Task 2.1.1 Development of baselines of marine litter - Report on the analysis of compiled beach litter data and proposals for setting preliminary beach litter baselines in the Baltic Sea

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Contents

1. *Summary*

1.   Beach litter monitoring carried out in HELCOM countries covers different periods. In most of the countries (Estonia, Finland, Germany, Latvia and Sweden) monitoring started in 2012 and has continued until now. In Denmark and Poland it started in 2015, while in Lithuania the monitoring period covered only period 2012-2013.

2.   Monitoring programmes in the Baltic Sea area also take into account seasonal variations. In most of the countries monitoring is conducted in three seasons: spring, summer, autumn. Regular monitoring in winter is conducted in Germany and Poland, while in Latvia monitoring is carried out only in summer. Additionally, several sites are monitored seasonally in Latvia as an instrument of verification and in-depth local research.

3.   Monitoring of beach litter is conducted in the countries with different individual litter items categorization methods, which makes it difficult to compare results and perform statistical calculations. It would be optimal to adopt one litter item categorization method or to synchronize methods to compare the results of monitoring conducted in different areas. At the same time, it would make it easier to link individual types of items to potential sources.

4.   The monitored beach litter is assigned to agreed eight main material categories: artificial polymer materials, rubber, cloth/textile, paper/cardboard, processed/worked wood, metal, glass/ceramics and unclassified.

The report contains the results of statistical analysis of monitoring data from the Baltic Sea countries and the basic unit used for the calculations is the number of items in each category per 100 m. statistical analysis considered different ways of aggregation: time (period, year, season), spatial (country, sub-basins) and the type of beach (urban, rural, peri-urban, reference).

5.   Litter items accounted to the category of artificial polymer materials were the most common ones with a mean value of 95.5 / 100m (specific to the Baltic Sea region), which accounted for as much as 75% of all beach litter items. In all countries, the dominant type of litter items was artificial polymer material, which percentage remained in the range from approx. 50% to approx. 80%.

6.   The aggregation of all data for each material category for all seasons revealed that for all categories, except processed/worked wood, the biggest number of items per 100 m was found in summer, which should be linked primarily to the intensification of tourist activity both on land and at sea areas.

7.   Significant differences between the mean number of items per material category and the sum of litter items per 100m as calculated for distinguished beach types were identified. As expected, items from all material categories on reference beaches appeared with the least frequently, while the most numerous litter items were identified on urban beaches.

8.   The preliminary baselines for beach litter in the Baltic Sea area should be understood as statistics parameters such as mean, median, standard deviation and relative standard deviation determined for each category of litter material and a sum of all items for specific beach types. Proposals for preliminary baselines for beach litter in the Baltic Sea area were set for two periods: 2012-2016 and 2015-2016 and for each of the main types of beaches: reference, urban and rural

ones. Data analysis shows the significant differences between different types of beaches in terms of number of litter items, but the differences between periods were not so visible.

2. Introduction

The main objective of this report is to analyse the situation in terms of the amount and type of marine beach litter occurring on the coasts of the Baltic Sea region and to develop preliminary baselines for beach litter for the Baltic Sea. The report was prepared as part of the realization of the project "Implementation of the second cycle of the Marine Strategy Framework Directive: achieving coherent, coordinated and consistent updates of the determinations of Good Environmental Status, initial assessments and environmental targets", Theme 2: Marine litter baselines and assessment in the Baltic Sea. This report is based on monitoring data covering the period 2012-2016 provided by the HELCOM countries.

3. Data collection

Monitoring of beach litter in the Baltic Sea area is carried out by Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden (Map 1, Table 1). In six countries monitoring started in 2012, in five of them data were collected in the period 2012-2016. In Denmark and Poland monitoring started in 2015.
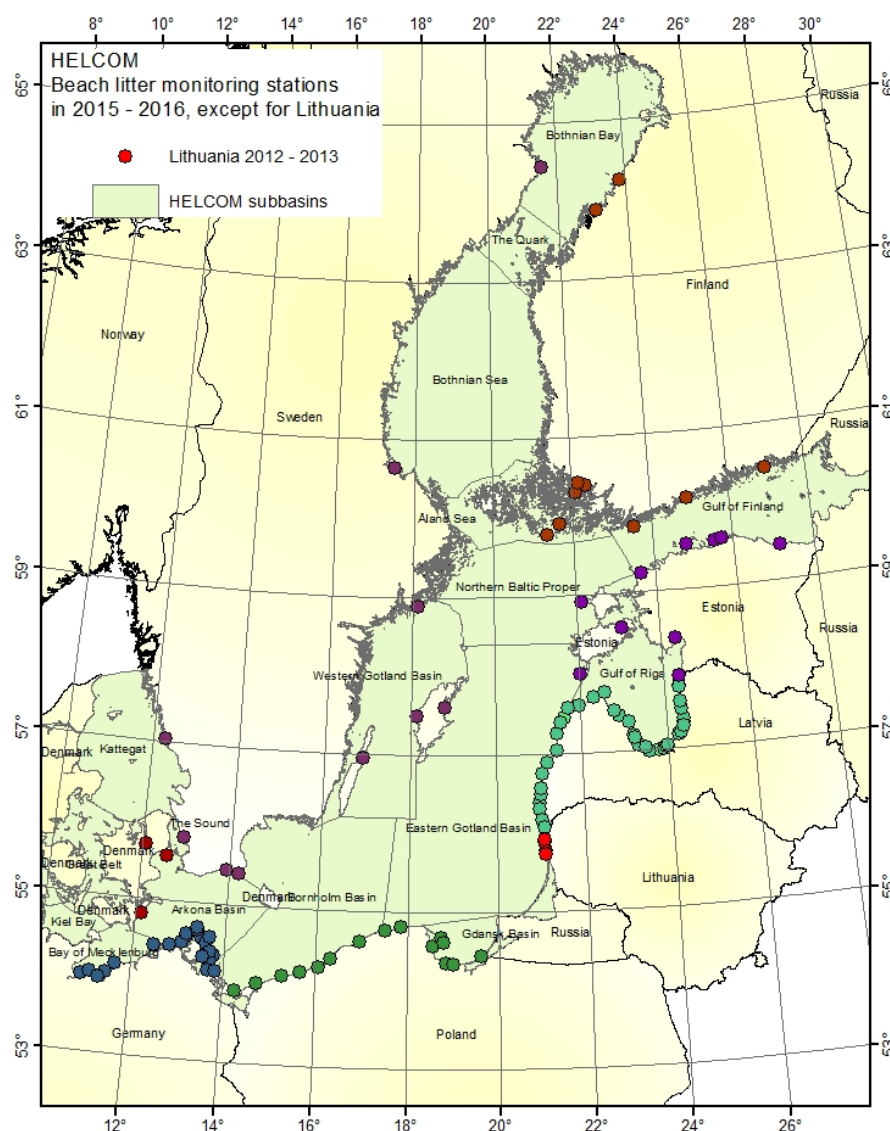
Map 1 Beach litter monitoring stations.

The number of monitored stations varies by country. The smallest number of stations is monitored in Denmark (3) and Lithuania (4), while the largest number of stations is monitored in Latvia (42). The main types of monitored beaches are urban and rural, but in some countries reference stations have been identified (where the anthropogenic impact is minimal) as well as peri-urban beaches. The total length of the monitored beaches ranges from 100 to 3000m, but the most common monitored length is 100m, which is the only length that is used in up to seven countries (Table 1).

In four countries, monitoring is conducted in three seasons, excluding winter. In the case of Denmark, only one survey was conducted in winter. In Germany and Poland regular monitoring is conducted in the four seasons. In Latvia monitoring is carried out in the summer season. Additionally, several sites are monitored seasonally as an instrument of verification and in-depth local research.

The monitored beach litter is assigned to eight main material categories: artificial polymer materials, rubber, cloth/textile, paper/cardboard, processed/worked wood, metal, glass/ceramics and unclassified. Some countries have identified two additional categories: food waste and chemicals such as e.g. paraffin, wax, oil or tar, which, according to the new Commission Decision (2017/848), is

mandatory for assessing the status of the marine environment for those HELCOM countries being EU members and should therefore be included in monitoring programs.

At the same time, the categorization of individual litter items occurs in different countries according to different rules (UNEP 2009, OSPAR 2010, JRC 2013, MARLIN 2013). Task Group Master List (TG ML) (JRC 2013) is used in Denmark and Poland, the MARLIN / UNEP classification methodology is used in four countries: Estonia, Finland, Latvia and Sweden, while Germany uses the OSPAR compliant classification (Table 1).

Table 1. Summary of beach litter monitoring: spatial, temporal and categorization method

Country	Monitoring period	Number of monitoring sections	Length of monitored section (m)	Beach types (number)	Frequency of monitoring per year	Seasons (total number of visits)	Marine litter items categorization
Denmark	2015 - 2016	3	100	reference (rural) (3)	3(4)	spring (6), summer (6), autumn (6), winter (1)	TG ML Master list
Estonia	2012 - 2016	10	100 (litter items 2.5-50 cm) 740, 380, 450, 222, 437, 295, 223, 400, 336, 220 (litter items >50)	peri-urban (5), urban (1), rural (4)	3	spring (32), summer (42), autumn (32)	MARLIN/ UNEP/IOC
Finland	2012 - 2016	12	100, 110, 152, 320, 326	peri-urban (3), urban (5), rural (4)	3	spring (45), summer (42), autumn (42)	MARLIN/ UNEP
Germany	2012 - 2016	26	100	reference (11), urban (1), rural (14)	4	spring (96), summer (102), autumn (101), winter (79)	OSPAR-Guideline for Monitoring Marine Litter on the Beaches, with slight adaptations
Latvia	2012 - 2016	42	100	reference (2); urban (10), peri-urban(17), rural (13)	1	summer (175)	MARLIN/ UNEP
Lithuania	2012 - 2013	4	100	urban (1) rural (1) semi-urban (1) touristic (1)	4	spring (8), summer (8), autumn (8), winter (8)	
Poland	2015 - 2016	15	1000	urban (7), rural (8)	4	spring (30), summer (30), autumn (30), winter (30)	TG ML Master list

| Sweden | 2012 - 2016 | 10 | 100 | peri-urban(6), rural (4) | 3 | spring (37), summer (37), autumn (39) | MARLIN/ UNEP |

4. *Data evaluation*

The data for the statistical analysis comes from monitoring carried out by Baltic Sea countries (Table 1). The monitoring sites in each country are assigned to the relevant sub-basins (coastal areas at the level 3) indicated as areas recommended by the HELCOM Monitoring and Assessment Strategy (Table 2, Fig. 1). Countries were asked to complete a simplified questionnaire, and then all data was gathered in a standardized form, allowing for further statistical calculations. For five countries, the data is from the five years period 2012 - 2016, although in some areas data is limited to the period 2015-2016 (Table 1). Data from Denmark and Poland covers the period 2015-2016, while data from Lithuania is from the period 2012-2013. Countries have also provided information on the methodology (counting and categorizing) and areas where monitoring of beach litter had been carried out.

The basic unit used for the calculations is the number of items in each category per 100 m (it could be called as the frequency of marine litter items per 100 m in each category and total number). If the monitoring is conducted on a segment different to 100 meters, then the data is converted to 100m. Such solution allows for comparison of the results originating from different periods and locations.

Based on all data (from all countries and years), statistical calculations were carried out to determine mean, standard deviation, confidence levels, upper and lower, median, minimum, maximum, as well as lower and upper quartiles, as percentiles 10 and 90. Such statistical calculations were also carried out taking into account different aggregations ways. The determination of the percentile 10 was aimed at being potentially used as threshold values defining the boundary between the good and non-good status of the environment in the individual categories and their sum.

Table 2. Compilation of spatial (national and HELCOM sub-basins) and temporal (years) information on data applied for beach litter baselines analysis

Country	HELCOM sub-basin	Years	Stations	Total number of visits
Denmark	Arkona Basin Danish Coastal waters	2015 – 2016	reference (2)	12
	Kattegat Danish Coastal waters	2015 – 2016	reference (1)	7
Estonia	Gulf of Riga Estonian Coastal waters	2012 – 2016	rural (3) peri-urban (2)	47
	Gulf of Finland Estonian Coastal waters	2012 – 2016	rural (1) urban (1) peri-urban (3)	59

Finland	Northern Baltic Proper Finnish Coastal waters	2012 – 2016	rural (3) urban (2) peri-urban (1)	76
	Gulf of Finland Finnish Coastal waters	2012 – 2016	rural (1) urban (1) peri-urban (2)	46
	Bothnian Bay Finnish Coastal waters	2015 – 2016	urban (1)	7
Germany	Arkona Basin German Coastal waters	2012 - 2016	rural (7) urban (1) reference (8)	262
	Mecklenburg Bight German Coastal waters	2012 - 2016	rural (7) reference (1)	97
	Bornholm Basin German Coastal waters	2012 - 2016	reference (2)	19
Latvia	Gulf of Riga Latvian Coastal waters	2012 - 2016	rural (13) urban (10) peri-urban (17) rural (13)	175
Lithuania	Eastern Gotland Basin Lithuanian Coastal waters	2012 - 2013	urban (1) rural (1) semi-urban (1) touristic (1)	32
Poland	Eastern Gotland Basin Polish Coastal waters	2015 - 2016	rural (2)	16
	Bornholm Basin Polish Coastal waters	2015 - 2016	rural (2) urban (5)	56
	Gdansk Basin Polish Coastal waters	2015 - 2016	rural (4) urban (2)	48
Sweden	The Sound Swedish Coastal waters	2015 - 2016	rural (1)	5
	Western Gotland Basin Swedish Coastal waters	2012 - 2016	rural (1) peri-urban(1)	21
	Bornholm Basin Swedish Coastal waters	2012 - 2016	peri-urban (1)	15
	Northern Baltic Proper Swedish Coastal waters	2012 - 2016	rural (1)	15
	Arkona Basin Swedish Coastal waters	2015 - 2016	peri-urban (1)	6
	Bothnian Bay Swedish Coastal waters	2014 - 2016	rural (1)	7
	Eastern Gotland Basin Swedish Coastal waters	2012 - 2016	urban (1)	15
	Kattegat Swedish Coastal waters	2012 - 2016	rural (1)	15
	Bothnian Sea Swedish Coastal waters	2012 - 2016	peri-urban (1)	14

5. *Results and discussion*

The lowest mean number of items per 100m taking for the whole period 2012-2016 and the entire Baltic area was specific to categories of rubber (2.3 / 100m), cloth / textile (2.4) and unclassified waste (2.39 / 100m). (Fig.1a). The processed / worked wood items were found with slightly higher frequency (3.28 / 100m). Paper/cardboard, metal and glass/ceramics litter items remained in the

range from 6.5 to 7.3 / 100m. Items from the category of artificial polymer materials were the most common ones with a mean value of 95.5 / 100m, which accounted for as much as 75% of all beach litter items (Fig. 1b).

Compilation of all statistical data for the entire Baltic area in the periods 2012-2016 and 2015-2016 (mean value, median, standard deviation, upper and lower confidence levels, minimum and upper quartiles, and 10th and 90th percentiles) is presented in the Appendix (Tab. 1).

The most visible differences between these two periods are in the average number of artificial polymer materials and the sum of all categories per 100 m. Significant differences also exist for maximum beach litter items per 100 m, clearly indicating that the larger number of items within categories of artificial polymer materials, cloth/textile, metal and sum of all categories occurred in the period up to 2014. Taking into account the values of the 10th percentile, for all categories except artificial polymer materials, they are equal to 0. For plastics, the differences for both analyzed periods are not significant (3.6 for 2015-2016 and 4.9 for 2012-2016). A little more difference was noted for the mean average number for all items.
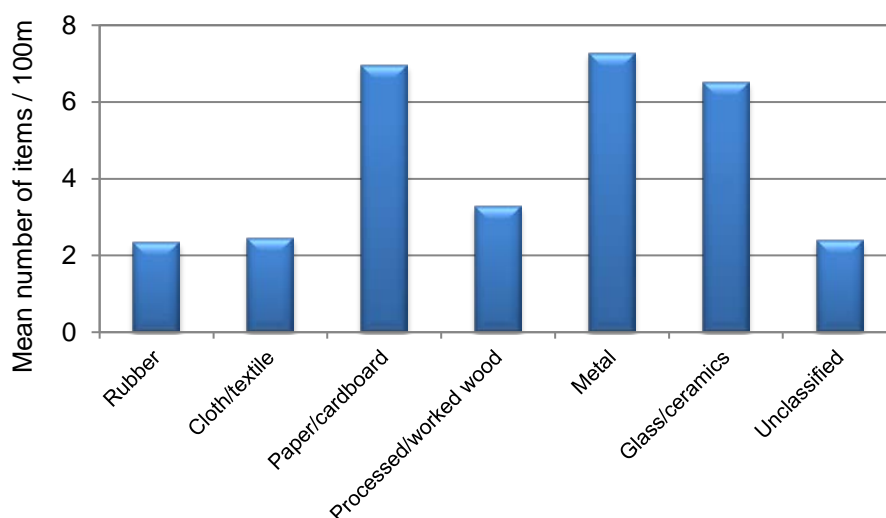

Fig. 1a. Mean number of items within categories and unclassified per 100m aggregated for the whole Baltic Sea
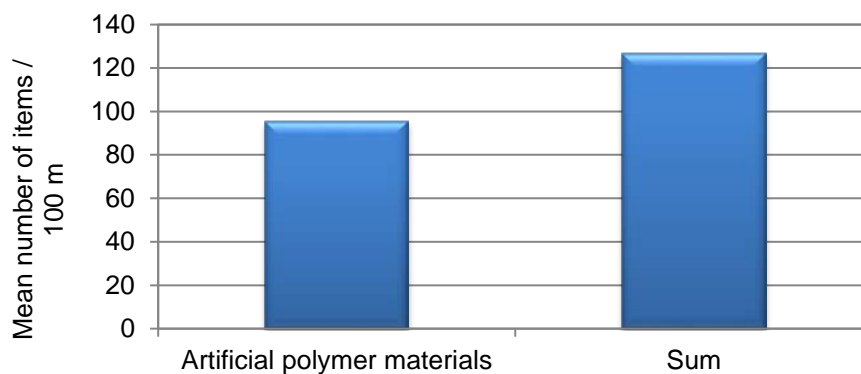

Fig. 1b. Mean number of plastic items and sum of all categories items per 100m aggregated for the whole Baltic Sea

Figures 2a and 2b present the mean number of items for each category per 100 m as aggregated for countries, calculated using all national reported data, this is data from different periods. The largest mean number of all beach litter items (354.4/100m) was found at the Finnish beaches and this is directly related to the largest number of plastic items found in Finland (314.8/100m) (Fig. 2a). The smallest mean number of all types of items (33.7/100m) was found at the Polish coast. This may be related to the fact that a significant part of the Polish coast is regularly cleaned to increase tourist attractiveness. In the case of Germany the mean number of all items per 100m was 61.7, 99.4 in Denmark, 88.1 in Sweden, 114.8 in Estonia, 222.3 in Lithuania and 180.2 in Latvia. In all countries, the most numerous beach litter items are artificial polymer materials (Fig. 2a and 3a). Their smallest contribution of plastics was recorded in Latvia (53%) and the largest one in Finland (close to 90%).

While discussing the plastic items figures, it is important to draw ones attention on how cigarette butts are counted. In some countries they are counted within sampling area 10mx10m (according to MARLIN classification method), and they have to be recalculated to the area of 100 m lengths by multiplying by ten. Such method may considerably affect the increase of the total number of plastic items, which mostly occur in the case of Finnish results (Figure 2a).

In order to check the influence of the recalculated number of cigarettes on the total number of plastic items, the number of artificial polymer items with and without cigarettes was compared in the case of three countries (Fig. 2a). In the case of Finland, the number of plastic items after cigarettes exclusion has dropped to 121, thus affecting the average amount of litter that fell to 161. In the case of Estonia, the exclusion of cigarettes resulted in a decrease in average plastic items per 100m from 87.9 to 29.4. In the case of Sweden, the fall of the average number of plastic items was double. This resulted in a decrease in the share of plastic items from 78 to 70% for Sweden, from about 78 to about 52% for Estonia and from around 90 to about 79% for Finland.

The largest aggregated mean numbers of items of other categories (exceeding 80/100m) occurred in Latvia (Figure 2b).

Apart from plastics litter, the most numerous items these are belonging to the material category glass/ceramics in Denmark and Estonia, paper/cardboard in Lithuanian areas and processed/worked wood in Poland (Figure 3b).
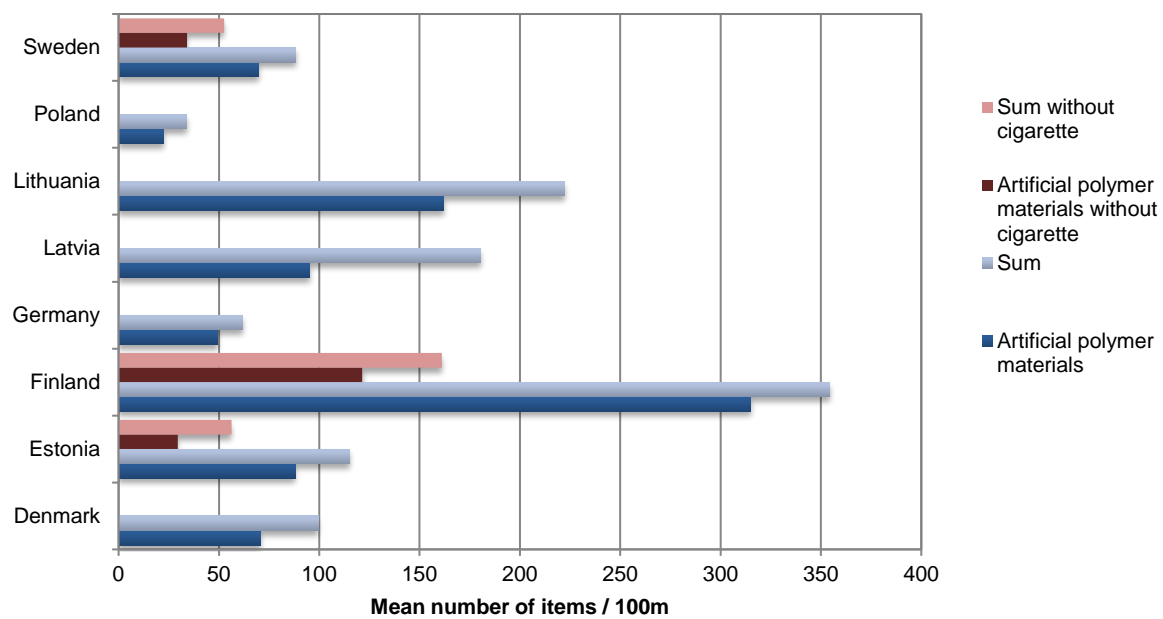
Fig. 2a. Mean number of plastic items and sum of all categories per 100m aggregated by country

Fig. 2b. Mean number of items within material categories and unclassified per 100m aggregated by country

Fig. 3a. Percentage of mean number of items within material categories and unclassified per 100m aggregated by country (with artificial polymer materials)
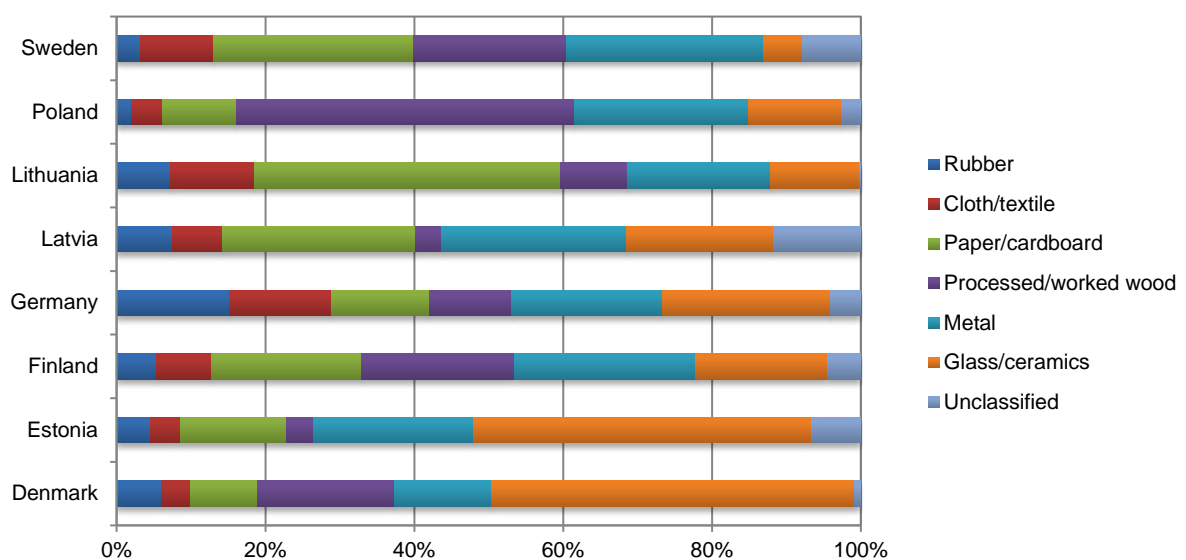
Fig. 3b. Percentage of mean number of items within material categories and unclassified per 100m aggregated by country (without artificial polymer materials)

Figures 4a and 4b show the mean number of items in each material category and sum per 100m yearly aggregated for the whole Baltic Sea area. The biggest mean number of plastic items occurred in 2012 (159.3/100m). In the next year it fell to 126.6 and in 2014 even to 88.5. In the years 2015 and 2016, the mean number of plastic items per 100m was at similar level 67.0 and 74.0, respectively. Such changes in the number of plastic items have influenced the mean of the sum of all items from all material categories.

Three beach litter categories showed a statistically significant decreasing trend. These are glass/ceramics and cloth/textile categories, for which p values are below 0.05 and equal to 0.0260 and 0.0302 respectively (Fig. 5a). The statistically significant decreasing trend also occurred in the case of artificial polymer materials (p = 0.0205) and therefore it was applicable to the mean value of items from all material categories per 100 m (Fig. 5b). This is because plastics items, due to its abundance, have the biggest impact on variations of the sum of all items. Unfortunately, the observed trends can not be considered as representative for the Baltic Sea area. This is due to the fact that in other years other areas were monitored. In 2012- 2014, only some of the countries monitored beach litter on their coastline (Table 1). In 2015 some countries as Denmark and Poland started their monitoring and other countries expanded their monitoring to new areas, which continued also in 2016. In the areas included in the monitoring since 2015, the number of beach litter items was lower than in other areas where the monitoring started earlier. This has affected the average value of beach litter items in all categories, which are lower for most categories in 2015 and 2016 (see Appendix Table 2). Such observations could be the basis for recommending the period 2015-2016 as a baseline for any further analysis for the whole Baltic Sea area. For other spatial scales: (i) subregional - subbasins and (ii) national, other periods may be accepted depending on data availability.

Fig. 4a. Mean number of items within material categories and unclassified per 100m aggregated for the whole Baltic Sea vs. years

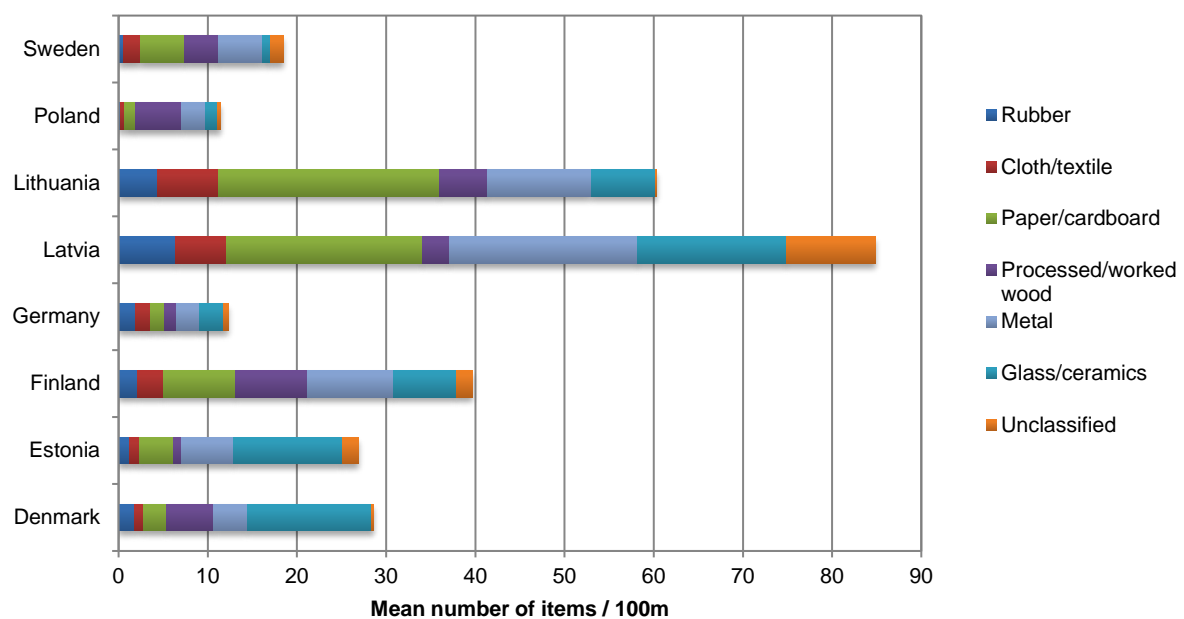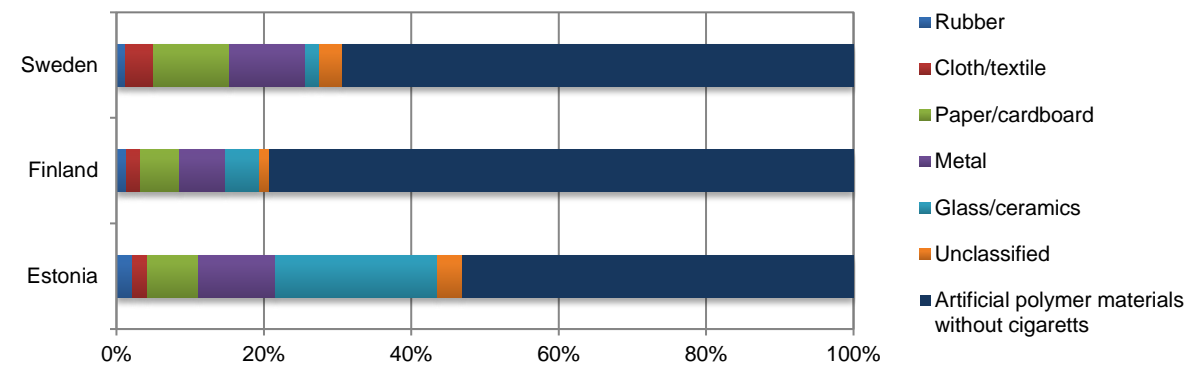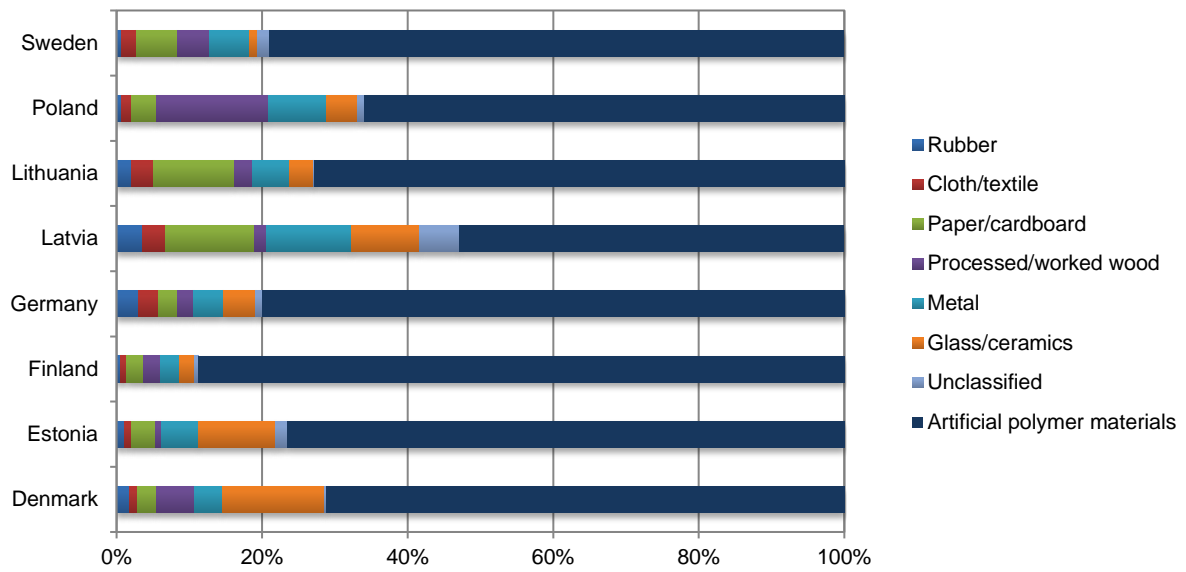Fig. 4b. Mean number of artificial polymer items and sum of all categories items per 100m aggregated for the whole Baltic Sea vs. years.
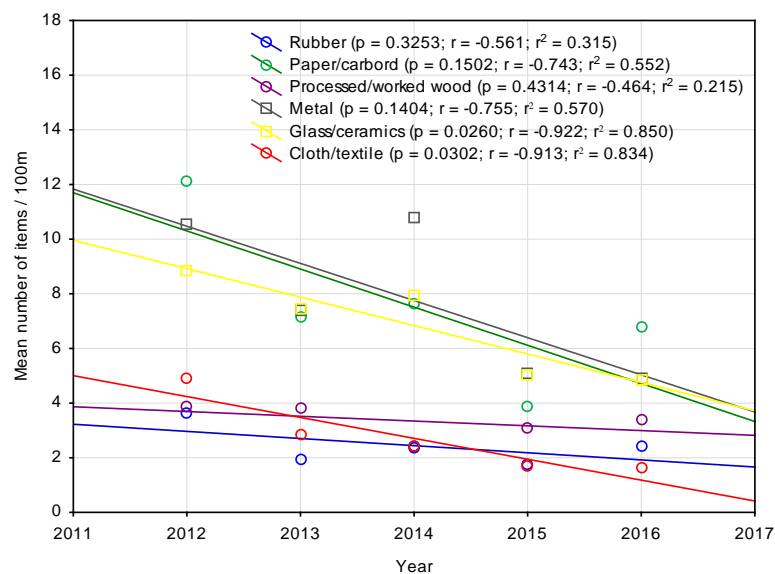
Fig. 5a. Mean number of items within material categories per 100m aggregated for the whole Baltic Sea vs. years – statistical significance
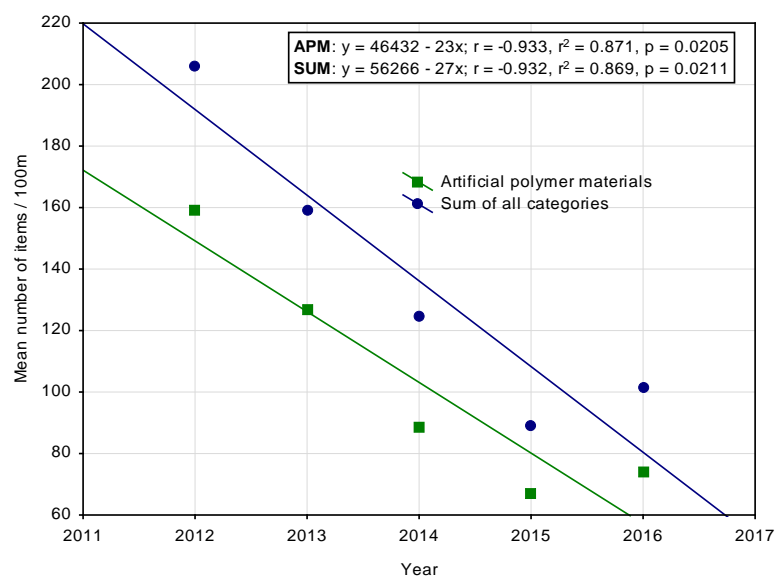
Fig. 5b. Mean number of artificial polymer items and sum of all categories items per 100m aggregated for the whole Baltic Sea vs. years – statistical significance.

In order to consider the occurrence of statistically significant trends in individual areas of coastal waters, statistical analyzes for those sub-basins for which data exist for at least 4 years was conducted (Table 3). It is clear from the results obtained that there are only few sub-basins and few categories, for which statistically significant decreasing trends were detected: rubber, cloth / textile, processed / worked wood and metal showed decline trends in the period 2012-2016 in the Bothnian Bay Swedish Coastal Waters. In the Gulf of Riga Estonian Coastal Waters statistically significant increasing trend was recorded once for rubber.

Table 3. Results of statistical significance studies of variations in the number of beach litter items per material category in the period 2012-2016 - p values below 0.05 indicate statistically significant decreasing trends

Sub - basins	Period	p values below 0.05							
		Artificial polymer materials	Rubber	Cloth /textile	Paper/ Cardboard	Processing/ worked wood	Metal	Glass/ ceramics	Sum
Bornholm Basin German Coastal waters	2013-2016	-	-	-	-	-	-	-	-
Bornholm Basin Swedish Coastal waters	2012-2016	-	-	-	-	-	-	-	
Bothnian Bay Swedish Coastal waters	2012-2016	-	0.0366	0.0325	-	0.0295	0.0074	-	
Eastern Gotland Basin Lithuanian Coastal waters	2012-2013	-	-	-	-	-	-	-	-
Eastern Gotland Basin Swedish Coastal waters	2012-2016	-	-	-	-	-	-	-	-

Gulf of Finland Estonian Coastal waters	2012-2016	-	-	-	0.0228	-	-	-	-
Gulf of Finland Finnish Coastal waters	2012-2016	-	-	-	0.0433	-	-	-	-
Gulf of Riga Estonian Coastal waters	2012-2016	-	0.0117*	-	-	-	-	0.0047	-
Gulf of Riga Latvian national waters	2012-2016	-	-	-	-	-	-	-	-
Kattegat Swedish Coastal waters	2012-2016	-	-	0.0420	0.0095	-	-	-	-
Mecklenburg Bight German Coastal waters	2012-2016	-	-	0.0387	-	-	-	-	-
Northern Baltic Proper Finnish Coastal waters	2012-2016	-	-	-	-	-	0.0279	-	-
Northern Baltic Proper Swedish Coastal waters	2012-2016	-	-	0.0405	-	-	-	-	-

*increasing trend

The aggregation of all data for each material category for all seasons showed that for all categories, except processed/worked wood, the biggest number of items per 100 m was found in summer, which should be linked primarily to the intensification of tourist activity both on land and at sea areas (Figs 6a and 6b). The mean number of beach litter items recorded in spring was higher than in the autumn and increased to the maximum in summer. Then there was a significant decrease in autumn, which in most cases was continued in winter.

It should be noted, however, that not all countries carry out monitoring in the winter season due to snow cover or other climatological conditions that prevent winter monitoring (see Tab. 1). However, this does not change the general tendencies.

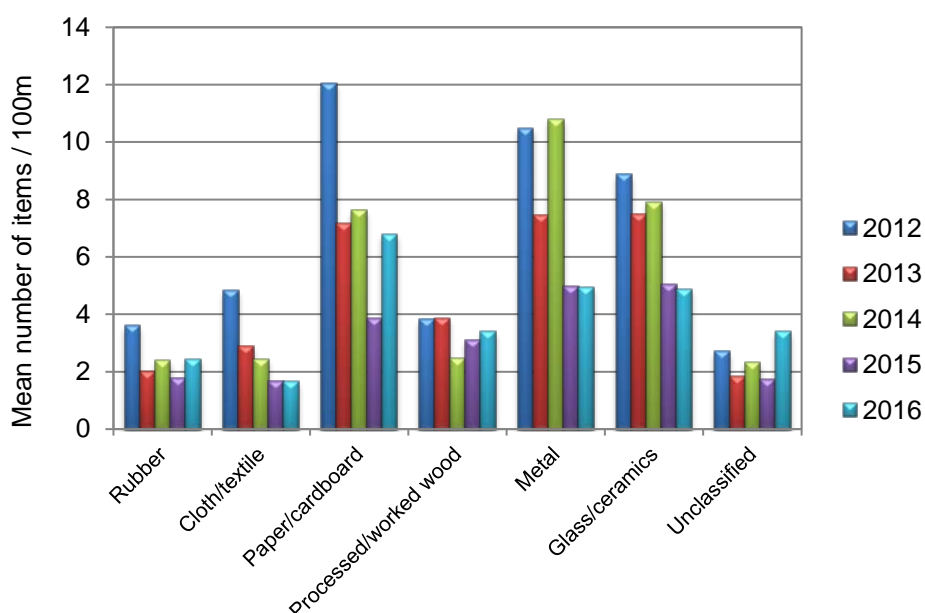
Fig. 6a. Mean number of items within categories and unclassified per 100m aggregated for the whole Baltic Sea vs. season
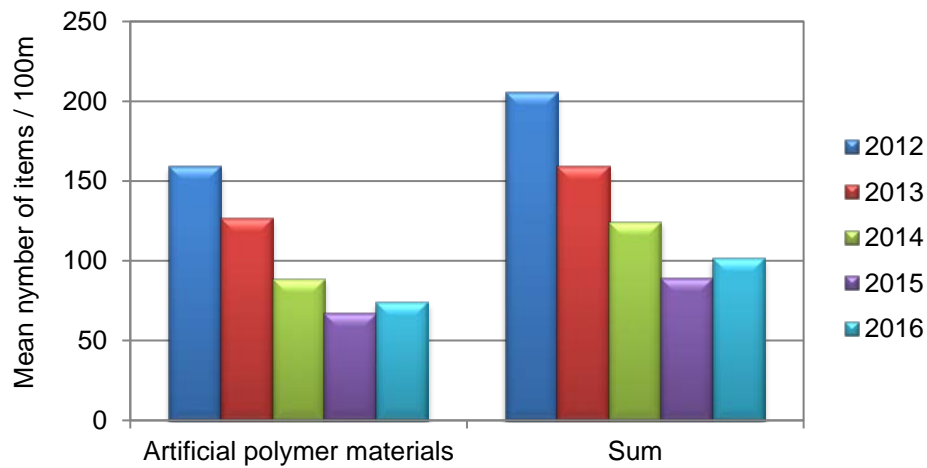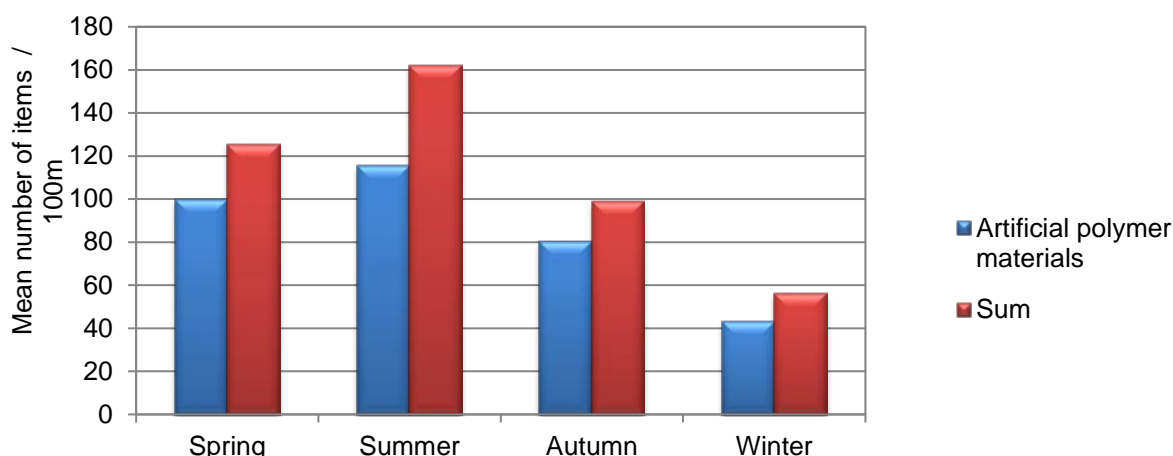
Fig. 6b. Mean number of artificial polymer and sum of all categories items per 100m aggregated for the whole Baltic Sea vs. season

According to the proposed recommendations concerning the monitoring of beach litter, there is a need to define the kind of beach where monitoring is performed. Due to the fact that different types of beaches are subject to different pressures, it is possible to identify potential sources of litter. The main types of beaches are: (i) references (areas hard to reach beaches which are frequented by few visitors), (ii) urban (artificially-created environment in an urban setting which simulates a public beachfront, through the use of sand, beach umbrellas, and seating elements), (iii) peri-urban (beaches with (many) visitors but which are not in or very close to a city) and (iv) rural (beaches located outside the urban environment; not readily accessible by public transport and have virtually no facilities).

Some countries have identified also other types of beaches like semi-urban, rural /remote and touristic ones. Statistical analysis of aggregated data in respect to the type of monitored beaches was conducted for beaches: reference, urban, peri-urban and rural. Reference beaches have been selected in Denmark Germany and Latvia; other types (urban and rural) are found in all countries except Denmark, where monitoring is only conducted on reference beaches. Peri-urban beaches are monitored in four countries: Estonia, Finland, Latvia and Sweden. The results are shown in Figs. 7a and 7b and in Table 3 (Appendix).
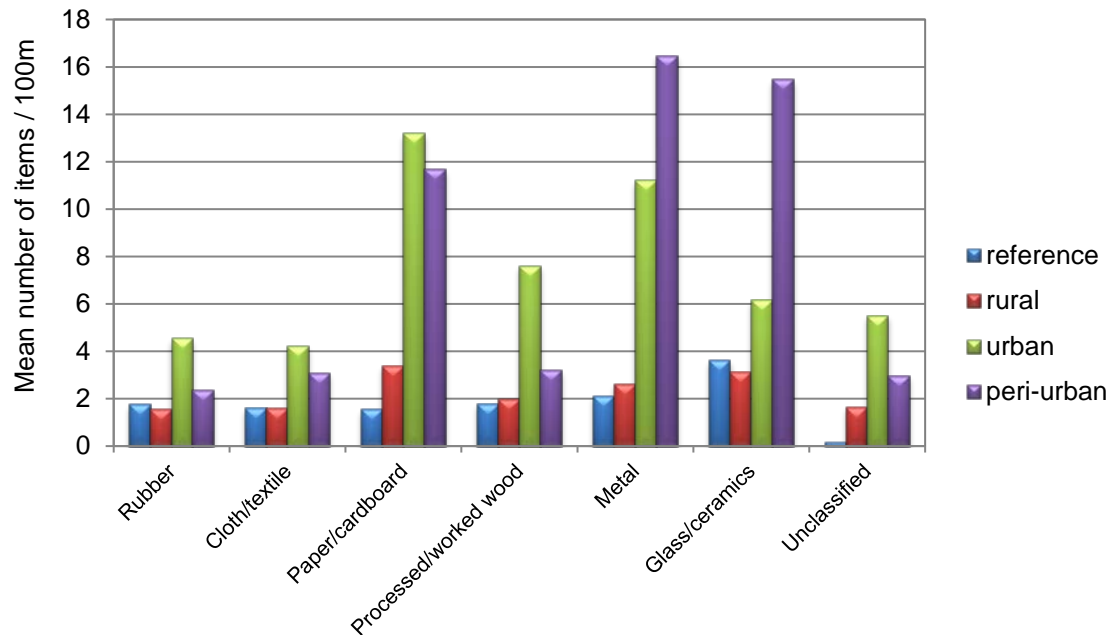
Fig. 7a. Mean number of items within material categories and unclassified per 100m aggregated by types of beaches
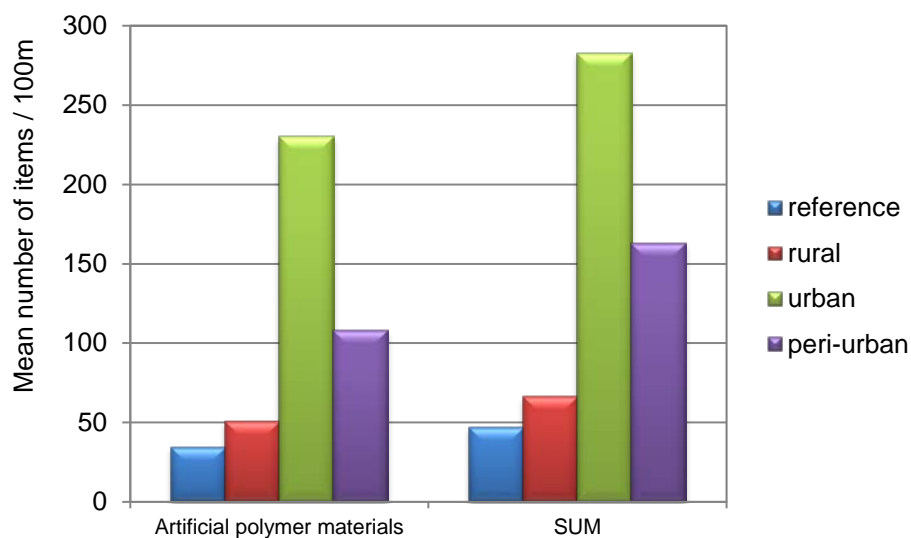
Fig. 7b Mean number of artificial polymer items and sum of all categories items per 100m aggregated by types of beaches

Significant differences between the mean number of items per material category and the sum of litter items per 100m calculated for discriminated beach types were identified. As expected, items from all material categories on reference beaches appeared with the least frequently. The average number of rubber items per 100m was 1.8, 1.6 for cloth / textile and paper, 1.8 for wood, 2.1 for metal, 3.6 for glass and only 0.2 for unclassified litter items (Fig. 7a). The average number of items per 100m on rural beaches was only slightly higher than those recorded on reference beaches: rubber - 1.5, glass - 3.1, cloth / textile - 1.6, paper - 3.4, wood - 2.0, metal - 2.6, unclassified -1.6. The

most visible differences were observed in the case of urban beaches: rubber - 4.5, cloth / textile - 4.2, paper - 13.2, wood - 7.6, metal - 11.2, glass - 6.1, unclassified -5.5. Significant differences were also observed in the case of artificial polymer items and thus the sum of all items. On the reference beaches, the average number of plastic items per 100 m was 3469, 50.8 on the rural beaches and 6 times higher and equal to 230.4 in the urban beaches (see Appendix - Table 3). In the case of peri-urban beaches, the average values of plastic items (108.0), paper (11.7) and processed/worked wood (3.2) per 100 m was visibly lower than those observed on urban beaches and apparently higher than those observed on rural beaches. The mean number of rubber items (2.3) as well as cloth ones (3.1) per 100 m was at a similar level than the one found at rural beaches, while in the case of glass (15.5) it was unexpectedly high, compared to urban beaches.

Seasonal changes observed on different types of beaches are not as clear as in the case of all aggregated data. In the case of rural beaches only slightly more processed wood and glass items were recorded in the spring season, and more paper, rubber, cloth and metal items in the summer season (Figs 8a and 8b). The number of plastic items in the summer and spring also increased.
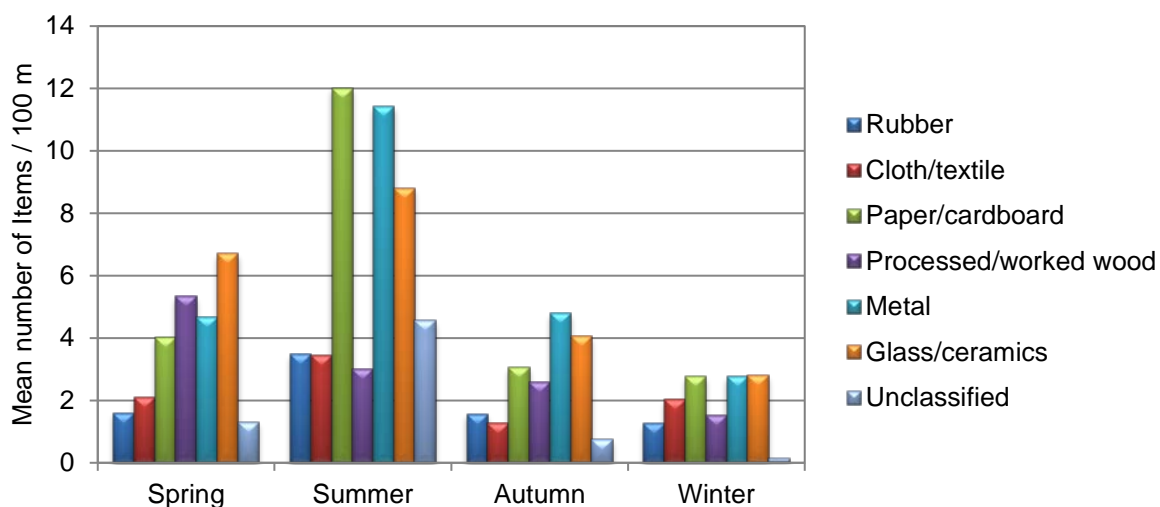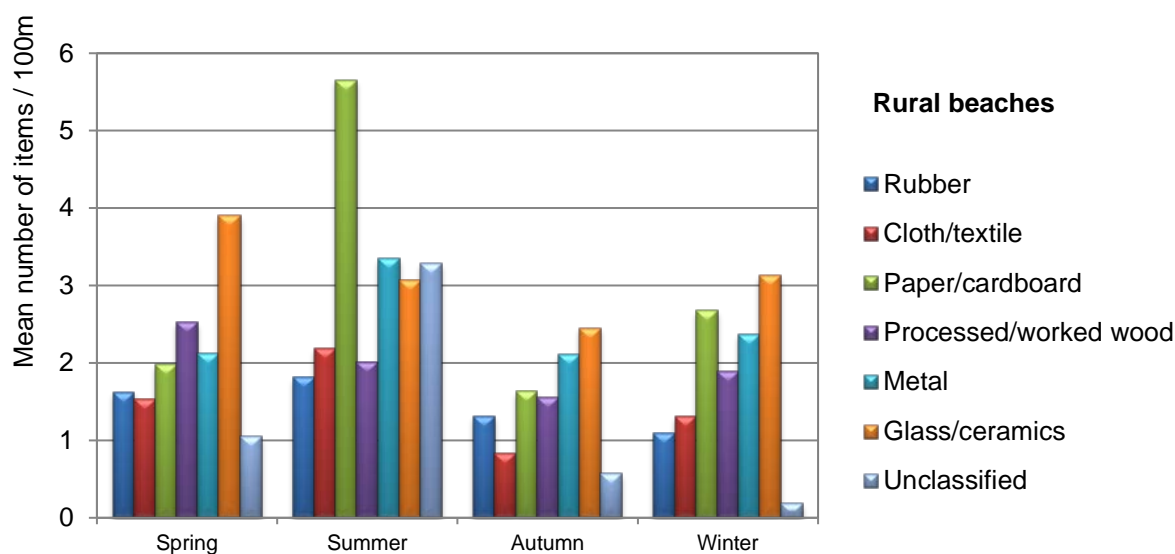

Fig. 8a. Mean number of items within material categories and unclassified per 100m aggregated for rural beaches vs. season
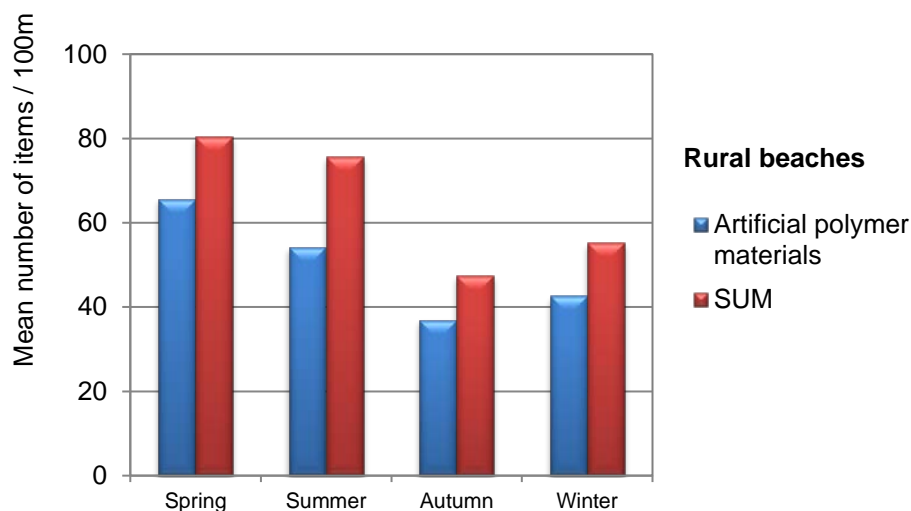
Fig. 8b. Mean number of artificial polymer items and sum of all categories items per 100m aggregated for rural beaches vs. season

In the case of urban beaches, distinct differences occurred between the spring, summer and autumn seasons, where the number of items, especially plastic ones, was similar; and the winter season, where the presence of both plastic items and items from other material categories was visibly smaller (Fig. 9a and 9b).
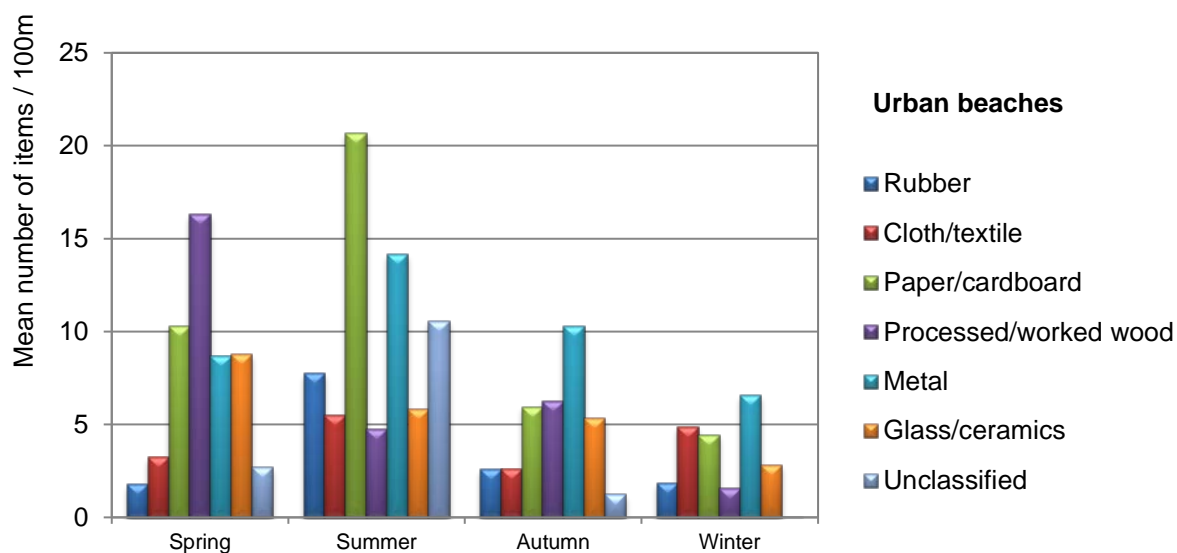
Fig. 9a Mean number of items within material categories and unclassified per 100m aggregated for urban beaches vs. season
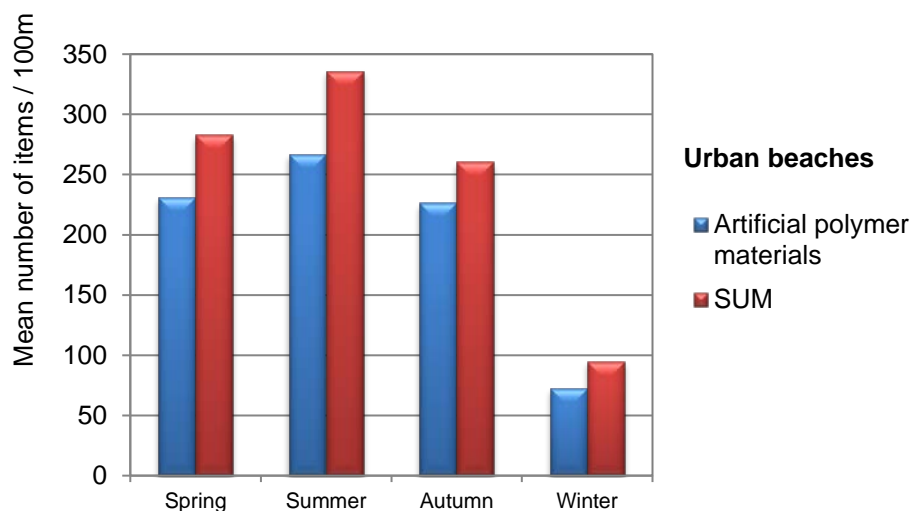
Fig. 9b Mean number of artificial polymer items and sum of all categories items per 100m aggregated for urban beaches vs. season

On the peri-urban beaches the largest number of plastic items and sum of all categories occurred in the summer, just as much as paper, metal and glass items. In the case of other categories slightly smaller quantities than in spring and summer were recorded in autumn (Figs. 10a and 10b).
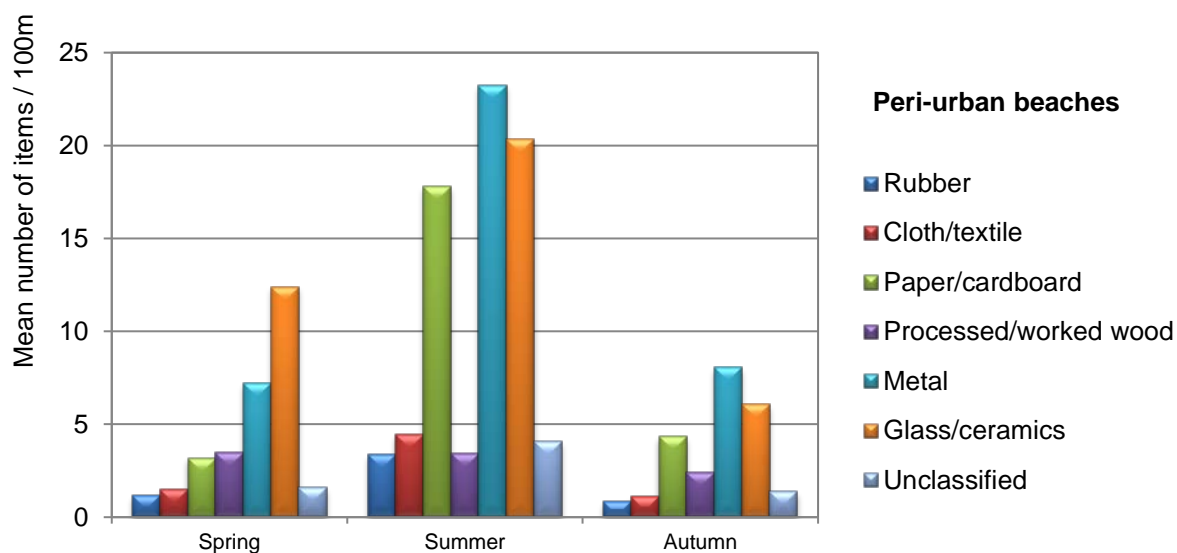
Fig. 10a. Mean number of items within categories and unclassified per 100m aggregated for peri-urban beaches vs. season
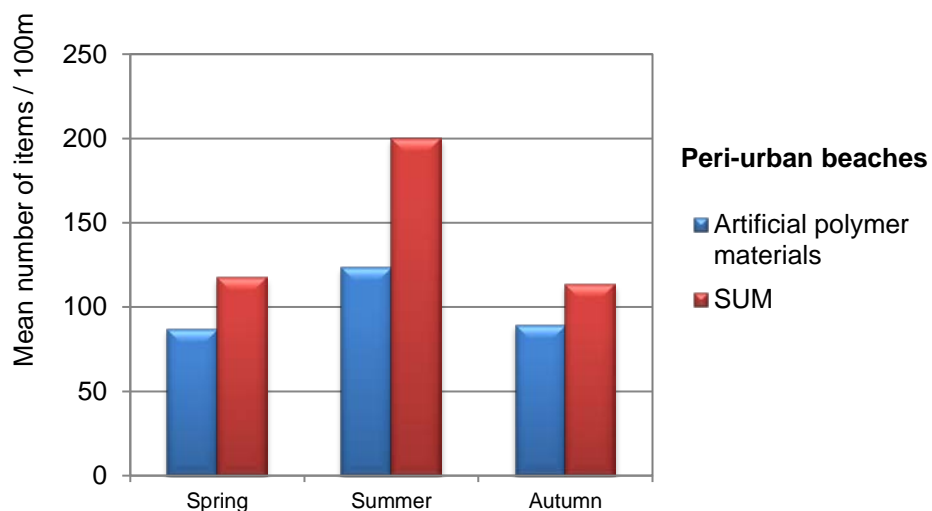
Fig. 10b. Mean number of artificial polymer items and sum of all categories items per 100m aggregated for peri-urban beaches vs. season.

The most different situation was found in the case of references beaches where the biggest number of all types of items was found in spring (Figs. 11a and 11b).
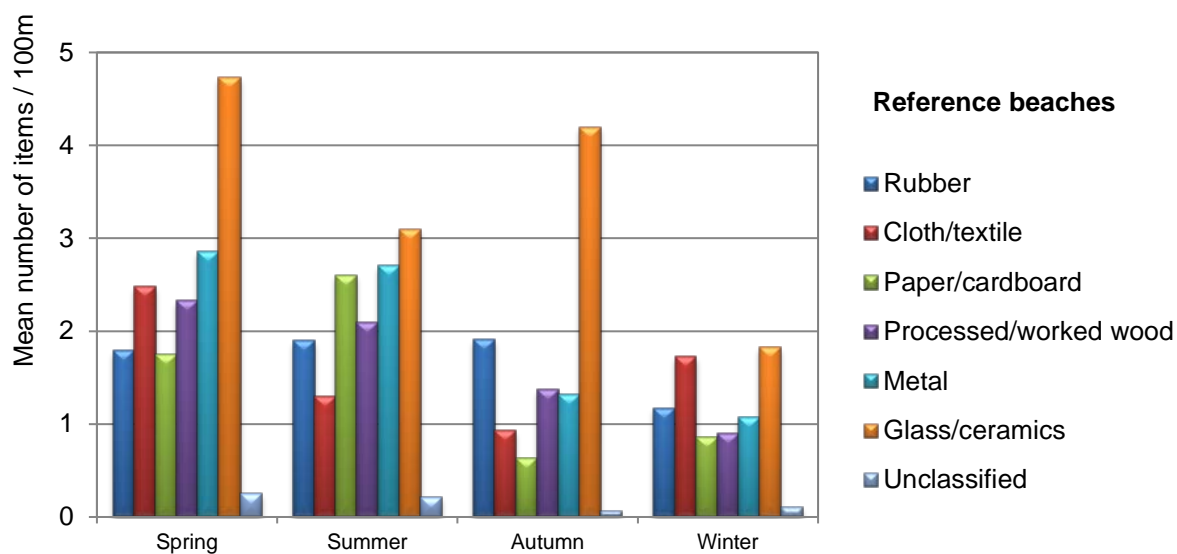
Fig. 11a. Mean number of items within material categories and unclassified per 100m aggregated for reference beaches vs. season
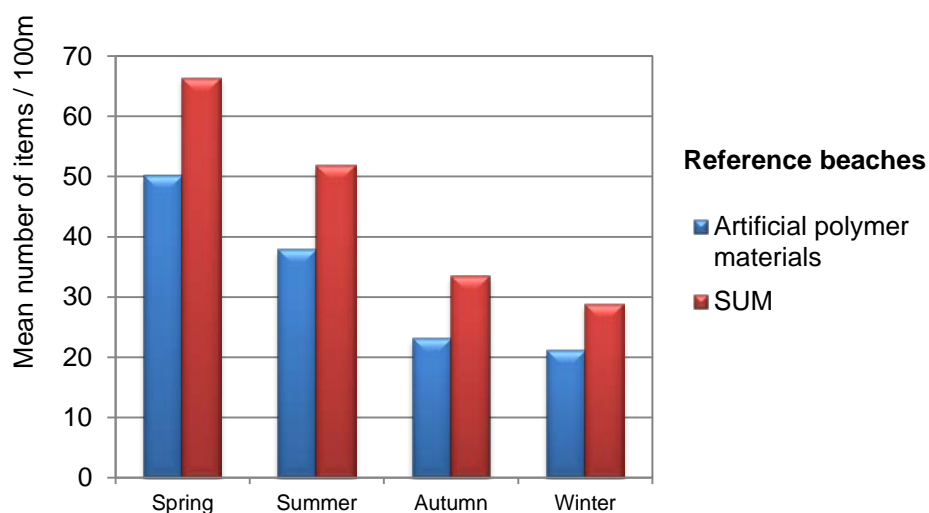
Fig. 11b. Mean number of artificial polymer items and sum of all categories items per 100m aggregated for reference beaches vs. season

To be able to compare beach litter frequencies (mean number of items/100 m) between sub-regions, the following statistical parameters were calculated: mean, standard deviation, median, minimum, maximum, lower and upper quartile and the 10th and 90th percentile for individual material categories in each sub-basin (Table 7). The calculation was carried out for different periods depending on data availability for discriminated sub-basins, but taking into account the whole period 2012-2016 (Figs 12a-12i, Table 4 – Appendix). The same calculation was carried out also for the period 2015-2016 (Table 5 – Appendix).

Additionally, the temporal changes in the mean number of items within material categories and sum of all items per material categories per 100m during the years monitored for each sub-basin are shown in Fig. 13 -39.
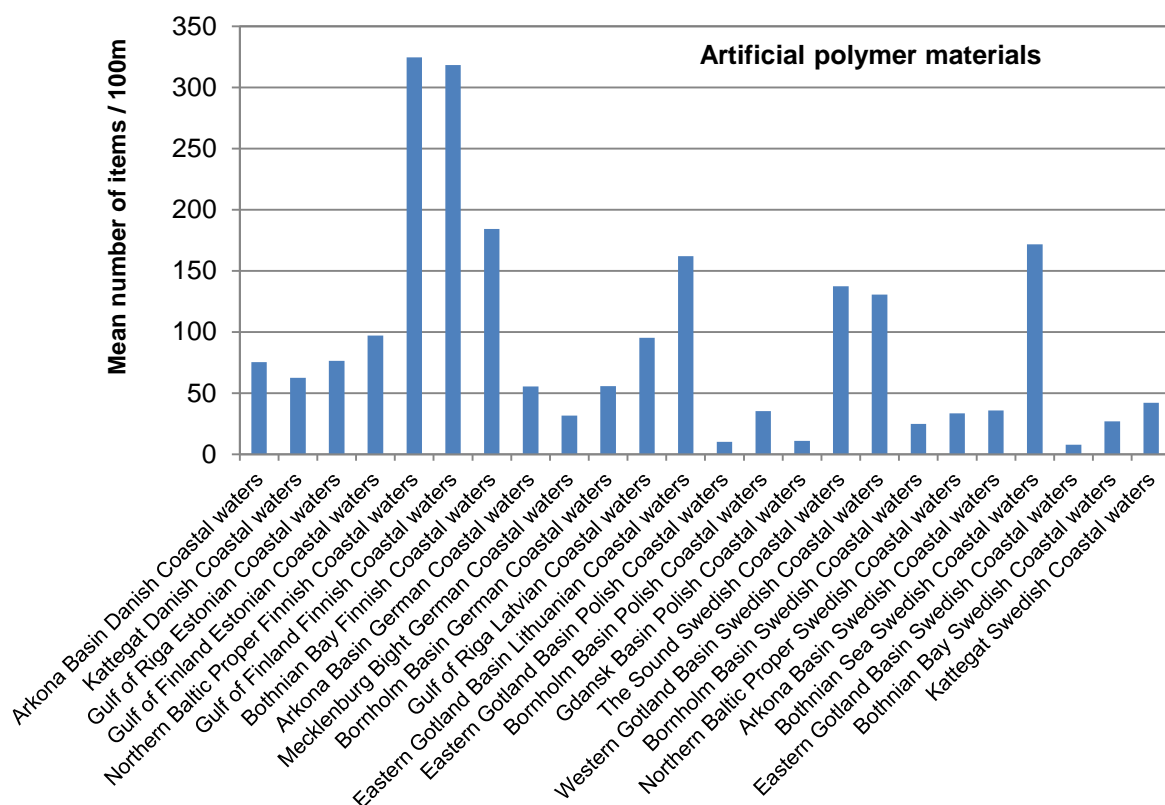
Fig. 12a Mean number of artificial polymer items per 100 m calculated upon data for HELCOM sub-basin gathered in the periods listed in Table 2
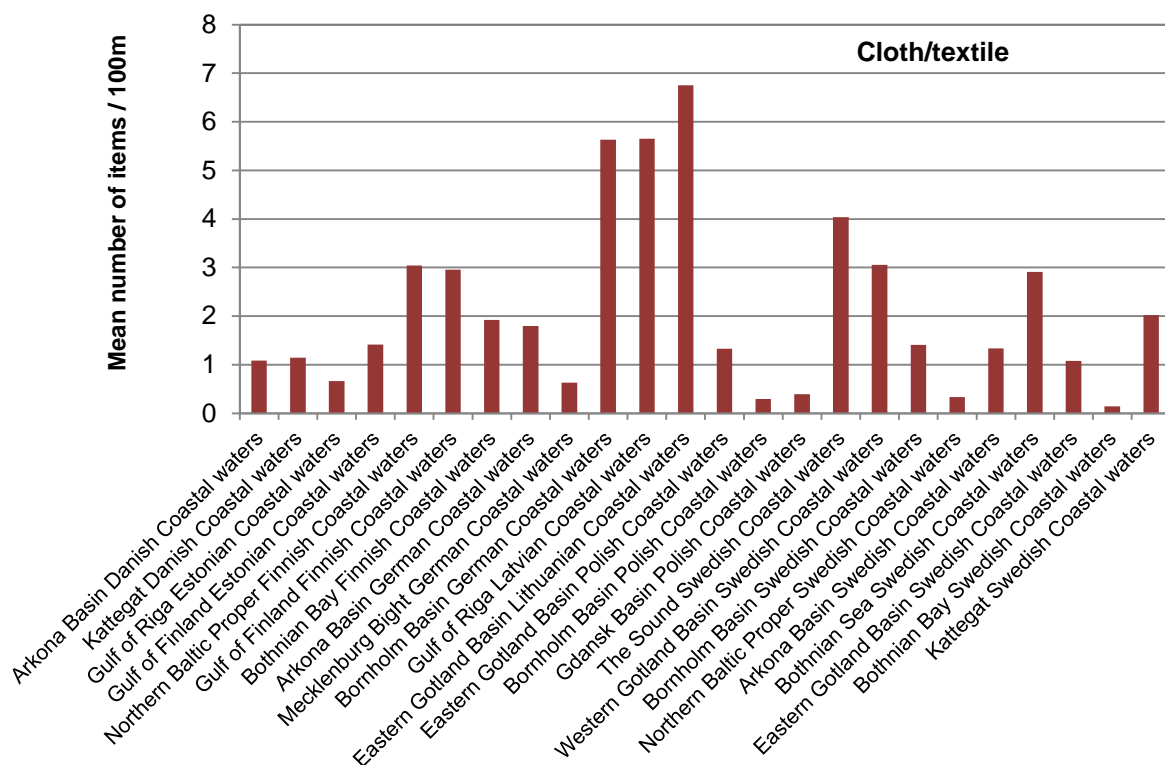
Fig. 12b. Mean number of cloth/textile items per 100 m calculated upon data for HELCOM sub-basin gathered in the periods listed in Table 2
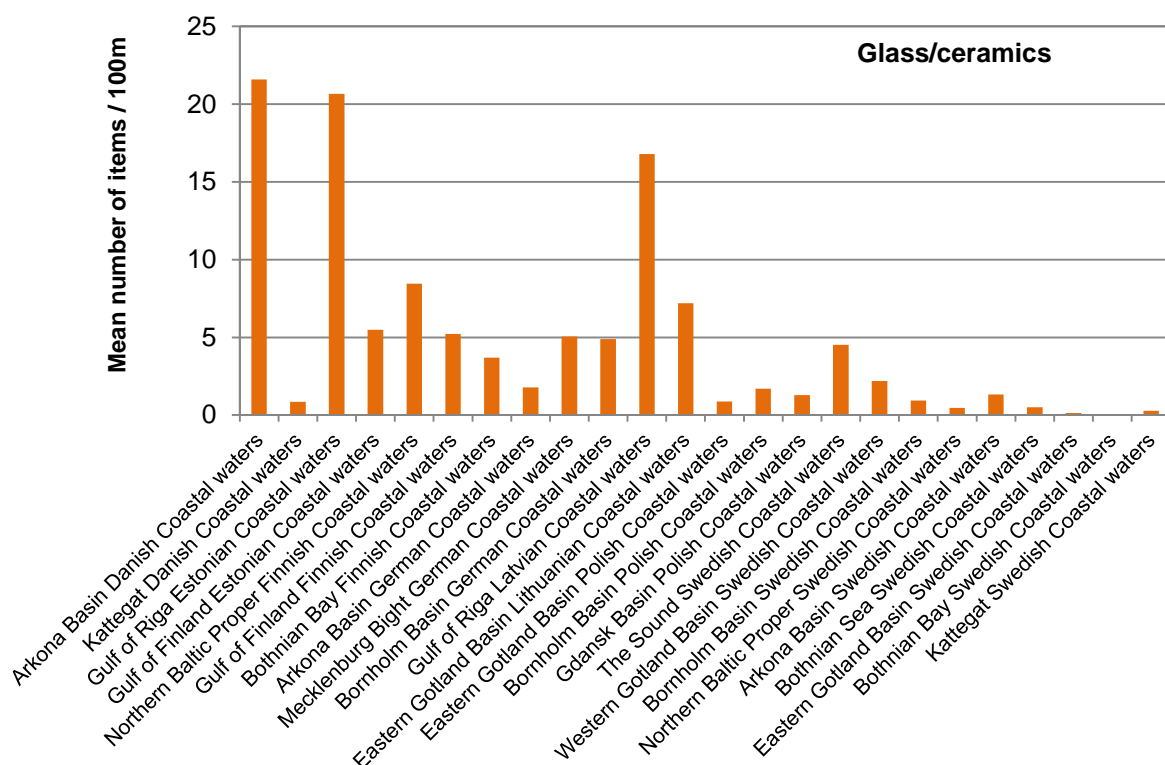
Fig. 12c. Mean number of glass/ceramics items per 100 m calculated upon data for HELCOM sub-basin gathered in the periods listed in Table 2
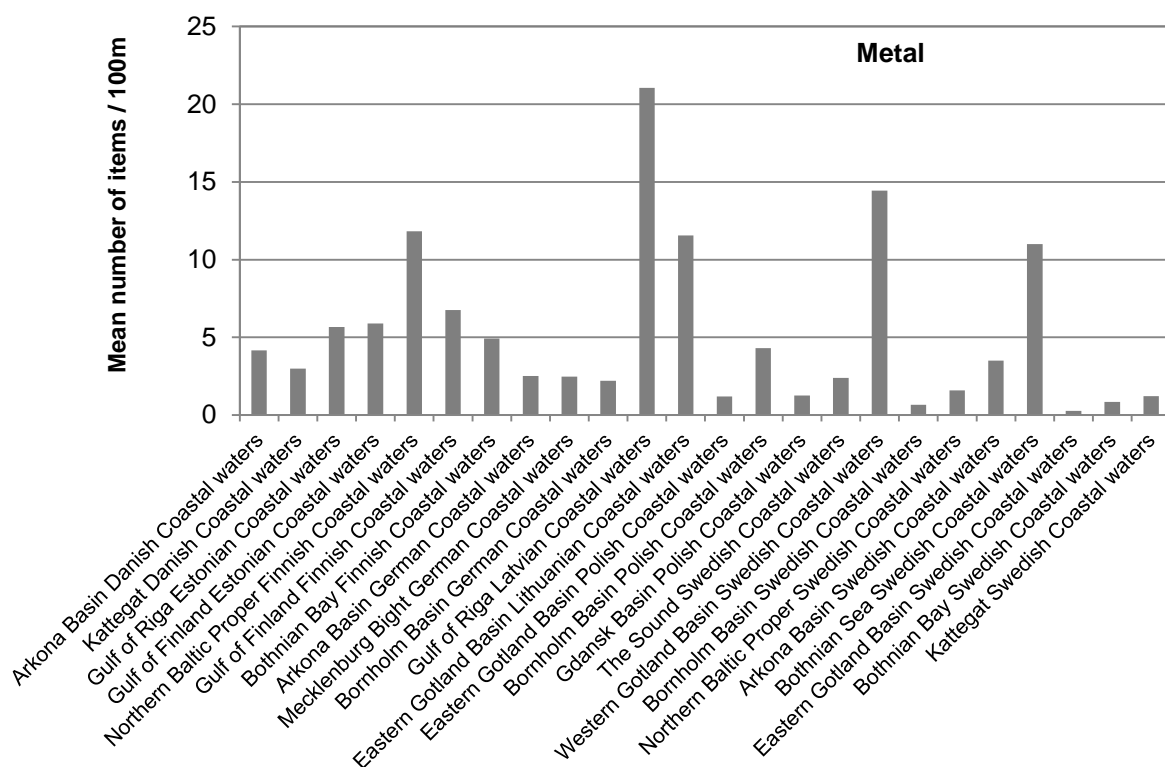
Fig. 12d. Mean number of metal items per 100 m calculated upon data for HELCOM sub-basin gathered in the periods listed in Table 2
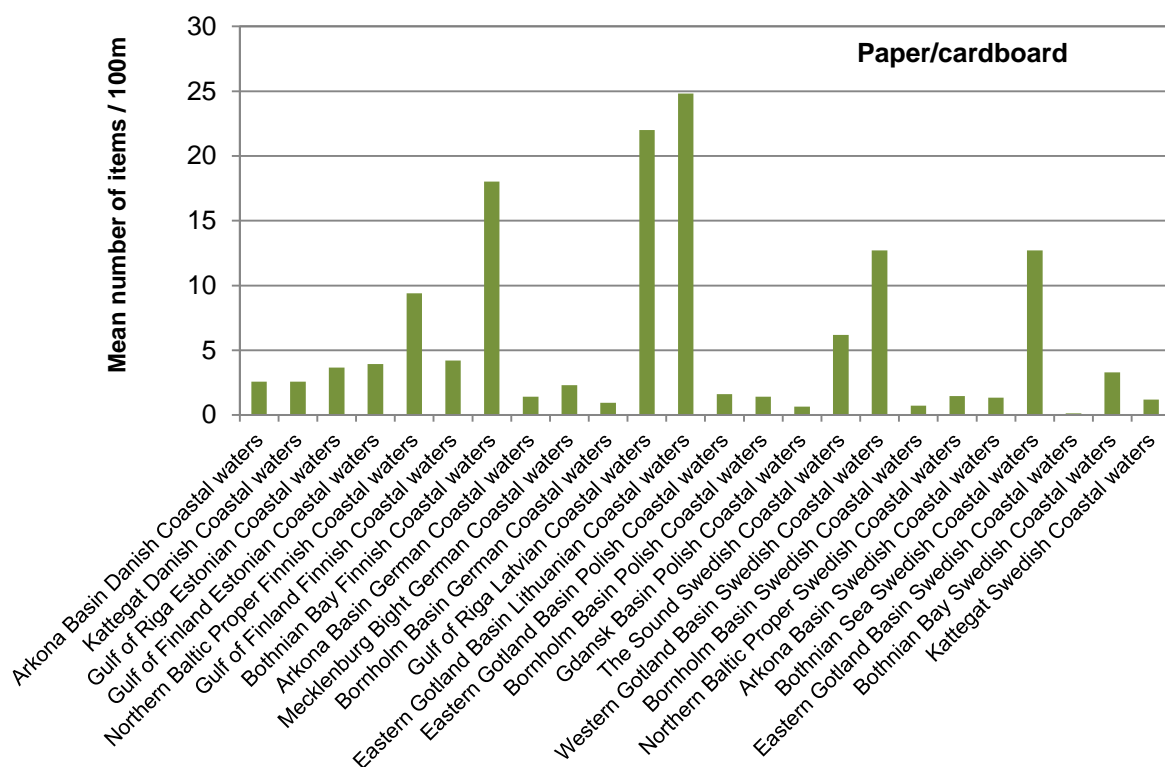
Fig. 12e. Mean number of paper/cardboard items per 100 m calculated upon data for HELCOM sub-basin gathered in the periods listed in Table 2
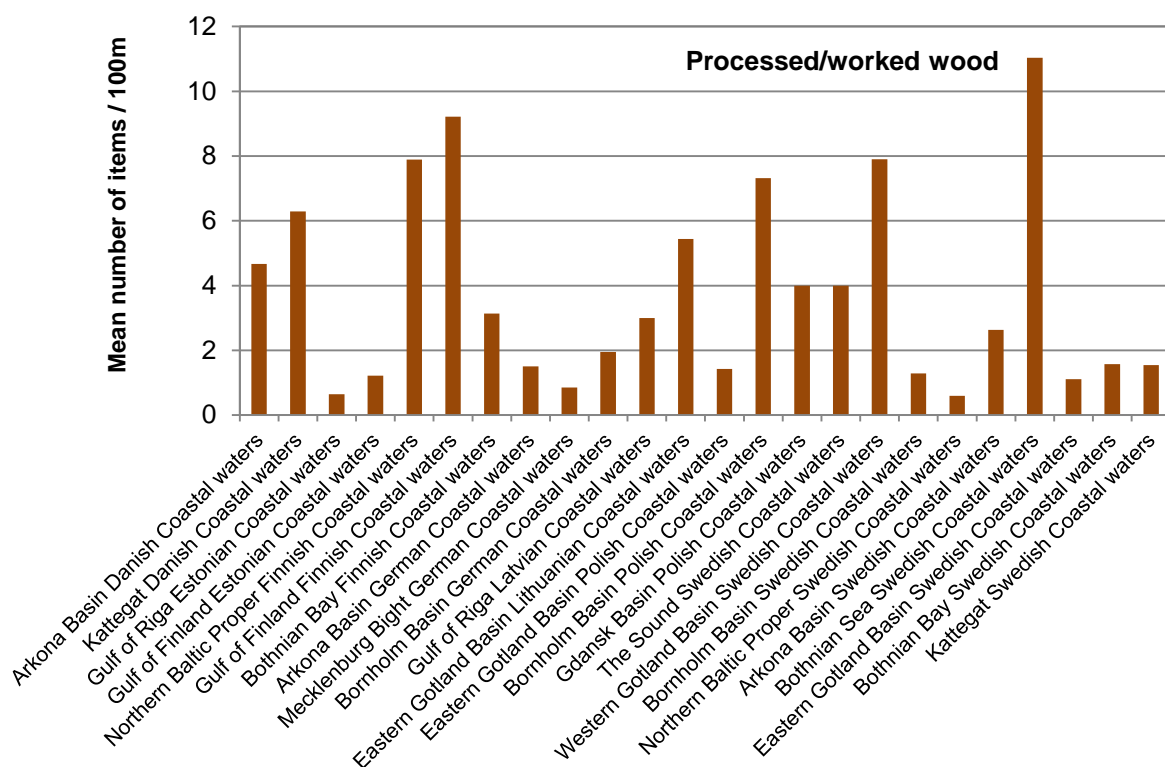
Fig. 12f. Mean number of processed/worked wood items per 100 m calculated upon data for HELCOM sub-basin gathered in the periods listed in Table 2
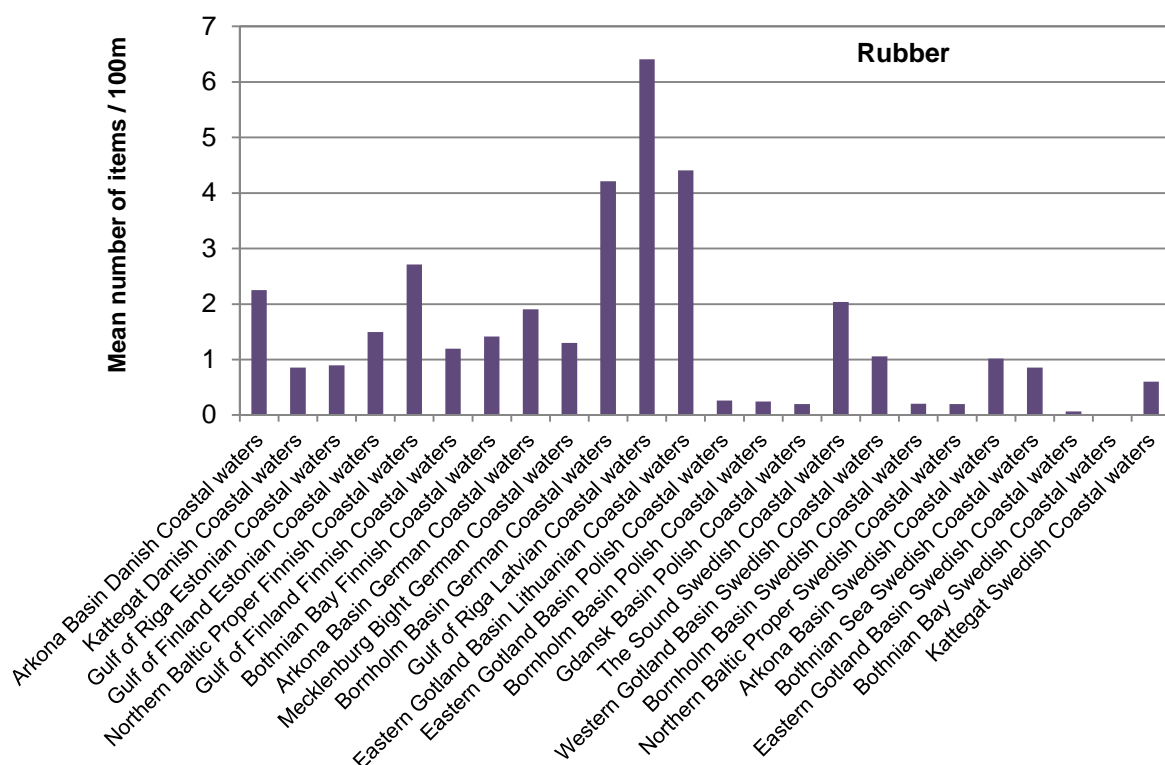
Fig. 12g. Mean number of rubber per 100 m calculated upon data for HELCOM sub-basin gathered in the periods listed in Table 2
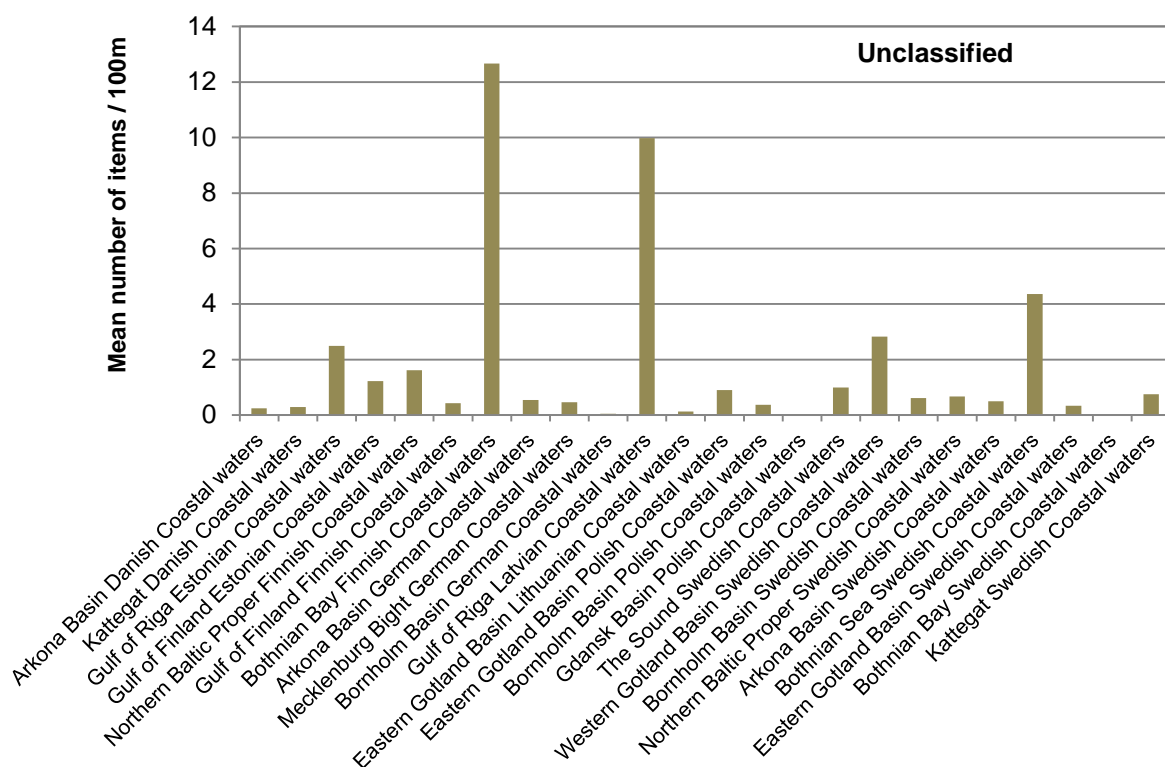
Fig. 12h. Mean number of unclassified items per 100 m calculated upon data for HELCOM sub-basin gathered in the periods listed in Table 2
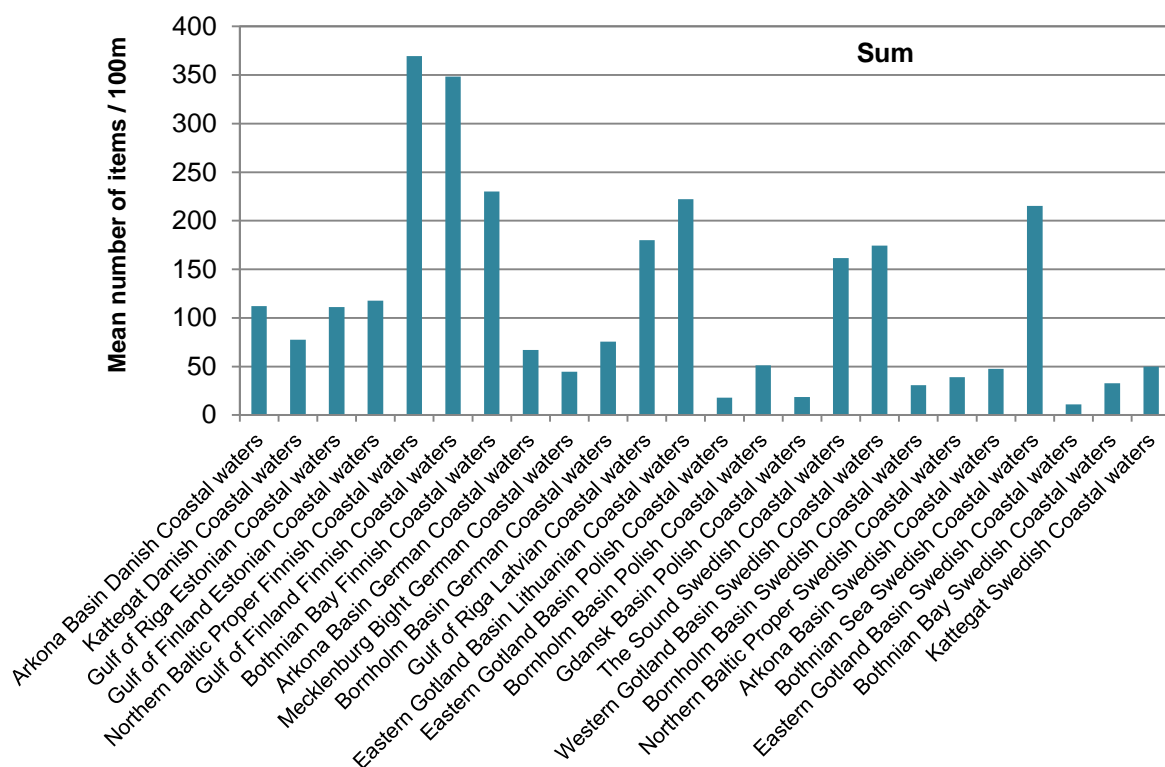
Fig. 12i. Mean number of sum of items per 100 m calculated upon data for HELCOM sub-basin gathered in the periods listed in Table 2
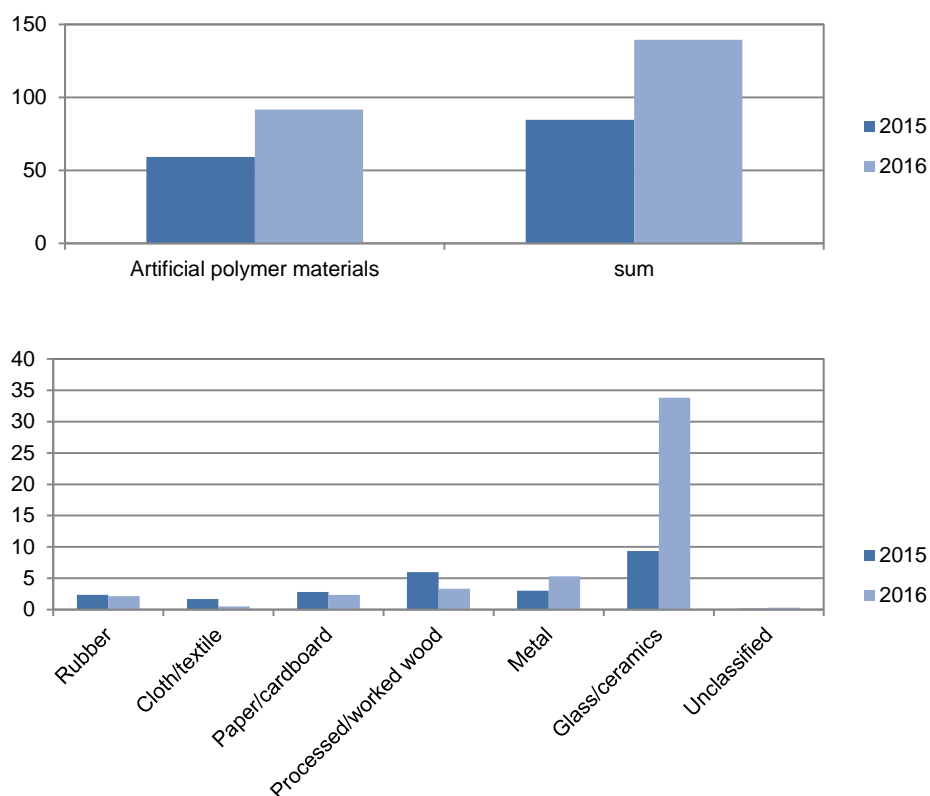
Fig. 13. Mean number of items in each category, unclassified and sum per 100 m in the **Arkona Basin Danish Coastal Waters** in 2015 – 2016.
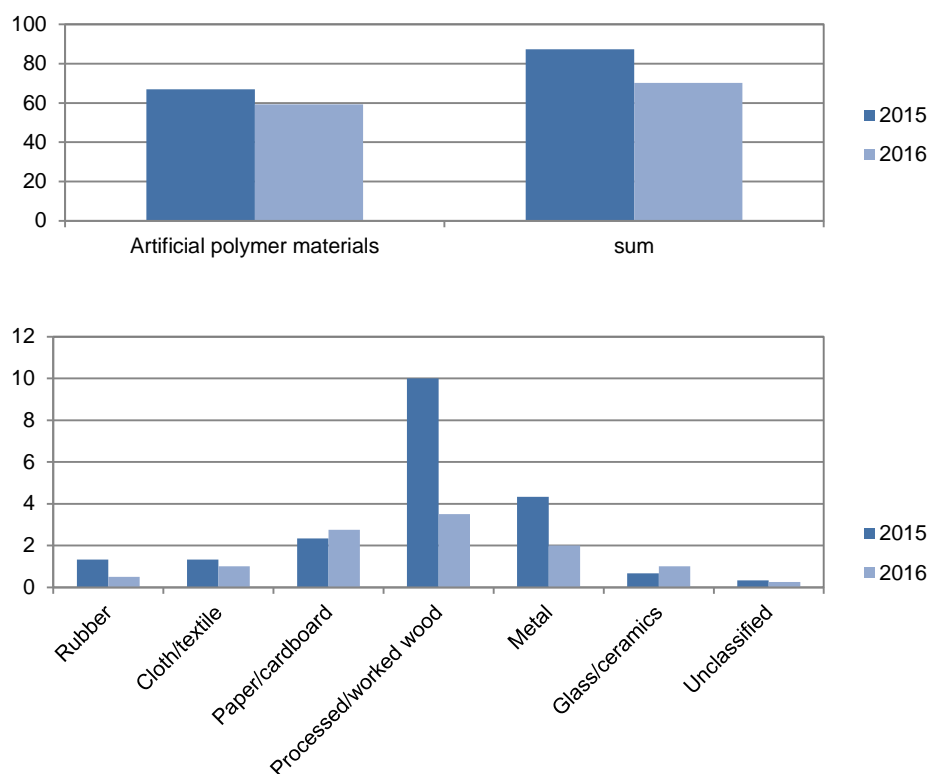
Fig. 14. Mean number of items in each category, unclassified and sum per 100 m in the **Kattegat Danish Coastal Waters** in 2015 – 2016.
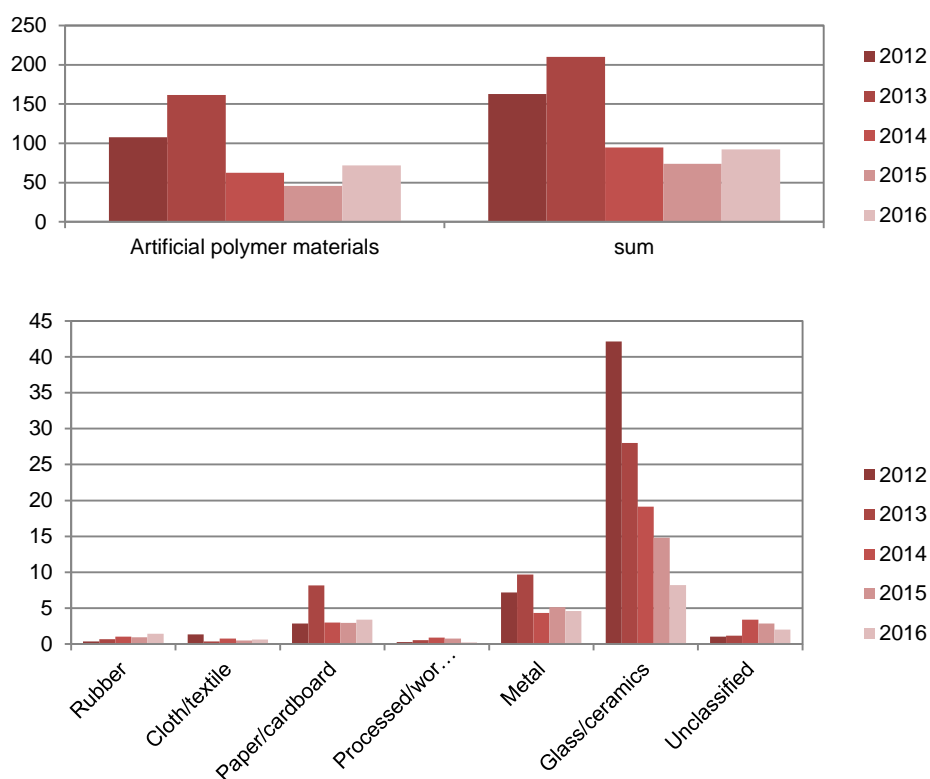
Fig. 15. Mean number of items in each category, unclassified and sum per 100 m in the **Gulf of Riga Estonian Coastal Waters** in 2012 – 2016.
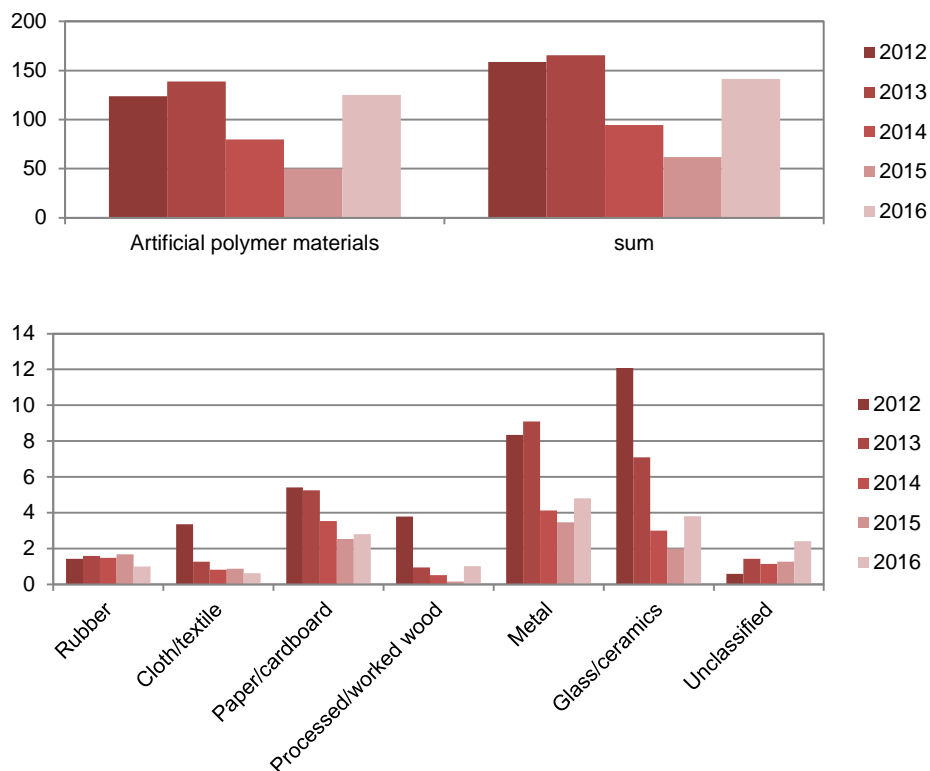
Fig. 16. Mean number of items in each category, unclassified and sum per 100 m in the **Gulf of Finland Estonian Coastal Waters** in 2012 – 2016.
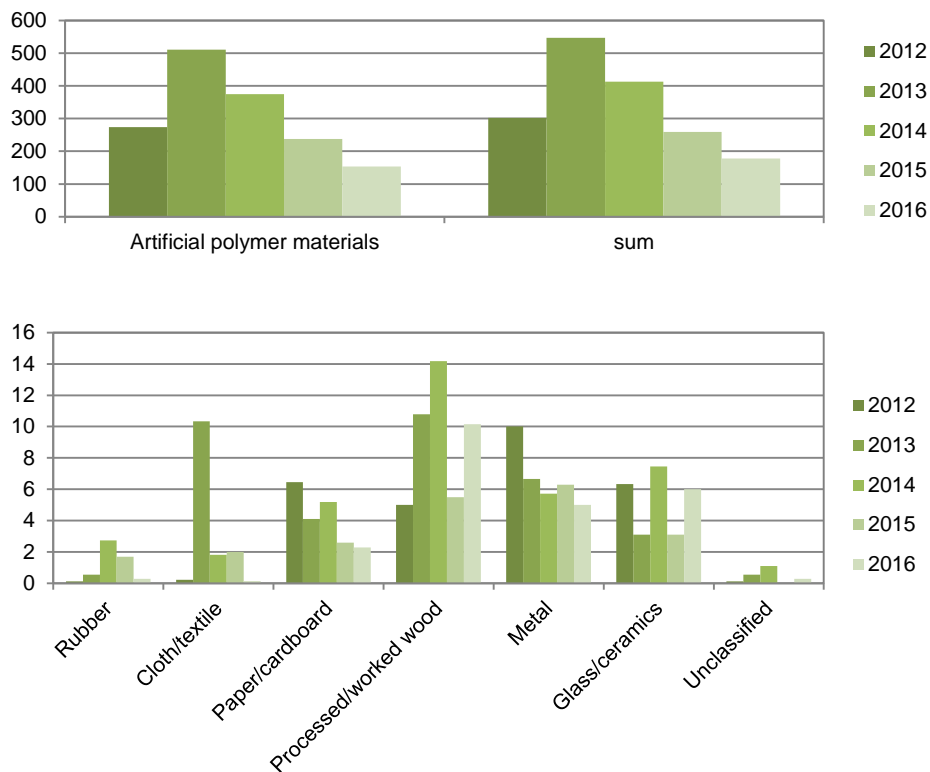
Fig. 17 Mean number of items in each category, unclassified and sum per 100 m in the **Gulf of Finland Finnish Coastal Waters** in 2012 – 2016.
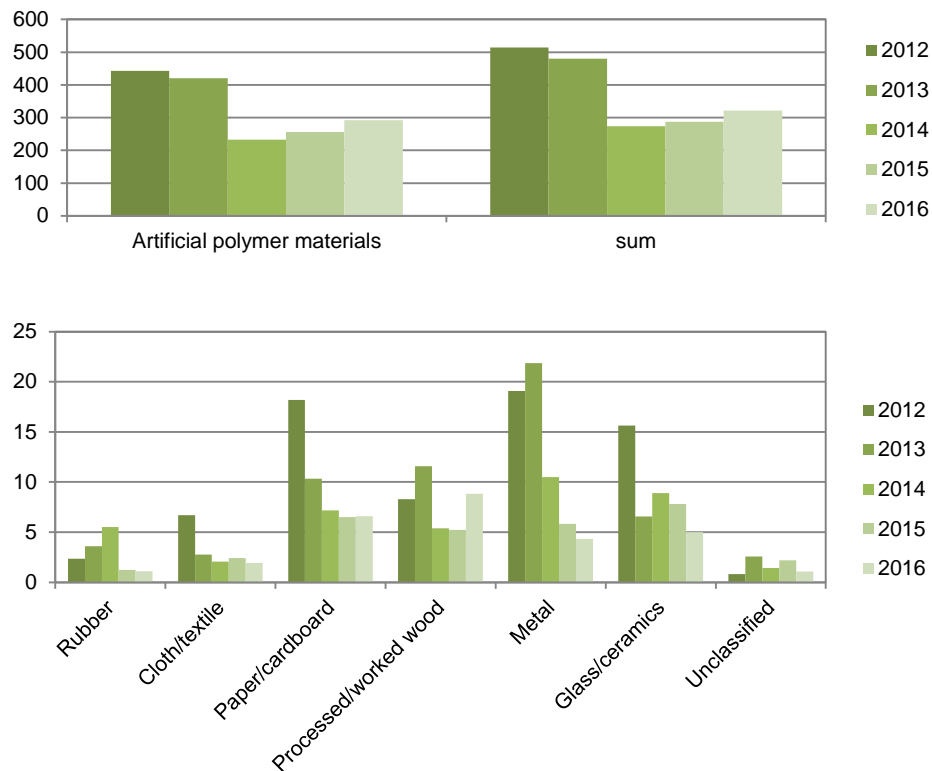
Fig. 18. Mean number of items in each category, unclassified and sum per 100 m in the **Northern Baltic Proper Finnish Coastal Waters** in 2012 – 2016.
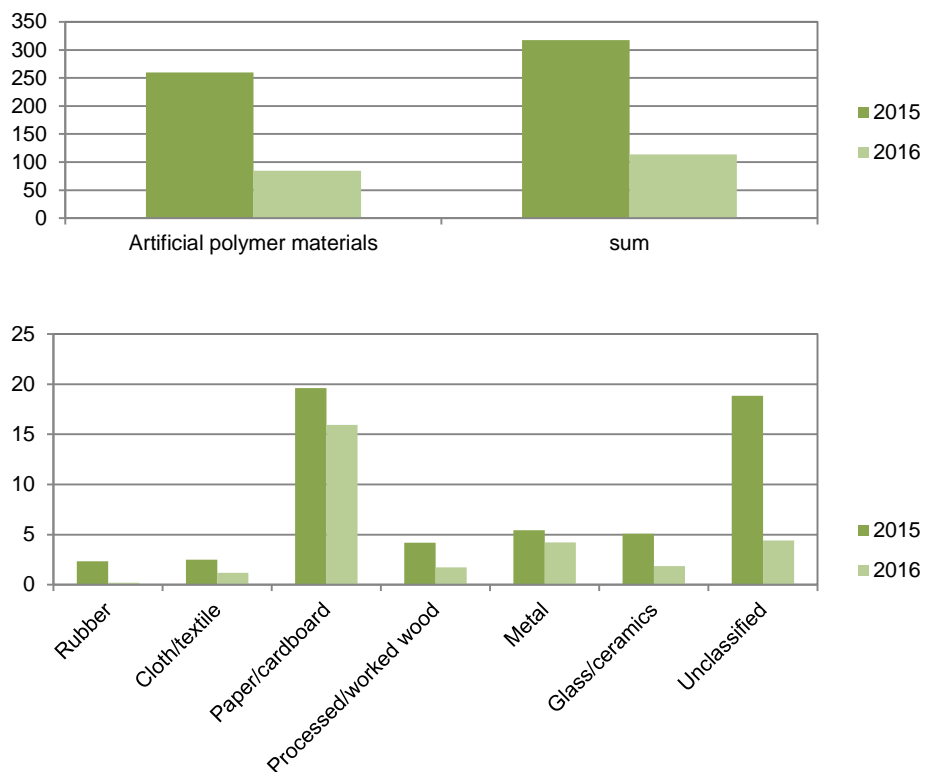
Fig. 19. Mean number of items in each category, unclassified and sum per 100 m in the **Bothnian Bay Finnish Coastal Waters** in 2012 – 2016.
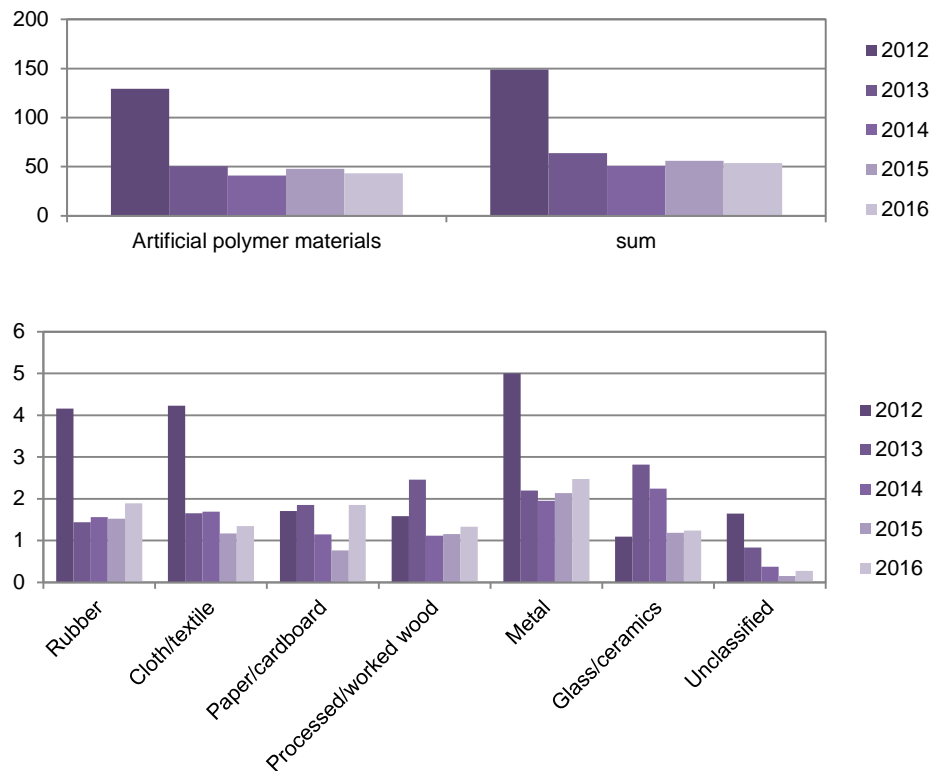
Fig. 20. Mean number of items per material category, unclassified and sum per 100 m observed in the **Arkona Basin German Coastal Waters** in 2012 – 2016.
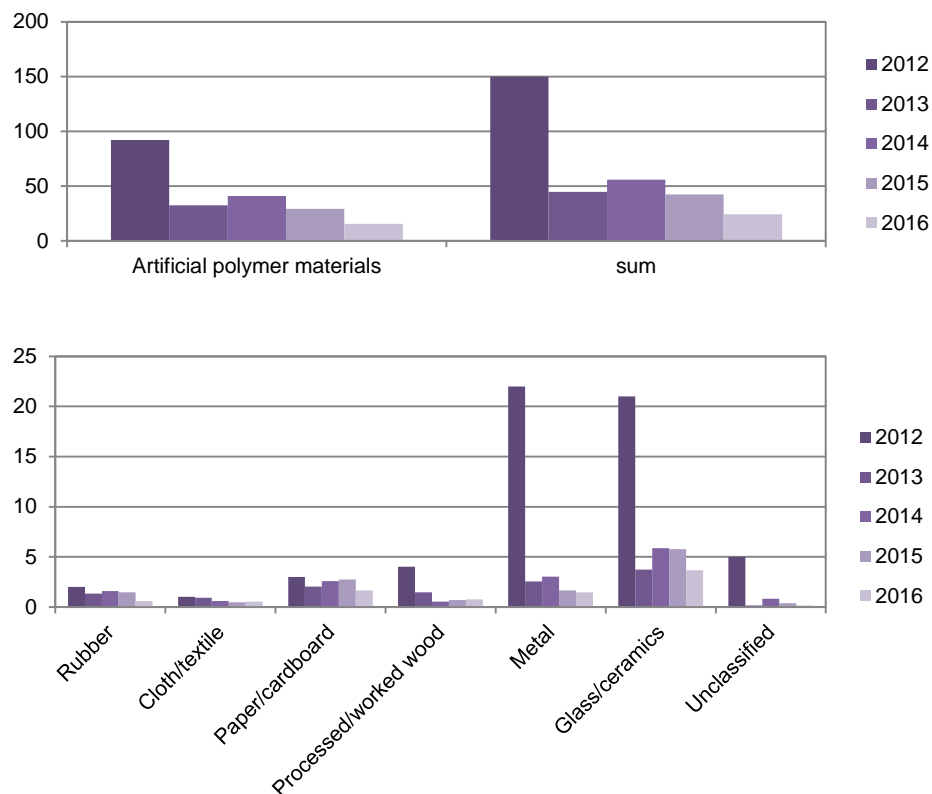
Fig. 21. Mean number of items per material category, unclassified and sum per 100 m in the **Mecklenburg Bight German Coastal Waters** in 2012 – 2016.
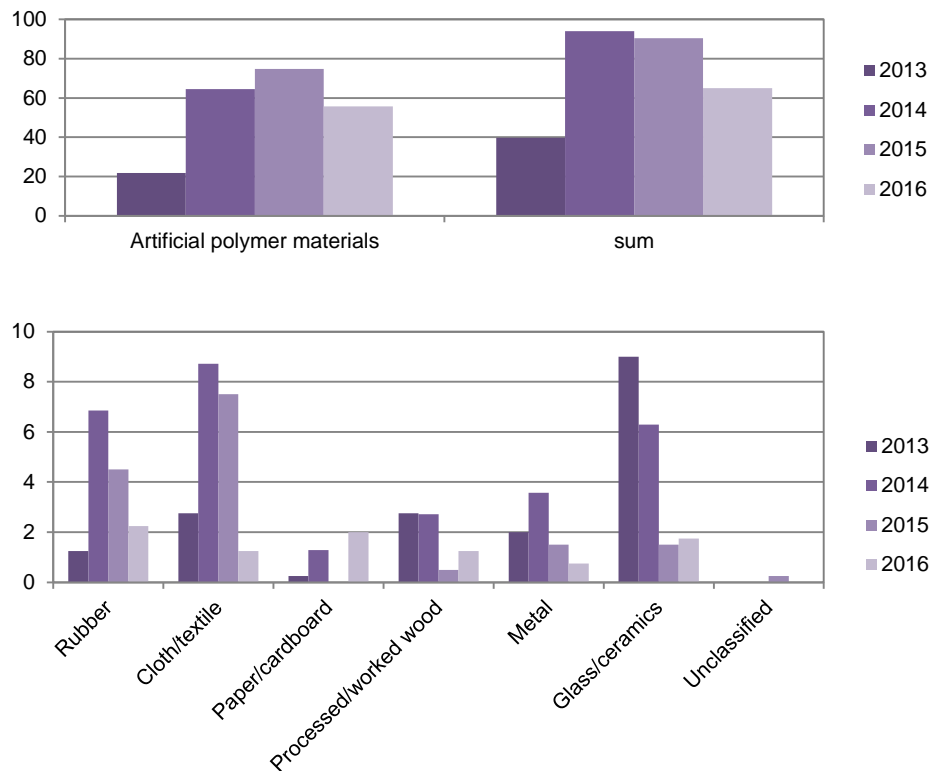
Fig. 22. Mean number of items per material category, unclassified and sum per 100 m in the **Bornholm Basin German Coastal Waters** in 2013 – 2016.
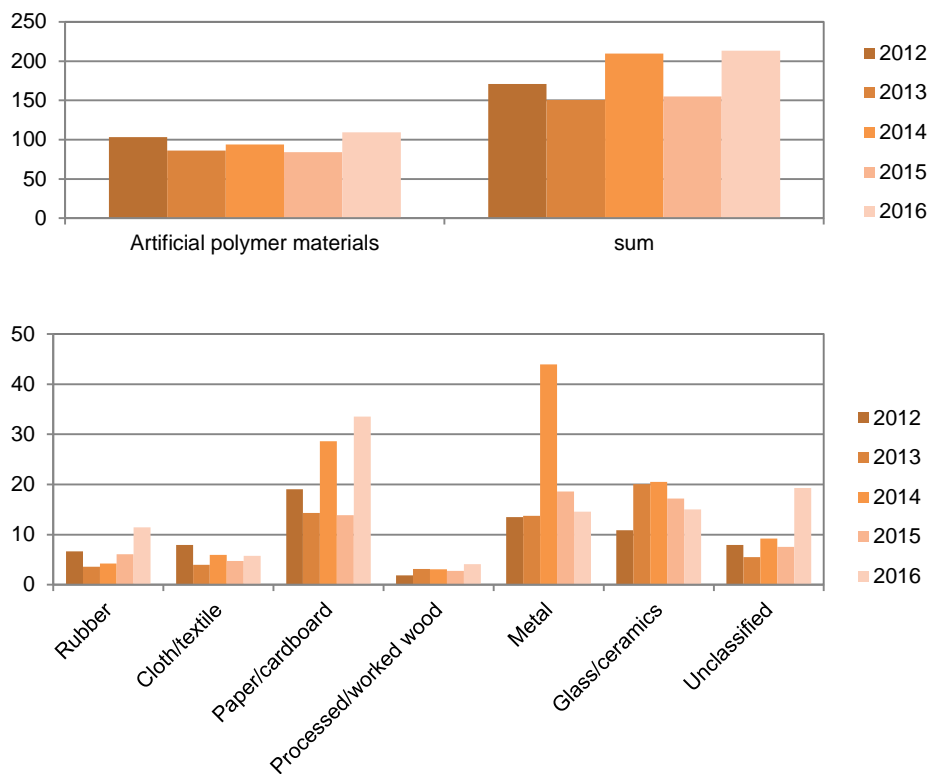
Fig. 23. Mean number of items per material category, unclassified and sum per 100 m in the **Gulf of Riga Latvian Coastal Waters** in 2012 – 2016.
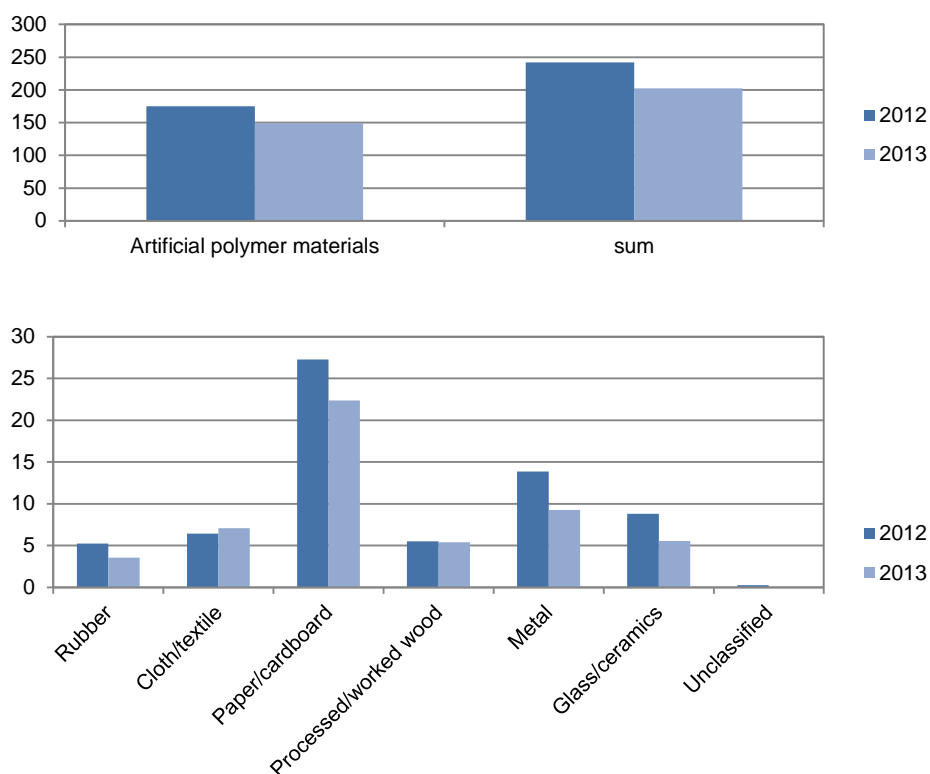
Fig. 24 Mean number of items per material category, unclassified and sum per 100 m in the **Eastern Gotland Basin Lithuanian Coastal Waters** in 2012 – 2013.
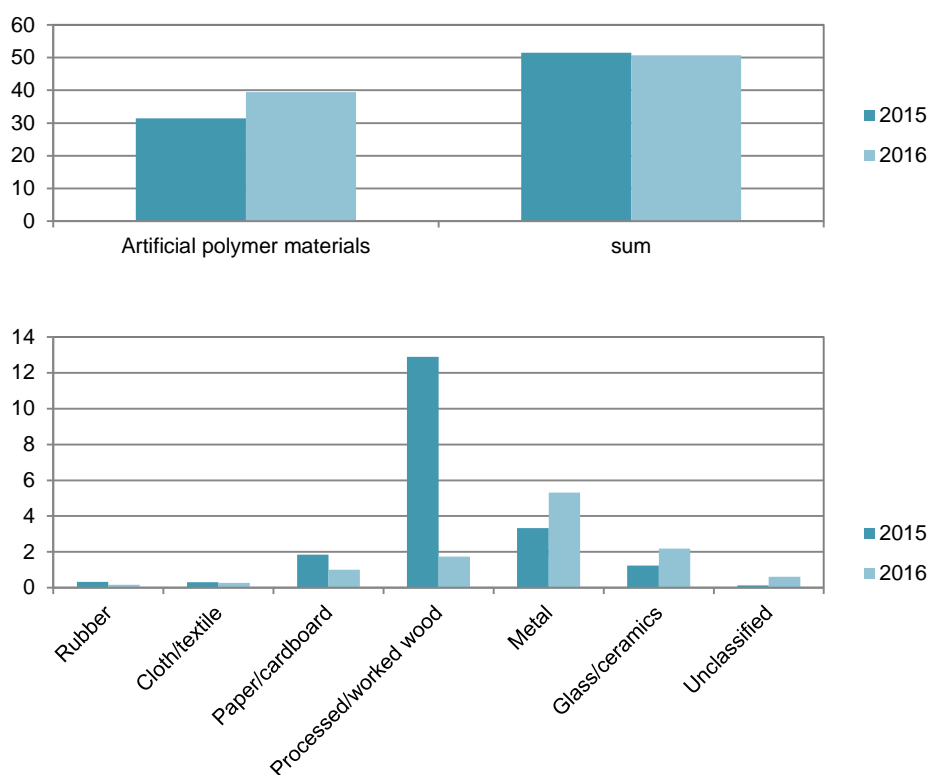
Fig. 25 Mean number of items per material category, unclassified and sum per 100 m in the **Bornholm Basin Polish Coastal Waters** in 2015 – 2016.
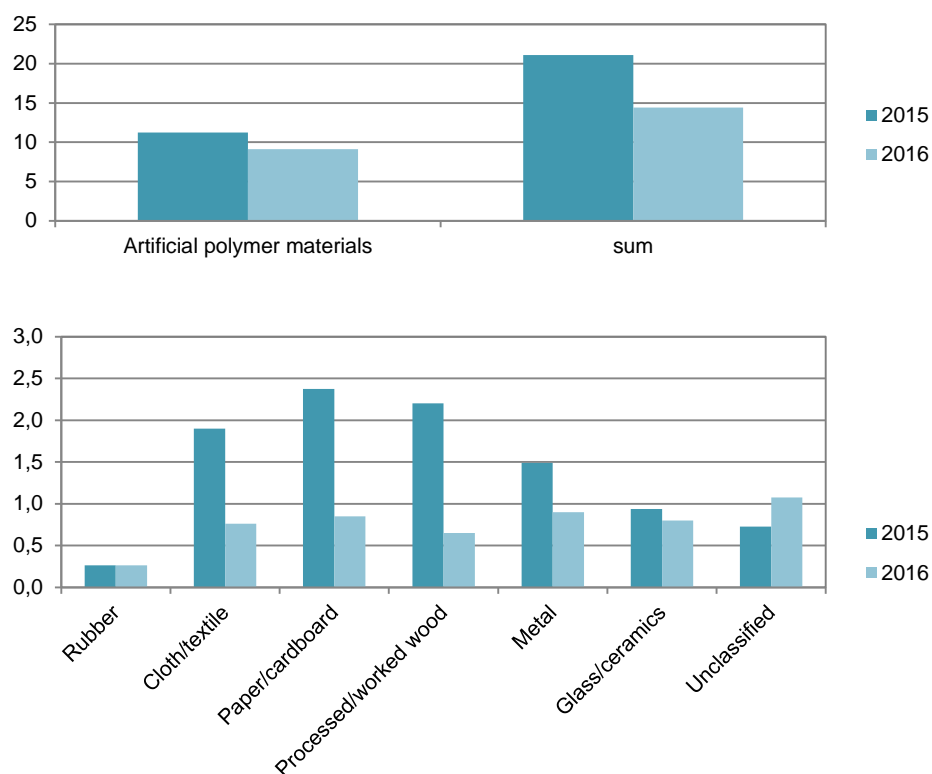
Fig. 26. Mean number of items per material category, unclassified and sum per 100 m in the **Eastern Gotland Basin Polish Coastal Waters** in 2015 – 2016.
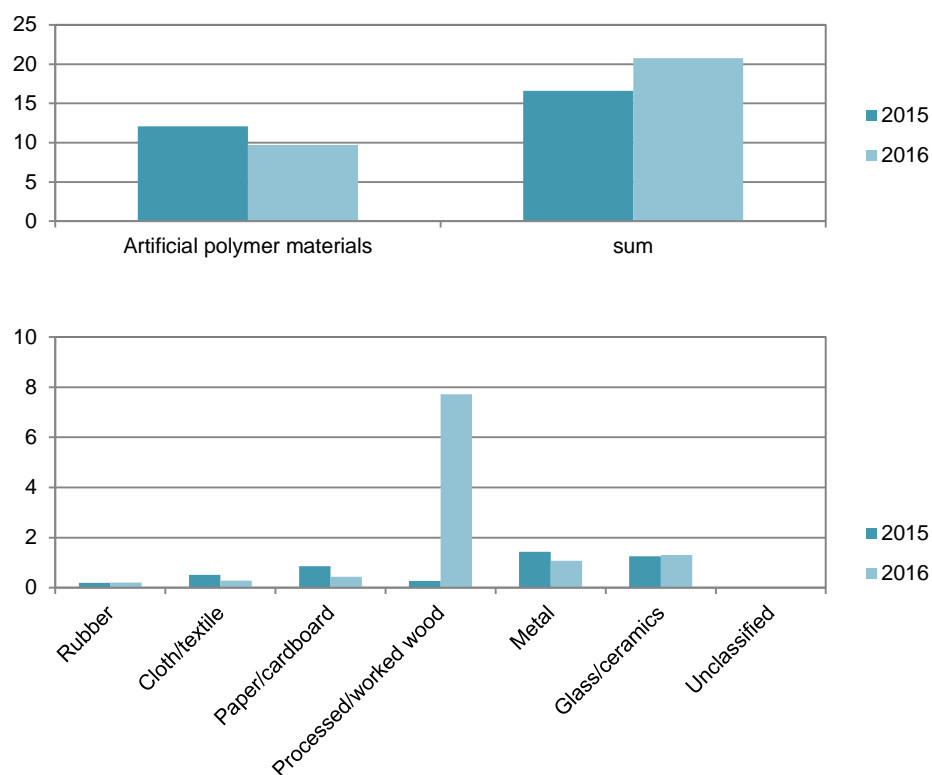
Fig. 27. Mean number of items per material category, unclassified and sum per 100 m in the **Gdansk Basin Polish Coastal Waters** in 2015 – 2016.
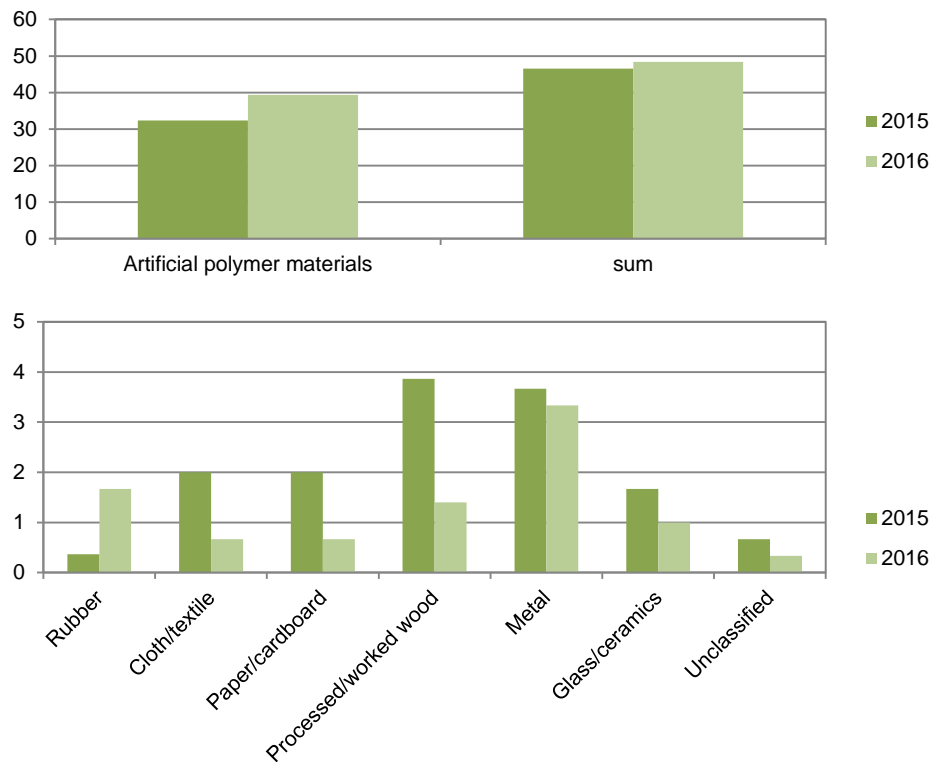
Fig. 28. Mean number of items per material category, unclassified and sum per 100 m in the **Arkona Basin Swedish Coastal Waters** in 2015 – 2016.
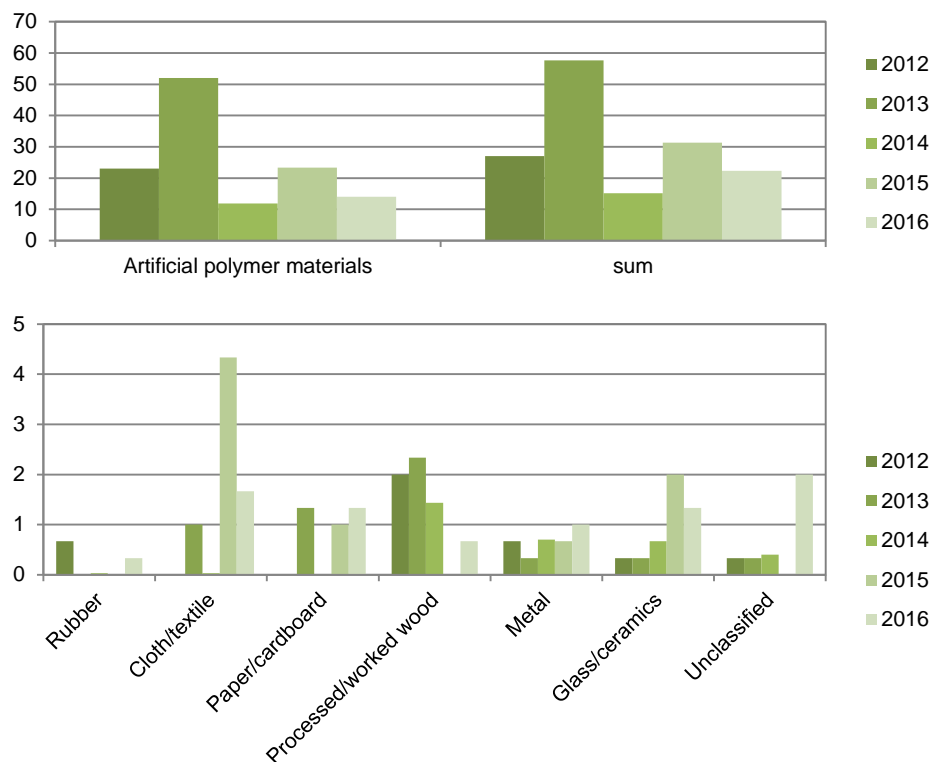
Fig. 29. Mean number of items per material category, unclassified and sum per 100 m in the **Bornholm Basin Swedish Coastal Waters** in 2012 – 2016.
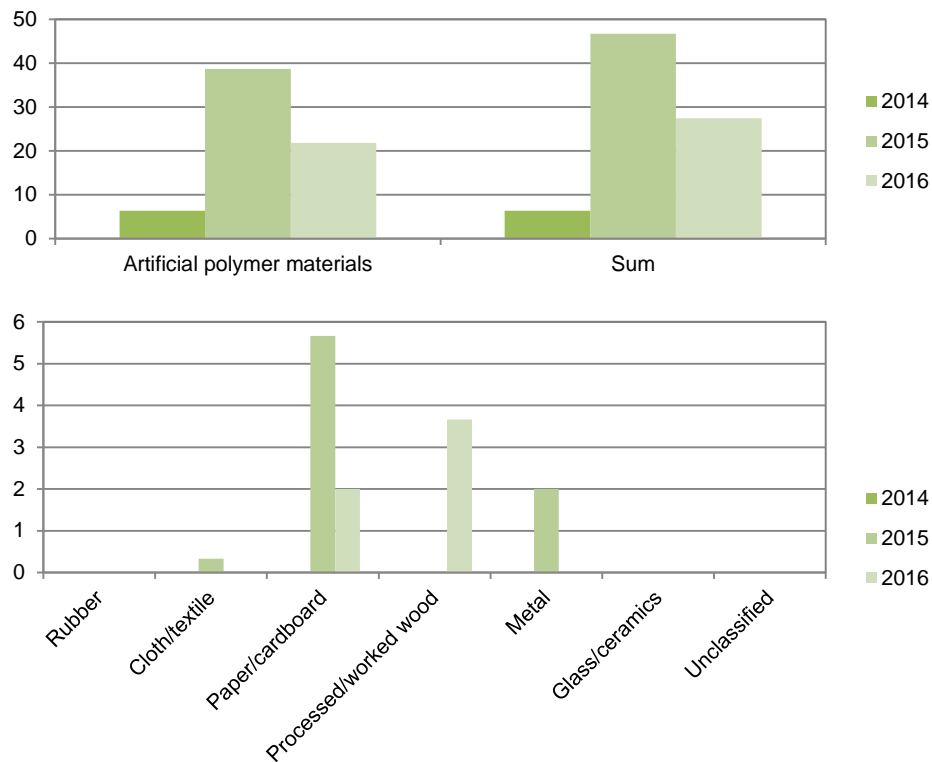
Fig. 30. Mean number of items per material category, unclassified and sum per 100 m in the **Bothnian Bay Swedish Coastal Waters** in 2014 – 2016.
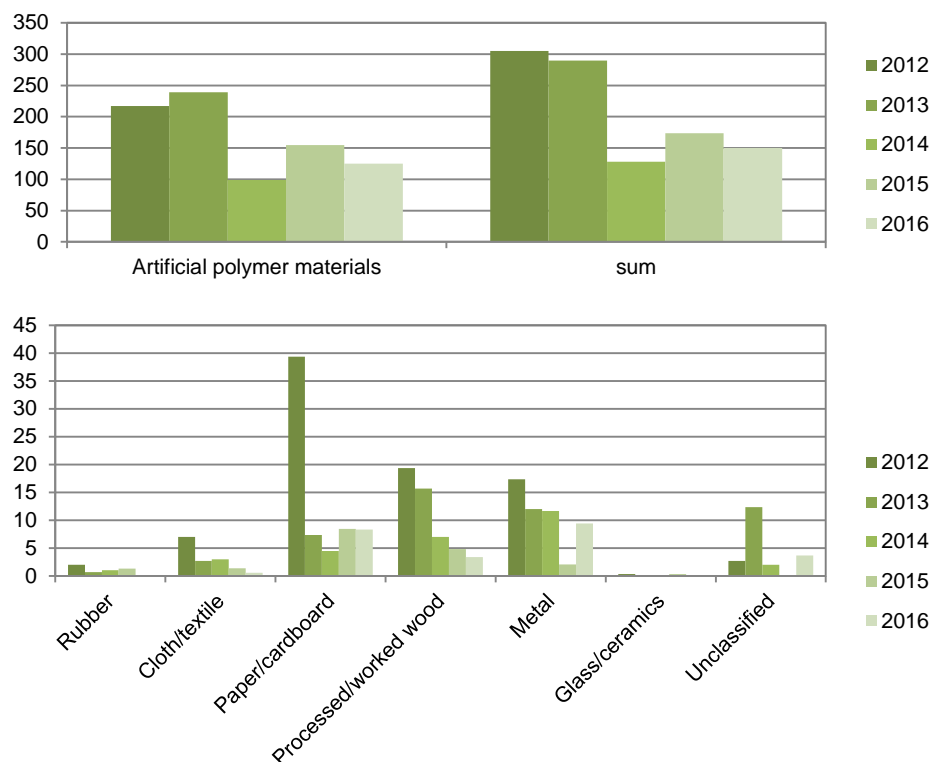
Fig. 31. Mean number of items per material category, unclassified and sum 100 m in the **Bothnian Sea Swedish Coastal Waters** in 2012 – 2016.
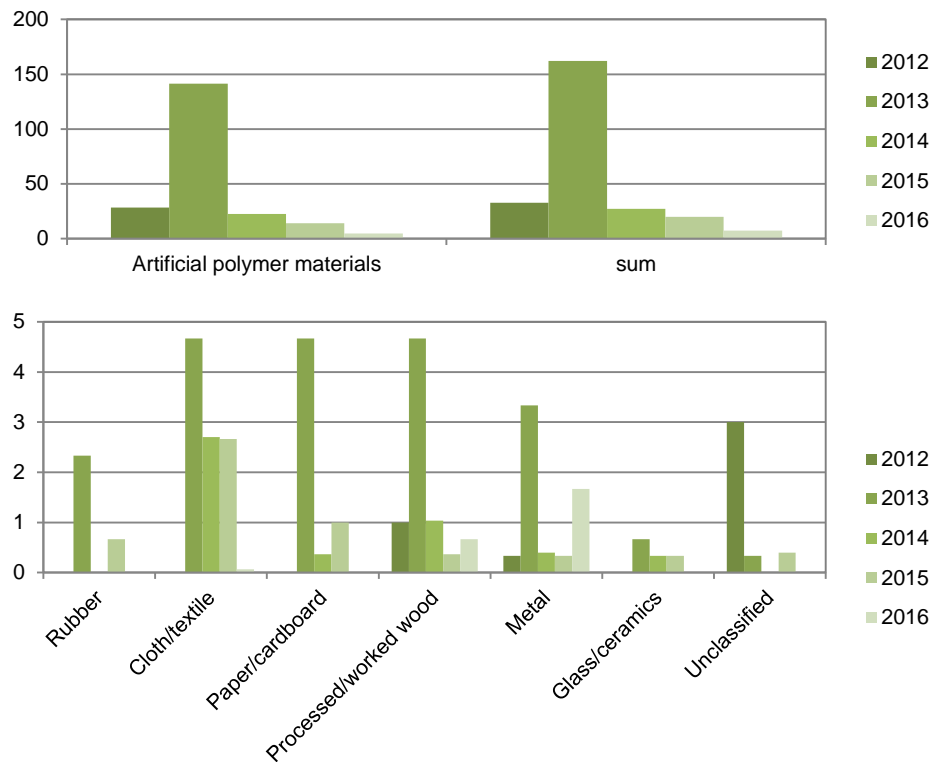
Fig. 32. Mean number of items per material category, unclassified and sum 100 m in the **Kattegat Swedish Coastal Waters** in 2012 – 2016.
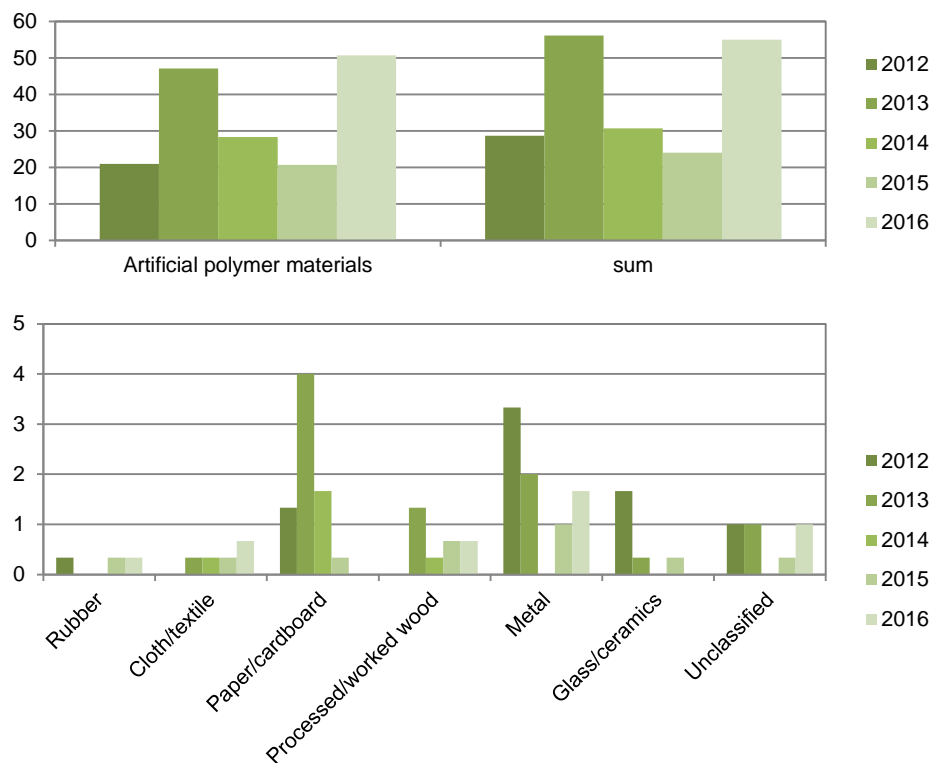
Fig. 33. Mean number of items per material category, unclassified and sum 100 m in the **Northern Baltic Proper Swedish Coastal Waters** in 2012 – 2016.
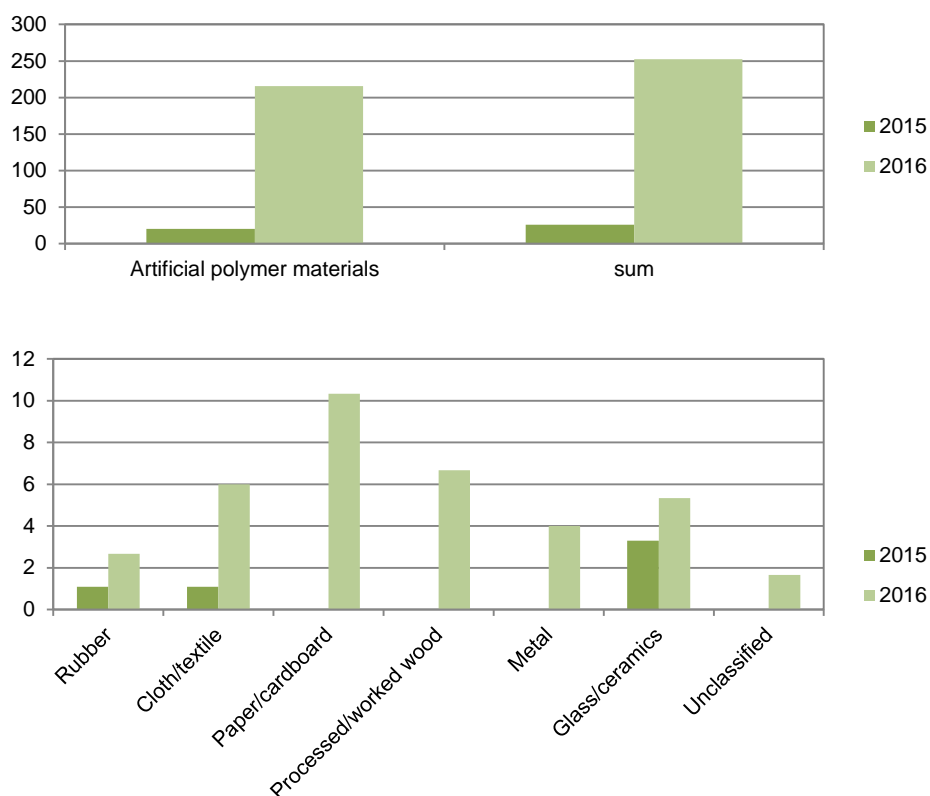
Fig. 34. Mean number of items per material category, unclassified and sum 100 m in **The Sound Swedish Coastal Waters** in 2015 – 2016.
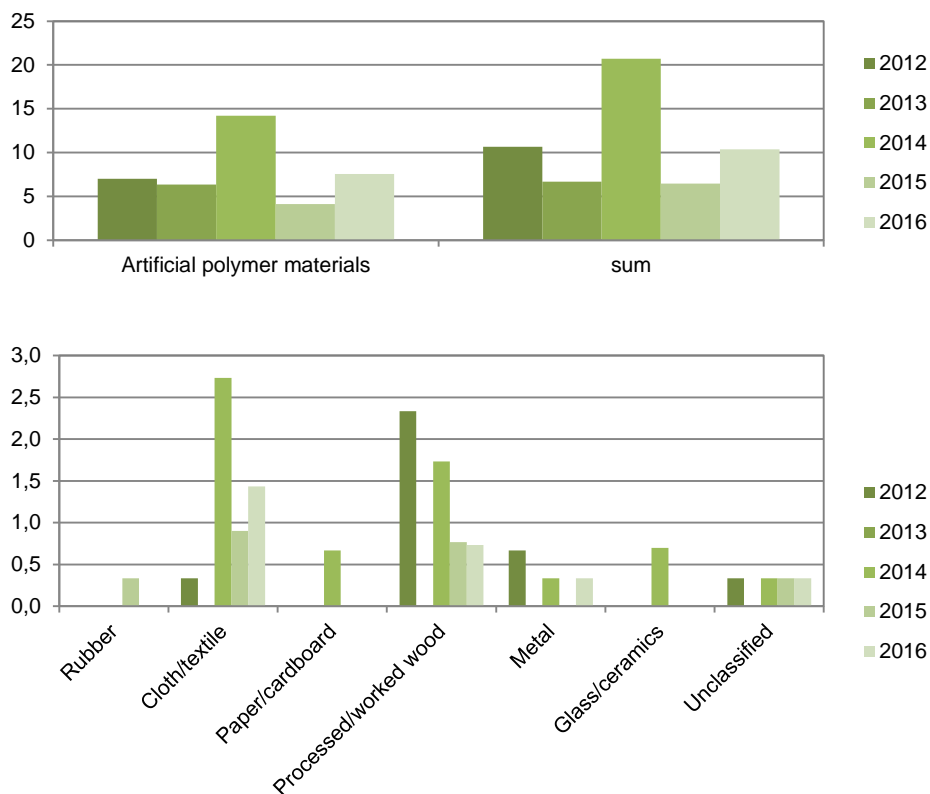
Fig. 35. Mean number of items per material category, unclassified and sum 100 m in the **Eastern Gotland Basin Swedish Coastal Waters** in 2012 – 2016.
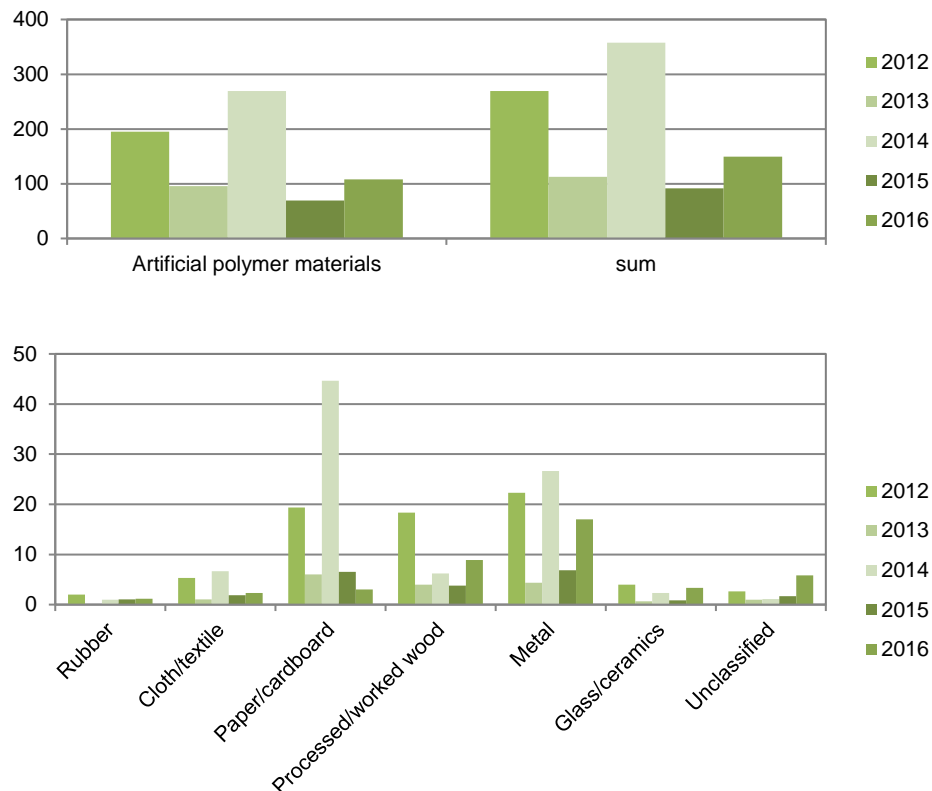
Fig. 36. Mean number of items per material category, unclassified and sum 100 m in the **Western Gotland Basin Swedish Coastal Waters** in 2012 – 2016.

6. *Proposals for setting preliminary beach litter baselines*

Baseline according to definition (after TG ML) is "a starting point that provides a first large scale comprehensive quantitative characterization of marine litter in a specific year and location".

The calculations to determine the preliminary baseline for beach litter in the Baltic Sea region, which were based on monitoring data from all Contracting Parties, were done with the method proposed by Danish experts. The preliminary baselines for beach litter in the Baltic Sea area presented in this report should be understood as statistical parameters such as mean, median, standard deviation and relative standard deviation as determined for each category of litter material and a sum of all items for specific beach types. The method used for determining these preliminary baselines is presented in the form of a scheme (Fig. 37).
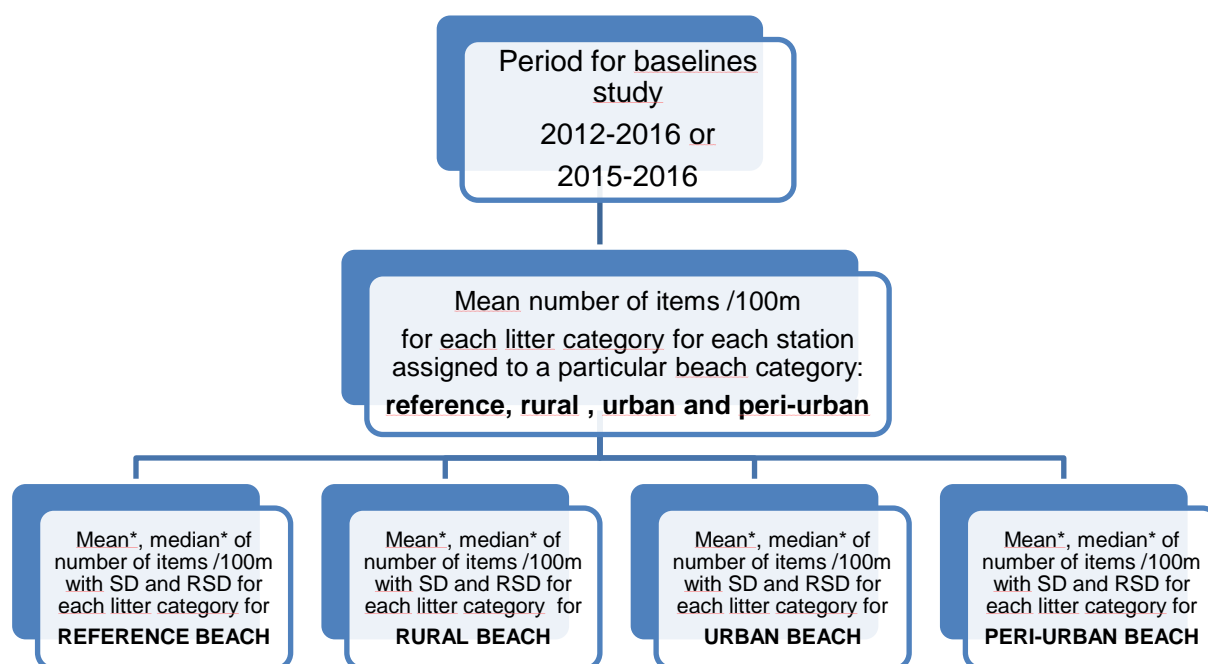
Fig 37. Scheme of the method used for setting preliminary beach litter baselines (* mean and median calculated upon mean number of items /100m for each category of litter material for each station assigned to a particular beach type: reference, rural, urban and peri-urban)

The calculations of the preliminary baselines were carried out for two periods (i) 2012-2016 and (ii) 2015-2016. The selection of the first period was due to the fact that most of the countries (Estonia, Finland, Germany, Latvia, Lithuania and Sweden) started their beach litter monitoring in 2012. On the other hand, the monitoring has been carried out in all countries (except Lithuania), and the network of monitoring stations has expanded since 2015, which may provide a more complete and coherent image of the extent of beach litter items found in different regions.

Data analysis shows the significant differences between different types of beaches in terms of number of litter items. Therefore, preliminary baseline calculations were done for each of the main types of beaches: reference, urban, peri-urban and rural ones.

Calculations were carried out according to the following steps:

1. Data to be included were selected according to stations (taking into account its type) and period
2. Means and medians for each material category of items and sum were calculated for each station within the selected period, unweight and independent from season/survey and year
3. The arithmetic means of all the stations derived mean and median values under bullet 2 were calculated within discriminated beach type category, when the weights for all stations are set to one
4. SD and RSD were calculated to describe the variance between the stations within a (sub)region.

The results of the calculations are given in Tables 3 and 4, which also include information on the number of stations in the category included in the calculation. The results show significant differences in the average number of litter items in each material category between the different types of beaches, which justifies the calculation methodology used. This is particularly noticeable for artificial polymer materials and the sum of all beach litter items. In the period 2012-2016, at reference beaches the mean of all items per 100 m is 65.4, which is lower than on rural beaches (81.6), while on urban beaches it is as high as 225.2. The result obtained for peri-urban beaches (145.1 / 100 m) is located between the number of all items on rural and urban beaches. The determined median values are generally lower than the averages. Significant relative standard deviation values indicating significant differences in the number of items found on various surveyed locations should be also noted.

The results of the calculations done for the period 2015-2016 do not differ significantly from the results for the five-year period. The average sum of all beach litter items of all categories of material per 100 m on the reference beaches is 65.4 and it is slightly higher than that observed in 2012-2016, which also the case for rural beaches (92.3). The most visible differences are found in the urban and peri-urban areas, where the average values of all items of all categories of material are 225.2 and 145.1, which is by *c.a.* 20 -30 lower than in the five-year period.

Table 3. Results (mean, median, SD and RSD) of preliminary baseline calculations for the period 2012-2016

Beach type	Litter category	Number of stations	2012-2016					
			Mean number of items /100 m	SD	RSD	Median of number of items /100 m	SD	RSD
Reference	Artificial polymer materials	16	44.5	47.5	107.6	37.6	47.2	125.4
	Cloth/textile		1.9	2.4	130.9	1.2	2.1	184.1
	Glass/ceramics		5.2	10.0	192.3	3.4	6.6	191.6
	Metal		2.8	3.4	119.7	2.1	3.5	164.0
	Paper/cardboard		2.6	5.9	224.4	2.0	5.9	301.1
	Processed/worked wood		2.2	2.0	91.6	1.6	2.0	122.4
	Rubber		2.0	1.9	95.7	1.6	1.7	104.5
	Unclassified		0.3	0.4	151.3	-	-	-
	Sum		**61.4**	62.6	101.9	**51.7**	62.2	120.2
Rural	Artificial polymer materials	48	58.7	84.4	143.8	54.5	97.7	179.4
	Cloth/textile		2.2	2.6	122.1	1.4	2.0	137.6
	Glass/ceramics		3.4	3.6	106.4	2.3	2.4	107.5
	Metal		3.0	2.5	84.0	2.5	2.5	101.1
	Paper/cardboard		5.1	7.7	151.4	4.4	7.8	177.0
	Processed/worked wood		2.7	5.0	186.8	1.6	3.9	243.1
	Rubber		2.0	2.2	113.1	1.7	1.9	117.9
	Unclassified		2.9	7.9	270.8	-	-	-
	Sum		**79.8**	96.7	121.2	**72.3**	112.2	155.1
Urban	Artificial polymer materials	26	179.4	235.2	131.1	139.2	147.9	106.3
	Cloth/textile		4.2	4.5	108.1	3.5	4.4	125.6
	Glass/ceramics		5.7	7.7	135.1	4.6	7.5	164.8
	Metal		12.4	14.3	115.2	10.9	13.4	122.8
	Paper/cardboard		19.5	22.4	114.8	18.7	24.2	128.9
	Processed/worked wood		7.3	9.7	133.6	4.6	8.3	177.9
	Rubber		12.9	41.5	320.8	12.2	41.6	342.0
	Unclassified		16.6	43.9	265.0	14.5	43.3	299.7
	Sum		**257.9**	285.6	110.7	**218.8**	215.1	98.3
Peri-urban	Artificial polymer materials	30	95.9	54.5	56.8	77.1	38.3	49.7
	Cloth/textile		4.0	4.2	107.4	2.6	2.6	101.1
	Glass/ceramics		20.6	34.7	168.4	15.8	25.9	164.5
	Metal		22.0	45.6	207.1	10.5	12.1	114.8
	Paper/cardboard		15.6	15.7	101.1	12.5	13.3	106.9
	Processed/worked wood		3.1	2.8	91.3	2.0	2.3	114.7
	Rubber		3.3	3.2	98.2	2.6	2.5	97.5
	Unclassified		4.1	8.8	216.3	2.5	6.5	261.2
	Sum		**168.5**	94.7	56.2	**146.1**	99.0	67.7

SD – standard deviation

RSD – relative standard deviation (%)

Table 4. Results (means, medians, SD and RSD) of preliminary baseline calculations for the period 2015-2016.

Beach type	Litter category	Number of stations	2015-2016					
			Mean number of items /100 m	SD	RSD	Median of number of items /100 m	SD	RSD
Reference	Artificial polymer materials	14	47.2	70.6	149.6	42.9	69.2	161.5
	Cloth/textile		1.9	3.7	193.0	1.5	3.7	251.8
	Glass/ceramics		4.7	10.8	227.0	3.4	7.1	212.4
	Metal		3.1	6.3	202.8	2.6	6.3	241.4
	Paper/cardboard		4.1	11.5	279.7	3.5	11.7	330.2
	Processed/worked wood		2.1	2.3	113.1	1.6	2.3	137.4
	Rubber		2.0	2.7	133.7	1.9	2.7	141.8
	Unclassified		0.3	0.6	177.2	0.2	0.6	270.2
	Sum		**65.4**	98.1	149.9	**59.9**	97.3	162.4
Rural	Artificial polymer materials	43	63.4	125.0	197.0	57.2	124.5	217.7
	Cloth/textile		2.0	2.9	143.4	1.8	2.9	167.4
	Glass/ceramics		2.7	3.4	126.1	2.4	3.3	138.2
	Metal		2.5	2.1	83.1	2.2	2.1	91.9
	Paper/cardboard		4.8	7.9	164.6	4.4	8.0	182.0
	Processed/worked wood		2.1	3.5	168.4	1.5	3.3	226.9
	Rubber		1.8	2.2	122.0	1.7	2.3	133.3
	Unclassified		1.8	5.5	302.7	1.5	5.4	366.8
	Sum		**81.1**	135.0	166.5	**74.6**	134.9	180.7
Urban	Artificial polymer materials	26	153.0	222.2	145.2	130.3	189.5	145.4
	Cloth/textile		2.6	2.8	104.9	2.4	2.5	107.9
	Glass/ceramics		4.9	8.3	167.4	4.4	8.2	184.7
	Metal		9.7	12.9	132.7	9.1	13.0	142.9
	Paper/cardboard		17.3	22.3	128.8	16.7	22.5	134.7
	Processed/worked wood		7.6	9.7	128.2	5.1	8.3	163.6
	Rubber		12.3	42.5	345.3	12.2	42.5	348.5
	Unclassified		17.7	46.2	261.2	16.8	46.3	275.9
	Sum		**225.2**	272.3	120.9	**200.3**	249.9	124.7
Peri-urban	Artificial polymer materials	30	78.6	52.7	67.1	73.2	49.9	68.2
	Cloth/textile		3.8	4.8	127.1	3.8	4.8	128.2
	Glass/ceramics		20.5	37.5	182.8	20.2	37.7	186.1
	Metal		16.1	33.9	211.1	15.7	34.0	216.2
	Paper/cardboard		14.6	19.0	130.2	14.3	19.1	133.7
	Processed/worked wood		3.1	3.3	107.2	2.6	2.8	107.4
	Rubber		3.4	3.8	111.9	3.3	3.9	118.5
	Unclassified		5.2	11.8	228.4	5.0	11.9	238.5
	Sum		**145.1**	86.5	59.6	**139.8**	87.0	62.2

SD – standard deviation

RSD – relative standard deviation (%)

References

JRC. 2013. Guidance on Monitoring of Marine Litter in European Seas.

MARLIN. 2013. Final report of Baltic marine litter project MARLIN - litter monitoring and raising awareness. Online 28.8.2017 http://www.cbss.org/wp-content/uploads/2012/08/marlin-baltic-marine-litter-report.pdf

OSPAR. 2010. Guideline for Monitoring Marine Litter on the Beaches in the OSPAR Maritime Area. Online 28.8.2017 https://www.ospar.org/ospar-data/10-02e_beachlitter%20guideline_english%20only.pdf

UNEP/IOC. 2009. UNEP/IOC Guidance on Survey and Monitoring of Marine Litter. Online 28.8.2017 http://wedocs.unep.org/bitstream/handle/20.500.11822/10739/MarineLitterSurveyandMonitoringGuidelines.pdf?sequence=1&isAllowed=y

Appendix to the Report on the analysis of compiled beach litter data and proposals for setting preliminary beach litter baselines in the Baltic Sea

Appendix

Table 1. Statistical analysis results for aggregated data within categories and sum for the whole Baltic Sea area calculated for two periods (i) 2012-2016 and (ii) 2015-2016.

Table 2. Statistical analysis results for yearly aggregated data within categories and sum for the whole Baltic Sea area.

Table 3. Statistical analysis results for aggregated data according to beach type within categories and sum for the whole Baltic Sea area.

Table 4. Statistical analysis results for sub-basins aggregated data within categories for different monitoring periods depending on data availability.

Table 5. Statistical analysis results for sub-basins aggregated data within categories for monitoring period 2015-2016.

Table 1. Statistical analysis results for aggregated data within categories and sum for the whole Baltic Sea area calculated for two periods (i) 2012-2016 and (ii) 2015-2016.

	Period	Total number of data	Average value of number of items /100 m	Standard deviation	Confidence - 95%	Confidence +95%	Median	Minimum	Maximum	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Artificial polymer materials	2015 - 2016	531	70.3	156.9	56.9	83.7	24.0	0.0	1964.0	8.7	79.0	3.6	151.0
	2012 - 2016	1072	95.5	214.0	82.6	108.3	38.7	0.0	3815.0	12.0	101.0	4.9	216.0
Rubber	2015 - 2016	531	2.1	10.2	1.2	3.0	0.4	0.0	211.0	0.0	2.0	0.0	4.0
	2012 - 2016	1072	2.3	8.0	1.8	2.8	1.0	0.0	211.0	0.0	3.0	0.0	5.1
Cloth/textile	2015 - 2016	531	1.7	3.5	1.4	2.0	0.3	0.0	47.0	0.0	2.0	0.0	4.0
	2012 - 2016	1072	2.4	5.3	2.1	2.8	1.0	0.0	86.0	0.0	3.0	0.0	7.0
Paper/cardboard	2015 - 2016	531	5.3	13.2	4.1	6.4	1.0	0.0	146.0	0.0	4.6	0.0	13.0
	2012 - 2016	1072	6.9	14.6	6.1	7.8	1.5	0.0	146.0	0.0	7.0	0.0	19.0
Processed/worked wood	2015 - 2016	530	3.2	11.6	2.3	4.2	0.9	0.0	175.1	0.0	2.6	0.0	7.0
	2012 - 2016	1071	3.3	9.7	2.7	3.9	1.0	0.0	175.1	0.0	3.0	0.0	7.1
Metal	2015 - 2016	531	5.0	17.8	3.5	6.5	1.9	0.0	373.0	0.3	5.0	0.0	12.0
	2012 - 2016	1072	7.3	38.3	5.0	9.6	2.0	0.0	1141.0	0.7	7.0	0.0	14.0
Glass/ceramics	2015 - 2016	531	5.0	17.2	3.5	6.4	1.0	0.0	290.0	0.0	3.0	0.0	9.0
	2012 - 2016	1072	6.5	19.2	5.4	7.7	1.7	0.0	293.0	0.0	5.0	0.0	15.0
Unclassified	2015 - 2016	531	2.5	14.5	1.3	3.8	0.0	0.0	211.0	0.0	1.0	0.0	4.0
	2012 - 2016	1072	2.4	12.5	1.6	3.1	0.0	0.0	211.0	0.0	1.0	0.0	4.0
Sum	2015 - 2016	531	95.1	179.2	79.8	110.3	38.0	0.0	2118.0	14.0	107.0	6.0	214.0
	2012 - 2016	1072	126.6	242.9	112.1	141.2	58.1	0.0	4111.0	20.0	146.0	8.7	288.0

Table 2. Statistical analysis results for yearly aggregated data within categories and sum for the whole Baltic Sea area.

	Period	Total number of data	Average value of number of items /100 m	Standard deviation	Confidence -95%	Confidence +95%	Median	Minimum	Maximum	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Artificial polymer materials	2012	139	159.3	271.7	113.7	204.9	100.0	0.0	2756.0	39.0	186.0	8.0	343.0
Rubber	2012	139	3.6	6.0	2.6	4.6	1.0	0.0	45.0	0.0	5.0	0.0	9.0
Cloth/textile	2012	139	4.8	8.0	3.5	6.2	2.0	0.0	59.0	0.0	6.0	0.0	13.0
Paper/cardboard	2012	139	12.1	18.3	9.0	15.1	4.0	0.0	96.0	0.0	18.0	0.0	27.3
Processed/worked wood	2012	139	3.8	6.6	2.7	4.9	1.0	0.0	35.0	0.0	4.0	0.0	10.0
Metal	2012	139	10.5	17.5	7.6	13.4	6.0	0.0	157.0	2.0	13.0	0.0	23.0
Glass/ceramics	2012	139	8.9	18.4	5.8	12.0	3.0	0.0	127.0	0.9	9.0	0.0	23.0
Unclassified	2012	139	2.7	13.4	0.5	4.9	0.0	0.0	153.0	0.0	2.0	0.0	5.0
Sum	2012	139	205.7	305.9	154.4	257.0	145.0	0.0	3019.0	53.0	241.8	16.0	422.0
Artificial polymer materials	2013	191	126.6	318.2	81.2	172.0	67.0	0.0	3815.0	17.0	123.0	9.0	239.0
Rubber	2013	191	2.0	3.0	1.6	2.4	1.0	0.0	21.0	0.0	3.0	0.0	5.0
Cloth/textile	2013	191	2.9	7.1	1.9	3.9	1.0	0.0	86.0	0.0	4.0	0.0	7.0
Paper/cardboard	2013	191	7.2	10.9	5.6	8.7	3.0	0.0	66.0	0.0	9.0	0.0	19.0
Processed/worked wood	2013	191	3.9	8.8	2.6	5.1	1.0	0.0	75.0	0.0	3.0	0.0	10.0
Metal	2013	191	7.4	16.5	5.1	9.8	3.0	0.0	169.0	1.0	9.9	0.0	15.0
Glass/ceramics	2013	191	7.5	16.4	5.1	9.8	2.0	0.0	149.0	1.0	7.0	0.0	17.0
Unclassified	2013	191	1.8	7.1	0.8	2.8	0.0	0.0	68.0	0.0	1.0	0.0	3.0
Sum	2013	191	159.3	345.4	110.0	208.6	89.0	0.0	4111.0	27.0	178.0	12.0	295.0
Artificial polymer materials	2014	211	88.5	161.7	66.5	110.4	42.0	0.0	1600.0	14.1	95.0	6.3	194.2
Rubber	2014	211	2.4	5.6	1.6	3.1	1.0	0.0	60.9	0.0	3.0	0.0	5.0
Cloth/textile	2014	211	2.4	4.5	1.8	3.1	1.0	0.0	39.0	0.0	3.0	0.0	6.0
Paper/cardboard	2014	211	7.6	17.2	5.3	9.9	1.0	0.0	123.0	0.0	6.0	0.0	17.0
Processed/worked wood	2014	211	2.5	6.3	1.6	3.3	1.0	0.0	55.0	0.0	2.0	0.0	5.3
Metal	2014	211	10.8	78.8	0.1	21.5	2.0	0.0	1141.0	0.1	7.0	0.0	13.0

	Period	Total number of data	Average value of number of items /100 m	Standard deviation	Confidence -95%	Confidence +95%	Median	Minimum	Maximum	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Glass/ceramics	2014	211	7.9	25.5	4.5	11.4	2.0	0.0	293.0	0.0	5.0	0.0	15.0
Unclassified	2014	211	2.3	9.8	1.0	3.7	0.0	0.0	111.0	0.0	1.0	0.0	4.0
Sum	2014	211	124.4	206.6	96.4	152.5	61.0	1.0	1735.0	21.4	126.3	10.0	307.0
Artificial polymer materials	2015	278	67.0	128.4	51.8	82.2	23.0	0.0	1265.0	9.0	67.0	3.8	151.0
Rubber	2015	278	1.8	5.9	1.1	2.5	0.8	0.0	89.0	0.0	2.0	0.0	4.0
Cloth/textile	2015	278	1.7	3.0	1.3	2.0	0.9	0.0	24.0	0.0	2.0	0.0	4.6
Paper/cardboard	2015	278	3.9	7.3	3.0	4.7	1.0	0.0	55.0	0.0	4.0	0.0	11.0
Processed/worked wood	2015	277	3.1	10.3	1.9	4.3	0.7	0.0	150.0	0.0	3.0	0.0	7.0
Metal	2015	278	5.0	22.8	2.3	7.7	2.0	0.0	373.0	0.4	4.0	0.0	11.0
Glass/ceramics	2015	278	5.0	13.7	3.4	6.7	1.0	0.0	136.0	0.0	3.1	0.0	11.0
Unclassified	2015	278	1.8	7.8	0.8	2.7	0.0	0.0	89.0	0.0	0.9	0.0	3.0
Sum	2015	278	89.2	146.2	71.9	106.5	41.6	0.0	1390.0	15.0	102.0	6.0	206.0
Artificial polymer materials	2016	253	74.0	183.3	51.2	96.7	24.8	0.0	1964.0	8.4	79.0	3.0	160.0
Rubber	2016	253	2.5	13.4	0.8	4.1	0.3	0.0	211.0	0.0	2.0	0.0	5.0
Cloth/textile	2016	253	1.7	4.0	1.2	2.1	0.2	0.0	47.0	0.0	2.0	0.0	4.0
Paper/cardboard	2016	253	6.8	17.5	4.6	9.0	1.0	0.0	146.0	0.0	5.0	0.0	18.0
Processed/worked wood	2016	253	3.4	12.8	1.8	5.0	0.9	0.0	175.1	0.0	2.0	0.0	6.0
Metal	2016	253	5.0	9.8	3.7	6.2	1.8	0.0	74.0	0.3	5.0	0.0	12.0
Glass/ceramics	2016	253	4.9	20.5	2.3	7.4	1.0	0.0	290.0	0.0	3.0	0.0	9.0
Unclassified	2016	253	3.4	19.4	1.0	5.8	0.0	0.0	211.0	0.0	1.0	0.0	4.0
Sum	2016	253	101.5	209.7	75.5	127.5	34.8	0.0	2118.0	13.0	113.0	5.4	216.7

Table 3. Statistical analysis results for aggregated data according to beach type within categories and sum for the whole Baltic Sea area.

	Beach type	Total number of data	Average value of number of items /100 m	Standard deviation	Median	Minimum	Maximum	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Artificial polymer materials	reference	174	34.6	50.6	16.0	0.0	305.0	6.0	41.8	1.0	92.5
Rubber	reference	174	1.8	2.8	1.0	0.0	18.0	0.0	2.3	0.0	5.0
Cloth/textile	reference	174	1.6	3.3	0.0	0.0	26.0	0.0	2.0	0.0	5.0
Paper/cardboard	reference	174	1.6	5.2	0.0	0.0	45.0	0.0	1.0	0.0	3.5
Processed/worked wood	reference	174	1.8	2.7	1.0	0.0	16.0	0.0	2.3	0.0	5.0
Metal	reference	1774	2.1	3.9	1.0	0.0	26.0	0.0	2.0	0.0	6.0
Glass/ceramics	reference	174	3.6	10.7	1.0	0.0	115.0	0.0	3.0	0.0	8.0
Unclassified	reference	174	0.2	0.5	0.0	0.0	3.0	0.0	0.0	0.0	1.0
Sum	reference	174	47.2	65.4	23.5	0.0	402.0	9.0	57.8	3.0	128.0
Artificial polymer materials	rural	446	50.8	78.5	24.3	0.0	803.0	10.0	61.3	4.0	113.0
Rubber	rural	446	1.5	2.4	1.0	0.0	15.0	0.0	2.0	0.0	4.0
Cloth/textile	rural	446	1.6	3.2	0.2	0.0	39.0	0.0	2.0	0.0	5.0
Paper/cardboard	rural	446	3.4	6.7	1.0	0.0	60.0	0.0	4.0	0.0	9.0
Processed/worked wood	rural	446	2.0	5.0	0.1	0.0	55.0	0.0	2.0	0.0	5.0
Metal	rural	446	2.6	3.3	1.4	0.0	22.0	0.2	4.0	0.0	7.0
Glass/ceramics	rural	446	3.1	6.1	1.1	0.0	63.0	0.0	4.0	0.0	7.3
Unclassified	rural	446	1.6	8.9	0.0	0.0	153.0	0.0	1.0	0.0	3.0
Sum	rural	446	66.7	90.1	34.4	0.0	861.0	16.0	81.0	7.0	152.0
Artificial polymer materials	urban	202	230.4	431.3	96.5	0.0	3815.0	18.8	255.6	6.1	529.8
Rubber	urban	202	4.5	17.0	0.9	0.0	211.0	0.0	4.0	0.0	9.0
Cloth/textile	urban	202	4.2	8.3	1.7	0.0	86.0	0.2	5.0	0.0	11.0
Paper/cardboard	urban	202	13.2	20.3	4.0	0.0	123.0	0.8	17.3	0.0	40.8
Processed/worked wood	urban	202	7.6	19.3	2.0	0.0	175.1	0.3	6.0	0.0	17.6
Metal	urban	202	11.2	19.6	5.5	0.0	169.0	1.3	13.0	0.1	24.7

	Beach type	Total number of data	Average value of number of items /100 m	Standard deviation	Median	Minimum	Maximum	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Glass/ceramics	urban	202	6.1	11.7	1.7	0.0	84.0	0.2	5.2	0.0	21.7
Unclassified	urban	202	5.5	22.7	0.2	0.0	211.0	0.0	2.0	0.0	7.0
Sum	urban	202	282.8	469.4	147.0	0.0	4111.0	39.5	330.3	11.1	671.6
Artificial polymer materials	peri-urban	234	108.0	113.2	81.0	3.0	781.0	30.8	130.0	12.5	253.2
Rubber	peri-urban	234	2.3	4.4	1.0	0.0	45.0	0.0	3.0	0.0	6.0
Cloth/textile	peri-urban	234	3.1	6.1	1.0	0.0	59.0	0.0	4.0	0.0	8.0
Paper/cardboard	peri-urban	234	11.7	20.2	5.1	0.0	146.0	1.0	13.2	0.0	25.5
Processed/worked wood	peri-urban	234	3.2	5.6	1.1	0.0	45.0	0.0	4.0	0.0	9.0
Metal	peri-urban	234	16.5	78.7	6.6	0.0	1141.0	2.5	13.0	1.0	22.0
Glass/ceramics	peri-urban	234	15.5	36.1	3.0	0.0	293.0	0.0	13.3	0.0	39.2
Unclassified	peri-urban	234	3.0	10.1	1.0	0.0	126.0	0.0	2.0	0.0	7.0
Sum	peri-urban	234	163.2	164.1	124.5	3.1	1417.0	59.5	201.5	27.0	340.1
Artificial polymer materials	semi-urban	8	130.1	22.5	129.0	95.0	157.0	113.5	152.0	95.0	157.0
Rubber	semi-urban	8	2.5	2.4	2.0	0.0	7.0	0.5	4.0	0.0	7.0
Cloth/textile	semi-urban	8	5.0	2.7	5.0	2.0	9.0	2.5	7.0	2.0	9.0
Paper/cardboard	semi-urban	8	18.8	3.1	18.5	14.0	23.0	16.5	21.5	14.0	23.0
Processed/worked wood	semi-urban	8	2.5	2.7	2.0	0.0	7.0	0.0	4.5	0.0	7.0
Metal	semi-urban	8	8.1	3.3	8.0	3.0	13.0	6.0	10.5	3.0	13.0
Glass/ceramics	semi-urban	8	6.1	3.6	7.0	1.0	10.0	3.0	9.0	1.0	10.0
Unclassified	semi-urban	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum	semi-urban	8	173.1	31.6	169.0	121.0	211.0	153.5	204.0	121.0	211.0
Artificial polymer materials	turistic	8	100.4	49.6	112.0	26.0	154.0	56.5	143.0	26.0	154.0
Rubber	turistic	8	2.3	1.8	2.0	0.0	6.0	1.5	2.5	0.0	6.0
Cloth/textile	turistic	8	4.0	2.9	4.0	0.0	8.0	1.5	6.5	0.0	8.0
Paper/cardboard	turistic	8	14.8	8.5	14.0	4.0	26.0	7.5	22.5	4.0	26.0
Processed/worked wood	turistic	8	1.4	1.4	1.5	0.0	4.0	0.0	2.0	0.0	4.0

	Beach type	Total number of data	Average value of number of items /100 m	Standard deviation	Median	Minimum	Maximum	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Metal	turistic	8	10.4	8.5	10.5	1.0	23.0	2.0	17.0	1.0	23.0
Glass/ceramics	turistic	8	4.5	3.6	4.0	0.0	10.0	1.5	7.5	0.0	10.0
Unclassified	turistic	8	0.1	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Sum	turistic	8	137.8	69.9	152.0	35.0	211.0	73.0	203.0	35.0	211.0

Table 4. Statistical analysis results for sub-basins aggregated data within categories for different monitoring periods depending on the data availability (see Report Table 2).

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Artificial polymer materials	Arkona Basin Danish Coastal waters	12	75.5	52.4	62.5	15.0	180.0	44.0	96.0	18.0	168.0
Artificial polymer materials	Kattegat Danish Coastal waters	7	62.6	57.7	31.0	19.0	151.0	19.0	140.0	19.0	151.0
Artificial polymer materials	Gulf of Riga Estonian Coastal waters	47	76.5	91.1	49.0	3.0	386.1	18.0	81.0	10.0	207.0
Artificial polymer materials	Gulf of Finland Estonian Coastal waters	59	97.0	89.6	83.1	3.3	462.0	31.1	119.0	11.2	211.0
Artificial polymer materials	Northern Baltic Proper Finnish Coastal waters	76	324.6	617.0	100.6	0.0	3815.0	25.0	354.7	11.6	725.0
Artificial polymer materials	Gulf of Finland Finnish Coastal waters	46	318.3	368.2	175.5	4.0	1600.0	85.0	377.0	51.0	781.0
Artificial polymer materials	Bothnian Bay Finnish Coastal waters	7	184.5	182.7	129.5	7.7	547.6	29.8	248.0	7.7	547.6
Artificial polymer	Arkona Basin German Coastal waters	262	55.5	96.3	20.0	0.0	785.0	7.0	61.0	2.0	141.0

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
materials											
Artificial polymer materials	Mecklenburg Bight German Coastal waters	97	31.6	33.8	18.0	2.0	217.0	11.0	36.0	7.0	73.0
Artificial polymer materials	Bornholm Basin German Coastal waters	19	55.8	35.8	45.0	10.0	120.0	26.0	91.0	19.0	119.0
Artificial polymer materials	Gulf of Riga Latvian Coastal waters	175	95.3	79.1	83.0	6.0	516.0	44.0	112.0	25.0	161.0
Artificial polymer materials	Eastern Gotland Basin Lithuanian Coastal waters	32	162.1	70.8	152.0	26.0	311.0	120.5	207.5	76.0	284.0
Artificial polymer materials	Eastern Gotland Basin Polish Coastal waters	16	10.2	5.5	9.8	4.4	24.5	5.4	12.6	4.7	16.3
Artificial polymer materials	Bornholm Basin Polish Coastal waters	56	35.4	56.6	15.4	0.0	251.4	5.0	39.3	3.1	92.5
Artificial polymer materials	Gdansk Basin Polish Coastal waters	48	10.9	22.6	5.6	0.0	149.8	2.7	10.8	0.6	17.7
Artificial polymer materials	The Sound Swedish Coastal waters	5	137.4	196.1	48.0	14.0	480.7	26.4	118.0	14.0	480.7
Artificial polymer materials	Western Gotland Basin Swedish Coastal waters	21	130.6	143.1	85.0	0.7	492.0	18.6	194.2	4.3	329.2
Artificial polymer materials	Bornholm Basin Swedish Coastal waters	15	24.8	32.6	19.0	3.0	139.0	11.6	26.0	5.0	30.0
Artificial polymer materials	Northern Baltic Proper Swedish Coastal waters	15	33.6	32.6	24.0	0.0	123.0	8.0	54.0	3.0	67.0
Artificial polymer materials	Arkona Basin Swedish Coastal waters	6	35.8	18.0	25.0	25.0	68.0	25.0	47.0	25.0	68.0
Artificial polymer materials	Bothnian Sea Swedish Coastal waters	14	171.8	108.6	140.5	31.0	314.0	87.2	303.0	33.7	310.0
Artificial polymer materials	Eastern Gotland Basin Swedish Coastal waters	15	7.8	5.8	5.0	1.0	19.1	4.0	13.6	1.1	16.0
Artificial polymer materials	Bothnian Bay Swedish Coastal waters	7	26.8	26.1	14.0	6.3	80.0	11.0	40.4	6.3	80.0
Artificial polymer materials	Kattegat Swedish Coastal waters	15	42.1	76.5	20.0	0.0	306.0	4.0	43.0	2.0	75.0
Cloth/textile	Arkona Basin Danish Coastal waters	12	1.1	1.6	0.0	0.0	5.0	0.0	2.0	0.0	3.0

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Cloth/textile	Kattegat Danish Coastal waters	7	1.1	1.7	0.0	0.0	4.0	0.0	3.0	0.0	4.0
Cloth/textile	Gulf of Riga Estonian Coastal waters	47	0.7	0.9	0.0	0.0	4.0	0.0	1.0	0.0	2.0
Cloth/textile	Gulf of Finland Estonian Coastal waters	59	1.4	2.2	1.0	0.0	10.0	0.0	2.0	0.0	4.0
Cloth/textile	Northern Baltic Proper Finnish Coastal waters	76	3.0	4.9	1.0	0.0	28.0	0.0	4.2	0.0	7.0
Cloth/textile	Gulf of Finland Finnish Coastal waters	46	3.0	12.7	0.0	0.0	86.0	0.0	1.0	0.0	4.0
Cloth/textile	Bothnian Bay Finnish Coastal waters	7	1.9	1.2	1.7	0.6	4.2	1.2	2.5	0.6	4.2
Cloth/textile	Arkona Basin German Coastal waters	262	1.8	4.0	0.0	0.0	27.0	0.0	2.0	0.0	4.0
Cloth/textile	Mecklenburg Bight German Coastal waters	97	0.6	1.2	0.0	0.0	9.0	0.0	1.0	0.0	2.0
Cloth/textile	Bornholm Basin German Coastal waters	19	5.6	6.3	3.0	0.0	26.0	1.0	8.0	0.0	14.0
Cloth/textile	Gulf of Riga Latvian Coastal waters	175	5.7	7.7	4.0	0.0	59.0	2.0	7.0	0.0	12.0
Cloth/textile	Eastern Gotland Basin Lithuanian Coastal waters	32	6.8	4.5	6.0	0.0	15.0	3.0	9.5	2.0	15.0
Cloth/textile	Eastern Gotland Basin Polish Coastal waters	16	1.3	1.6	0.9	0.0	6.2	0.2	1.9	0.1	3.0
Cloth/textile	Bornholm Basin Polish Coastal waters	56	0.3	0.6	0.1	0.0	3.5	0.0	0.3	0.0	0.8
Cloth/textile	Gdansk Basin Polish Coastal waters	48	0.4	0.6	0.2	0.0	3.2	0.0	0.4	0.0	1.1
Cloth/textile	The Sound Swedish Coastal waters	5	4.0	4.7	2.2	0.0	12.0	2.0	4.0	0.0	12.0
Cloth/textile	Western Gotland Basin Swedish Coastal waters	21	3.1	4.2	1.1	0.0	14.0	1.0	4.0	0.0	9.0
Cloth/textile	Bornholm Basin Swedish Coastal waters	15	1.4	2.1	1.0	0.0	8.0	0.0	2.0	0.0	3.0
Cloth/textile	Northern Baltic Proper Swedish Coastal waters	15	0.3	0.6	0.0	0.0	2.0	0.0	1.0	0.0	1.0
Cloth/textile	Arkona Basin Swedish Coastal waters	6	1.3	1.2	1.5	0.0	3.0	0.0	2.0	0.0	3.0
Cloth/textile	Bothnian Sea Swedish Coastal waters	14	2.9	2.7	2.0	0.0	8.0	1.0	5.0	0.0	8.0
Cloth/textile	Eastern Gotland Basin Swedish Coastal waters	15	1.1	1.3	0.5	0.0	4.0	0.0	2.1	0.0	3.0
Cloth/textile	Bothnian Bay Swedish Coastal waters	7	0.1	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Cloth/textile	Kattegat Swedish Coastal waters	15	2.0	2.2	1.1	0.0	5.0	0.0	5.0	0.0	5.0
Glass/ceramics	Arkona Basin Danish Coastal waters	12	21.6	33.2	7.5	0.0	115.0	2.0	26.5	1.0	51.0
Glass/ceramics	Kattegat Danish Coastal waters	7	0.9	1.1	1.0	0.0	3.0	0.0	1.0	0.0	3.0
Glass/ceramics	Gulf of Riga Estonian Coastal waters	47	20.7	25.2	13.0	0.0	127.0	2.0	35.0	0.0	43.0

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Glass/ceramics	Gulf of Finland Estonian Coastal waters	59	5.5	9.3	3.0	0.0	63.0	1.0	7.0	0.0	13.0
Glass/ceramics	Northern Baltic Proper Finnish Coastal waters	76	8.5	15.1	1.0	0.0	84.0	0.0	9.6	0.0	28.0
Glass/ceramics	Gulf of Finland Finnish Coastal waters	46	5.2	10.0	1.0	0.0	54.0	0.0	4.0	0.0	20.0
Glass/ceramics	Bothnian Bay Finnish Coastal waters	7	3.7	3.9	2.5	0.3	11.9	0.6	5.1	0.3	11.9
Glass/ceramics	Arkona Basin German Coastal waters	262	1.8	4.0	1.0	0.0	42.0	0.0	2.0	0.0	4.0
Glass/ceramics	Mecklenburg Bight German Coastal waters	97	5.1	6.4	3.0	0.0	36.0	1.0	6.0	0.0	12.0
Glass/ceramics	Bornholm Basin German Coastal waters	19	4.9	5.9	2.0	0.0	19.0	0.0	8.0	0.0	16.0
Glass/ceramics	Gulf of Riga Latvian Coastal waters	175	16.8	39.5	4.0	0.0	293.0	1.0	14.0	0.0	37.0
Glass/ceramics	Eastern Gotland Basin Lithuanian Coastal waters	32	7.2	5.8	6.0	0.0	24.0	2.5	9.0	2.0	11.0
Glass/ceramics	Eastern Gotland Basin Polish Coastal waters	16	0.9	0.6	1.0	0.0	1.8	0.4	1.3	0.0	1.7
Glass/ceramics	Bornholm Basin Polish Coastal waters	56	1.7	3.4	1.0	0.0	24.3	0.4	1.7	0.2	3.2
Glass/ceramics	Gdansk Basin Polish Coastal waters	48	1.3	1.7	0.6	0.0	6.4	0.2	1.8	0.0	3.6
Glass/ceramics	The Sound Swedish Coastal waters	5	4.5	5.5	3.0	0.0	13.0	0.0	6.6	0.0	13.0
Glass/ceramics	Western Gotland Basin Swedish Coastal waters	21	2.2	2.6	1.0	0.0	8.0	0.0	4.0	0.0	6.0
Glass/ceramics	Bornholm Basin Swedish Coastal waters	15	0.9	1.4	0.0	0.0	4.0	0.0	2.0	0.0	3.0
Glass/ceramics	Northern Baltic Proper Swedish Coastal waters	15	0.5	0.8	0.0	0.0	3.0	0.0	1.0	0.0	1.0
Glass/ceramics	Arkona Basin Swedish Coastal waters	6	1.3	1.2	1.5	0.0	3.0	0.0	2.0	0.0	3.0
Glass/ceramics	Bothnian Sea Swedish Coastal waters	14	0.5	1.1	0.0	0.0	4.0	0.0	1.0	0.0	1.1
Glass/ceramics	Eastern Gotland Basin Swedish Coastal waters	15	0.1	0.5	0.0	0.0	2.1	0.0	0.0	0.0	0.0
Glass/ceramics	Bothnian Bay Swedish Coastal waters	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass/ceramics	Kattegat Swedish Coastal waters	15	0.3	0.6	0.0	0.0	2.0	0.0	0.0	0.0	1.0
Metal	Arkona Basin Danish Coastal waters	12	4.2	2.9	4.0	1.0	12.0	2.0	5.0	1.0	6.0
Metal	Kattegat Danish Coastal waters	7	3.0	4.2	1.0	0.0	12.0	1.0	4.0	0.0	12.0
Metal	Gulf of Riga Estonian Coastal waters	47	5.7	4.6	4.0	0.0	17.1	2.0	9.0	1.0	12.0
Metal	Gulf of Finland Estonian Coastal waters	59	5.9	7.8	3.0	0.0	46.0	2.0	7.0	0.0	14.0
Metal	Northern Baltic Proper Finnish Coastal waters	76	11.8	24.4	3.2	0.0	169.0	0.0	11.8	0.0	32.0

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Metal	Gulf of Finland Finnish Coastal waters	46	6.8	7.0	5.0	0.0	30.0	2.0	9.0	0.0	17.0
Metal	Bothnian Bay Finnish Coastal waters	7	4.9	3.4	5.5	0.0	9.3	1.8	8.5	0.0	9.3
Metal	Arkona Basin German Coastal waters	262	2.5	3.9	1.0	0.0	24.0	0.0	3.0	0.0	7.0
Metal	Mecklenburg Bight German Coastal waters	97	2.5	3.4	2.0	0.0	22.0	0.0	3.0	0.0	5.0
Metal	Bornholm Basin German Coastal waters	19	2.2	2.0	1.0	0.0	7.0	1.0	4.0	0.0	6.0
Metal	Gulf of Riga Latvian Coastal waters	175	21.1	91.4	7.0	0.0	1141.0	4.0	14.0	2.0	22.0
Metal	Eastern Gotland Basin Lithuanian Coastal waters	32	11.6	8.0	10.5	1.0	35.0	6.0	13.0	3.0	23.0
Metal	Eastern Gotland Basin Polish Coastal waters	16	1.2	1.1	0.9	0.0	3.5	0.4	1.7	0.1	3.5
Metal	Bornholm Basin Polish Coastal waters	56	4.3	6.2	1.8	0.0	31.6	0.8	4.0	0.5	13.4
Metal	Gdansk Basin Polish Coastal waters	48	1.3	1.8	0.6	0.0	8.4	0.3	1.5	0.0	2.7
Metal	The Sound Swedish Coastal waters	5	2.4	2.6	2.0	0.0	6.0	0.0	4.0	0.0	6.0
Metal	Western Gotland Basin Swedish Coastal waters	21	14.4	16.3	6.0	0.0	50.0	1.1	25.0	0.0	41.0
Metal	Bornholm Basin Swedish Coastal waters	15	0.7	0.9	0.0	0.0	2.0	0.0	2.0	0.0	2.0
Metal	Northern Baltic Proper Swedish Coastal waters	15	1.6	1.6	2.0	0.0	4.0	0.0	3.0	0.0	4.0
Metal	Arkona Basin Swedish Coastal waters	6	3.5	1.6	3.5	1.0	6.0	3.0	4.0	1.0	6.0
Metal	Bothnian Sea Swedish Coastal waters	14	11.0	7.1	10.1	2.0	25.0	6.0	17.2	3.0	21.0
Metal	Eastern Gotland Basin Swedish Coastal waters	15	0.3	0.5	0.0	0.0	1.0	0.0	1.0	0.0	1.0
Metal	Bothnian Bay Swedish Coastal waters	7	0.9	1.2	0.0	0.0	3.0	0.0	2.0	0.0	3.0
Metal	Kattegat Swedish Coastal waters	15	1.2	1.5	1.0	0.0	5.0	0.0	2.0	0.0	3.0
Paper/cardboard	Arkona Basin Danish Coastal waters	12	2.6	2.7	2.0	0.0	8.0	0.0	4.0	0.0	7.0
Paper/cardboard	Kattegat Danish Coastal waters	7	2.6	2.9	1.0	0.0	7.0	0.0	6.0	0.0	7.0
Paper/cardboard	Gulf of Riga Estonian Coastal waters	47	3.7	4.2	2.0	0.0	14.0	0.0	6.0	0.0	11.0
Paper/cardboard	Gulf of Finland Estonian Coastal waters	59	3.9	4.0	3.0	0.0	18.0	1.0	7.0	0.0	10.0
Paper/cardboard	Northern Baltic Proper Finnish Coastal waters	76	9.4	15.7	4.0	0.0	96.0	0.0	11.4	0.0	27.0
Paper/cardboard	Gulf of Finland Finnish Coastal waters	46	4.2	4.7	2.5	0.0	18.0	1.0	7.0	0.0	10.0
Paper/cardboard	Bothnian Bay Finnish Coastal waters	7	18.0	11.9	11.0	7.6	33.1	7.7	29.8	7.6	33.1

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Paper/cardboard	Arkona Basin German Coastal waters	262	1.4	3.1	0.0	0.0	26.0	0.0	2.0	0.0	4.0
Paper/cardboard	Mecklenburg Bight German Coastal waters	97	2.3	3.0	1.0	0.0	16.0	0.0	3.0	0.0	6.0
Paper/cardboard	Bornholm Basin German Coastal waters	19	0.9	1.6	0.0	0.0	6.0	0.0	1.0	0.0	4.0
Paper/cardboard	Gulf of Riga Latvian Coastal waters	175	22.0	24.8	14.0	0.0	146.0	7.0	26.0	3.0	50.0
Paper/cardboard	Eastern Gotland Basin Lithuanian Coastal waters	32	24.8	12.6	22.0	4.0	55.0	17.0	31.0	11.0	47.0
Paper/cardboard	Eastern Gotland Basin Polish Coastal waters	16	1.6	2.0	0.9	0.1	8.2	0.7	2.3	0.2	2.7
Paper/cardboard	Bornholm Basin Polish Coastal waters	56	1.4	1.5	0.9	0.0	6.1	0.3	2.0	0.1	3.6
Paper/cardboard	Gdansk Basin Polish Coastal waters	48	0.7	1.1	0.3	0.0	5.3	0.1	0.7	0.0	2.2
Paper/cardboard	The Sound Swedish Coastal waters	5	6.2	9.7	0.0	0.0	22.0	0.0	9.0	0.0	22.0
Paper/cardboard	Western Gotland Basin Swedish Coastal waters	21	12.7	25.5	5.0	0.0	113.0	0.0	12.0	0.0	24.0
Paper/cardboard	Bornholm Basin Swedish Coastal waters	15	0.7	1.2	0.0	0.0	4.0	0.0	2.0	0.0	2.0
Paper/cardboard	Northern Baltic Proper Swedish Coastal waters	15	1.5	3.2	0.0	0.0	12.0	0.0	1.0	0.0	5.0
Paper/cardboard	Arkona Basin Swedish Coastal waters	6	1.3	1.2	1.5	0.0	3.0	0.0	2.0	0.0	3.0
Paper/cardboard	Bothnian Sea Swedish Coastal waters	14	12.7	22.0	3.0	0.0	83.0	1.0	17.0	0.1	26.0
Paper/cardboard	Eastern Gotland Basin Swedish Coastal waters	15	0.1	0.5	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Paper/cardboard	Bothnian Bay Swedish Coastal waters	7	3.3	4.3	2.0	0.0	13.0	2.0	2.0	0.0	13.0
Paper/cardboard	Kattegat Swedish Coastal waters	15	1.2	2.0	0.0	0.0	6.0	0.0	3.0	0.0	4.0
Processed/worked wood	Arkona Basin Danish Coastal waters	12	4.7	3.9	3.5	0.0	14.0	2.0	7.0	1.0	8.0
Processed/worked wood	Kattegat Danish Coastal waters	7	6.3	5.9	5.0	0.0	16.0	1.0	11.0	0.0	16.0
Processed/worked wood	Gulf of Riga Estonian Coastal waters	47	0.6	1.3	0.0	0.0	5.0	0.0	0.3	0.0	3.0
Processed/worked wood	Gulf of Finland Estonian Coastal waters	59	1.2	3.8	0.1	0.0	28.0	0.0	1.0	0.0	3.0
Processed/worked wood	Northern Baltic Proper Finnish Coastal waters	76	7.9	13.6	2.0	0.0	75.0	0.2	8.2	0.0	27.0
Processed/worked wood	Gulf of Finland Finnish Coastal waters	46	9.2	15.2	2.5	0.0	59.0	0.0	9.0	0.0	28.0
Processed/worked wood	Bothnian Bay Finnish Coastal waters	7	3.1	2.5	2.5	0.6	7.6	1.2	5.1	0.6	7.6
Processed/worked wood	Arkona Basin German Coastal waters	262	1.5	3.2	0.0	0.0	38.0	0.0	2.0	0.0	4.0
Processed/worked wood	Mecklenburg Bight German Coastal waters	97	0.9	2.1	0.0	0.0	13.0	0.0	1.0	0.0	2.0

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Processed/worked wood	Bornholm Basin German Coastal waters	19	1.9	2.5	1.0	0.0	10.0	0.0	3.0	0.0	6.0
Processed/worked wood	Gulf of Riga Latvian Coastal waters	175	3.0	4.4	2.0	0.0	36.0	1.0	4.0	0.0	6.0
Processed/worked wood	Eastern Gotland Basin Lithuanian Coastal waters	32	5.4	6.8	3.0	0.0	24.0	1.0	6.0	0.0	18.0
Processed/worked wood	Eastern Gotland Basin Polish Coastal waters	16	1.4	1.9	0.5	0.0	6.5	0.2	2.1	0.1	4.0
Processed/worked wood	Bornholm Basin Polish Coastal waters	56	7.3	21.1	1.2	0.0	150.0	0.4	5.0	0.1	17.9
Processed/worked wood	Gdansk Basin Polish Coastal waters	48	4.0	25.2	0.1	0.0	175.1	0.0	0.4	0.0	0.9
Processed/worked wood	The Sound Swedish Coastal waters	5	4.0	5.9	0.0	0.0	13.0	0.0	7.0	0.0	13.0
Processed/worked wood	Western Gotland Basin Swedish Coastal waters	20	7.9	11.7	4.2	0.0	45.0	0.8	8.6	0.0	23.0
Processed/worked wood	Bornholm Basin Swedish Coastal waters	15	1.3	1.6	0.2	0.0	4.0	0.0	3.0	0.0	4.0
Processed/worked wood	Northern Baltic Proper Swedish Coastal waters	15	0.6	0.9	0.0	0.0	2.0	0.0	2.0	0.0	2.0
Processed/worked wood	Arkona Basin Swedish Coastal waters	6	2.6	2.1	2.0	0.2	6.3	2.0	3.3	0.2	6.3
Processed/worked wood	Bothnian Sea Swedish Coastal waters	14	11.0	8.5	9.5	0.1	29.0	7.0	14.1	1.0	27.0
Processed/worked wood	Eastern Gotland Basin Swedish Coastal waters	15	1.1	1.8	0.1	0.0	6.0	0.0	2.1	0.0	4.1
Processed/worked wood	Bothnian Bay Swedish Coastal waters	7	1.6	2.1	0.0	0.0	5.0	0.0	4.0	0.0	5.0
Processed/worked wood	Kattegat Swedish Coastal waters	15	1.5	2.8	1.0	0.0	11.0	0.0	2.0	0.0	3.0
Rubber	Arkona Basin Danish Coastal waters	12	2.3	1.4	2.0	0.0	4.0	1.5	3.5	0.0	4.0
Rubber	Kattegat Danish Coastal waters	7	0.9	0.9	1.0	0.0	2.0	0.0	2.0	0.0	2.0
Rubber	Gulf of Riga Estonian Coastal waters	47	0.9	1.1	0.1	0.0	4.0	0.0	2.0	0.0	3.0
Rubber	Gulf of Finland Estonian Coastal waters	59	1.5	1.9	1.0	0.0	9.0	0.0	2.0	0.0	4.0
Rubber	Northern Baltic Proper Finnish Coastal waters	76	2.7	7.6	0.9	0.0	60.9	0.0	2.0	0.0	5.0
Rubber	Gulf of Finland Finnish Coastal waters	46	1.2	2.8	0.0	0.0	13.0	0.0	1.0	0.0	5.0
Rubber	Bothnian Bay Finnish Coastal waters	7	1.4	2.0	0.6	0.0	5.1	0.0	3.4	0.0	5.1
Rubber	Arkona Basin German Coastal waters	262	1.9	3.4	1.0	0.0	29.0	0.0	2.0	0.0	5.0
Rubber	Mecklenburg Bight German Coastal waters	97	1.3	1.7	1.0	0.0	8.0	0.0	2.0	0.0	3.0
Rubber	Bornholm Basin German Coastal waters	19	4.2	4.4	3.0	0.0	18.0	2.0	5.0	0.0	11.0
Rubber	Gulf of Riga Latvian Coastal waters	175	6.4	17.7	3.0	0.0	211.0	2.0	6.0	0.0	11.0

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Rubber	Eastern Gotland Basin Lithuanian Coastal waters	32	4.4	4.1	3.0	0.0	17.0	2.0	6.5	1.0	9.0
Rubber	Eastern Gotland Basin Polish Coastal waters	16	0.3	0.2	0.3	0.0	0.8	0.1	0.4	0.0	0.6
Rubber	Bornholm Basin Polish Coastal waters	56	0.2	0.3	0.1	0.0	1.8	0.0	0.4	0.0	0.6
Rubber	Gdansk Basin Polish Coastal waters	48	0.2	0.3	0.1	0.0	1.2	0.0	0.3	0.0	0.6
Rubber	The Sound Swedish Coastal waters	5	2.0	2.1	2.2	0.0	5.0	0.0	3.0	0.0	5.0
Rubber	Western Gotland Basin Swedish Coastal waters	21	1.1	1.2	1.0	0.0	4.0	0.0	2.0	0.0	3.0
Rubber	Bornholm Basin Swedish Coastal waters	15	0.2	0.4	0.0	0.0	1.0	0.0	0.1	0.0	1.0
Rubber	Northern Baltic Proper Swedish Coastal waters	15	0.2	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Rubber	Arkona Basin Swedish Coastal waters	6	1.0	1.2	0.6	0.0	3.0	0.0	2.0	0.0	3.0
Rubber	Bothnian Sea Swedish Coastal waters	14	0.9	1.7	0.0	0.0	6.0	0.0	2.0	0.0	2.0
Rubber	Eastern Gotland Basin Swedish Coastal waters	15	0.1	0.3	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Rubber	Bothnian Bay Swedish Coastal waters	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubber	Kattegat Swedish Coastal waters	15	0.6	1.5	0.0	0.0	6.0	0.0	1.0	0.0	1.0
Sum	Arkona Basin Danish Coastal waters	12	112.1	61.5	101.5	34.0	215.0	66.5	158.5	43.0	203.0
Sum	Kattegat Danish Coastal waters	7	77.6	70.8	39.0	23.0	192.0	31.0	167.0	23.0	192.0
Sum	Gulf of Riga Estonian Coastal waters	47	111.2	105.4	68.1	10.2	457.2	42.0	149.3	23.0	252.0
Sum	Gulf of Finland Estonian Coastal waters	59	117.7	94.9	102.2	5.1	497.2	52.1	155.4	20.2	239.0
Sum	Northern Baltic Proper Finnish Coastal waters	76	369.6	669.2	135.2	0.0	4111.0	27.0	397.3	13.1	793.3
Sum	Gulf of Finland Finnish Coastal waters	46	348.3	394.3	194.5	7.0	1735.0	87.0	448.0	60.0	809.0
Sum	Bothnian Bay Finnish Coastal waters	7	230.3	216.2	168.5	19.0	677.3	69.0	261.5	19.0	677.3
Sum	Arkona Basin German Coastal waters	262	66.9	107.5	27.0	0.0	854.0	11.0	79.0	5.0	158.0
Sum	Mecklenburg Bight German Coastal waters	97	44.7	43.1	28.0	5.0	233.0	19.0	53.0	12.0	99.0
Sum	Bornholm Basin German Coastal waters	19	75.7	40.2	63.0	21.0	147.0	42.0	120.0	29.0	136.0
Sum	Gulf of Riga Latvian Coastal waters	175	180.2	169.4	135.0	14.0	1417.0	92.0	206.0	56.0	334.0
Sum	Eastern Gotland Basin Lithuanian Coastal waters	32	222.3	98.5	209.5	35.0	422.0	161.5	292.0	110.0	385.0
Sum	Eastern Gotland Basin Polish Coastal waters	16	17.8	12.2	14.2	5.8	52.5	8.8	21.7	6.3	33.0

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Sum	Bornholm Basin Polish Coastal waters	56	51.1	63.1	32.4	0.9	275.8	11.5	56.7	5.3	130.8
Sum	Gdansk Basin Polish Coastal waters	48	18.7	38.6	9.9	1.0	216.7	4.5	13.8	2.7	27.0
Sum	The Sound Swedish Coastal waters	5	161.6	202.5	86.0	14.0	509.7	37.4	161.0	14.0	509.7
Sum	Western Gotland Basin Swedish Coastal waters	21	174.4	190.2	108.0	1.7	647.6	25.2	265.6	4.4	411.2
Sum	Bornholm Basin Swedish Coastal waters	15	30.7	33.2	29.0	3.1	145.0	12.3	31.1	9.0	34.0
Sum	Northern Baltic Proper Swedish Coastal waters	15	38.9	34.3	27.0	0.0	128.0	15.0	56.4	3.0	77.0
Sum	Arkona Basin Swedish Coastal waters	6	47.5	19.0	40.7	30.2	77.0	32.1	64.3	30.2	77.0
Sum	Bothnian Sea Swedish Coastal waters	14	215.2	128.7	199.5	36.0	417.0	107.3	330.0	46.7	368.0
Sum	Eastern Gotland Basin Swedish Coastal waters	15	11.0	7.0	8.6	3.0	23.3	5.0	18.0	3.0	21.4
Sum	Bothnian Bay Swedish Coastal waters	7	32.7	27.1	18.0	6.3	84.0	15.0	47.4	6.3	84.0
Sum	Kattegat Swedish Coastal waters	15	49.7	80.0	20.0	3.2	320.0	9.0	66.0	4.5	89.0
Unclassified	Arkona Basin Danish Coastal waters	12	0.3	0.6	0.0	0.0	2.0	0.0	0.0	0.0	1.0
Unclassified	Kattegat Danish Coastal waters	7	0.3	0.5	0.0	0.0	1.0	0.0	1.0	0.0	1.0
Unclassified	Gulf of Riga Estonian Coastal waters	47	2.5	5.9	0.0	0.0	31.0	0.0	2.0	0.0	6.0
Unclassified	Gulf of Finland Estonian Coastal waters	59	1.2	1.7	1.0	0.0	7.0	0.0	2.0	0.0	4.0
Unclassified	Northern Baltic Proper Finnish Coastal waters	76	1.6	2.8	0.3	0.0	14.0	0.0	2.3	0.0	5.0
Unclassified	Gulf of Finland Finnish Coastal waters	46	0.4	0.9	0.0	0.0	4.0	0.0	0.0	0.0	2.0
Unclassified	Bothnian Bay Finnish Coastal waters	7	12.7	24.9	3.1	0.3	68.6	0.6	10.2	0.3	68.6
Unclassified	Arkona Basin German Coastal waters	262	0.5	1.8	0.0	0.0	16.0	0.0	0.0	0.0	2.0
Unclassified	Mecklenburg Bight German Coastal waters	97	0.5	1.5	0.0	0.0	12.0	0.0	0.0	0.0	1.0
Unclassified	Bornholm Basin German Coastal waters	19	0.1	0.2	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Unclassified	Gulf of Riga Latvian Coastal waters	175	10.0	28.7	2.0	0.0	211.0	0.0	6.0	0.0	17.0
Unclassified	Eastern Gotland Basin Lithuanian Coastal waters	32	0.1	0.4	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Unclassified	Eastern Gotland Basin Polish Coastal waters	16	0.9	1.6	0.3	0.0	6.0	0.0	0.9	0.0	3.1
Unclassified	Bornholm Basin Polish Coastal waters	56	0.4	1.2	0.0	0.0	6.7	0.0	0.2	0.0	0.8
Unclassified	Gdansk Basin Polish Coastal waters	48	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.1

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	SD	Median	Min	Max	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Unclassified	The Sound Swedish Coastal waters	5	1.0	2.2	0.0	0.0	5.0	0.0	0.0	0.0	5.0
Unclassified	Western Gotland Basin Swedish Coastal waters	21	2.8	6.3	1.0	0.0	29.0	0.0	2.0	0.0	6.0
Unclassified	Bornholm Basin Swedish Coastal waters	15	0.6	1.3	0.0	0.0	5.0	0.0	1.0	0.0	1.0
Unclassified	Northern Baltic Proper Swedish Coastal waters	15	0.7	1.2	0.0	0.0	3.0	0.0	1.0	0.0	3.0
Unclassified	Arkona Basin Swedish Coastal waters	6	0.5	0.5	0.5	0.0	1.0	0.0	1.0	0.0	1.0
Unclassified	Bothnian Sea Swedish Coastal waters	14	4.4	8.3	1.5	0.0	32.0	0.0	5.0	0.0	8.0
Unclassified	Eastern Gotland Basin Swedish Coastal waters	15	0.3	0.5	0.0	0.0	1.0	0.0	1.0	0.0	1.0
Unclassified	Bothnian Bay Swedish Coastal waters	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unclassified	Kattegat Swedish Coastal waters	15	0.7	2.3	0.0	0.0	9.0	0.0	0.2	0.0	1.0

Table 5. Statistical analysis results for sub-basins aggregated data within categories for monitoring period 2015-2016

	Sub-basin at level 3	Total number of data	Average value of number of items /100 m	Standard deviation	Median	Minimum	Maximum	Lower quartile	Upper quartile	Percentile 10	Percentile 90
Artificial polymer materials	Arkona Basin Danish Coastal waters	12	75.5	52.4	62.5	15.0	180.0	44.0	96.0	18.0	168.0
Artificial polymer materials	Kattegat Danish Coastal waters	7	62.6	57.7	31.0	19.0	151.0	19.0	140.0	19.0	151.0
Artificial polymer materials	Gulf of Riga Estonian Coastal waters	20	52.3	65.9	35.6	9.0	272.0	15.6	52.6	12.0	138.0
Artificial polymer materials	Gulf of Finland Estonian Coastal waters	20	68.8	62.4	41.1	8.0	230.0	17.6	116.1	11.2	154.0
Artificial polymer materials	Northern Baltic Proper Finnish Coastal waters	33	275.9	483.7	57.0	0.0	1964.0	20.0	275.0	2.8	570.0
Artificial polymer materials	Gulf of Finland Finnish Coastal waters	17	203.4	232.9	110.0	4.0	803.0	79.0	216.0	7.0	592.0
Artificial polymer materials	Bothnian Bay Finnish Coastal waters	7	184.5	182.7	129.5	7.7	547.6	29.8	248.0	7.7	547.6
Artificial polymer materials	Arkona Basin German Coastal waters	114	45.6	77.1	18.0	0.0	451.0	6.0	54.0	1.0	98.0
Artificial polymer materials	Mecklenburg Bight German Coastal waters	42	22.7	20.6	18.0	3.0	110.0	8.0	28.0	5.0	51.0

Artificial polymer materials	Bornholm Basin German Coastal waters	8	65.3	35.9	56.0	23.0	120.0	36.5	97.0	23.0	120.0
Artificial polymer materials	Gulf of Riga Latvian national waters	12	123.0	150.3	84.5	7.0	516.0	35.0	109.5	25.0	334.0
Artificial polymer materials	Gulf of Riga Latvian Coastal waters	60	91.5	66.5	81.5	6.0	323.0	41.5	111.5	21.0	175.5
Artificial polymer materials	Eastern Gotland Basin Polish Coastal waters	16	10.2	5.5	9.8	4.4	24.5	5.4	12.6	4.7	16.3
Artificial polymer materials	Bornholm Basin Polish Coastal waters	56	35.4	56.6	15.4	0.0	251.4	5.0	39.3	3.1	92.5
Artificial polymer materials	Gdansk Basin Polish Coastal waters	48	10.9	22.6	5.6	0.0	149.8	2.7	10.8	0.6	17.7
Artificial polymer materials	The Sound Swedish Coastal waters	5	137.4	196.1	48.0	14.0	480.7	26.4	118.0	14.0	480.7
Artificial polymer materials	Western Gotland Basin Swedish Coastal waters	12	88.6	120.1	19.9	0.7	329.2	5.7	182.6	2.0	254.1
Artificial polymer materials	Bornholm Basin Swedish Coastal waters	6	18.7	7.0	20.0	6.0	26.1	17.0	23.0	6.0	26.1
Artificial polymer materials	Northern Baltic Proper Swedish Coastal waters	6	35.7	45.1	23.0	0.0	123.0	5.0	40.0	0.0	123.0
Artificial polymer materials	Arkona Basin Swedish Coastal waters	6	35.8	18.0	25.0	25.0	68.0	25.0	47.0	25.0	68.0
Artificial polymer materials	Bothnian Sea Swedish Coastal waters	6	139.8	131.3	80.6	31.0	310.0	33.7	303.0	31.0	310.0
Artificial polymer materials	Eastern Gotland Basin Swedish Coastal waters	6	5.8	4.2	5.0	1.1	13.6	4.0	6.3	1.1	13.6
Artificial polymer materials	Bothnian Bay Swedish Coastal waters	6	30.3	26.9	19.6	11.0	80.0	11.0	40.4	11.0	80.0
Artificial polymer materials	Kattegat Swedish Coastal waters	6	9.3	13.8	4.5	0.0	37.0	2.0	8.0	0.0	37.0
Cloth/textile	Arkona Basin Danish Coastal waters	12	1.1	1.6	0.0	0.0	5.0	0.0	2.0	0.0	3.0
Cloth/textile	Kattegat Danish Coastal waters	7	1.1	1.7	0.0	0.0	4.0	0.0	3.0	0.0	4.0
Cloth/textile	Gulf of Riga Estonian Coastal waters	20	0.5	0.8	0.0	0.0	2.1	0.0	1.0	0.0	2.0
Cloth/textile	Gulf of Finland Estonian Coastal waters	20	0.8	1.1	0.5	0.0	3.0	0.0	1.0	0.0	3.0
Cloth/textile	Northern Baltic Proper Finnish Coastal waters	33	2.2	3.2	1.0	0.0	16.0	0.0	3.0	0.0	5.3
Cloth/textile	Gulf of Finland Finnish Coastal waters	17	1.2	3.2	0.0	0.0	13.0	0.0	1.0	0.0	4.0
Cloth/textile	Bothnian Bay Finnish Coastal waters	7	1.9	1.2	1.7	0.6	4.2	1.2	2.5	0.6	4.2
Cloth/textile	Arkona Basin German Coastal waters	114	1.3	3.0	0.0	0.0	24.0	0.0	1.0	0.0	3.0
Cloth/textile	Mecklenburg Bight German Coastal waters	42	0.5	0.8	0.0	0.0	3.0	0.0	1.0	0.0	2.0
Cloth/textile	Bornholm Basin German Coastal waters	8	4.4	5.5	2.5	0.0	14.0	0.5	7.5	0.0	14.0
Cloth/textile	Gulf of Riga Latvian national waters	12	5.3	5.5	2.0	0.0	19.0	2.0	8.5	1.0	10.0
Cloth/textile	Gulf of Riga Latvian Coastal waters	60	5.3	6.7	3.5	0.0	47.0	2.0	7.5	1.0	11.5
Cloth/textile	Eastern Gotland Basin Polish Coastal waters	16	1.3	1.6	0.9	0.0	6.2	0.2	1.9	0.1	3.0
Cloth/textile	Bornholm Basin Polish Coastal waters	56	0.3	0.6	0.1	0.0	3.5	0.0	0.3	0.0	0.8
Cloth/textile	Gdansk Basin Polish Coastal waters	48	0.4	0.6	0.2	0.0	3.2	0.0	0.4	0.0	1.1

Cloth/textile	The Sound Swedish Coastal waters	5	4.0	4.7	2.2	0.0	12.0	2.0	4.0	0.0	12.0
Cloth/textile	Western Gotland Basin Swedish Coastal waters	12	2.1	2.7	1.0	0.0	9.0	0.0	4.0	0.0	4.0
Cloth/textile	Bornholm Basin Swedish Coastal waters	6	3.0	2.6	2.5	1.0	8.0	1.0	3.0	1.0	8.0
Cloth/textile	Northern Baltic Proper Swedish Coastal waters	6	0.5	0.8	0.0	0.0	2.0	0.0	1.0	0.0	2.0
Cloth/textile	Arkona Basin Swedish Coastal waters	6	1.3	1.2	1.5	0.0	3.0	0.0	2.0	0.0	3.0
Cloth/textile	Bothnian Sea Swedish Coastal waters	6	1.0	0.8	1.0	0.0	2.0	0.0	1.7	0.0	2.0
Cloth/textile	Eastern Gotland Basin Swedish Coastal waters	6	1.2	1.2	0.9	0.0	3.0	0.2	2.0	0.0	3.0
Cloth/textile	Bothnian Bay Swedish Coastal waters	6	0.2	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Cloth/textile	Kattegat Swedish Coastal waters	6	1.4	2.1	0.1	0.0	5.0	0.0	3.0	0.0	5.0
Glass/ceramics	Arkona Basin Danish Coastal waters	12	21.6	33.2	7.5	0.0	115.0	2.0	26.5	1.0	51.0
Glass/ceramics	Kattegat Danish Coastal waters	7	0.9	1.1	1.0	0.0	3.0	0.0	1.0	0.0	3.0
Glass/ceramics	Gulf of Riga Estonian Coastal waters	20	13.2	14.7	5.0	0.0	41.0	1.0	26.0	0.0	37.0
Glass/ceramics	Gulf of Finland Estonian Coastal waters	20	2.5	2.7	1.5	0.0	8.0	0.0	4.5	0.0	7.0
Glass/ceramics	Northern Baltic Proper Finnish Coastal waters	33	6.3	12.3	0.6	0.0	45.0	0.0	5.9	0.0	28.0
Glass/ceramics	Gulf of Finland Finnish Coastal waters	17	4.3	7.8	1.0	0.0	25.0	0.0	4.0	0.0	20.0
Glass/ceramics	Bothnian Bay Finnish Coastal waters	7	3.7	3.9	2.5	0.3	11.9	0.6	5.1	0.3	11.9
Glass/ceramics	Arkona Basin German Coastal waters	114	1.2	1.7	1.0	0.0	11.0	0.0	2.0	0.0	3.0
Glass/ceramics	Mecklenburg Bight German Coastal waters	42	4.8	6.9	3.0	0.0	33.0	1.0	5.0	0.0	10.0
Glass/ceramics	Bornholm Basin German Coastal waters	8	1.6	1.9	1.0	0.0	5.0	0.0	3.0	0.0	5.0
Glass/ceramics	Gulf of Riga Latvian national waters	12	38.7	82.0	12.5	1.0	290.0	2.0	23.0	1.0	78.0
Glass/ceramics	Gulf of Riga Latvian Coastal waters	60	11.6	23.5	3.0	0.0	136.0	1.0	9.0	0.0	33.0
Glass/ceramics	Eastern Gotland Basin Polish Coastal waters	16	0.9	0.6	1.0	0.0	1.8	0.4	1.3	0.0	1.7
Glass/ceramics	Bornholm Basin Polish Coastal waters	56	1.7	3.4	1.0	0.0	24.3	0.4	1.7	0.2	3.2
Glass/ceramics	Gdansk Basin Polish Coastal waters	48	1.3	1.7	0.6	0.0	6.4	0.2	1.8	0.0	3.6
Glass/ceramics	The Sound Swedish Coastal waters	5	4.5	5.5	3.0	0.0	13.0	0.0	6.6	0.0	13.0
Glass/ceramics	Western Gotland Basin Swedish Coastal waters	12	2.1	3.0	0.0	0.0	8.0	0.0	4.0	0.0	7.0
Glass/ceramics	Bornholm Basin Swedish Coastal waters	6	1.7	1.9	1.5	0.0	4.0	0.0	3.0	0.0	4.0
Glass/ceramics	Northern Baltic Proper Swedish Coastal waters	6	0.2	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Glass/ceramics	Arkona Basin Swedish Coastal waters	6	1.3	1.2	1.5	0.0	3.0	0.0	2.0	0.0	3.0
Glass/ceramics	Bothnian Sea Swedish Coastal waters	6	1.0	1.5	0.5	0.0	4.0	0.0	1.1	0.0	4.0

Glass/ceramics	Eastern Gotland Basin Swedish Coastal waters	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass/ceramics	Bothnian Bay Swedish Coastal waters	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glass/ceramics	Kattegat Swedish Coastal waters	6	0.2	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Metal	Arkona Basin Danish Coastal waters	12	4.2	2.9	4.0	1.0	12.0	2.0	5.0	1.0	6.0
Metal	Kattegat Danish Coastal waters	7	3.0	4.2	1.0	0.0	12.0	1.0	4.0	0.0	12.0
Metal	Gulf of Riga Estonian Coastal waters	20	5.0	4.5	4.0	0.0	15.0	1.0	9.0	0.5	11.5
Metal	Gulf of Finland Estonian Coastal waters	20	3.8	4.0	2.0	0.0	14.0	1.0	6.5	0.0	10.5
Metal	Northern Baltic Proper Finnish Coastal waters	33	5.0	8.4	1.8	0.0	37.0	0.0	5.5	0.0	13.6
Metal	Gulf of Finland Finnish Coastal waters	17	5.8	6.1	4.0	0.0	21.0	1.0	6.0	0.0	17.0
Metal	Bothnian Bay Finnish Coastal waters	7	4.9	3.4	5.5	0.0	9.3	1.8	8.5	0.0	9.3
Metal	Arkona Basin German Coastal waters	114	2.3	3.5	1.0	0.0	15.0	0.0	3.0	0.0	8.0
Metal	Mecklenburg Bight German Coastal waters	42	1.5	1.5	1.0	0.0	5.0	0.0	3.0	0.0	4.0
Metal	Bornholm Basin German Coastal waters	8	1.1	1.2	1.0	0.0	4.0	0.5	1.0	0.0	4.0
Metal	Gulf of Riga Latvian national waters	12	22.3	26.0	10.5	0.0	74.0	5.5	33.5	2.0	69.0
Metal	Gulf of Riga Latvian Coastal waters	60	15.4	47.9	5.0	0.0	373.0	3.0	13.0	1.0	28.0
Metal	Eastern Gotland Basin Polish Coastal waters	16	1.2	1.1	0.9	0.0	3.5	0.4	1.7	0.1	3.5
Metal	Bornholm Basin Polish Coastal waters	56	4.3	6.2	1.8	0.0	31.6	0.8	4.0	0.5	13.4
Metal	Gdansk Basin Polish Coastal waters	48	1.3	1.8	0.6	0.0	8.4	0.3	1.5	0.0	2.7
Metal	The Sound Swedish Coastal waters	5	2.4	2.6	2.0	0.0	6.0	0.0	4.0	0.0	6.0
Metal	Western Gotland Basin Swedish Coastal waters	12	11.9	18.6	3.5	0.0	50.0	0.0	16.6	0.0	47.0
Metal	Bornholm Basin Swedish Coastal waters	6	0.8	1.0	0.5	0.0	2.0	0.0	2.0	0.0	2.0
Metal	Northern Baltic Proper Swedish Coastal waters	6	1.3	1.2	1.5	0.0	3.0	0.0	2.0	0.0	3.0
Metal	Arkona Basin Swedish Coastal waters	6	3.5	1.6	3.5	1.0	6.0	3.0	4.0	1.0	6.0
Metal	Bothnian Sea Swedish Coastal waters	6	7.1	5.9	5.7	2.0	18.0	3.0	8.2	2.0	18.0
Metal	Eastern Gotland Basin Swedish Coastal waters	6	0.2	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Metal	Bothnian Bay Swedish Coastal waters	6	1.0	1.3	0.5	0.0	3.0	0.0	2.0	0.0	3.0
Metal	Kattegat Swedish Coastal waters	6	1.0	1.1	1.0	0.0	3.0	0.0	1.0	0.0	3.0
Paper/cardboard	Arkona Basin Danish Coastal waters	12	2.6	2.7	2.0	0.0	8.0	0.0	4.0	0.0	7.0
Paper/cardboard	Kattegat Danish Coastal waters	7	2.6	2.9	1.0	0.0	7.0	0.0	6.0	0.0	7.0
Paper/cardboard	Gulf of Riga Estonian Coastal waters	20	3.1	3.6	2.0	0.0	11.0	0.0	4.5	0.0	9.0

Paper/cardboard	Gulf of Finland Estonian Coastal waters	20	2.6	3.1	1.0	0.0	10.0	0.0	5.5	0.0	7.0
Paper/cardboard	Northern Baltic Proper Finnish Coastal waters	33	6.5	11.0	3.3	0.0	53.6	0.0	6.0	0.0	17.0
Paper/cardboard	Gulf of Finland Finnish Coastal waters	17	2.5	2.2	2.0	0.0	7.0	1.0	4.0	0.0	6.0
Paper/cardboard	Bothnian Bay Finnish Coastal waters	7	18.0	11.9	11.0	7.6	33.1	7.7	29.8	7.6	33.1
Paper/cardboard	Arkona Basin German Coastal waters	114	1.3	2.6	0.0	0.0	17.0	0.0	1.0	0.0	4.0
Paper/cardboard	Mecklenburg Bight German Coastal waters	42	2.2	2.8	1.0	0.0	11.0	0.0	4.0	0.0	6.0
Paper/cardboard	Bornholm Basin German Coastal waters	8	1.0	2.1	0.0	0.0	6.0	0.0	1.0	0.0	6.0
Paper/cardboard	Gulf of Riga Latvian national waters	12	44.9	51.6	18.5	1.0	146.0	11.0	78.0	7.0	131.0
Paper/cardboard	Gulf of Riga Latvian Coastal waters	60	19.5	17.3	13.5	0.0	84.0	6.5	28.5	3.0	43.5
Paper/cardboard	Eastern Gotland Basin Polish Coastal waters	16	1.6	2.0	0.9	0.1	8.2	0.7	2.3	0.2	2.7
Paper/cardboard	Bornholm Basin Polish Coastal waters	56	1.4	1.5	0.9	0.0	6.1	0.3	2.0	0.1	3.6
Paper/cardboard	Gdansk Basin Polish Coastal waters	48	0.7	1.1	0.3	0.0	5.3	0.1	0.7	0.0	2.2
Paper/cardboard	The Sound Swedish Coastal waters	5	6.2	9.7	0.0	0.0	22.0	0.0	9.0	0.0	22.0
Paper/cardboard	Western Gotland Basin Swedish Coastal waters	12	4.8	7.3	1.5	0.0	24.0	0.0	8.0	0.0	12.0
Paper/cardboard	Bornholm Basin Swedish Coastal waters	6	1.2	1.6	0.5	0.0	4.0	0.0	2.0	0.0	4.0
Paper/cardboard	Northern Baltic Proper Swedish Coastal waters	6	0.2	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Paper/cardboard	Arkona Basin Swedish Coastal waters	6	1.3	1.2	1.5	0.0	3.0	0.0	2.0	0.0	3.0
Paper/cardboard	Bothnian Sea Swedish Coastal waters	6	4.9	8.9	2.0	0.0	23.0	0.1	2.0	0.0	23.0
Paper/cardboard	Eastern Gotland Basin Swedish Coastal waters	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Paper/cardboard	Bothnian Bay Swedish Coastal waters	6	3.8	4.5	2.0	2.0	13.0	2.0	2.0	2.0	13.0
Paper/cardboard	Kattegat Swedish Coastal waters	6	0.5	1.2	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Processed/worked wood	Arkona Basin Danish Coastal waters	12	4.7	3.9	3.5	0.0	14.0	2.0	7.0	1.0	8.0
Processed/worked wood	Kattegat Danish Coastal waters	7	6.3	5.9	5.0	0.0	16.0	1.0	11.0	0.0	16.0
Processed/worked wood	Gulf of Riga Estonian Coastal waters	20	0.6	1.2	0.0	0.0	4.1	0.0	0.6	0.0	2.9
Processed/worked wood	Gulf of Finland Estonian Coastal waters	20	0.4	0.8	0.0	0.0	3.0	0.0	0.1	0.0	1.6
Processed/worked wood	Northern Baltic Proper Finnish Coastal waters	33	7.2	12.1	1.3	0.0	50.0	0.0	7.3	0.0	22.0
Processed/worked wood	Gulf of Finland Finnish Coastal waters	17	7.4	14.3	2.0	0.0	59.0	0.0	8.0	0.0	21.0
Processed/worked wood	Bothnian Bay Finnish Coastal waters	7	3.1	2.5	2.5	0.6	7.6	1.2	5.1	0.6	7.6
Processed/worked wood	Arkona Basin German Coastal waters	114	1.2	2.0	0.0	0.0	14.0	0.0	2.0	0.0	3.0
Processed/worked wood	Mecklenburg Bight German Coastal waters	42	0.7	1.2	0.0	0.0	6.0	0.0	1.0	0.0	2.0

Processed/worked wood	Bornholm Basin German Coastal waters	8	0.9	1.4	0.5	0.0	4.0	0.0	1.0	0.0	4.0
Processed/worked wood	Gulf of Riga Latvian national waters	12	4.6	5.5	2.0	0.0	18.0	1.0	7.0	1.0	11.0
Processed/worked wood	Gulf of Riga Latvian Coastal waters	60	3.2	5.4	2.0	0.0	36.0	0.0	4.0	0.0	7.0
Processed/worked wood	Eastern Gotland Basin Polish Coastal waters	16	1.4	1.9	0.5	0.0	6.5	0.2	2.1	0.1	4.0
Processed/worked wood	Bornholm Basin Polish Coastal waters	56	7.3	21.1	1.2	0.0	150.0	0.4	5.0	0.1	17.9
Processed/worked wood	Gdansk Basin Polish Coastal waters	48	4.0	25.2	0.1	0.0	175.1	0.0	0.4	0.0	0.9
Processed/worked wood	The Sound Swedish Coastal waters	5	4.0	5.9	0.0	0.0	13.0	0.0	7.0	0.0	13.0
Processed/worked wood	Western Gotland Basin Swedish Coastal waters	11	6.6	13.1	1.5	0.0	45.0	0.1	7.3	0.0	9.4
Processed/worked wood	Bornholm Basin Swedish Coastal waters	6	0.3	0.8	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Processed/worked wood	Northern Baltic Proper Swedish Coastal waters	6	0.7	1.0	0.0	0.0	2.0	0.0	2.0	0.0	2.0
Processed/worked wood	Arkona Basin Swedish Coastal waters	6	2.6	2.1	2.0	0.2	6.3	2.0	3.3	0.2	6.3
Processed/worked wood	Bothnian Sea Swedish Coastal waters	6	5.9	5.3	5.7	0.1	14.1	1.0	9.0	0.1	14.1
Processed/worked wood	Eastern Gotland Basin Swedish Coastal waters	6	0.8	1.1	0.1	0.0	2.2	0.0	2.1	0.0	2.2
Processed/worked wood	Bothnian Bay Swedish Coastal waters	6	1.8	2.2	1.0	0.0	5.0	0.0	4.0	0.0	5.0
Processed/worked wood	Kattegat Swedish Coastal waters	6	0.5	0.8	0.1	0.0	2.0	0.0	1.0	0.0	2.0
Rubber	Arkona Basin Danish Coastal waters	12	2.3	1.4	2.0	0.0	4.0	1.5	3.5	0.0	4.0
Rubber	Kattegat Danish Coastal waters	7	0.9	0.9	1.0	0.0	2.0	0.0	2.0	0.0	2.0
Rubber	Gulf of Riga Estonian Coastal waters	20	1.1	1.2	1.0	0.0	4.0	0.0	2.0	0.0	3.0
Rubber	Gulf of Finland Estonian Coastal waters	20	1.5	1.8	1.0	0.0	8.0	0.0	2.0	0.0	3.0
Rubber	Northern Baltic Proper Finnish Coastal waters	33	1.2	1.6	0.9	0.0	6.0	0.0	1.3	0.0	4.0
Rubber	Gulf of Finland Finnish Coastal waters	17	1.1	2.5	0.0	0.0	9.0	0.0	0.0	0.0	5.0
Rubber	Bothnian Bay Finnish Coastal waters	7	1.4	2.0	0.6	0.0	5.1	0.0	3.4	0.0	5.1
Rubber	Arkona Basin German Coastal waters	114	1.7	2.4	1.0	0.0	12.0	0.0	2.0	0.0	5.0
Rubber	Mecklenburg Bight German Coastal waters	42	1.0	1.5	1.0	0.0	8.0	0.0	1.0	0.0	3.0
Rubber	Bornholm Basin German Coastal waters	8	3.4	2.8	3.0	0.0	9.0	1.5	4.5	0.0	9.0
Rubber	Gulf of Riga Latvian national waters	12	5.2	4.4	4.0	0.0	14.0	2.0	8.0	1.0	11.0
Rubber	Gulf of Riga Latvian Coastal waters	60	9.5	29.0	4.0	0.0	211.0	1.0	6.5	0.0	12.0
Rubber	Eastern Gotland Basin Polish Coastal waters	16	0.3	0.2	0.3	0.0	0.8	0.1	0.4	0.0	0.6
Rubber	Bornholm Basin Polish Coastal waters	56	0.2	0.3	0.1	0.0	1.8	0.0	0.4	0.0	0.6
Rubber	Gdansk Basin Polish Coastal waters	48	0.2	0.3	0.1	0.0	1.2	0.0	0.3	0.0	0.6

Rubber	The Sound Swedish Coastal waters	5	2.0	2.1	2.2	0.0	5.0	0.0	3.0	0.0	5.0
Rubber	Western Gotland Basin Swedish Coastal waters	12	1.1	1.2	1.1	0.0	4.0	0.0	2.0	0.0	2.0
Rubber	Bornholm Basin Swedish Coastal waters	6	0.2	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Rubber	Northern Baltic Proper Swedish Coastal waters	6	0.3	0.5	0.0	0.0	1.0	0.0	1.0	0.0	1.0
Rubber	Arkona Basin Swedish Coastal waters	6	1.0	1.2	0.6	0.0	3.0	0.0	2.0	0.0	3.0
Rubber	Bothnian Sea Swedish Coastal waters	6	0.3	0.8	0.0	0.0	2.0	0.0	0.0	0.0	2.0
Rubber	Eastern Gotland Basin Swedish Coastal waters	6	0.2	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Rubber	Bothnian Bay Swedish Coastal waters	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubber	Kattegat Swedish Coastal waters	6	0.3	0.5	0.0	0.0	1.0	0.0	1.0	0.0	1.0
Sum	Arkona Basin Danish Coastal waters	12	112.1	61.5	101.5	34.0	215.0	66.5	158.5	43.0	203.0
Sum	Kattegat Danish Coastal waters	7	77.6	70.8	39.0	23.0	192.0	31.0	167.0	23.0	192.0
Sum	Gulf of Riga Estonian Coastal waters	20	78.3	76.0	57.1	20.1	323.0	36.6	76.6	24.5	189.1
Sum	Gulf of Finland Estonian Coastal waters	20	81.8	65.3	61.1	16.0	239.0	24.1	122.6	18.6	175.1
Sum	Northern Baltic Proper Finnish Coastal waters	33	305.9	515.4	71.8	0.0	2118.0	22.0	341.8	3.1	661.0
Sum	Gulf of Finland Finnish Coastal waters	17	225.8	254.9	131.0	7.0	861.0	85.0	239.0	10.0	674.0
Sum	Bothnian Bay Finnish Coastal waters	7	230.3	216.2	168.5	19.0	677.3	69.0	261.5	19.0	677.3
Sum	Arkona Basin German Coastal waters	114	54.8	84.0	26.5	0.0	474.0	10.0	65.0	4.0	120.0
Sum	Mecklenburg Bight German Coastal waters	42	33.7	29.2	27.0	6.0	164.0	17.0	39.0	12.0	62.0
Sum	Bornholm Basin German Coastal waters	8	77.8	42.5	69.5	29.0	147.0	43.0	110.5	29.0	147.0
Sum	Gulf of Riga Latvian national waters	12	247.8	235.9	174.5	14.0	731.0	66.0	375.0	45.0	620.0
Sum	Gulf of Riga Latvian Coastal waters	60	171.2	132.9	137.0	39.0	798.0	92.0	198.0	55.0	321.0
Sum	Eastern Gotland Basin Polish Coastal waters	16	17.8	12.2	14.2	5.8	52.5	8.8	21.7	6.3	33.0
Sum	Bornholm Basin Polish Coastal waters	56	51.1	63.1	32.4	0.9	275.8	11.5	56.7	5.3	130.8
Sum	Gdansk Basin Polish Coastal waters	48	18.7	38.6	9.9	1.0	216.7	4.5	13.8	2.7	27.0
Sum	The Sound Swedish Coastal waters	5	161.6	202.5	86.0	14.0	509.7	37.4	161.0	14.0	509.7
Sum	Western Gotland Basin Swedish Coastal waters	12	120.4	161.6	28.3	1.7	411.2	6.2	237.1	2.0	402.1
Sum	Bornholm Basin Swedish Coastal waters	6	26.9	8.3	30.0	11.0	34.0	25.0	31.1	11.0	34.0
Sum	Northern Baltic Proper Swedish Coastal waters	6	39.5	46.2	26.0	0.0	128.0	10.0	47.0	0.0	128.0
Sum	Arkona Basin Swedish Coastal waters	6	47.5	19.0	40.7	30.2	77.0	32.1	64.3	30.2	77.0
Sum	Bothnian Sea Swedish Coastal waters	6	162.0	143.6	102.5	36.0	368.0	46.7	316.2	36.0	368.0

Sum	Eastern Gotland Basin Swedish Coastal waters	6	8.4	5.1	7.6	3.7	18.1	5.0	8.6	3.7	18.1
Sum	Bothnian Bay Swedish Coastal waters	6	37.1	26.8	29.6	15.0	84.0	17.0	47.4	15.0	84.0
Sum	Kattegat Swedish Coastal waters	6	13.4	14.2	9.0	3.2	42.0	7.1	10.2	3.2	42.0
Unclassified	Arkona Basin Danish Coastal waters	12	0.3	0.6	0.0	0.0	2.0	0.0	0.0	0.0	1.0
Unclassified	Kattegat Danish Coastal waters	7	0.3	0.5	0.0	0.0	1.0	0.0	1.0	0.0	1.0
Unclassified	Gulf of Riga Estonian Coastal waters	20	2.7	5.7	0.0	0.0	23.0	0.0	3.0	0.0	9.0
Unclassified	Gulf of Finland Estonian Coastal waters	20	1.6	1.9	1.0	0.0	7.0	0.0	2.5	0.0	4.0
Unclassified	Northern Baltic Proper Finnish Coastal waters	33	1.6	2.9	0.0	0.0	14.0	0.0	2.0	0.0	4.6
Unclassified	Gulf of Finland Finnish Coastal waters	17	0.1	0.5	0.0	0.0	2.0	0.0	0.0	0.0	0.0
Unclassified	Bothnian Bay Finnish Coastal waters	7	12.7	24.9	3.1	0.3	68.6	0.6	10.2	0.3	68.6
Unclassified	Arkona Basin German Coastal waters	114	0.2	0.7	0.0	0.0	4.0	0.0	0.0	0.0	1.0
Unclassified	Mecklenburg Bight German Coastal waters	42	0.3	0.9	0.0	0.0	5.0	0.0	0.0	0.0	1.0
Unclassified	Bornholm Basin German Coastal waters	8	0.1	0.4	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Unclassified	Gulf of Riga Latvian national waters	12	3.8	5.6	1.5	0.0	17.0	0.0	6.0	0.0	12.0
Unclassified	Gulf of Riga Latvian Coastal waters	60	15.3	39.8	2.5	0.0	211.0	0.5	8.5	0.0	27.0
Unclassified	Eastern Gotland Basin Polish Coastal waters	16	0.9	1.6	0.3	0.0	6.0	0.0	0.9	0.0	3.1
Unclassified	Bornholm Basin Polish Coastal waters	56	0.4	1.2	0.0	0.0	6.7	0.0	0.2	0.0	0.8
Unclassified	Gdansk Basin Polish Coastal waters	48	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.1
Unclassified	The Sound Swedish Coastal waters	5	1.0	2.2	0.0	0.0	5.0	0.0	0.0	0.0	5.0
Unclassified	Western Gotland Basin Swedish Coastal waters	12	3.8	8.3	0.5	0.0	29.0	0.0	4.0	0.0	6.0
Unclassified	Bornholm Basin Swedish Coastal waters	6	1.0	2.0	0.0	0.0	5.0	0.0	1.0	0.0	5.0
Unclassified	Northern Baltic Proper Swedish Coastal waters	6	0.7	1.2	0.0	0.0	3.0	0.0	1.0	0.0	3.0
Unclassified	Arkona Basin Swedish Coastal waters	6	0.5	0.5	0.5	0.0	1.0	0.0	1.0	0.0	1.0
Unclassified	Bothnian Sea Swedish Coastal waters	6	2.0	3.0	1.0	0.0	8.0	0.0	2.0	0.0	8.0
Unclassified	Eastern Gotland Basin Swedish Coastal waters	6	0.3	0.5	0.0	0.0	1.0	0.0	1.0	0.0	1.0
Unclassified	Bothnian Bay Swedish Coastal waters	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unclassified	Kattegat Swedish Coastal waters	6	0.2	0.4	0.0	0.0	1.0	0.0	0.2	0.0	1.0