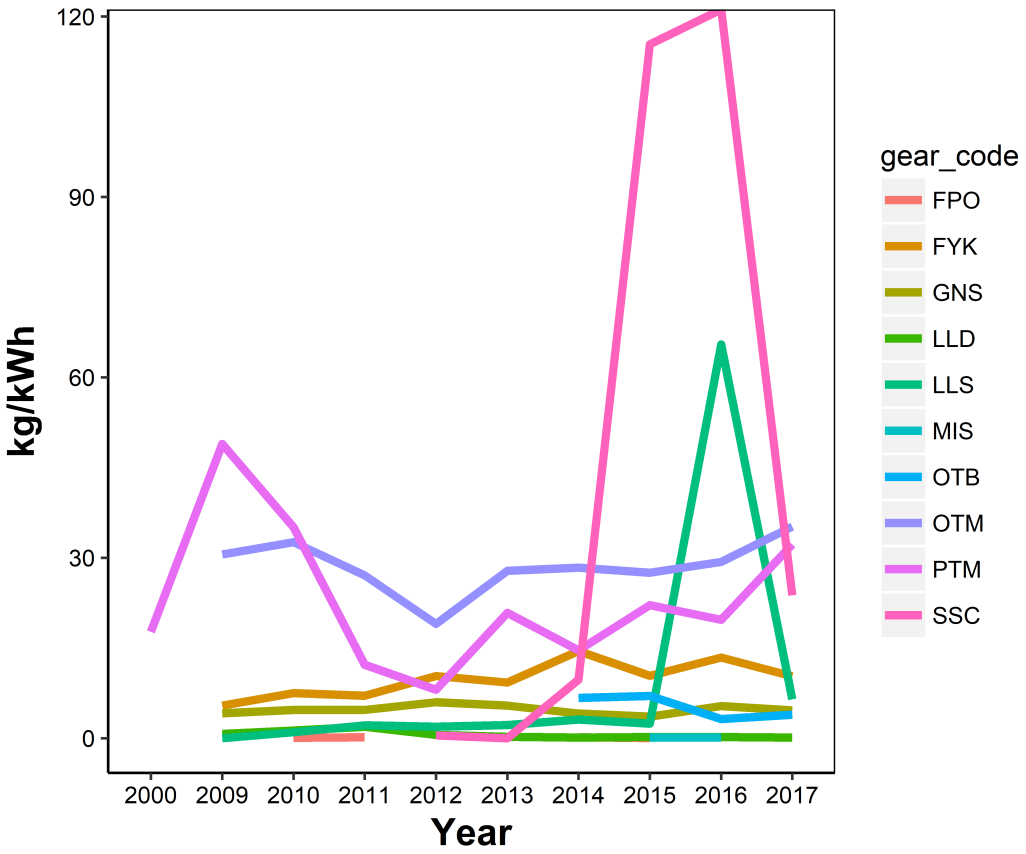


Relationship fishing days and total weight



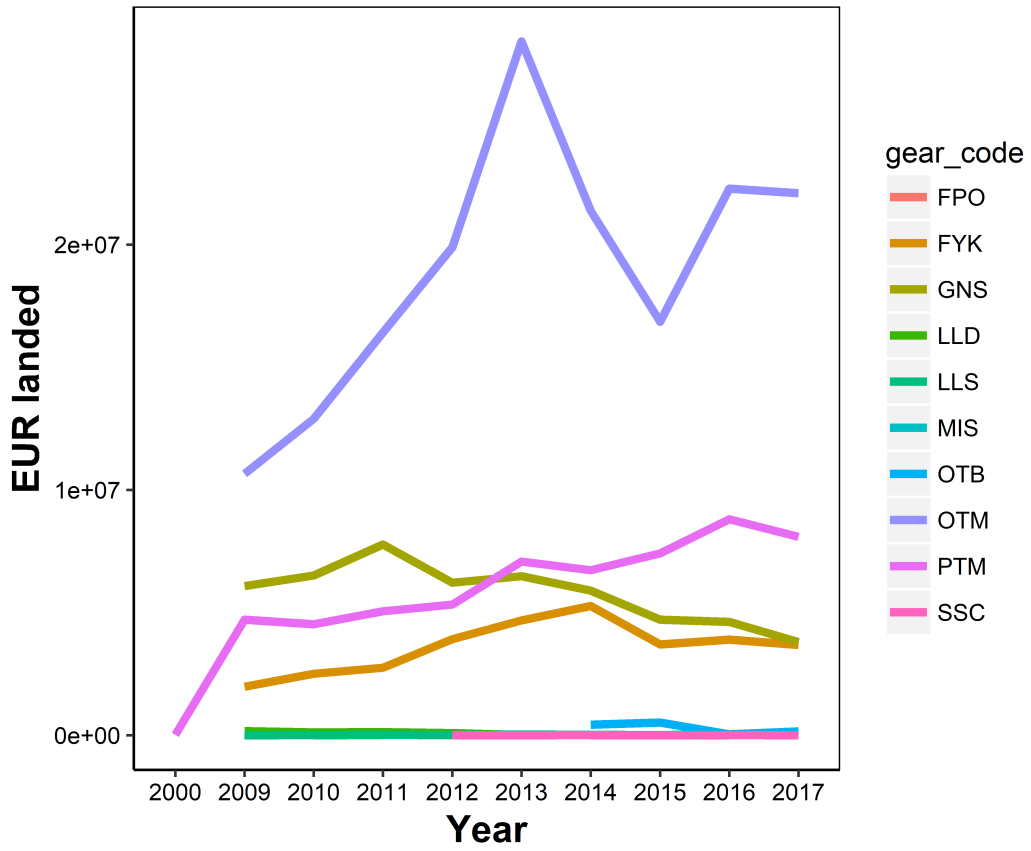
Mean landing per KW fishing day by year:

	2000	2009	2010	2011	2012	2013	2014	2015	2016	2017
FPO	-	-	0.0480	0.1304	-	-	0.1603	0.0380	-	-
FYK	-	5.4012	7.4960	7.0562	10.3369	9.2612	14.4702	10.3552	13.4059	10.2849
GNS	-	4.1508	4.7023	4.7046	5.9892	5.4186	4.1098	3.5786	5.3193	4.6349
LLD	-	0.7136	1.2706	1.8854	0.5272	0.2326	0.1199	0.1775	0.2004	0.1084
LLS	-	0.0000	0.9741	2.1540	1.9171	2.1778	3.0951	2.4150	65.4819	6.4626
MIS	-	-	-	-	-	0.3038	-	0.1008	0.0922	-
OTB	-	-	-	-	-	-	6.7084	7.0315	3.1771	3.8963
OTM	-	30.5419	32.5728	27.0836	18.9964	27.8194	28.3416	27.5083	29.2979	35.2022
PTM	17.7	48.9316	35.0508	12.1937	8.0609	20.8421	14.6148	22.1365	19.6954	32.2469
SSC	-	-	1.8132	-	0.4533	0.0000	9.7250	115.3901	Inf	23.7397



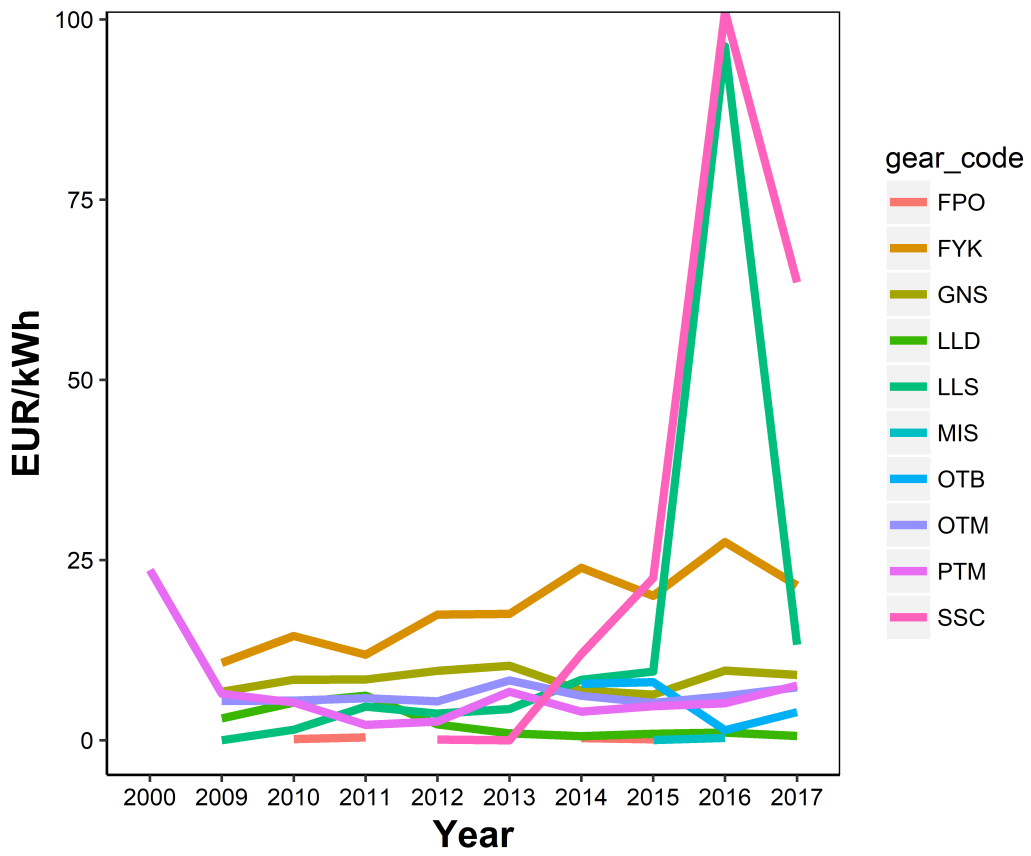
Value by gear by year:

	2000	2009	2010	2011	2012	2013	2014	2015	2016	
FPO	-	-	2.759e+02	6.574e+02	-	-	2.949e+02	1.897e+01	-	
FYK	-	1.973e+06	2.503e+06	2.752e+06	3.918e+06	4679366	5.265e+06	3.701e+06	3.897e+06	3.6
GNS	-	6.077e+06	6.511e+06	7.775e+06	6.212e+06	6475612	5.888e+06	4.710e+06	4.620e+06	3.7
LLD	-	1.613e+05	1.174e+05	1.250e+05	8.609e+04	2095	3.081e+03	5.915e+03	4.360e+03	4.0
LLS	-	2.461e+02	4.058e+03	1.330e+04	7.416e+03	29346	1.953e+04	8.571e+03	3.341e+04	3.7
MIS	-	-	-	-	-	125	-	1.072e+01	5.432e+01	
OTB	-	-	-	-	-	-	4.303e+05	5.163e+05	3.139e+04	1.5
OTM	-	1.066e+07	1.290e+07	1.641e+07	1.989e+07	28286372	2.138e+07	1.685e+07	2.228e+07	2.2
PTM	14168	4.704e+06	4.521e+06	5.050e+06	5.322e+06	7076289	6.729e+06	7.411e+06	8.799e+06	8.0
SSC	-	-	2.656e+00	-	8.736e-01	0	2.988e+03	3.143e+02	4.731e+03	4.0



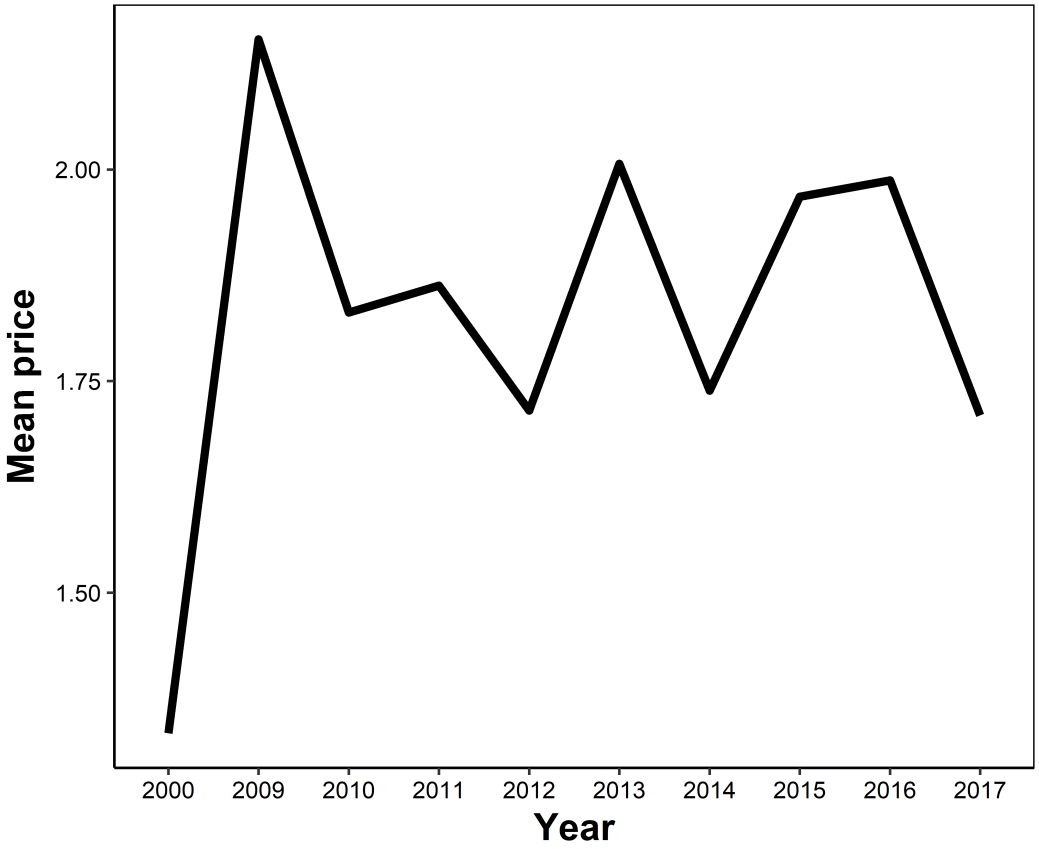
Mean value per KW fishing day by year:

	2000	2009	2010	2011	2012	2013	2014	2015	2016	2017
FPO	-	-	0.1409	0.3939	-	-	0.2810	0.1031	-	-
FYK	-	10.722	14.4554	11.8674	17.4270	17.5315	23.9098	20.0106	27.4944	21.4476
GNS	-	6.728	8.3830	8.4285	9.6225	10.3030	6.8707	6.3302	9.6563	9.0471
LLD	-	3.002	5.2321	6.1846	2.1945	0.9599	0.5401	0.8957	1.0596	0.5733
LLS	-	0.000	1.4590	4.6496	3.6820	4.3207	8.3958	9.5173	96.2584	13.2391
MIS	-	-	-	-	-	1.1719	-	0.0197	0.3312	-
OTB	-	-	-	-	-	-	7.8093	8.0440	1.3990	3.8973
OTM	-	5.446	5.4888	5.8239	5.3687	8.2823	6.1463	5.1990	6.1349	7.3086
PTM	23.61	6.453	5.2120	2.1147	2.5905	6.7039	3.9584	4.7226	5.1025	7.5866
SSC	-	-	0.2408	-	0.0792	0.0000	11.9597	22.5011	Inf	63.5225



Average price:

2000	2009	2010	2011	2012	2013	2014	2015	2016	2017
1.334	2.154	1.831	1.863	1.715	2.007	1.739	1.968	1.987	1.709



Comparison of Metier level 6 reporting between logbook and VMS

	x	year
LE (records)	3	2000
VE (pings)	-	2000

	LE (records)	VE (pings)	year
FPO_FWS_>0_0_0	114	-	2009
FYK_ANA_>0_0_0	332	-	2009
FYK_FWS_>0_0_0	433	-	2009
FYK_SPF_>0_0_0	183	-	2009
GNS_DEF_110-156_0_0_0	13	207	2009
GNS_FWS_>0_0_0	1027	18	2009
GNS_SPF_16-109	321	-	2009
LLD_ANA_0_0_0	55	-	2009
LLS_FWS_0_0_0	130	-	2009
MISSING	38	-	2009
OTM_DEF_>=105_1_120	38	1298	2009
OTM_FWS_>0_0_0	15	17	2009
OTM_SPF_16-104_0_0	254	12611	2009
PTM_FWS_>0_0_0	16	53	2009
PTM_SPF_16-104_0_0	198	4095	2009
SSC_FWS_>0_0_0	11	-	2009

	LE (records)	VE (pings)	year
FPO_FWS_>0_0_0	102	-	2010
FYK_ANA_>0_0_0	318	-	2010
FYK_FWS_>0_0_0	447	-	2010
FYK_SPF_>0_0_0	197	-	2010
GNS_DEF_110-156_0_0	5	16	2010
GNS_FWS_>0_0_0	1043	11	2010
GNS_SPF_16-109_0_0	319	-	2010
LLD_ANA_0_0_0	30	-	2010
LLS_DEF_0_0_0	2	-	2010
LLS_FWS_0_0_0	130	-	2010
MISSING	33	-	2010
OTM_DEF_>=105_1_120	55	2124	2010
OTM_FWS_>0_0_0	14	24	2010
OTM_SPF_16-104_0_0	297	15417	2010
PTM_FWS_>0_0_0	19	44	2010
PTM_SPF_16-104_0_0	199	4294	2010
SSC_FWS_>0_0_0	13	-	2010

	LE (records)	VE (pings)	year
FPO_FWS_>0_0_0	116	-	2011
FYK_ANA_>0_0_0	298	-	2011
FYK_FWS_>0_0_0	436	-	2011
FYK_SPF_>0_0_0	172	-	2011
GNS_DEF_110-156_0_0_0	7	213	2011
GNS_FWS_>0_0_0	1060	-	2011
GNS_SPF_16-109	307	-	2011
LLD_ANA_0_0_0	41	-	2011
LLS_FWS_0_0_0	139	-	2011
MISSING	32	-	2011
OTM_DEF_>=105_1_120	61	2985	2011
OTM_FWS_>0_0_0	25	35	2011
OTM_SPF_16-104_0_0	317	16418	2011
PTM_FWS_>0_0_0	18	27	2011
PTM_SPF_16-104_0_0	150	3939	2011
SSC_FWS_>0_0_0	10	-	2011

	LE (records)	VE (pings)	year
FPO_FWS_>0_0_0	64	-	2012
FYK_ANA_>0_0_0	286	-	2012
FYK_FWS_>0_0_0	366	-	2012
FYK_SPF_>0_0_0	142	-	2012
GNS_DEF_110-156_0_0_0	7	55	2012
GNS_FWS_>0_0_0	964	-	2012
GNS_SPF_16-109	265	1	2012
LLD_ANA_0_0_0	23	-	2012
LLS_DEF_>0_0_0	3	-	2012
LLS_FWS_0_0_0	84	1	2012
MISSING	53	-	2012
OTM_DEF_>=105_1_120	70	3982	2012
OTM_FWS_>0_0_0	16	79	2012
OTM_SPF_16-104_0_0	266	12509	2012
PTM_FWS_>0_0_0	18	22	2012
PTM_SPF_16-104_0_0	155	3723	2012
SSC_FWS_>0_0_0	11	-	2012

	LE (records)	VE (pings)	year
FPO_FWS_>0_0_0	60	-	2013
FYK_ANA_>0_0_0	278	-	2013
FYK_FWS_>0_0_0	420	-	2013
FYK_SPF_>0_0_0	143	-	2013
GNS_FWS_>0_0_0	1073	-	2013
GNS_SPF_16-109	297	-	2013
LLD_ANA_0_0_0	12	-	2013
LLS_FWS_0_0_0	99	1	2013
MISSING	83	-	2013
OTM_DEF_>=105_1_120	32	887	2013
OTM_FWS_>0_0_0	24	31	2013
OTM_SPF_16-104_0_0	326	11530	2013
PTM_FWS_>0_0_0	23	25	2013
PTM_SPF_16-104_0_0	146	3429	2013
SSC_FWS_>0_0_0	16	-	2013

	LE (records)	VE (pings)	year
FPO_FWS_>0_0_0	62	-	2014
FYK_ANA_>0_0_0	187	-	2014
FYK_FWS_>0_0_0	294	-	2014
FYK_SPF_>0_0_0	124	-	2014
GNS_DEF_110-156_0_0_0	7	-	2014
GNS_FWS_>0_0_0	821	1	2014
GNS_SPF_16-109	293	-	2014
LLD_ANA_0_0_0	25	-	2014
LLS_FWS_0_0_0	59	-	2014
MISSING	71	-	2014
OTB_DEF_>=105_1_120	17	251	2014
OTM_FWS_>0_0_0	14	21	2014
OTM_SPF_16-104_0_0	321	10872	2014
PTM_FWS_>0_0_0	22	9	2014
PTM_SPF_16-104_0_0	185	4087	2014
SSC_FWS_>0_0_0	10	-	2014

	LE (records)	VE (pings)	year
FPO_FWS_>0_0_0	51	-	2015
FYK_ANA_>0_0_0	185	-	2015
FYK_FWS_>0_0_0	296	-	2015
FYK_SPF_>0_0_0	132	-	2015
GNS_DEF_110-156_0_0_0	8	-	2015
GNS_FWS_>0_0_0	765	-	2015
GNS_SPF_16-109	256	-	2015
LLD_ANA_0_0_0	25	-	2015
LLS_FWS_0_0_0	39	-	2015
MISSING	38	-	2015
OTB_DEF_>=105_1_120	20	184	2015
OTM_DEF_>=105_1_120	3	-	2015
OTM_FWS_>0_0_0	22	8	2015
OTM_SPF_16-104_0_0	324	13581	2015
PTM_FWS_>0_0_0	26	3	2015
PTM_SPF_16-104_0_0	214	5775	2015
SSC_FWS_>0_0_0	1	-	2015

	LE (records)	VE (pings)	year
FPO_FWS_>0_0_0	42	-	2016
FYK_ANA_>0_0_0	178	-	2016
FYK_FWS_>0_0_0	278	-	2016
FYK_SPF_>0_0_0	114	-	2016
GNS_DEF_110-156_0_0	19	-	2016
GNS_FWS_>0_0_0	680	-	2016
GNS_SPF_16-109_0_0	216	-	2016
LLD_ANA_0_0_0	25	-	2016
LLS_FWS_0_0_0	69	-	2016
MISSING	42	-	2016
OTB_DEF_>=105_1_120	6	57	2016
OTM_DEF_>=105_1_120	1	-	2016
OTM_FWS_>0_0_0	12	33	2016
OTM_SPF_16-104_0_0	311	15894	2016
PTM_FWS_>0_0_0	19	9	2016
PTM_SPF_16-104_0_0	201	5858	2016
SSC_FWS_>0_0_0	7	-	2016

	LE (records)	VE (pings)	year
FPO_FWS_>0_0_0	27	-	2017
FYK_ANA_>0_0_0	194	-	2017
FYK_FWS_>0_0_0	262	-	2017
FYK_SPF_>0_0_0	127	-	2017
GNS_DEF_110-156_0_0	17	-	2017
GNS_FWS_>0_0_0	668	-	2017
GNS_SPF_16-109_0_0	186	-	2017
LLD_ANA_0_0_0	18	-	2017
LLS_FWS_0_0_0	74	-	2017
MISSING	44	-	2017
OTB_DEF_>=105_1_120	20	228	2017
OTM_DEF_>=105_1_120	1	-	2017
OTM_FWS_>0_0_0	16	18	2017
OTM_SPF_16-104_0_0	390	16538	2017
PTM_FWS_>0_0_0	15	7	2017
PTM_SPF_16-104_0_0	213	5068	2017
SSC_FWS_>0_0_0	2	-	2017