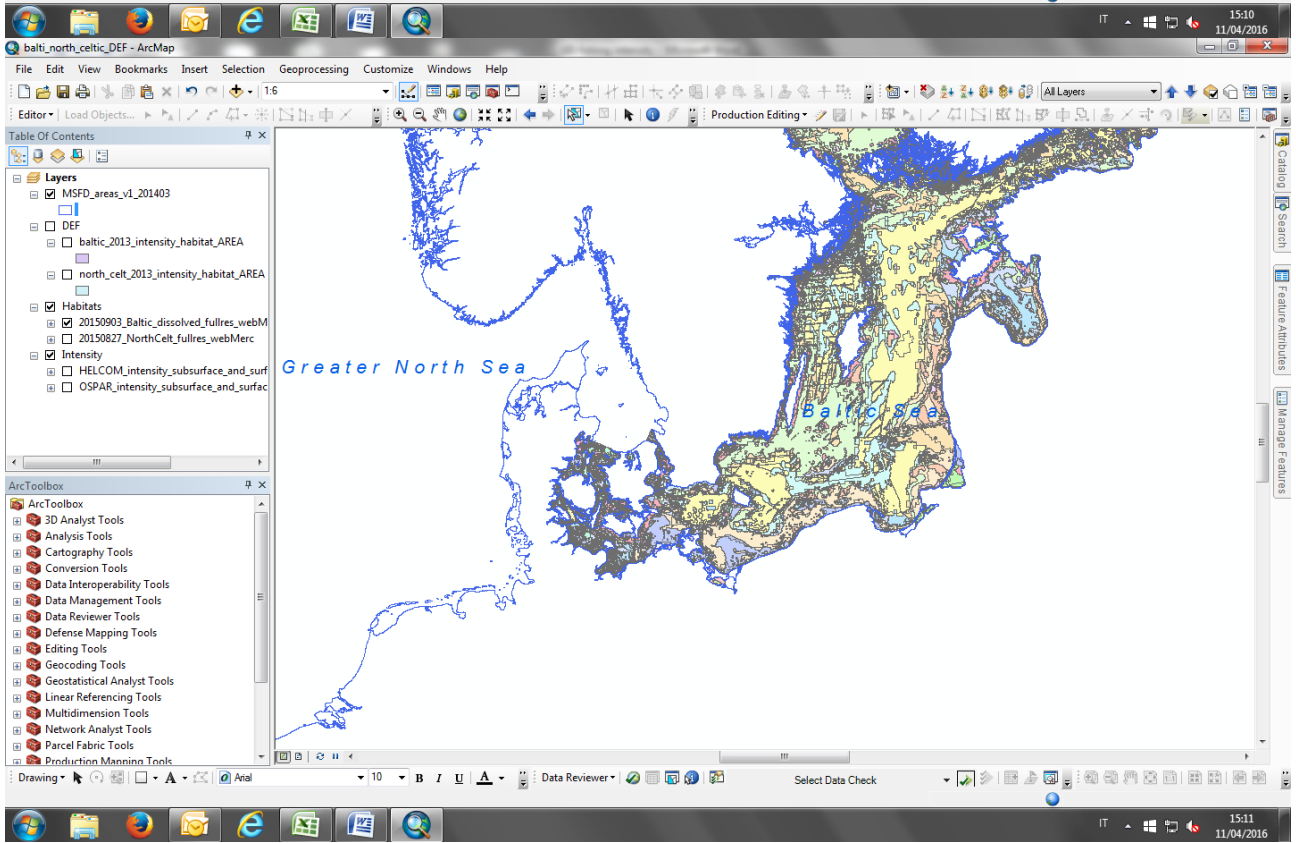
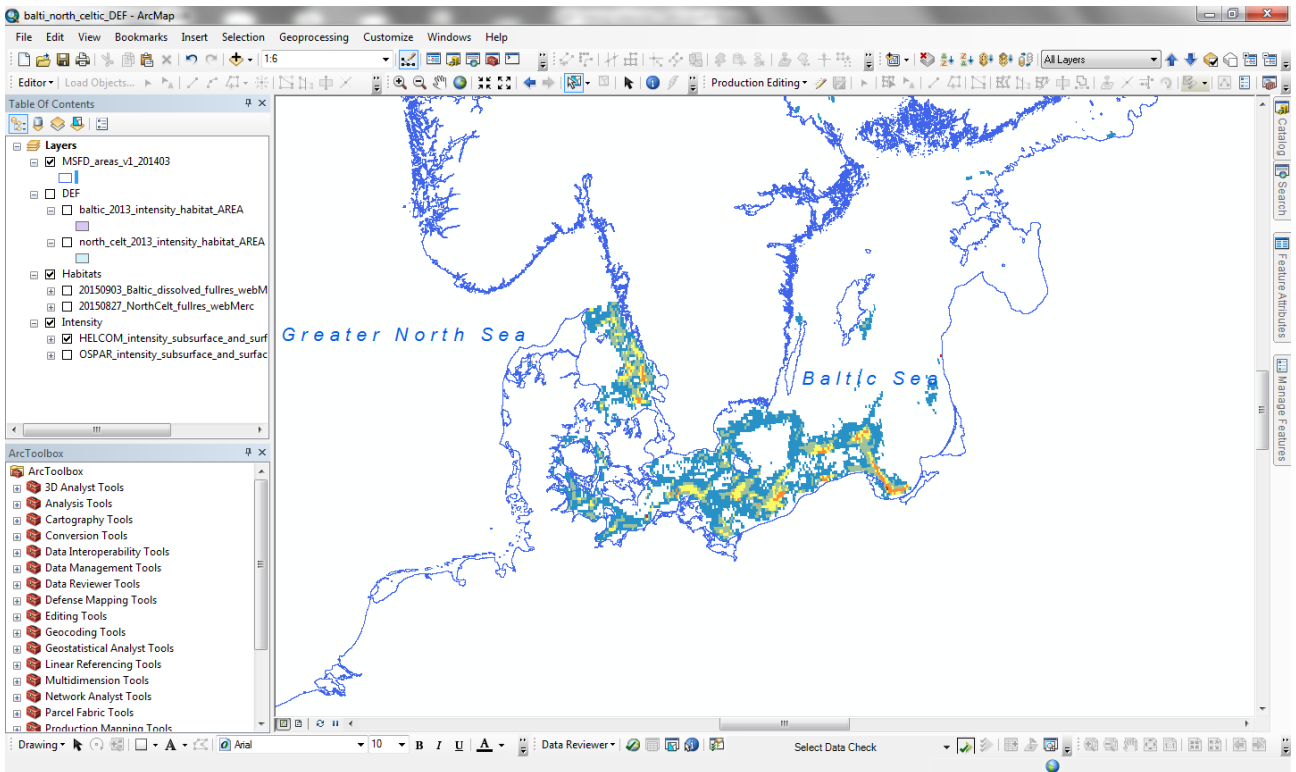


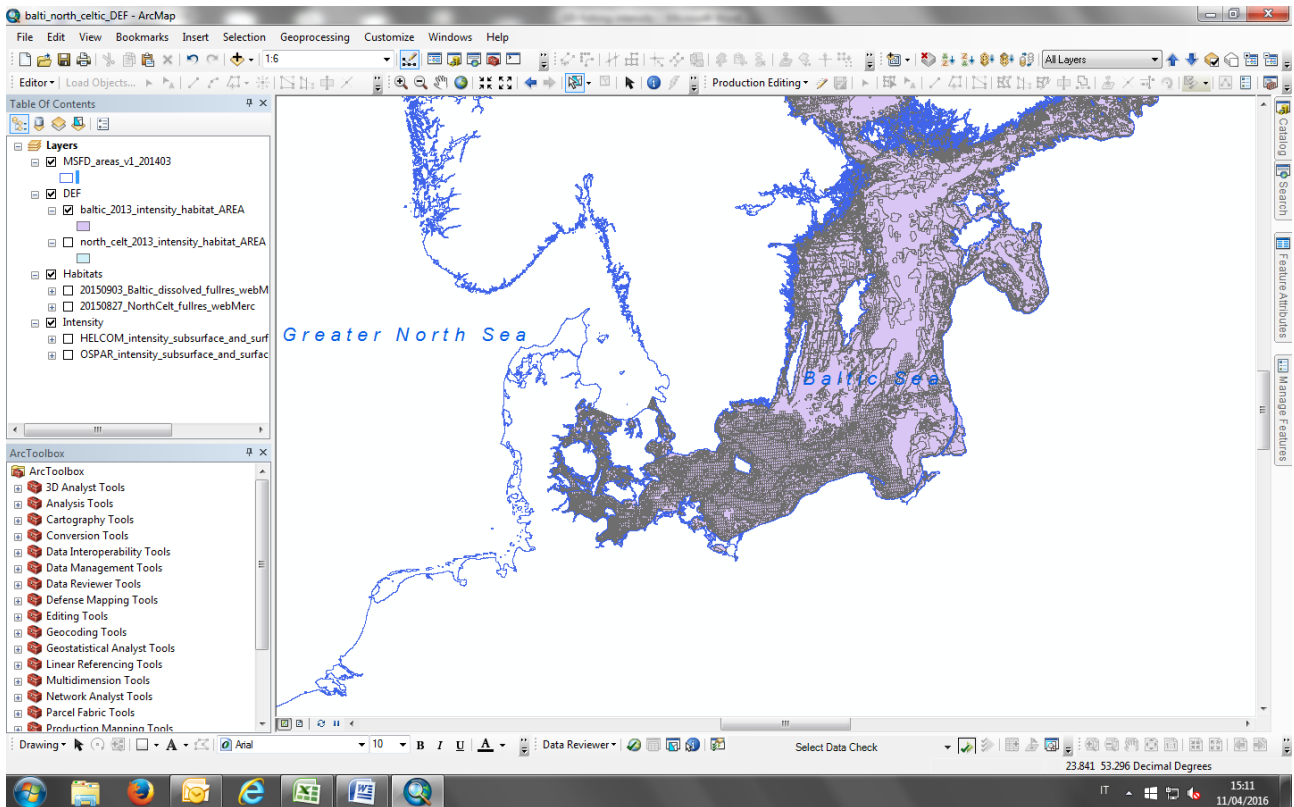
The GIS work on the fishing intensity (2013) per habitat type in the North-Celtic Sea and Baltic Sea was based on 4 datasets:

- HELCOM_intensity_subsurface_and_surface_VMS_2013_v2.shp
- OSPAR_intensity_subsurface_and_surface_2013_v2.shp
- 20150903_Baltic_dissolved_fullres_webMerc.shp
- 20150827_NorthCelt_fullres_webMerc.shp

First, we used the geoprocessing tool "Union" to compute a geometric union of the input features (habitats type shapefiles and fishing intensity shapefiles). All features and their attributes have been written to a new output feature class containing both intensity values and habitats type values.



Then we have deleted records (polygons) with no habitat type info and we have calculated the area (square meters) of each record (using the Europe Lambert Conformal Conic map projection) by importing into a GDB the two shapefiles resulting from the union geoprocessing step.



Finally we have exported the attributes table into an excel spreadsheet. By using a pivot table we have applied to the two datasets the break values obtained through the statistical Natural breaks method (4 classes: no data, low, medium, high).

Class break values:

<input checked="" type="checkbox"/> baltic_2013_intensity SurfaceSAR	<input checked="" type="checkbox"/> baltic_2013_intensity SubsurfSAR
0.001292670 - 1.852030000	0.000190 - 0.243373
1.852030000 - 5.741800000	0.243374 - 0.744714
5.741800000 - 43.234700000	0.744715 - 2.789100
ND	ND
<input checked="" type="checkbox"/> northcelt_intensity_2013_union SurfaceSAR	<input checked="" type="checkbox"/> northcelt_intensity_2013_union SubsurfSAR
0.000007 - 2.674380	0.000002 - 0.967560
2.674381 - 9.397920	0.967561 - 4.469740
9.397921 - 74.993300	4.469741 - 25.222100
ND	ND

We have grouped records together under these classes and we have calculated the relative surface for each class and their share on the total surface per habitat type. Each table shows the percentage of area under low, medium or high fishing intensity per habitat type. We don't have any of when we should consider intensity low, medium or high. We simply used a statistical criterion based on the distribution of values, but we don't know if our classes correspond to the reality. By changing in the pivot table the **class break values** of course you will obtain different percentages.

Results for BALTIC sea

HABITAT TYPE AREA	Surface SAR				Subsurface SAR			
	ND	Low	Medium	High	ND	Low	Medium	High
A3.4: Baltic exposed Infralittoral rocks	85.95%	14.05%	0.00%	0.00%	85.95%	14.05%	0.00%	0.00%
A3.5: Baltic moderately exposed Infralittoral rocks	95.89%	4.11%	0.00%	0.00%	95.89%	4.11%	0.00%	0.00%
A3.6: Baltic sheltered infralittoral rocks	99.86%	0.14%	0.00%	0.00%	99.86%	0.14%	0.00%	0.00%
A4.4: Baltic exposed circalittoral rocks	97.02%	2.96%	0.02%	0.00%	97.02%	2.94%	0.03%	0.01%
A4.5: Baltic moderately exposed circalittoral rocks	98.57%	1.43%	0.00%	0.00%	98.57%	1.43%	0.00%	0.00%
A4.6: Baltic sheltered circalittoral rocks	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
A5.13: Infralittoral coarse sediment	81.70%	17.39%	0.80%	0.10%	81.70%	17.27%	0.96%	0.08%
A5.14: Circalittoral coarse sediment	85.00%	14.32%	0.65%	0.02%	85.00%	14.32%	0.67%	0.00%
A5.15: Deep Circalittoral coarse sediment	87.26%	12.67%	0.06%	0.00%	87.26%	12.64%	0.09%	0.00%
A5.23: Infralittoral fine sand or A5.24: Infralittoral muddy sand	59.32%	34.37%	5.33%	0.98%	59.32%	34.60%	5.28%	0.80%
A5.25: Circalittoral fine sand or A5.26: Circalittoral muddy sand	62.04%	30.87%	6.56%	0.53%	62.04%	30.96%	6.49%	0.52%
A5.27: Deep circalittoral sand	57.36%	34.26%	6.31%	2.06%	57.36%	33.04%	7.37%	2.22%
A5.33: Infralittoral sandy mud	69.70%	26.49%	3.02%	0.79%	69.70%	26.08%	3.90%	0.32%
A5.34: Infralittoral fine mud	85.72%	12.69%	0.79%	0.79%	85.72%	10.57%	3.16%	0.55%
A5.34: Infralittoral fine mud or A5.33: Infralittoral sandy mud	95.80%	4.20%	0.00%	0.00%	95.80%	3.64%	0.56%	0.00%
A5.35: Circalittoral sandy mud	72.03%	15.69%	9.69%	2.60%	72.03%	17.73%	7.84%	2.40%
A5.36: Circalittoral fine mud	77.29%	12.85%	8.00%	1.86%	77.29%	13.54%	7.49%	1.69%
A5.36: Circalittoral fine mud or A5.35: Circalittoral sandy mud	93.35%	6.12%	0.53%	0.00%	93.35%	5.99%	0.52%	0.13%
A5.37: Deep circalittoral mud	71.36%	17.38%	9.26%	2.01%	71.36%	16.84%	8.98%	2.81%
A5.43: Infralittoral mixed sediments	91.17%	8.46%	0.35%	0.03%	91.17%	8.05%	0.74%	0.05%
A5.44: Circalittoral mixed sediments	91.22%	8.24%	0.52%	0.02%	91.22%	8.07%	0.65%	0.07%
A5.45: Deep Circalittoral mixed sediments	65.07%	24.59%	7.81%	2.53%	65.07%	22.66%	8.92%	3.35%
Circalittoral seabed	98.22%	1.78%	0.00%	0.00%	98.22%	1.19%	0.58%	0.00%
Deep Circalittoral rocks	99.48%	0.52%	0.00%	0.00%	99.48%	0.52%	0.00%	0.00%
Deep Circalittoral seabed	96.74%	3.26%	0.00%	0.00%	96.74%	3.26%	0.00%	0.00%
Infralittoral seabed	99.68%	0.32%	0.00%	0.00%	99.68%	0.30%	0.02%	0.00%
Total	80.84%	14.59%	3.79%	0.78%	80.84%	14.38%	3.82%	0.96%

Results for NORTH and CELTIC seas

HABITAT TYPE	Surface SAR				Subsurface SAR			
	ND	Low	Medium	High	ND	Low	Medium	High
A3.1: Atlantic and Mediterranean high energy infralittoral rock	76.10%	23.23%	0.67%	0.00%	76.10%	23.33%	0.38%	0.19%
A3.2: Atlantic and Mediterranean moderate energy infralittoral rock	56.62%	42.05%	1.19%	0.14%	56.62%	41.98%	1.32%	0.07%
A3.31: Silted kelp on low energy infralittoral rock with full salinity	56.73%	41.30%	1.95%	0.02%	56.73%	42.87%	0.38%	0.01%
A4.11: Very tide-swept faunal communities on circalittoral rock or A4.13: Mixed faunal turf communities on circalittoral rock	72.68%	26.96%	0.28%	0.08%	72.68%	27.05%	0.15%	0.11%
A4.12: Sponge communities on deep circalittoral rock	77.59%	21.82%	0.56%	0.03%	77.59%	21.98%	0.43%	0.00%
A4.2: Atlantic and Mediterranean moderate energy circalittoral rock	52.06%	46.06%	1.87%	0.02%	52.06%	45.03%	2.91%	0.00%
A4.27: Faunal communities on deep moderate energy circalittoral rock	38.49%	47.86%	11.30%	2.35%	38.49%	53.17%	8.21%	0.13%
A4.31: Brachiopod and ascidian communities on circalittoral rock	24.82%	72.58%	2.42%	0.19%	24.82%	73.77%	1.34%	0.07%
A4.33: Faunal communities on deep low energy circalittoral rock	22.91%	66.05%	11.00%	0.03%	22.91%	71.73%	5.35%	0.00%
A5.13: Infralittoral coarse sediment	36.33%	47.42%	12.03%	4.22%	36.33%	48.46%	13.75%	1.46%
A5.14: Circalittoral coarse sediment	44.05%	47.71%	7.11%	1.13%	44.05%	47.14%	8.30%	0.51%
A5.15: Deep circalittoral coarse sediment	26.40%	59.41%	11.99%	2.19%	26.40%	61.28%	12.11%	0.20%
A5.23: Infralittoral fine sand or A5.24: Infralittoral muddy sand	43.41%	41.05%	13.67%	1.87%	43.41%	40.40%	10.68%	5.51%
A5.25: Circalittoral fine sand or A5.26: Circalittoral muddy sand	16.42%	68.18%	13.63%	1.77%	16.42%	59.63%	19.27%	4.69%
A5.27: Deep circalittoral sand	20.81%	73.64%	4.88%	0.67%	20.81%	72.31%	6.84%	0.04%
A5.33: Infralittoral sandy mud	72.26%	22.82%	4.32%	0.59%	72.26%	21.35%	5.28%	1.11%
A5.34: Infralittoral fine mud	81.65%	17.27%	0.99%	0.09%	81.65%	17.36%	0.92%	0.07%
A5.34: Infralittoral fine mud or A5.33: Infralittoral sandy mud	75.05%	24.93%	0.02%	0.00%	75.05%	24.95%	0.00%	0.00%
A5.35: Circalittoral sandy mud	35.46%	53.50%	10.19%	0.85%	35.46%	50.64%	10.96%	2.95%
A5.36: Circalittoral fine mud	47.75%	44.53%	6.23%	1.49%	47.75%	42.14%	7.84%	2.27%
A5.36: Circalittoral fine mud or A5.35: Circalittoral sandy mud	51.10%	48.70%	0.20%	0.00%	51.10%	48.79%	0.11%	0.00%
A5.37: Deep circalittoral mud	4.79%	73.14%	20.05%	2.02%	4.79%	83.55%	11.61%	0.05%
A5.43: Infralittoral mixed sediments	73.57%	25.48%	0.76%	0.19%	73.57%	25.38%	1.04%	0.00%
A5.44: Circalittoral mixed sediments	43.13%	50.10%	5.60%	1.17%	43.13%	49.56%	7.11%	0.20%
A5.45: Deep circalittoral mixed sediments	28.82%	63.16%	7.48%	0.54%	28.82%	67.84%	3.33%	0.01%
A6.11: Deep-sea bedrock	92.74%	7.20%	0.06%	0.00%	92.74%	7.25%	0.01%	0.00%
A6.2: Deep-sea mixed substrata	93.08%	6.86%	0.05%	0.00%	93.08%	6.89%	0.02%	0.00%
A6.3: Deep-sea sand or A6.4: Deep-sea muddy sand	84.48%	14.93%	0.59%	0.00%	84.48%	15.34%	0.18%	0.00%
A6.5: Deep-sea mud	85.35%	13.01%	1.61%	0.02%	85.35%	14.20%	0.45%	0.00%
Deep Circalittoral Seabed	53.57%	45.32%	1.11%	0.00%	53.57%	45.80%	0.62%	0.00%
Deep-sea coarse sediment	57.09%	42.12%	0.79%	0.00%	57.09%	42.85%	0.06%	0.00%
Deep-sea Seabed	92.24%	7.50%	0.26%	0.00%	92.24%	7.65%	0.10%	0.00%
High energy Circalittoral seabed	78.30%	16.38%	3.22%	2.10%	78.30%	15.53%	2.13%	0.40%
High energy Infralittoral seabed	82.97%	10.50%	4.04%	2.50%	82.97%	8.58%	3.88%	4.58%
Low energy Circalittoral seabed	77.53%	21.34%	1.12%	0.01%	77.53%	21.50%	0.83%	0.14%
Low energy Infralittoral seabed	85.38%	12.68%	1.19%	0.74%	85.38%	12.52%	0.95%	1.14%
Moderate energy Circalittoral seabed	77.62%	16.34%	3.03%	3.00%	77.62%	12.19%	6.08%	4.10%
Moderate energy Infralittoral seabed	77.59%	15.49%	5.11%	1.81%	77.59%	11.45%	6.73%	4.23%
Total	53.73%	39.97%	5.61%	0.69%	53.73%	40.91%	5.01%	0.34%