



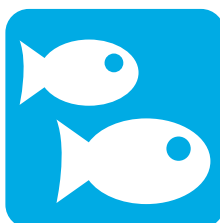
HELCOM Checklist 2.0 of Baltic Sea Macrospecies

Baltic Marine Environment
Protection Commission

Biodiversity



BSEP n°174





The Checklist 2.0 was produced under the HELCOM BaltiCheck project (2018- 2019) with additional support from Finland and Sweden. In BaltiCheck, spatiotemporal data of species in the Baltic Sea were consolidated and updated (Checklist), and made publicly available via the Checklist 2.0 report and the HELCOM Biodiversity Database.

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1. Introduction

1.1. What is a Checklist

Checklists are comprehensive lists covering all species of a certain group known to occur in a specific area. They are of great importance in providing an overall view of an area's diversity, its species composition and its biological history.

In the field of biology, checklists have a long-standing tradition stretching back to the early naturalists. The list generally functions as a living document; species being added or, in some cases, removed as time passes and new species are discovered or established species become extinct or are merged with other species based on changes in our understanding of species phylogeny. A checklist can also account for other information relevant for the species. This includes information on nomenclature, distributional information etc.

Checklists which are maintained over time evolve and can function as tool to show temporal changes. Changes in distribution can represent either genuine establishment of a given species in previously uninhabited areas, or improved information e.g. following intensified monitoring. As science progresses there are also changes in taxonomy, especially following the major advances in genetic research. For some groups this means that over time the same species can have several synonyms in the literature. This information is also added to the checklists and enables researchers to track the occurrence of a species through historic literature. At times scientists and researchers work consecutively on the same checklist ensuring it is up to date both in terms of species composition and nomenclature. In this way they ensure that it is up to date and enables it use in the present although it might have historical roots.



1.2. The first HELCOM Checklist of Baltic Sea Macro Species (2012)

The first HELCOM Checklist of Baltic Sea Macro Species was published in 2012 (BSEP 130). The work to compile the checklist took place as part of the preparation for the Red List report of Baltic Sea species in 2013 (BSEP 140). The first HELCOM Checklist of Baltic Sea Macro species was remarkable in that it did not focus on just one taxonomical group or one specific subregion of the Baltic Sea but aimed to include all macrospecies occurring within the entire Baltic Sea region.

To produce this Baltic Sea wide overview national expert joined forces and established teams to find evidence of the occurrence of species from five different groups: benthic invertebrates, water birds, fish and lamprey, macrophytes, and mammals.

HELCOM's 2012 Checklist compiled information on a minimum of one substantiated reference confirming the occurrence (historic and/or present) of the species in the Baltic Sea as well as information on spatial occurrence (present/absence) within the Baltic sea sub-basins. It included the taxonomy of each species, such as the scientific name and authorship, synonyms, a taxonomic reference id from a reliable taxonomic database or other taxonomic reference. It is worth noting that if a species was included in the 2012 HELCOM Checklist, it did not automatically mean it was present in the Baltic Sea at the time the Checklist was published. Some observations were derived from historical data and the only way to confirm the presence of a species would be to undertake new inventories in the area of previous occurrence.



Download the original Checklist report, published in 2012, and available here: <http://www.helcom.fi/Lists/Publications/BSEP130.pdf>





1.3. HELCOM's Checklist 2.0 – updating the list of Baltic Sea macro species via the BaltiCheck project

The first HELCOM Checklist had proven to be a valuable tool for researchers and a crucial source of information on species and their distribution around the Baltic. Accordingly, the underlying information has been used also in subsequent HELCOM assessments and reports, such as the HELCOM Red List (BSEP 140), the HOLAS II report (BSEP 155).

The 2012 Checklist itself was presented in static form, as separate worksheets for each category of biota, and presents e.g. distributional information as collated information across the full time period covered by the Checklist, and at the sub basin level. At the time of its publication, this represented significant improvements to the knowledge on species at a regional level. Since the publication of the 2012 HELCOM Checklist, large advances have taken place which both expand the potential uses of the list and the underlying data as well as the technological options available to facilitate these uses.

The Checklist was set to be reviewed and updated in regular intervals, an exercise which is of central importance to ensure the usefulness of the Checklist, and added value of the underlying data. This ensures that species information remains valid and reliable and can be useful to the scientific community, for management and be included in future assessments. To instigate the first review of the Checklist, the BaltiCheck project was launched in August 2018. The aim of the project was to review and, where needed, update the 2012 Checklist and, in the process, consolidate and store all species information behind the checklist, as well as data collected under subsequent HELCOM projects and regular data reporting. This included also adding any new available data, identify and fill apparent data gaps via a data call and create a structure to enhance future data collection from Contracting Parties.

The need to update the Checklist was multifaceted, covering both changes in phylogeny, nomenclature, and distribution of individual species, but also the need to update the overall distributional information based on shifts in the delimitation of the HELCOM Baltic sea sub-basins and the cross-checking of the species on the existing list against recent data and updated information from the various countries around the Baltic sea to identify any species not previously included in the list. All of this was included in the work to update the list.

1.3.1 General criteria for inclusion of a species in the Checklist

The four general criteria (see below) agreed on in the process for the 2012 Checklist were also used for the review and update. The following condi-

tions were required to be fulfilled for any species to be included for the Checklist 2.0 update:

1) All species should be listed in at least one of the international databases to verify the taxonomy

Only species that were verified to be listed in one of the valid taxonomic databases were included for the Checklist update. Also, species that used synonyms or had typing errors were updated to their accepted names in accordance to the following taxonomic databases and in the descending order presented here:

the World Register of Marine Species (WoRMS) > the Integrated Taxonomic Information System (ITIS) > BioLib (Biological Library) > others.

Please note that some previously used databases no longer exist or are not providing the formerly stated species information anymore. This applies to e.g. BioSystematic Database of World Diptera and ZipcodeZoo. Additionally, Fauna Europea is temporarily under construction so that not all functionalities are available. However, species IDs are still provided indirectly via the BioLib database and Pan-European Species directories Infrastructure (PESI portal).

2) All species should form stable populations in brackish waters with a minimum salinity of at least 0.5 psu

The term “stable populations” does not mean that species cannot show significant changes in their stock size – increasing and decreasing numbers are part of every population cycles. Instead, the term refers to the regular occurrence of a species with established populations rather than individuals that just occasionally enter the Baltic Sea.

3) Records for all species must be geographically located within the Baltic Sea

Species observations should be located in the Baltic Sea itself and not in nearby ponds or rivers. National experts were instructed accordingly for the data submission process, and new delivered data coordinates checked with appropriate geographic software (GIS).

4) Species identification must be reliable and doubtful identifications will be excluded

In general, data which could not be clearly identified to a certain species or subspecies have been removed. Furthermore, data on a higher taxonomic rank than species were not included. The only exception to this are the five genera that have already been used in the previous Checklist: *Batrachospermum*, *Gymnogongrus*, *Spirogyra*, *Vaucheria*, and *Zygnema*.

More specific information on criteria for the inclusion of a species for each of the five species groups are described in the individual subsection in chapter 2 – chapter 6.





1.3.2 Distribution update

Since the previous version of the Checklist, the number of sub-basins as well as their borders have changed. Thus, for the affected sub-basins, the previously used distribution information has become outdated. Accordingly, the formerly used 19 sub-basins were transformed to be as similar as possible to the current version of the sub-basins, which have been changed most recently in 2018. Figure 1 shows the sub-basins used for the 2012 version of the Checklist report and the 2018 version update in comparison.

As shown in Figure 1, some sub-basins were now merged with each other: the former sub-basins "Great Belt" and "Little Belt" were merged and resulted in the new sub-basin "Great Belt". The sub-basins "Archipelago Sea" and "Åland Sea" were now combined into the new sub-basin "Åland Sea". Other noticeable changes were the adjustments to the "Western Gotland Basin", which now incorporates an area from the "Northern Baltic Proper", as well as the change of borders for "The Quark" and "The Sound". However, the remaining difference, caused by the change of sub-basin borders, turned out to be of minimal impact (< 5%) for most of the sub-basins. Thus, it was agreed that the occurrence data from the previous Checklist (version 2012), should be marked

as occurring in the same area for the Checklist 2.0 update (version 2019). This was considered the most consistent and compatible approach, despite potentially resulting in a tentative lower precision in the occurrence data, caused by changes in the sub-basin borders. The occurrence of water birds is displayed the same way as in the previous report, namely at country-level. Any former or new species data that had exact coordinates available, have been added to their respective sub-basins or lagoons, based on their GPS coordinates. New species entries or observations were generally marked with a different symbol in the updated Checklist 2.0 sheets, to distinguish them from the previous assessment ("P" = Present). More details in the distribution data are described in the individual chapters for each species group.

1.4. HELCOM's Biodiversity Database (BioBase) and web application

The aim of the BaltiCheck project was not only to update the Checklist, but also to develop infrastructure to store data from past, current and future projects and to make them publicly available.

Overall a significant amount of effort has been put into collating biota information in HELCOM,

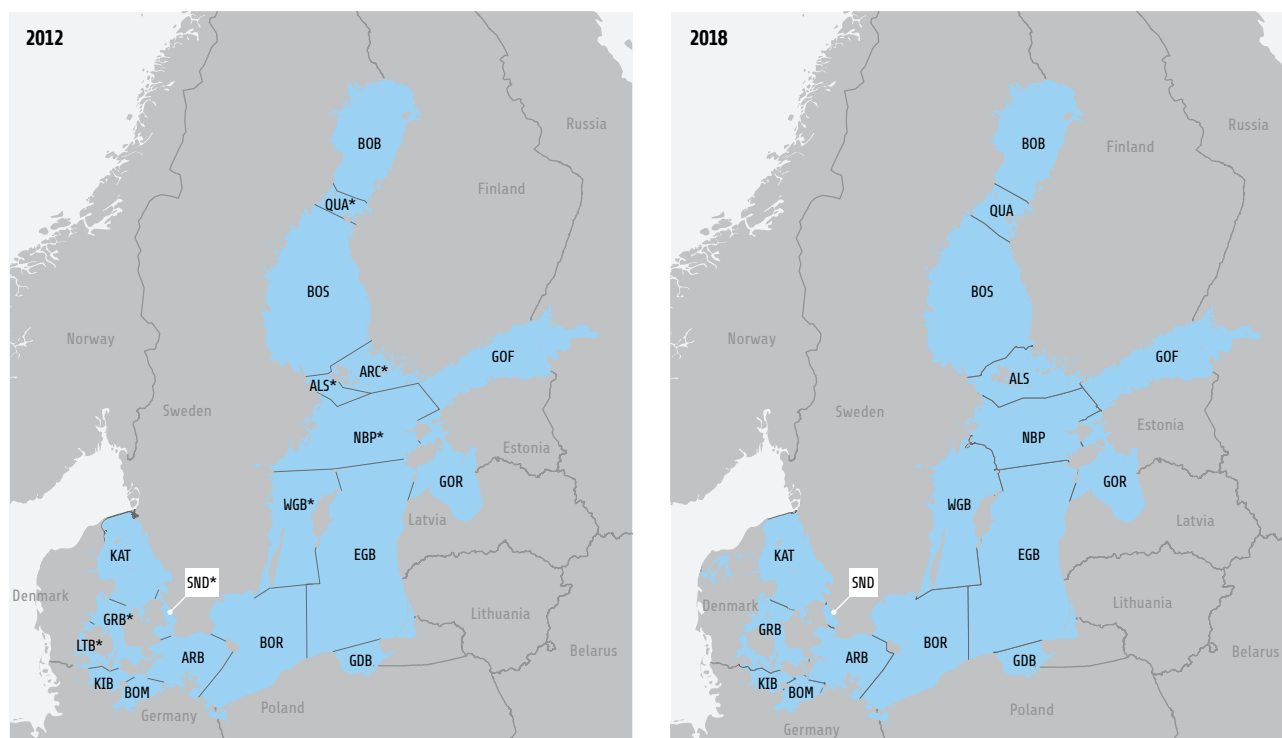


Figure 1: Outdated sub-basins, as used in the Checklist version 2012 (left), and the updated version used since 2018 (right).

*) Basins with major changes in 2018

ALS: Åland Sea. ARB: Arkona Basin. ARC: Archipelago Sea. BOB: Bothnian Bay. BOM: Bay of Mecklenburg. BOR: Bornholm Basin. BOS: Bothnian Sea. EGB: Eastern Gotland Basin. GDB: Gulf of Gdansk. GOF: Gulf of Finland. GOR: Gulf of Riga. GRB: Great Belt. KAT: Kattegatt. KIB: Kiel Bay. LTB: Little Belt. NBP: Northern Baltic Proper. QUA: The Quark. SND: The Sound. WGB: Western Gotland Basin.

ALS: Åland Sea. ARB: Arkona Basin. BOB: Bothnian Bay. BOM: Bay of Mecklenburg. BOR: Bornholm Basin. BOS: Bothnian Sea. EGB: Eastern Gotland Basin. GDB: Gulf of Gdansk. GOF: Gulf of Finland. GOR: Gulf of Riga. GRB: Great Belt. KAT: Kattegatt. KIB: Kiel Bay. NBP: Northern Baltic Proper. QUA: The Quark. SND: The Sound. WGB: Western Gotland Basin.



both in the process of developing the 2012 Checklist and subsequent Red List assessments and in HELCOM processes taking place after 2011, yet there was no established infrastructure available within HELCOM to store this information, which in turn limited the full use of this already collected data. The data collected for the 2012 Checklist was quality checked and stored in a provisional database at the HELCOM secretariat. However, this database was a preliminary solution, had very limited functionality, and was not accessible outside of the HELCOM Secretariat.

When considering how to increase the added value of the already available data and facilitate the review process it was agreed that the aim should be to have a non-static product which allows for more flexibility when using the data, compared to spreadsheets, which would support the future maintenance of, and improve on, the Checklist of Baltic Sea Macro Species. It was identified that the most efficient way forward was to develop and establish simple but fully functional data infrastructure to allow handling and reviewing collated information, in this case a fit-for-purpose Baltic Sea Biodiversity Database, hosted at the HELCOM Secretariat.

The benefit of developing a biodiversity database, in addition to allowing the data to be consolidated and stored in an organized manner, is that such infrastructure, through a user interface, makes the data, accessible for parties outside of the HELCOM Secretariat and open to queries, sorting and downloading.

The aim of an accessible and modernised database format was to ensure that it is:

- **Comprehensive** – Aiming to cover all known Baltic Sea macroscopic species, in the same place.
- **Regional** – providing access to region wide information on Baltic Sea biota, engaging the regions experts and informing its policy makers.
- **Validated** – Responsible, modern and professional, building on experiences gained by other, e.g. national species databases.
- **Accurate** – Automated quality control, and, when needed, reviewed by experts¹. The intention is to ensure that the following information, as agreed for the 2011 Checklist, is maintained in the update of the checklist and database development:
 - A. Correct species nomenclature. All species should be listed in at least one of the international databases to verify the taxonomic reference. For each species a link to a relevant

database will be added, meaning that the taxonomy will be automatically updated.

- B. All species listed should form stable populations in brackish waters with a minimum salinity of at least 0.5 (identification of 'borderline' cases with freshwater and/or land environments), delineated by salinity model.
- C. Records for all species must be geographically located within the Baltic Sea itself and not just in nearby ponds, rocky pools or rivers, delineated by GIS.
- D. Coordinates provided fulfil the requirements and are in the correct format
- **Accessible** – Clearly presented, with the possibility to query and download the needed information, with a timestamp.
- **Available** – Following the HELCOM data policy access to the database would be open to all users, with the exception of some needed restrictions on viewing specific sensitive species data (this could e.g. be shown at different spatial resolution and specific data would be locked for access).
- **Dynamic** – Reflecting change in our regional understanding of biodiversity both spatially and temporally.

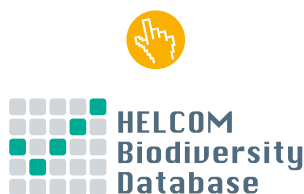
1.4.1 Process of developing the HELCOM biodiversity database

The first step in the development process was to develop a data model. As part of this process several existing national and international biodiversity databases were contacted, and a workshop arranged to share experiences and collate guidance and best practices to consider when embarking on developing a large scale biodiversity database. Using this guidance a data model was developed. The model centres around the species, and focuses on observations including both the spatial and temporal information. additional information, such as e.g. red list status, can be linked to the species.

It was agreed to use Darwin Core as a standard for the database, a standard that is also widely used by other databases handling species related data, including global databases such as OBIS. It is meant to provide a stable standard reference for sharing information on biological diversity and includes a glossary of terms (in other contexts these might be called properties, elements, fields, columns, attributes, or concepts) which are intended to facilitate the sharing of information about biological diversity by providing identifiers.

Since keeping the taxonomy up-to-date is challenging when dealing with biodiversity data, a taxonomy-script was developed to automate this process. Here, taxonomic information can be retrieved from the WoRMS website (World Register of Marine Species) and updates automatically taxonomic entries, such as valid scientific name of a species, its synonyms, authorship, and

¹ Species identification must be reliable. Therefore species with a very low numbers of records will be checked by experts under the Expert Networks and doubtful identifications will be excluded.



Visit the Baltic Sea Biodiversity Database, hosted by HELCOM



many more. The taxonomy script provides the advantage of less manual work and better quality control, which has been useful for handling the Checklist 2.0 update and the biodiversity database development. Furthermore, it will be a valuable tool also during future data calls, projects and regular reporting.

To ensure a consistent high quality for the database, a few preconditions applied to the data. The following information is required in order for the data to be included:

1. Data should be spatiotemporal occurrence data. If either location or time of occurrence were missing in the observation, the data were not included.
2. The same applied to the data source, most often an institution, to be able to retrace the data origin and be able to in case of further enquiries.
3. The data should be available on species or subspecies level- with the only exception of 5 genera of macrophytes that have been already used in the original Checklist version in 2012.
4. Furthermore, the data should be recorded within the Baltic Sea and not in nearby ponds or rivers.

However, this last condition does not apply to data from two different projects. Data from the HELCOM/ASCOBANS Harbour porpoise database, contain some historical data and are thus sometimes located on land. Also, data from the HELCOM/OSPAR Joint Ballast Water Decision support tool contain species data from harbours outside the Baltic Sea.

Generally, the aim of the project was to make all species data publicly available with their respective GPS coordinates. Only in the cases of protected data – due to national legislations in the case of protected species – was the data transformed as grid-ded information (currently 5x5 km and 10x10 km).

It is important to note that in rare cases some data, which are recorded in the Checklist 2.0 spreadsheets, were not included in the biodiversity database. These are data that did not meet all information in spatiotemporal occurrence of a species. This was usually data provided by national experts that confirmed the occurrence of a certain species in an area (e.g. sub-basin) but did not provide any more details at the time.

Once the model was in place all available macro species biodiversity data within HELCOM that

were collected, were consolidated and used to populate the database. The consolidated data in the database were made available to the public via a web application and thus made publicly available for outside the Secretariat. At the point of publication the biodiversity database – BioBase – contains more than 1.5 million data points across species groups and is able to provide an essential backbone to support the needs of scientific endeavours in the Baltic Sea region, both inside and outside the organisation. The biodiversity database can be found here: <https://maps.helcom.fi/website/biodiversity/>. In accordance with the HELCOM data policy the data in the database can be used freely, given that each dataset is cited appropriately and HELCOM's Biodiversity database is referred to maps.helcom.fi/website/biodiversity.

The web application offers the possibility to limit a search to a specific geographical area or to use filters to limit your search to a specific species (latin name), year, institution, and collection code (i.e. project). The search results are displayed as point observations (i.e. circles) or as grids (i.e. squares). Circles are point observations for which precise coordinates are available. Rectangles are observations for which precise coordinates are not publicly available. The used grids are 1, 2, 5 or 10 km². By choosing a specific circle or rectangle the user can access information on specific observations. The complete dataset is available as a downloadable zip file and data of individual search result are available for download as well, however, with the limit set to 100,000 observations.

The database itself will function as repository of information about species and their spatial as well as temporal occurrence in the Baltic Sea. Collating available data in a shared, regional, database increase the usability of data collected by national institutions. Furthermore, collating data in once repository can help identifying data-gaps and facilitate the aggregation of any missing information.

Overall, in addition to supporting the updated of the Checklist the database provides the necessary information to analyse individual species, entire species groups as well as biodiversity on a regional scale. Consequently, it is foreseen to be a valuable resource for modelling, analyses, assessment and evaluation work, including for biodiversity, biogeography, and future prospects under a changing climate and can be used for current as well as future projects at HELCOM and on a national level.

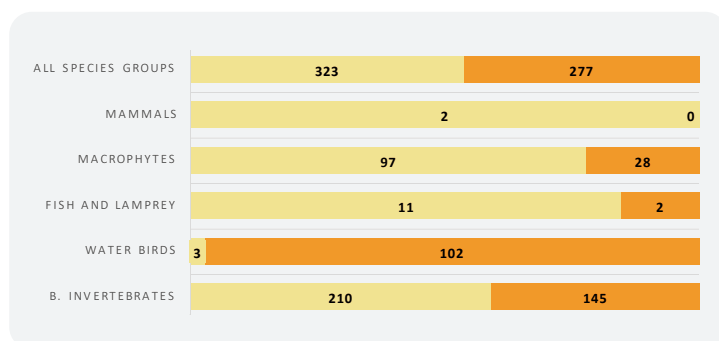


Figure 2: Taxonomic changes for the update from the original Checklist to the Checklist 2.0. On the left side the number of updated species names (lighter colour); on the right side the number of newly added species to the Checklist 2.0 (darker colour).

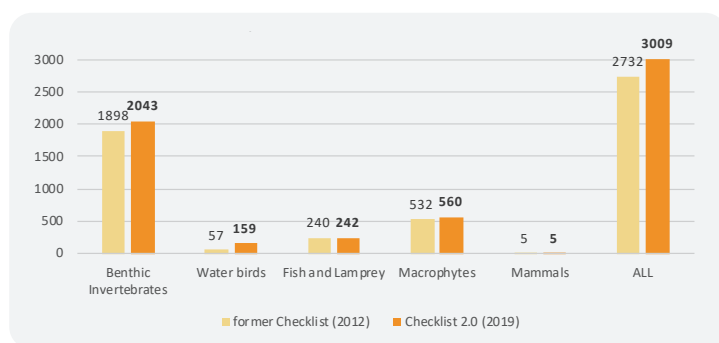


Figure 3: Number of species for each species groups in both Checklist versions (newer version in bars with darker colour; numbers in bold)

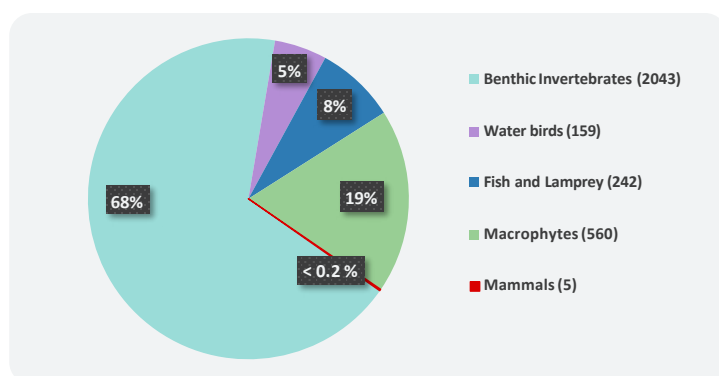


Figure 4: Number of species for each species groups (in parenthesis) and their percentage of all species

1.5. Summary of the Checklist 2.0 (2019 version) and changes in comparison to the version from 2012

Once the database was functional and populated, all the available species information was cross-checked with the 2012 Checklist, and additional species areas of distribution were included, forming the basis for the updated Checklist 2.0. Generally, the previous Checklist (2012) was updated, by adding data from:

- Current and former HELCOM projects (up to the year 2019);
- BaltiCheck data call in December 2018. The focal point for the data had been Macrophytes and Benthic Invertebrates, although other data could be submitted as well;
- New input from national experts (Contracting Parties).

For the update of the Checklist (2012 version) to the Checklist 2.0 (version 2019) it was also important to check all species entries for changes in the scientific species names, add new available species data and remove possible invalid entries. Altogether, only two species, from the group of benthic invertebrates, had to be removed, due to questionable taxonomic validity and missing entries in any taxonomic reference databases (see chapter 2.2). All other updates in the Checklist 2.0 were caused by either replacing outdated taxonomic species names with their accepted version or by adding entirely new species entries. An overview of these changes for each of the five species groups and overall for all Checklist 2.0 species is shown below in the Figure 2. Please note that only the changes to species names are shown in Figure 2. Other taxonomic changes, such as the update of authorship, synonyms, taxonomic IDs etc. have been included in the update, but are not described in detail in this report.

All species groups required some changes for the Checklist update, but the group with the most changes – update of scientific names as well as addition of species – was the group of benthic invertebrates. Since the benthic invertebrates are the biggest of all the Baltic species groups, it is expected that they would need the most updates. Overall, they also have the highest number of species added, but in relation to the amount of species in the previous Checklist assessment, the group of birds has the highest number of new species added (see Figure 3). The group with the least amount of changes are the marine mammals, which only had two species names updated and no new species added. The other two groups (fish and lamprey, as well as macrophytes) both had a few new species added, but most changes were due to updating outdated species names.



The general number of species in the old and new version of the Checklist for each of the five species groups (and overall) can be seen in the Figure 4.

The number of species in the updated Checklist 2.0 version has increased from 2732 to 3009 species, which is a gain of 10%. This displays the effort put in by all contracting parties, national experts and the HELCOM Secretariat to increase monitoring and data exchange efforts, which has improved the value of the Checklist 2.0. Thus, four out of five species groups have increased the number of reported species in the Baltic Sea.

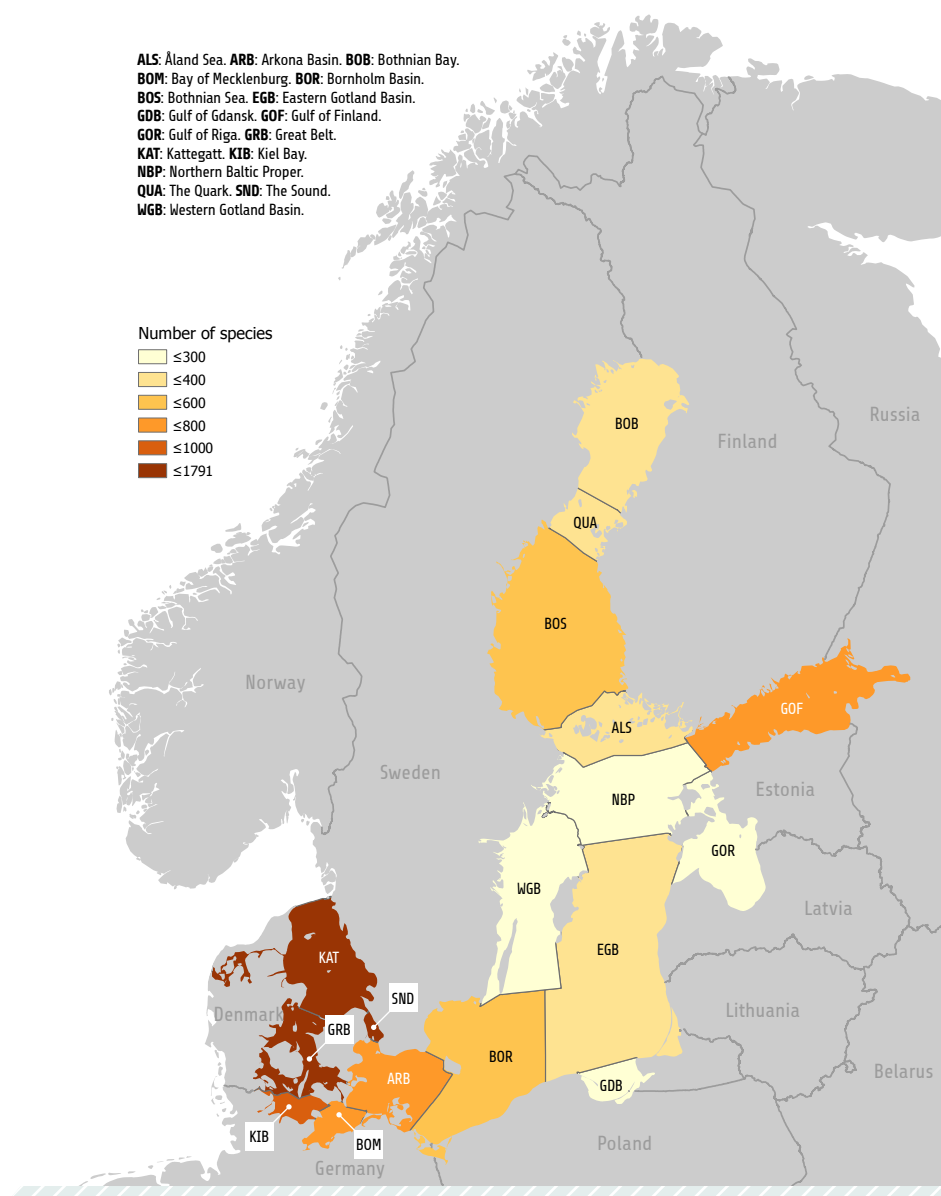
The updated Checklist 2.0 contains 3009 species, with the exact proportion of each taxonomic group shown in Figure 4. The majority of the species (2043) belongs to the benthic invertebrates which comprise 68% of all occurring species within the Baltic Sea. The second biggest group are again the macrophytes with 19% consisting of 560 species. This is followed by the group of fish and lamprey (8%), as well as water birds (5%).

By comparison, the percentage of the species groups in the old vs. new Checklist report has not changed much, despite the altogether 277 new added species. The biggest change is apparent in the group of water birds, which have increased from 57 to 159 species, i.e. from 2% to 5% (Figure 3). This change is caused mostly by the additional inclusion of water birds during the wintering season to the Checklist (more information in the individual species chapter). The group of marine mammals is the only one without any changes in their number.

A clear trend in the number of species per sub-basin is apparent, where the number of species in an area decreasing along a south to north gradient, before it increases again for the Gulf of Finland and more northern sub-basins again (Figure 5a-c). Please note that number of species in the individual lagoons and the entire groups of birds – due to the country level assessment – are not included for the sub-basin data here.

An explanation for the increase of species in the northern area might be due to the powerful salinity gradient and shallow waters, which provide a varied living environment with an influx of fresh-water species, as well as general data availability.

In comparison to the previous Checklist report, all sub-basins had higher number of species occurrence for the 2019 data (Figure 5b). Note that two sub-basins were redefined, the Great Belt (merger of Great Belt and Little Belt) and Åland Sea (merger of Åland Sea and Archipelago Sea).



▲ Figure 5a: Number of species in the Baltic Sea for each sub-basin

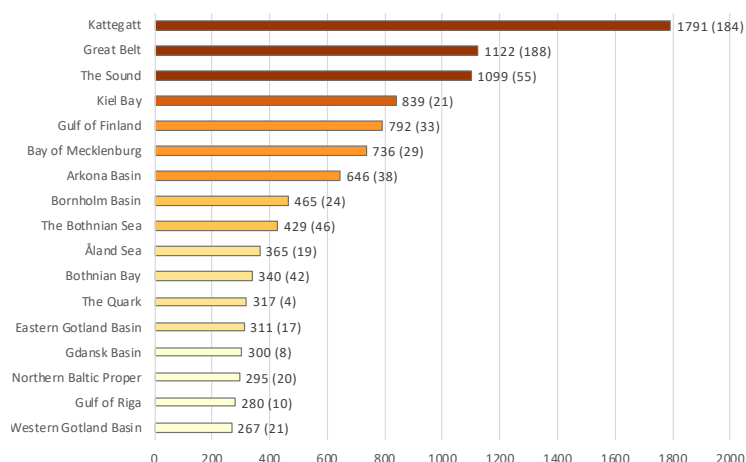


Figure 5b: Number and distribution of all species per sub-basin with the new added number of species in parenthesis

**Table 1:** Species diversity in each sub-basin in descending order

Sub-basin	N° of species	%*	Area in km ²	Species/km ²
The Sound	1099	36.5	921	1.194
Kiel Bay	839	27.9	3485	0.241
Bay of Mecklenburg	736	24.5	4620	0.159
Great Belt	1125	37.3	10662	0.105
Kattegatt	1791	59.6	23973	0.075
Gdansk Basin	300	10.0	5876	0.051
The Quark	317	10.5	8159	0.039
Arkona Basin	646	21.5	17600	0.037
Gulf of Finland	792	26.3	29877	0.027
Åland Sea	365	12.1	16829	0.022
Gulf of Riga	280	9.3	18787	0.015
Bornholm Basin	465	15.5	42014	0.011
Bothnian Bay	340	11.3	32225	0.011
Northern Baltic Proper	295	9.8	32831	0.009
Western Gotland Basin	267	8.9	34528	0.008
The Bothnian Sea	429	14.3	59349	0.007
Eastern Gotland Basin	311	10.3	75133	0.004

*) Percentage of all species per sub-basin as proportion of the total number of species found in the Baltic Sea

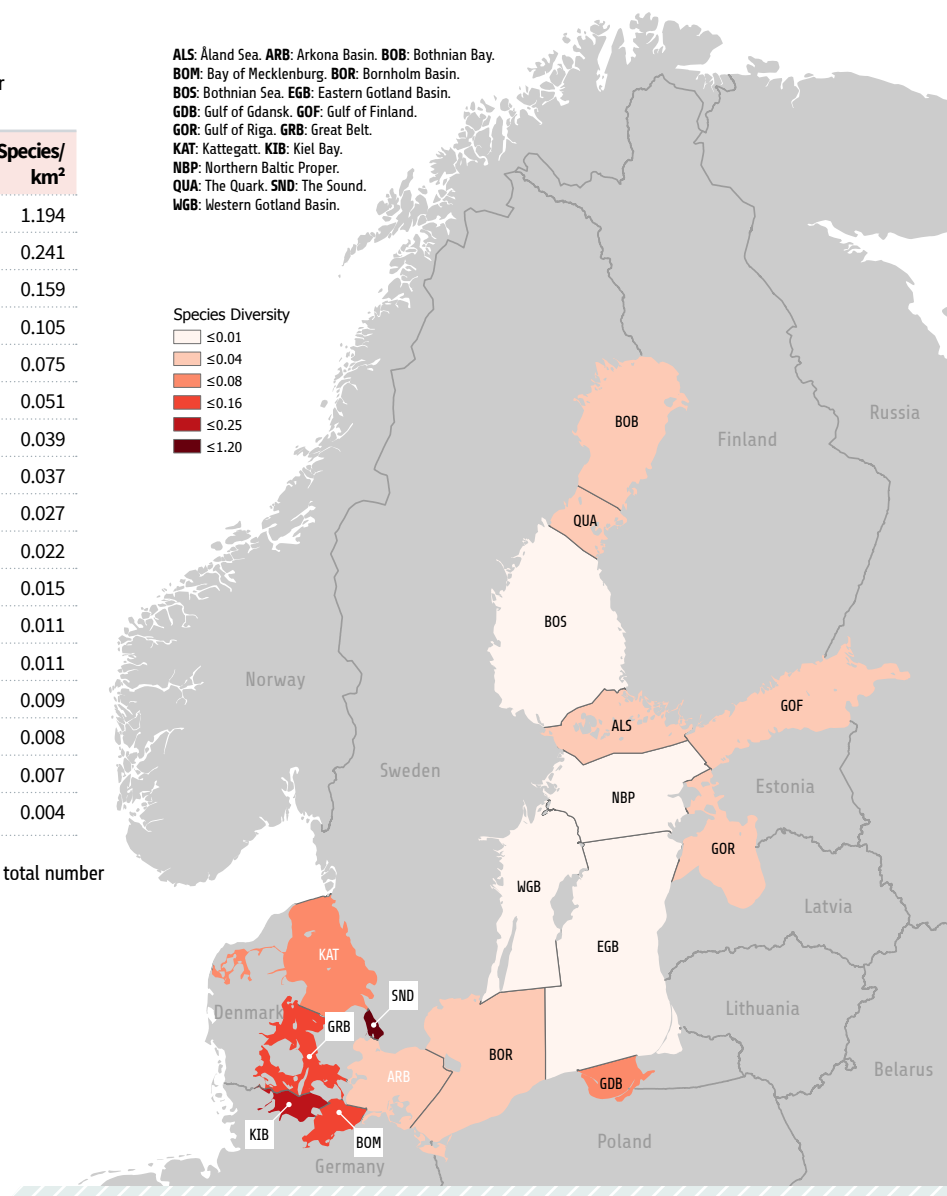
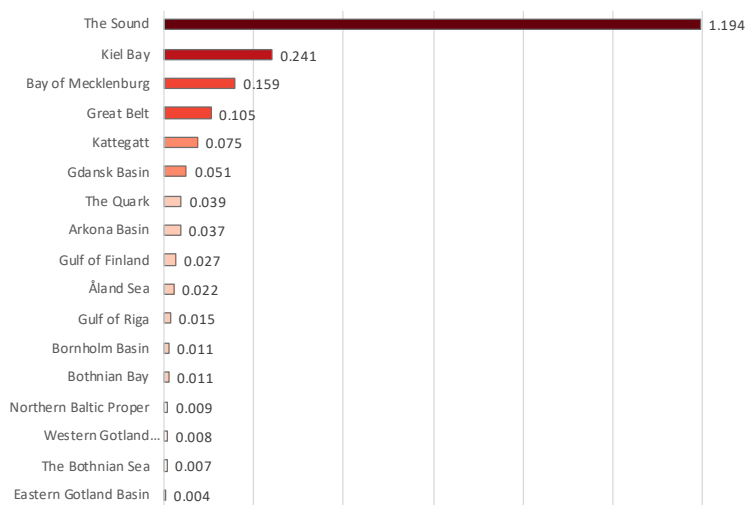
For the sake of comparison, the 2012 data from the former sub-basin division was also merged to be comparable with the 2019 assessment, showing that the unique species numbers were higher in 2019 than in 2012.

In general, the Great Belt is the sub-basin with the highest number of newly added species (Figure 5a and 5b). Nevertheless, the Kattegat remains the sub-basin with the highest total number of species (Figure 5b and 5c). The sub-basin-wide increase in numbers of species most likely results from increased monitoring and data exchange effort across all areas of the Baltic.

To be able to evaluate species diversity in the different areas of the Baltic, the difference in sub-basin sizes have to be taken into account. The sub-basins in the south-west area of the Baltic have the highest amount of species/area, followed by the Quark and other low-salinity areas in the northern areas (Figure 6 and Table 1). When comparing the Quark to the adjacent areas, the Bothnian Bay has a third of the species diversity of the Quark and the Bothnian Sea one-fifth of species diversity.

Other aspects that might cause differences in species diversity per unit area is the amount of sampling effort and data sharing policies. However, the overall trend between the 2012 Checklist report and the Checklist 2.0 report are the same.

ALS: Åland Sea. ARB: Arkona Basin. BOB: Bothnian Bay. BOM: Bay of Mecklenburg. BOR: Bornholm Basin. BOS: Bothnian Sea. EGB: Eastern Gotland Basin. GDB: Gulf of Gdansk. GOF: Gulf of Finland. GOR: Gulf of Riga. GRB: Great Belt. KAT: Kattegatt. KIB: Kiel Bay. NBP: Northern Baltic Proper. QUA: The Quark. SND: The Sound. WGB: Western Gotland Basin.

**▲ Figure 6:** Species diversity in the sub-basins (number of species/area in km²)**Figure 5c:** Number of species per sub-basin (number of species/area in km²).



ALS: Åland Sea. ARB: Arkona Basin. BOB: Bothnian Bay. BOM: Bay of Mecklenburg. BOR: Bornholm Basin. BOS: Bothnian Sea.
EGB: Eastern Gotland Basin. GDB: Gulf of Gdansk. GOF: Gulf of Finland. GOR: Gulf of Riga.
GRB: Great Belt. KAT: Kattegatt. KIB: Kiel Bay. NBP: Northern Baltic Proper.
QUA: The Quark. SND: The Sound. WGB: Western Gotland Basin.

2. Benthic invertebrates

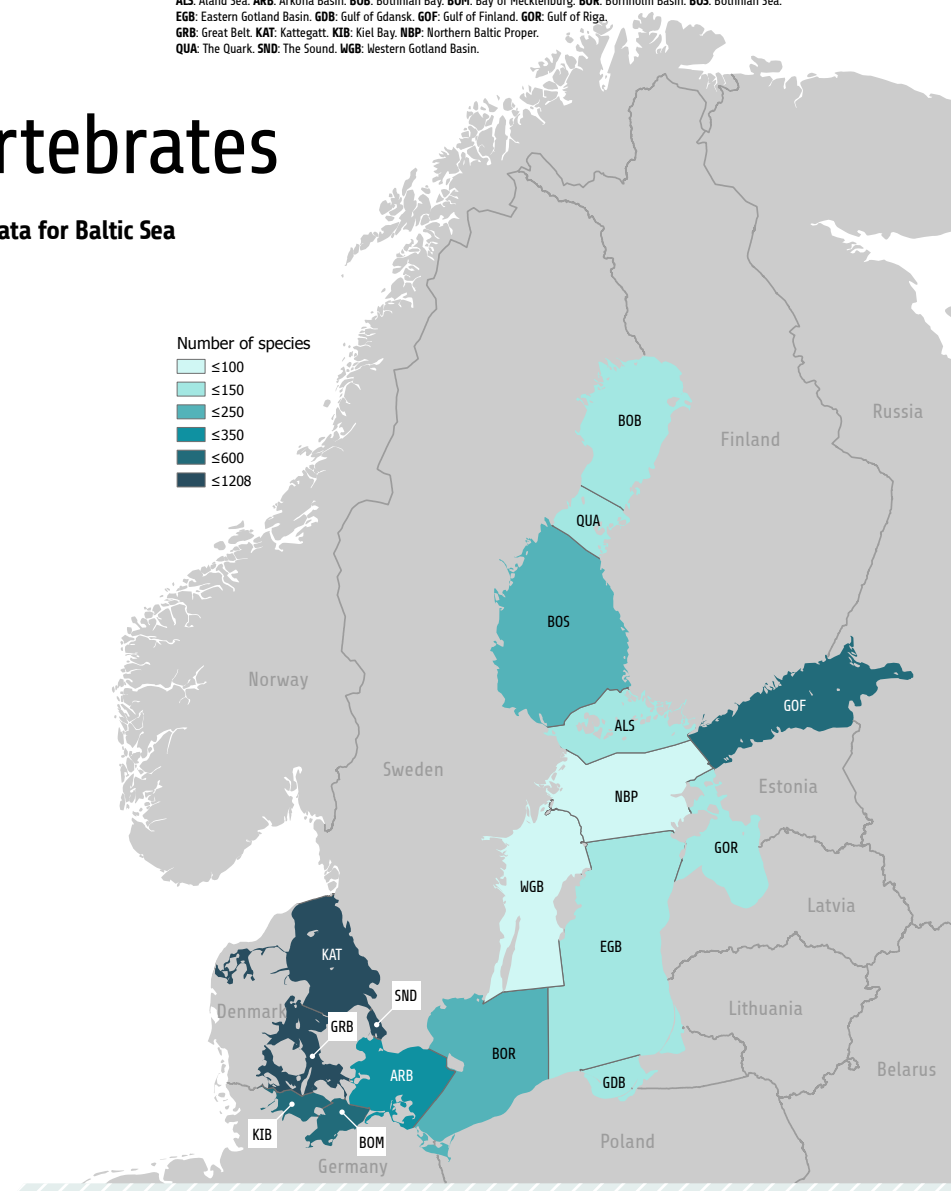
Checklist 2.0 documentation and distribution data for Baltic Sea benthic invertebrate species



The Checklist 2.0 for Baltic Sea benthic invertebrate species, which has been compiled within the HELCOM BaltiCheck project, includes 2043 species and is thus the biggest species group for the Baltic Sea. Altogether 145 species have been added during the update of the previous Checklist and two invalid species removed from the Checklist (see section 2.1). Figure 7a and 7b show the number of species in each of the HELCOM sub-basins. New species observations within a sub-basin in comparison to the previous Checklist are marked in Figure 7b in parenthesis.

A clear trend in the number of species per sub-basin is apparent, where the number of species in an area decreases along a south to north gradient, before it increases again for the Gulf of Finland and more northern sub-basins again (Figure 7a and 7b). The highest number of species occurs in the Kattegatt, while the highest number of new added species has been in the Great Belt. In general, new species have been added to all of the 17 HELCOM sub-basins (Figure 7b). Please note that species from lagoons and estuaries (Figure 7c) are not included in these numbers.

The occurrence of benthic invertebrates is listed separately for lagoons and estuaries (Figure 8a and 8b) with the total number of species and the new added species numbers in parenthesis (Figure 7c). The highest number of newly added species has been in the Eckernförde Bay which also has the highest number of species overall. Some of the lagoons and estuaries have even a higher species-occurrence than some of the sub-basins.



▲ Figure 7a: Number of benthic invertebrate species per Baltic Sea sub-basin

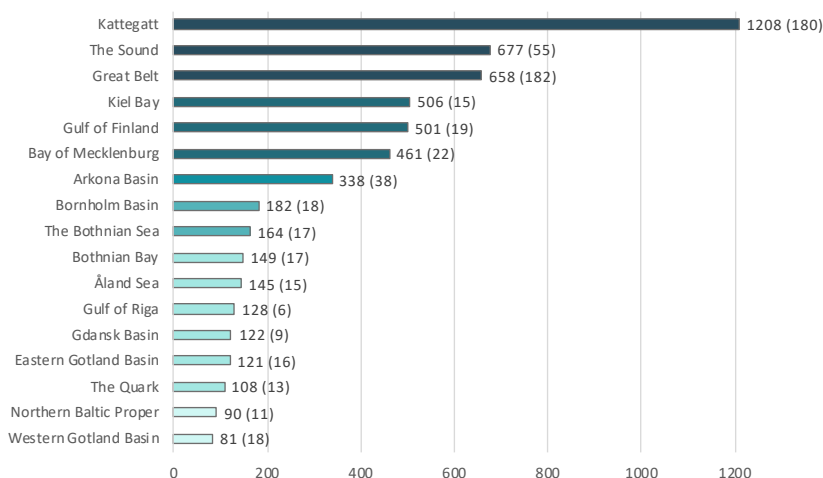


Figure 7b: Number of benthic invertebrate species per Baltic Sea sub-basin with the number of new recorded species in parenthesis



Download the species sheet (.XLSX) for benthic invertebrates at <https://hclcom.fi/checklist2.0-benthic-invertebrates.xlsx>



Visit the HELCOM Baltic Sea Biodiversity Database

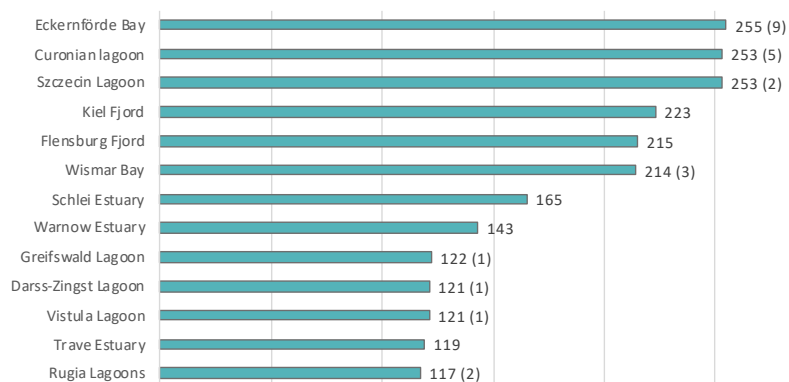


Figure 7c: Number of benthic invertebrate species per Baltic Sea coastal section with the number of new added species in parenthesis



Figure 8a: Coastal sub-sections that are additionally used to the sub-basins; used for the benthic invertebrates only



Figure 8b: Coastal sub-sections that are additionally used to the sub-basins; used for the benthic invertebrate and fish and lamprey species

New occurrences for benthic invertebrates in an area are marked in the new Checklist 2.0 sheets with “P” to note their presence and distinguish them from entries deriving from the previous Checklist version.

The Checklist 2.0 for Baltic Sea benthic invertebrate species includes information on the valid scientific name, the name used in the previous Checklist version, authorship, important synonyms, taxon ID codes (preferably AphiaID=WoRMS Code; alternatively ITIS-ID, or other taxonomic IDs), general taxonomy, and the distributional information for each species. Please note that the excel sheets contain distributional information by sub-basin as well as lagoons and estuaries. If you wish to gain more detailed information on benthic invertebrate species and their spatiotemporal distribution in the Baltic Sea, please consult the new established biodiversity web application and use the species group filter to acquire observations specifically for benthic invertebrates: <https://maps.helcom.fi/website/biodiversity/>

2.1. Taxonomy

Only (sub-)species that were verified to be listed in one of the valid taxonomic databases were included for the Checklist update with their valid scientific name (2019) and taxonomic ID. The taxonomic databases were used, in the order described in chapter 1.3.1 and species with an existing AphiaID (WoRMS) had their taxonomy retrieved via a script (please see chapter 1.3.4 for more information). Overall, almost 150 species were added to this group and more than 200 scientific names updated to their currently valid name. However, two species had to be removed from the list since they could not be verified anymore via any of the taxonomic databases. These two species both belong to the family of non-biting midges, which is a large taxon of insects:

- *Chironomus reductus* (Lenz 1924)
- *Chironomus semireductus* (Lenz 1924)

The genus *Chironomus* contains many cryptic species, which can only be distinguished by experts and often via genetic analyses. Possibly, future analyses in this taxon will bring new information if the two species could be re-added to the Checklist of Baltic Sea species.





2.2. Defining parameters

For the group of benthic invertebrates, no additional parameters were necessary to apply. Thus, the four general criteria applied to this species group are the following:

1. All species should be listed in at least one of the international databases.
2. All species should form stable populations in brackish waters with a minimum salinity of at least 0.5.
3. Records for all species must be geographically located within the Baltic Sea itself and not just in nearby ponds, rocky pools or rivers.
4. Species identification must be reliable. Therefore, data were only included if they were from trustworthy sources and (ideally) verified by national experts.

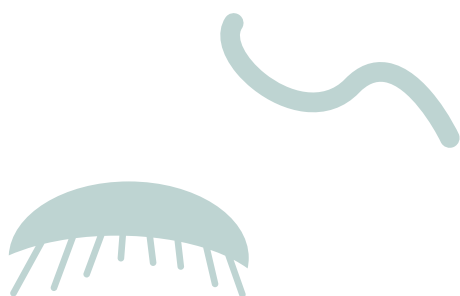
The four criteria are defined in more detail in chapter 1.3.1.

2.3. Distribution update

The distribution information has been updated from the formerly 19 sub-basins to the newest version, which consist of 17 sub-basins. This update entailed that “Great Belt” and “Little Belt” were combined to the sub-basin “Great Belt”. Furthermore, “Åland Sea” and “Archipelago Sea” were merged to represent the sub-basin “Åland Sea”. No other sub-basin modifications than the ones described in chapter 1.3.2 needed to be performed for this species group.

Additionally, to the sub-basins, the benthic invertebrate Checklist includes also 13 smaller areas (lagoons, estuaries, bays). These were added because the number of benthic invertebrate species in shallow coastal waters can be very high compared to open, deeper waters. In order to increase the quality of the information provided in the checklist such areas were identified and made into sub-sections to demonstrate species distribution more accurately. These smaller areas were used with the same borders as in the previous Checklist report (version 2012).

New occurrences for benthic invertebrates, in a sub-basin or lagoon, are marked in the new Checklist 2.0 sheets with “P” to note their presence and distinguish them from entries deriving from the previous Checklist version (marked with X).





3. Water birds

Checklist 2.0 documentation and distribution data for Baltic Sea water bird species

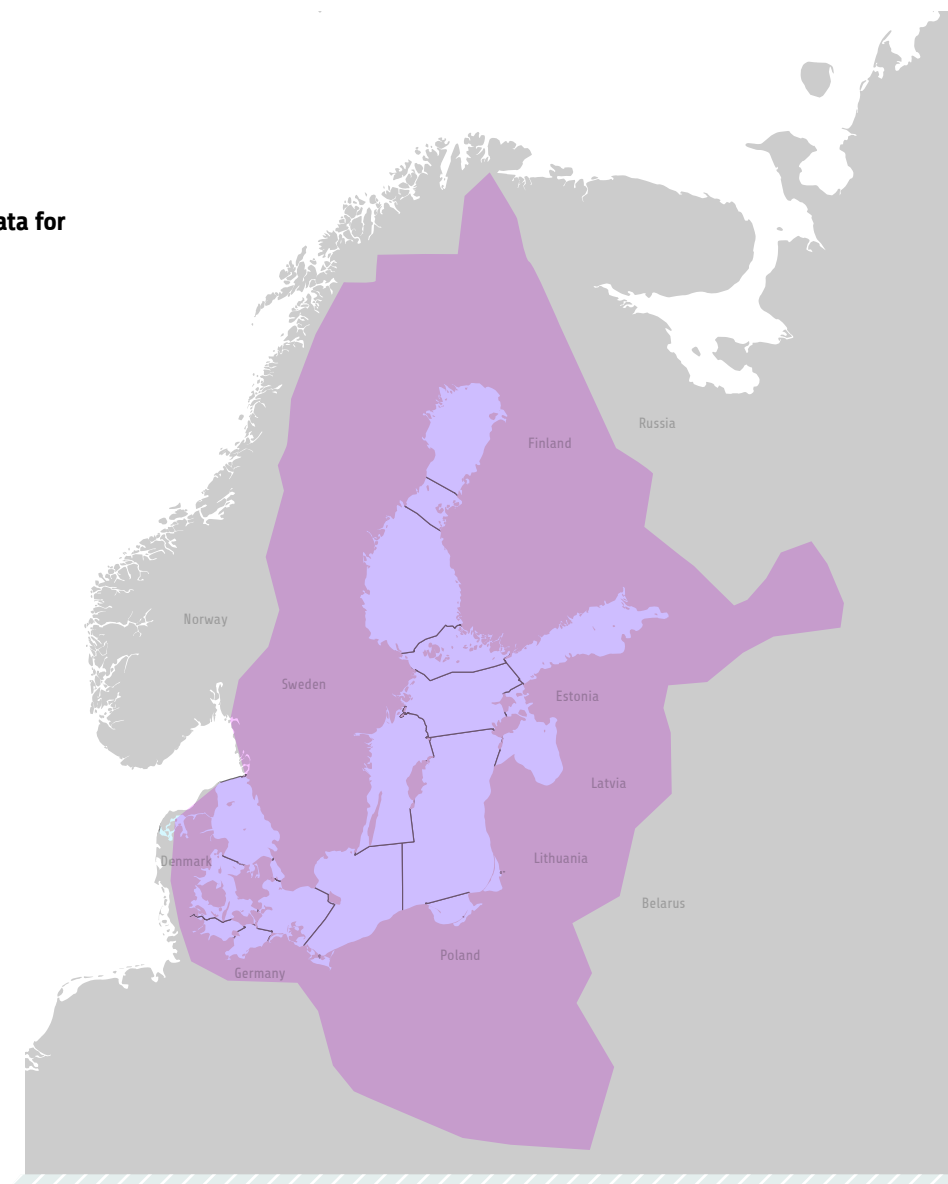


The Checklist 2.0 for Baltic Sea water bird species, which has been compiled within the HELCOM BaltiCheck project, includes breeding as well as the newly added group of wintering birds. Altogether 159 water birds are included in the Checklist 2.0. This species group comprises 90 breeding birds, with 33 new additions to the Checklist 2.0 and three updated scientific names. The wintering birds have been included for the first time into the updated Checklist version, since part of their life-cycle is dependent on the Baltic Sea and they thus fulfil the necessary requirements to be included in the Checklist 2.0. Because of the new addition of wintering birds, consisting of 69 individual species, this species group has the highest number of newly added species in relation to their total amount of species (second smallest species group in the Checklist).

Figure 9 shows the number of species in countries around the Baltic Sea and new added species since the previous Checklist are added in parenthesis (for breeding birds only, since the wintering birds were not included in the previous version). Please note that Figure 10 shows only species which are recorded as “breeding”, although birds with status as “sporadic breeders” or “extinct breeders” etc. are also recorded in the Checklist sheets.

The number of breeding birds is highest in the area of Estonia, which has the second highest number of new added species in the Checklist 2.0. One bird species from Denmark, *Actitis hypoleucos* (Common Sandpiper), has changed its status from “breeding” to only “sporadically occurring” and is thus not recorded as a breeding species anymore (Figure 10). Thus, one breeding species less than before is noted for Denmark. Wintering birds occur in all countries around the Baltic (Figure 9) and the highest numbers are recorded in the two German federal states.

New occurrences for water birds in an area, are marked in the new Checklist 2.0 sheets with “P” and “W” to note their presence and distinguish them from entries deriving from the previous Checklist version.



▲ Figure 9: The reference area for the Baltic Sea water birds

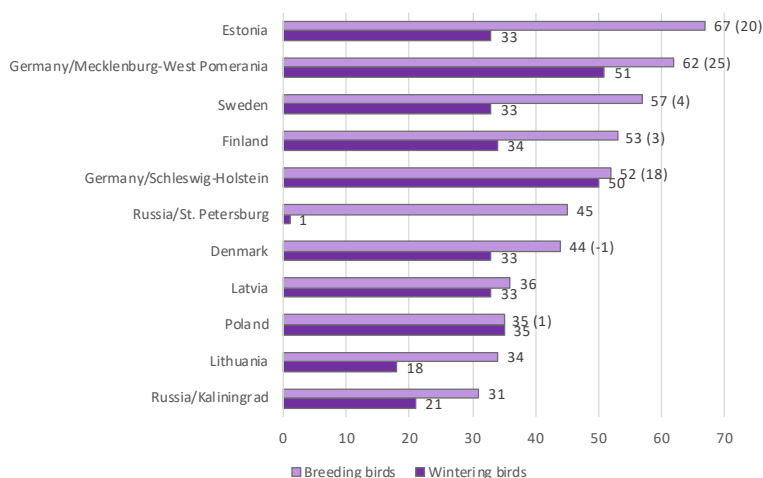


Figure 10: Number of water birds (breeding and wintering) in countries around the Baltic Sea. New added species are given in parenthesis for the group of breeding birds.



Download the species sheet (.XLSX) for water birds at <https://helcom.fi/checklist2.0-water-birds.xlsx>



Visit the HELCOM Baltic Sea Biodiversity Database



The Checklist 2.0 for Baltic Sea water bird species includes information on the valid scientific name, the name used in the previous Checklist version, authorship, important synonyms, taxon ID codes (preferably AphiaID= WoRMS Code; alternatively ITIS-ID, or other taxonomic IDs), general taxonomy, and the distributional information for each species. Please note that the excel sheets contain distributional information by country area, with information about reproductive behaviour. If you wish to gain more detailed information on this species group and their spatiotemporal distribution in the Baltic Sea, please consult the new established biodiversity web application and use the species group filter to acquire observations specifically for birds: <https://maps.helcom.fi/website/biodiversity/>

Furthermore, Species, classified as breeding, were required to fulfil also the following criteria:

- a. 'True' marine or coastal bird species, i.e. species which breed exclusively at the coast or only exceptionally inland.
- b. Species which breed mainly at the coast, or reach higher densities, or form larger colonies at the coast compared to inland
- c. Species which are characteristic inhabitants of typical coastal habitats such as coastal bays, salt meadows, dunes, skerries.

Species for which 'b' or 'c' is true only for some Baltic regions, are included in the Checklist.

3.1. Taxonomy

Only (sub-)species that were verified to be listed in one of the valid taxonomic databases were included for the Checklist update with their valid scientific name (2019) and taxonomic ID. The taxonomic databases were used, in the order described in chapter 1.3.1 and species with an existing AphiaID (WoRMS) had their taxonomy retrieved via a script (please see chapter 1.3.4 for more information).

3.2. Defining parameters

For the group of water birds, the four general criteria mentioned in section 1.3.1 were slightly adjusted to apply to the special conditions of this species group. Thus, only criteria 1 and 4 applied:

1. All species should be listed in at least one of the international databases
2. All species should form stable populations in brackish waters with a minimum salinity of at least 0.5: (not applicable for waterbirds)
3. Records for all species must be geographically located within the Baltic Sea itself and not just in nearby ponds, rocky pools or rivers: (not applicable for waterbirds)
4. Species identification must be reliable. Therefore, data were only included if they were from trustworthy sources and (ideally) verified by national experts.

The four criteria are defined in more detail in chapter 1.3.1. Additionally, to these two general criteria, more rules applied to the water birds to be included in the Checklist:

The list includes (sub-)species (breeding or wintering) occurring in the Baltic Sea area with a distinct relationship to the marine or coastal environment.

3.3. Distribution update

The distribution for water birds is not noted as sub-basins and thus, different specifications apply to them:

The reference area for the Baltic Sea bird checklist is the entire territory of the Baltic Sea riparian states. However, for Denmark and Germany / Schleswig-Holstein the coastal zone of the North Sea has been excluded. In the case of Germany, only the Baltic Federal states Schleswig-Holstein and Mecklenburg-West Pomerania have been considered, and for Russia only the St Petersburg and Kaliningrad regions. The border towards the North Sea is represented by the border of the Helsinki Convention area, that is, between the Kattegat and Skagerrak.

The reasons for not including the entire national (or, in case of Germany and Russia, regional) territories in the checklist are as follows:

- Population monitoring data are usually available on a national or regional level; in most cases it is difficult or even impossible to separate 'coastal' from 'inland' numbers of breeding birds.
- Coastal and inland breeders usually form a single population, that is, there is no (genetic) separation.
- A distinction between 'coastal' and 'inland' breeders for most species would not change the results of the assessment (despite the fact that population trends may differ between coastal and inland areas).

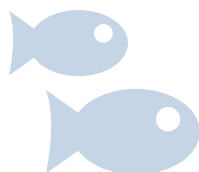
Please note that in some cases the exact distribution for wintering birds could not be verified. Since they were known to occur as wintering birds in the Baltic Sea area from the previous HELCOM Red List assessment (2013), they have still been included, but without exact information on their occurrence. Comments about their occurrence are included in the "Remarks" section.



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4. Fish and lamprey

Checklist 2.0 documentation and distribution data for Baltic Sea fish and lamprey species



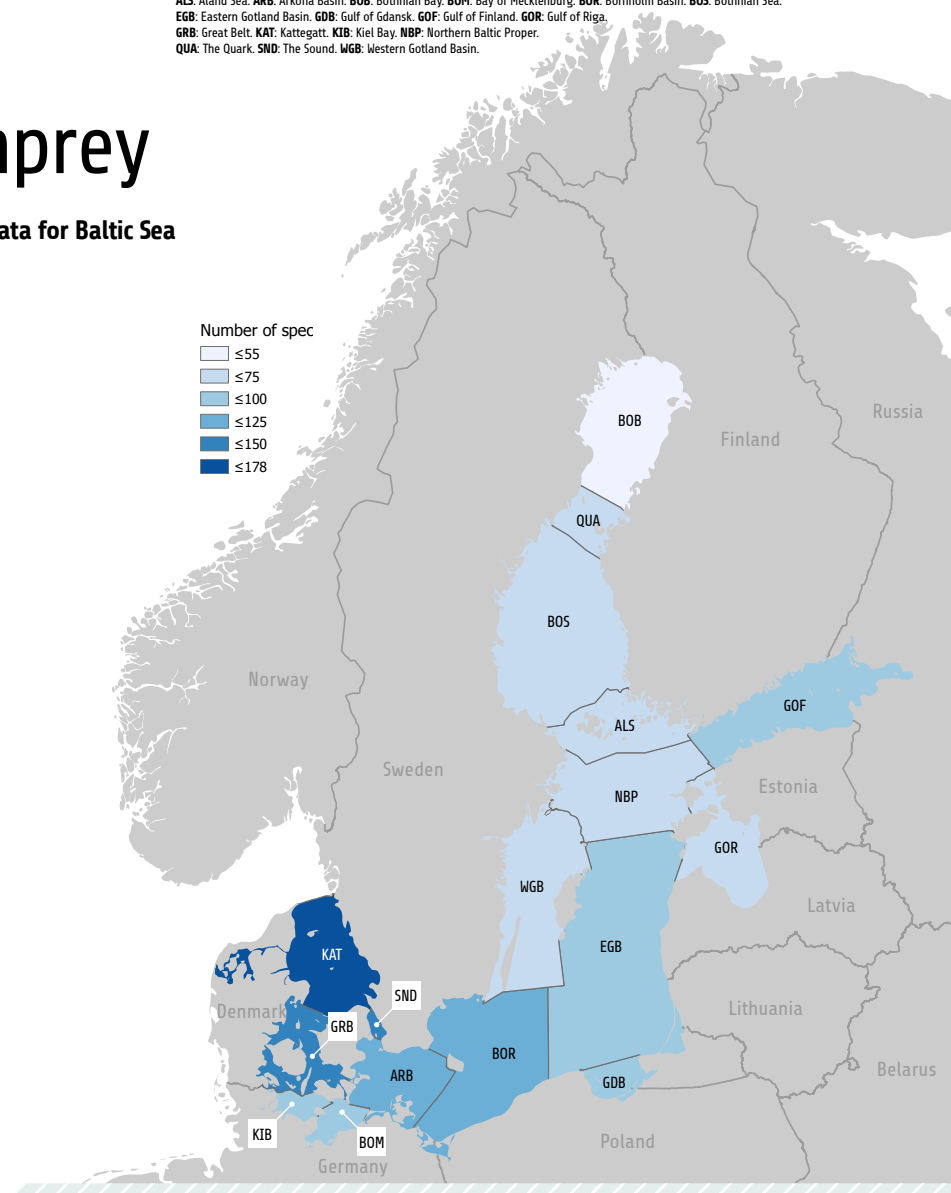
The Checklist 2.0 for Baltic Sea fish and lamprey species, which has been compiled within the HELCOM BaltiCheck project, includes 242 species, which are mostly the same ones as in the previous Checklist assessment. Only two new species were added for the Checklist 2.0 version. Figure 11a and 11b show the number of species in each of the HELCOM sub-basins. New species observations in a sub-basin in comparison to the previous Checklist are marked in Figure 11b in parenthesis. The occurrence for this species group is also listed for two lagoons (Figure 11c).

The number of species per sub-basin is highest in the south-western area of the Baltic Sea (Figure 11a and 11b). The highest number of species occurs in the Kattegatt, while the highest number of new added species has been in the Arkona sub-basin (Figure 11b). Please note that species from lagoons and estuaries (Figure 11c) are not included in these numbers.

The occurrence of fish and lamprey are listed separately for lagoons (Figure 11c and Figure 8b) with the total number of species noted. No new species were added to the lagoons. Nevertheless, both lagoons have as many species as the northern sub-basins, the Bothnian Bay and the Quark (Figure 11b).

New occurrences for fish and lamprey in a sub-basin are marked in the new Checklist 2.0 sheets with "P" to note their presence and distinguish them from entries deriving from the previous Checklist version.

The Checklist 2.0 for Baltic Sea fish and lamprey species includes information on the valid scientific name, the name used in the previous Checklist version, authorship, important synonyms, taxon



▲ Figure 11a: Number of fish and lamprey species per Baltic Sea sub-basin

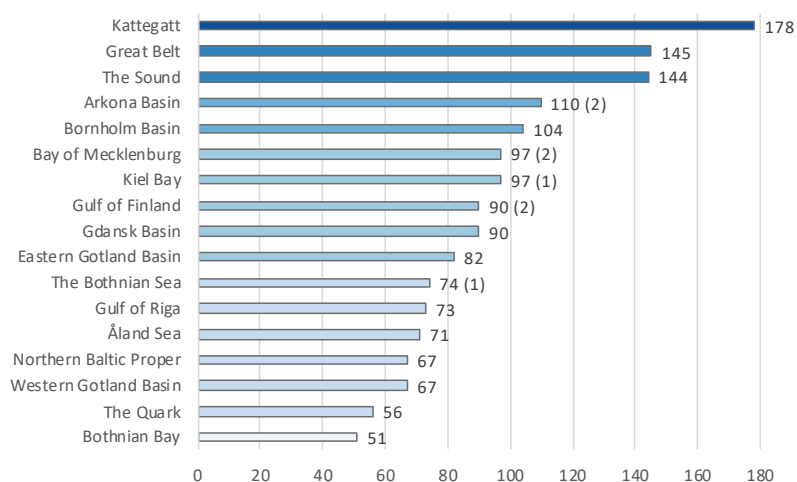


Figure 11b: Number of fish and lamprey species per Baltic Sea sub-basin with the number of new recorded species in parenthesis



Download the species sheet (.XLSX) for fish and lamprey at <https://helcom.fi/checklist2.0-fish-and-lamprey.xlsx>



Visit the HELCOM Baltic Sea Biodiversity Database



ID codes (preferably AphiaID= WoRMS Code; alternatively ITIS-ID, or other taxonomic IDs), general taxonomy, and the distributional information for each species. Please note that the excel sheets contain distributional information by sub-basin and lagoons, with information about reproductive behaviour. If you wish to gain more detailed information on fish and lamprey species and their spatiotemporal distribution in the Baltic Sea, please consult the new established biodiversity web application and use the species group filter to acquire observations specifically for fish and lamprey: <https://maps.helcom.fi/website/biodiversity/>

4.1. Taxonomy

Only (sub-)species that were verified to be listed in one of the valid taxonomic databases were included for the Checklist update with their valid scientific name (2019) and taxonomic ID. The taxonomic databases were used, in the order described in chapter 1.3.1 and species with an existing AphiaID (WoRMS) had their taxonomy retrieved via a script (please see chapter 1.3.4 for more information). Overall, two species were added to this group and eleven scientific names updated to their currently accepted name. The new added species *Perccottus glenii* and *Romanogobio albpinnatus* have both been observed in the Gulf of Finland.

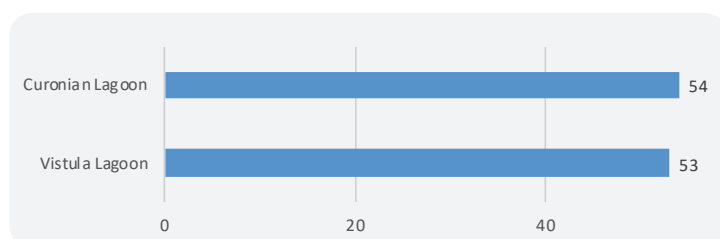
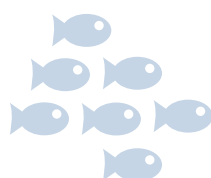


Figure 11 c: Number of fish and lamprey species per Baltic Sea lagoon; no new species were recorded since the previous Checklist



4.2. Defining parameters

For the group of fish and lamprey, the four general criteria were applied:

1. All species should be listed in at least one of the international databases.
2. All species should form stable populations in brackish waters with a minimum salinity of at least 0.5.
3. Records for all species must be geographically located within the Baltic Sea itself and not just in nearby ponds, rocky pools or rivers.
4. Species identification must be reliable. Therefore, data were only included if they were from trustworthy sources and (ideally) verified by national experts.

The four criteria are defined in more detail in chapter 1.3.1. Additionally, to these general criteria, the following rule applied to fish and lamprey in the previous Checklist version: all species occurring since 1800 should only be included in the Checklist.

4.3. Distribution update

The distribution information has been updated from the formerly 19 sub-basins to the newest version, which consist of 17 sub-basins. This update entailed that “Great Belt” and “Little Belt” were combined to the sub-basin “Great Belt”. Furthermore, “Åland Sea” and “Archipelago Sea” were merged to represent the sub-basin “Åland Sea”. No other sub-basin modifications than the ones described in chapter 1.3.2 needed to be performed for this species group. As addition to the sub-basins, two lagoons were used to record fish and lamprey species, namely the Curonian lagoon and the Vistula lagoon (Figure 8b). Species occurrence is available with more precise information than just presence/absence data for this group. The distribution is described with additional notes on reproductive behaviour. The description includes the following terms: R=Regular reproduction; X=regular occurrence, no reproduction; T=temporary occurrence; ?=occurrence uncertain; =no occurrence. New occurrences for fish and lamprey in a sub-basin are marked in the new Checklist 2.0 sheets with “P” to note their presence and distinguish them from entries deriving from the previous Checklist version. If a species occurrence was documented in a certain area in the previous Checklist report, it was also noted to occur in the same area for the Checklist 2.0 report.



ALS: Åland Sea. ARB: Arkona Basin. BOB: Bothnian Bay. BOM: Bay of Mecklenburg. BOR: Bornholm Basin. BOS: Bothnian Sea. EGB: Eastern Gotland Basin. GDB: Gulf of Gdansk. GOF: Gulf of Finland. GOR: Gulf of Riga. GRB: Great Belt. KAT: Kattegatt. KIB: Kiel Bay. NBP: Northern Baltic Proper. QUA: The Quark. SND: The Sound. WGB: Western Gotland Basin.

5. Macrophytes

Checklist 2.0 documentation and distribution data for Baltic Sea macrophyte species

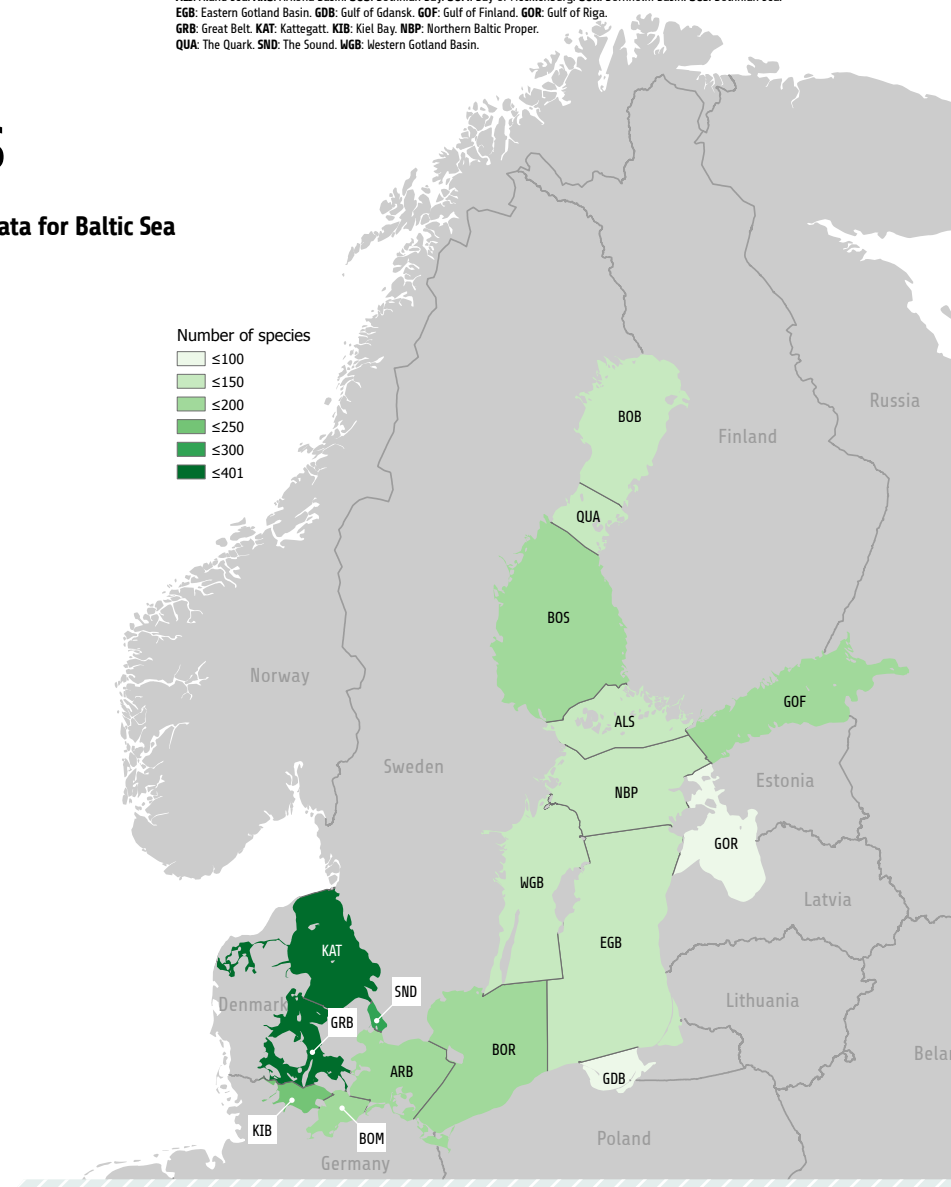


The Checklist 2.0 for Baltic Sea macrophyte species, which has been compiled within the HELCOM BaltiCheck project, includes 560 species and is thus the second biggest species group for the Baltic Sea. Altogether 28 species have been added during the update of the previous Checklist version from 2012. Figure 12a and 12b show the number of species in each of the HELCOM sub-basins. New species observations within a sub-basin in comparison to the previous Checklist are marked in Figure 12b in parenthesis.

The number of species per sub-basin is highest in the western area of the Baltic Sea (Figure 12a and 12b). The highest number of species occurs in the Kattegatt, while the highest number of new added species has been in the Bothnian Bay. In general, new species have been added to almost all of the 17 HELCOM sub-basins (Figure 7b). The exact number of new added species in the two sub-basins of the Bothnian Sea and the Quark is not possible to provide, since they had been counted as one single area in the previous Checklist report. The previous number of species in that area was stated as 162 for both sub-basins. Thus, the combined number of species in the updated Checklist 2.0 is higher than in the previous version.

New occurrences for macrophytes in an area are marked in the new Checklist 2.0 sheets with “P” to note their presence and distinguish them from entries deriving from the previous Checklist version.

The Checklist 2.0 for Baltic Sea macrophyte species includes information on the valid scientific name, the name used in the previous Checklist version, authorship, important synonyms, taxon



▲ Figure 12a: Number of macrophyte species per Baltic Sea sub-basin

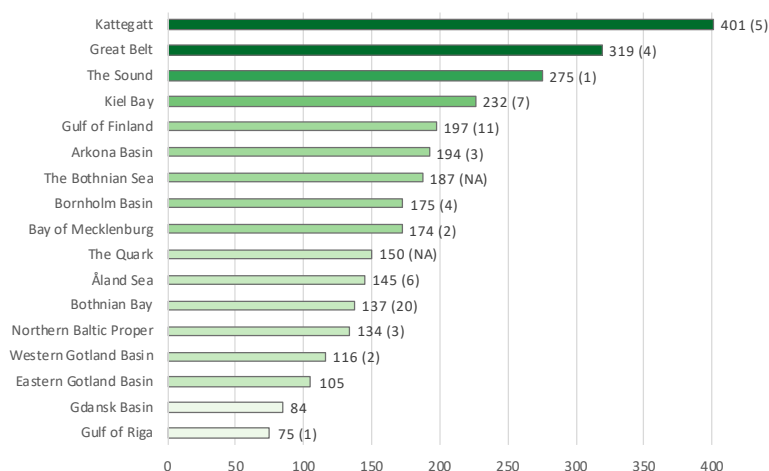


Figure 12b: Number of macrophyte species per Baltic Sea sub-basin with the number of new recorded species in parenthesis. NA means the exact number of added species was not able to be stated due to the merged areas in the previous Checklist.



Download the species sheet (.XLS) for macrophytes at <https://helcom.fi/checklist2.0-macrophytes.xlsx>



Visit the HELCOM Baltic Sea Biodiversity Database



ID codes (preferably AphiaID= WoRMS Code; alternatively ITIS-ID, or other taxonomic IDs), general taxonomy, and the distributional information for each species. Additionally, a column has been added to the species sheet, containing late comments which will need a detailed review by macrophyte experts from several Contracting Parties and which should be incorporated in the next assessment. Please note that the excel sheets contain distributional information by sub-basin. If you wish to gain more detailed information on macrophyte species and their spatiotemporal distribution in the Baltic Sea, please consult the new established biodiversity web application and use the species group filter to acquire observations specifically for macrophytes: <https://maps.helcom.fi/website/biodiversity/>

5.1. Taxonomy

Only (sub-)species that were verified to be listed in one of the valid taxonomic databases were included for the Checklist update with their valid scientific name (2019) and taxonomic ID. However, this is the only species group where also genera were accepted – namely the five that had been listed already in the previous Checklist version:

- *Batrachospermum* sp.
- *Gymnogongrus* sp.
- *Spirogyra* sp.
- *Vaucheria* sp.
- *Zygnema* sp.

The taxonomic databases were used, in the order described in chapter 1.3.1 and species with an existing AphiaID (WoRMS) had their taxonomy retrieved via a script (please see chapter 1.3.4 for more information). Overall, 26 species were added to this group and 97 scientific names updated to their currently accepted name.

5.2. Defining parameters

For the group of macrophytes, no additional parameters were necessary to apply. Thus, only the four general criteria applied to this species group:

1. All species should be listed in at least one of the international databases.
2. All species should form stable populations in brackish waters with a minimum salinity of at least 0.5.
3. Records for all species must be geographically located within the Baltic Sea itself and not just in nearby ponds, rocky pools or rivers.
4. Species identification must be reliable. Therefore, data were only included if they were from trustworthy sources and (ideally) verified by national experts.

The four criteria are described in more detail in chapter 1.3.1.

5.3. Distribution update

The distribution of macrophyte species has been divided by Baltic Sea sub-basins and outdated distribution information has been updated to match the newest version of the sub-basins (2018 version). The formerly used divisions have been slightly different than for the other species groups. Instead of 19 sub-basins, macrophytes had been divided in 17 areas and had to be aligned to the newest version of the HELCOM sub-basins. This entailed that the “Åland Sea” and “Archipelago Sea” were merged to represent the sub-basin “Åland Sea”. Furthermore, the formerly merged sub-basin “Bothnian Sea+The Quark” were now separated into their individual sub-basins. New occurrences for macrophytes in a sub-basin are marked in the new Checklist 2.0 sheets with “P” to note their presence and distinguish them from entries deriving from the previous Checklist version. If a species occurrence was documented in a certain area in the previous Checklist report, it was also noted to occur in the same area for the Checklist 2.0 report (marked with X).





ALS: Åland Sea. ARB: Arkona Basin. BOB: Bothnian Bay. BOM: Bay of Mecklenburg. BOR: Bornholm Basin. BOS: Bothnian Sea. EGB: Eastern Gotland Basin. GDB: Gulf of Gdansk. GOF: Gulf of Finland. GOR: Gulf of Riga. GRB: Great Belt. KAT: Kattegatt. KIB: Kiel Bay. NBP: Northern Baltic Proper. QUA: The Quark. SND: The Sound. WGB: Western Gotland Basin.

6. Marine mammals

Checklist 2.0 documentation and distribution data for Baltic Sea marine mammal species



The Checklist 2.0 for Baltic Sea marine mammals, which has been compiled within the HELCOM BaltiCheck project, includes the same five species as in the previous Checklist assessment. Figure 13a and 13b show the number of species in each of the HELCOM sub-basins. No new species or occurrences have been added to the list of marine mammals for the Checklist 2.0.

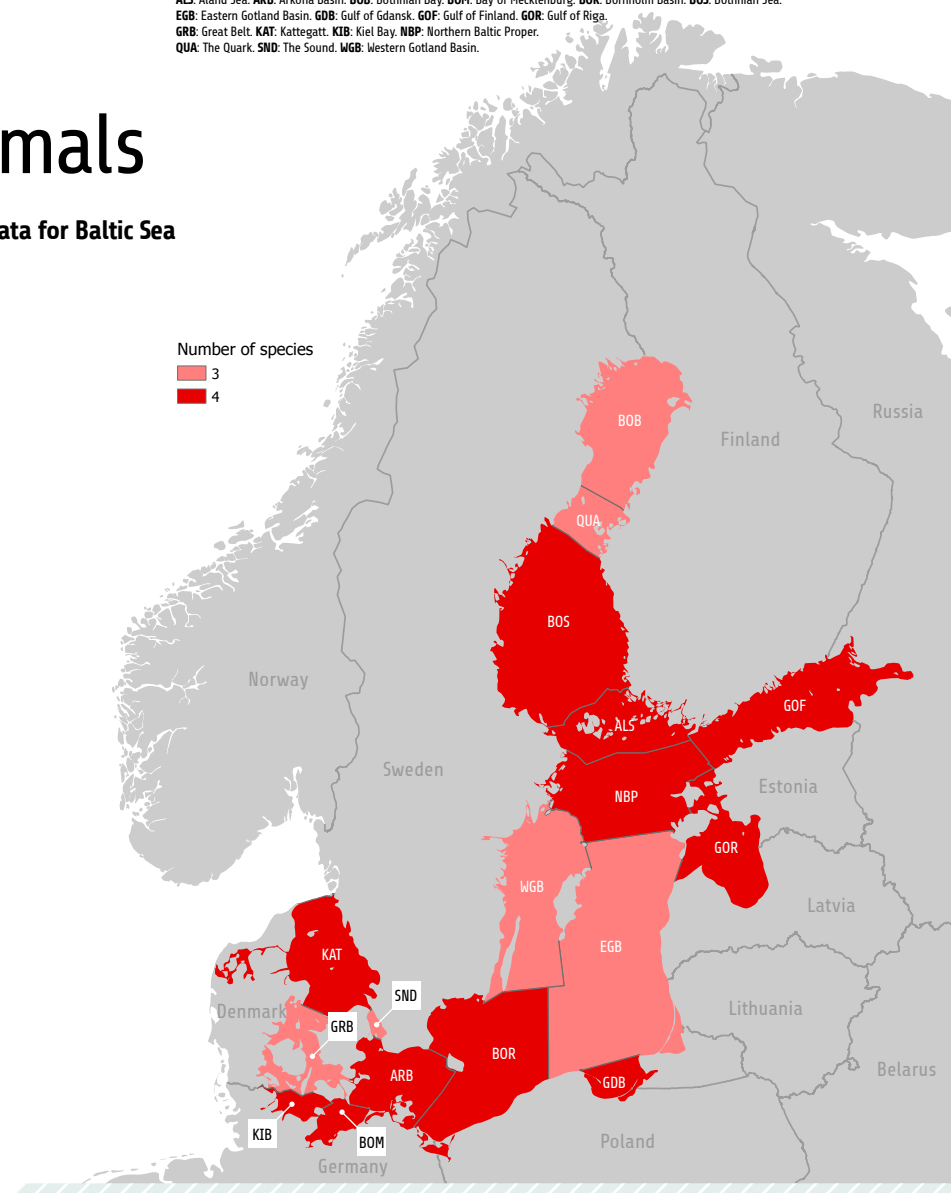
The Checklist 2.0 for Baltic Sea marine mammal species includes information on the valid scientific name, the name used in the previous Checklist version, authorship, important synonyms, taxon ID codes (preferably AphiaID= WoRMS Code; alternatively ITIS-ID, or other taxonomic IDs), general taxonomy, and the distributional information for each species. Please note that the excel sheets contain distributional information by sub-basin. If you wish to gain more detailed information on mammals and their spatiotemporal distribution in the Baltic Sea, please consult the new established biodiversity web application and use the species group filter to acquire observations specifically for mammals: <https://maps.helcom.fi/website/biodiversity/>



Download the species sheet (.XLSX) for mammals at <https://helcom.fi/checklist2.0-marine-mammals.xlsx>



Visit the HELCOM Baltic Sea Biodiversity Database



▲ Figure 13a: Number of marine mammal species per Baltic Sea sub-basin

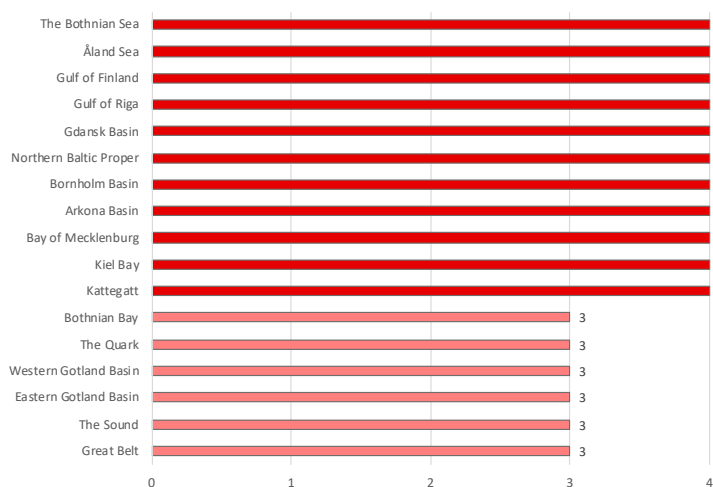


Figure 13b: Number of marine mammal species per Baltic Sea sub-basin; no new species were added since the previous report



6.1. Taxonomy

Only (sub-)species that were verified to be listed in one of the valid taxonomic databases were included for the Checklist update with their valid scientific name (2019) and taxonomic id. The taxonomic databases were used, in the order described in chapter 1.3.1. The only taxonomic change to this species group has been the updating of two species names. The name *Phoca vitulina vitulina*, was updated to the currently accepted name *Phoca vitulina*. Furthermore, *Pusa hispida* (Ringed seal) was replaced with the subspecies *Pusa hispida botnica* (Baltic ringed seal), since only this subspecies occurs in the Baltic Sea and it is thus more precise to use the subspecies instead of the species name for the Checklist update.

6.2. Defining parameters

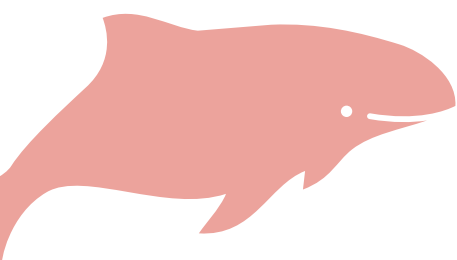
For the group of mammals, the four general criteria were applied:

1. All species should be listed in at least one of the international databases.
2. All species should form stable populations in brackish waters with a minimum salinity of at least 0.5.
3. Records for all species must be geographically located within the Baltic Sea itself and not just in nearby ponds, rocky pools or rivers.
4. Species identification must be reliable. Therefore, data were only included if they were from trustworthy sources and (ideally) verified by national experts.

The four criteria are described in chapter 1.3.1 in more detail. No other criteria were necessary for this species group.

6.3. Distribution update

The distribution information has been updated from the formerly 19 sub-basins to the newest version, which consist of 17 sub-basins. This update entailed that “Great Belt” and “Little Belt” were combined to the sub-basin “Great Belt”. Furthermore, “Åland Sea” and “Archipelago Sea” were merged to represent the sub-basin “Åland Sea”. No other sub-basin modifications than the ones described in chapter 1.3.2 needed to be performed for this species group. Species occurrence is noted as presence/absence data. If a species occurrence was documented in a certain area in the previous Checklist report, it was also noted to occur in the same area for the Checklist 2.0 report (marked with X).





7. Downloads



**Download the species fact sheets as Excel files
(editable and filterable).**



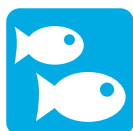
Benthic invertebrates

Download the species sheet (.XLSX) for benthic invertebrates at
<https://helcom.fi/checklist2.0-benthic-invertebrates.xlsx>



Water birds

Download the species sheet (.XLSX) for water birds at
<https://helcom.fi/water-birds.xlsx>



Fish and lamprey

Download the species sheet (.XLSX) for fish and lamprey at
<https://helcom.fi/checklist2.0-fish-and-lamprey.xlsx>



Macrophytes

Download the species sheet (.XLSX) for macrophytes at
<https://helcom.fi/checklist2.0-macrophytes.xlsx>



Marine mammals

Download the species sheet (.XLSX) for marine mammals at
<https://helcom.fi/checklist2.0-marine-mammals.xlsx>



**HELCOM
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v1.0

Original version from 2012

Download the original Checklist report (.PDF)
published in 2012 and available here:
<http://www.helcom.fi/Lists/Publications/BSEP130.pdf>





8. Annexes





Benthic invertebrates

[illegible]

[illegible]

[illegible]

[illegible]



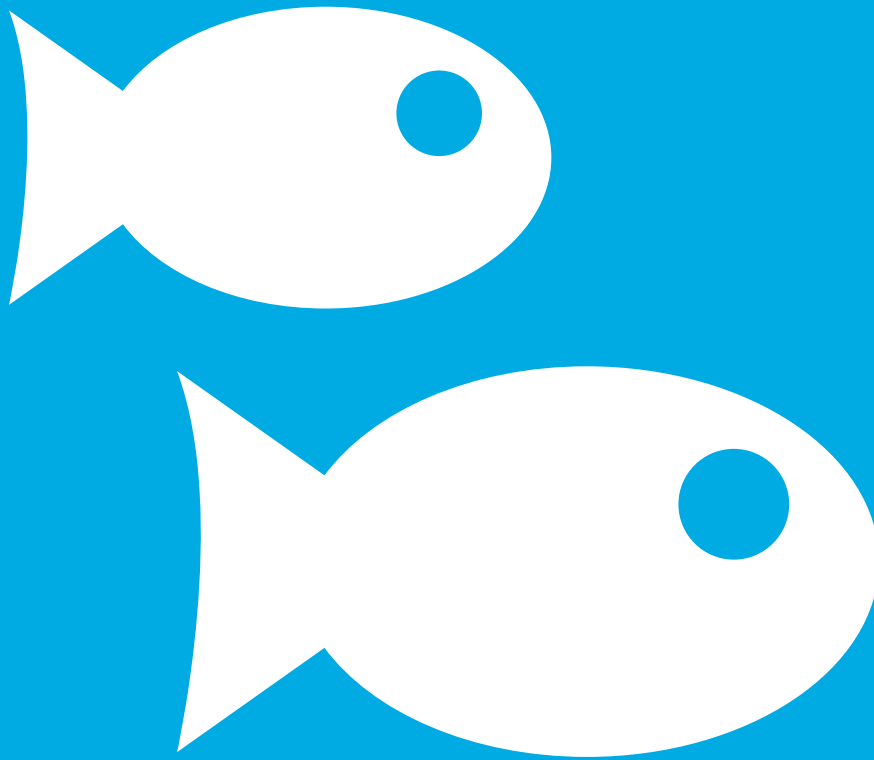
Water birds

HELCOM Checklist 2.0 for Breeding Baltic Sea Birds			Distribution											Alpha ID	ITS-TSN	Other ID	Source	Other ID	Scientific name authority	Scientific synonyms	Kingdom	Phylum	Class	Order	Family	Genus	Species	Taxonomic rank	Vernacular names	Remarks
No	Valid scientific name (2019)	Scientific name in previous checklist (2012)	A	B	C	D	E	F	G	H	I	J	K																	
			Sweden	Finland	Russia / St. Petersburg	Russia / Kaliningrad	Estonia	Latvia	Lithuania	Poland	Germany / Mecklenburg-Vorpommern	Germany / Schleswig-Holstein	Denmark																	
1	<i>Actitis hypoleucos</i>	<i>Actitis hypoleucos</i>	X	X	X	X	X	X	X	X	-	(X)	(X)	212603				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Actitis</i>	Species	Common sandpiper		Breeding bird	
2	<i>Alca torda</i>	<i>Alca torda</i>	X	X	X	-	X	-	-	-	-	-	X	137128				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Alcidae	<i>Alca</i>	Species	Razorbill		Breeding bird	
3	<i>Anas clypeata</i>	<i>Anas clypeata</i>	X	X	X	X	X	X	X	X	X	X	X	158841				Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anas</i>	Species	Northern shoveler; shoveler		Breeding and Wintering birds	
4	<i>Anas platyrhynchos</i>	<i>Anas platyrhynchos</i>	X	X	X	X	X	X	X	X	X	X	X	148791				Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anas</i>	Species	Mallard		Breeding and Wintering birds	
5	<i>Anas strepera</i>	<i>Anas strepera</i>	X	X	X	X	X	X	X	X	X	X	X	159171				Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anas</i>	Species	Gadwall		Breeding and Wintering birds	
6	<i>Anser anser</i>	<i>Anser anser</i>	X	X	X	X	X	X	X	X	X	X	X	416682				(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anser</i>	Species	Greylag goose		Breeding and Wintering birds	
7	<i>Anthus petrosus</i>	<i>Anthus petrosus</i>	X	X	-	-	X	-	-	-	-	-	X	232063				(Montagu, 1798)		Animalia	Chordata	Aves	Passeriformes	Motacillidae	<i>Anthus</i>	Species	Eurasian rock pipit; rock pipit		Breeding and Wintering birds	
8	<i>Anthus pratensis</i>	<i>Anthus pratensis</i>	X	X	X	X	X	X	X	X	X	X	X	426233				(Linnaeus, 1758)		Animalia	Chordata	Aves	Passeriformes	Motacillidae	<i>Anthus</i>	Species	Meadow pipit		Breeding bird	
9	<i>Arenaria interpres</i>	<i>Arenaria interpres</i>	X	X	X	-	X	-	-	-	Ø	Ø	X	147431				(Linnaeus, 1758)		Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Arenaria</i>	Species	Ruddy turnstone; turnstone		Breeding bird	
10	<i>Aythya fuligula</i>	<i>Aythya fuligula</i>	X	X	X	X	X	X	X	X	X	X	X	159164				(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Aythya</i>	Species	Tufted duck		Breeding and Wintering birds	
11	<i>Aythya marila</i>	<i>Aythya marila</i>	X	X	X	-	X	-	(X)	(X)	-	(X)	(X)	159172				(Linnaeus, 1761)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Aythya</i>	Species	Greater scaup; scaup		Breeding and Wintering birds	
12	<i>Branta leucopsis</i>	<i>Branta leucopsis</i>	X	X	X	-	X	-	-	-	-	-	(X)	159177				(Bechstein, 1803)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Branta</i>	Species	Barnacle goose		Breeding and Wintering birds	
13	<i>Bucephala clangula</i>	<i>Bucephala clangula</i>	X	X	X	X	X	X	X	X	X	X	X	159187				(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Bucephala</i>	Species	Common goldeneye; goldeneye		Breeding and Wintering birds	
14	<i>Calidris alpina schinzii</i>	<i>Calidris alpina schinzii</i>	X	X	X	Ø	X	X	X	Ø	(X)	X	Ø	X	176605				C. L. Brehm & Schilling, 1822.		Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Calidris</i>	Subspecies	Dunlin (short-billed); goldeneye		Breeding bird
15	<i>Calidris temminckii</i>	<i>Calidris temminckii</i>	X	X	-	-	(X)	-	-	-	-	-	-	360591				(Leister, 1812)		Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Calidris</i>	Species	Temminck's stint		Breeding bird	
16	<i>Cephus grylle</i>	<i>Cephus grylle</i>	X	X	X	-	X	-	-	-	-	-	-	X	137130				(Linnaeus, 1758)		Animalia	Chordata	Aves	Charadriiformes	Alcidae	<i>Cephus</i>	Species	Black guillemot		Breeding bird
17	<i>Charadrius alexandrinus</i>	<i>Charadrius alexandrinus</i>	(Ø)	-	-	-	-	-	-	(Ø)	(Ø)	Ø	Ø	212611				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Charadriidae	<i>Charadrius</i>	Species	Kentish plover; snowy plover		Breeding bird	
18	<i>Charadrius hiaticula hiaticula</i>	<i>Charadrius hiaticula hiaticula</i>	X	X	X	X	X	X	X	X	X	X	X	X	176055				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Charadriidae	<i>Charadrius</i>	Subspecies	Common Ringed Plover		Breeding bird
19	<i>Cygnus olor</i>	<i>Cygnus olor</i>	X	X	X	X	X	X	X	X	X	X	X	159090				(Gmelin, 1789)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Cygnus</i>	Species	Mute swan		Breeding and Wintering birds	
20	<i>Gelochelidon nilotica</i>	<i>Gelochelidon nilotica</i>	-	-	-	-	-	-	-	-	Ø	-	Ø	148798				(Gmelin, 1789)		Animalia	Chordata	Aves	Charadriiformes	Sternae	<i>Gelochelidon</i>	Species	Gull-billed tern		Breeding bird	
21	<i>Haematopus ostralegus</i>	<i>Haematopus ostralegus</i>	X	X	X	X	X	X	X	X	X	X	X	147436				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Charadriidae	<i>Haematopus</i>	Species	Eurasian oyster catcher; Eurasian oystercatcher		Breeding bird	
22	<i>Haliaeetus albicilla</i>	<i>Haliaeetus albicilla</i>	X	X	X	X	X	X	X	X	X	X	X	232053				(Linnaeus, 1758)		Animalia	Chordata	Aves	Falconiformes	Accipitridae	<i>Haliaeetus</i>	Species	White-tailed eagle		Breeding and Wintering birds	
23	<i>Hydroprogne caspia</i>	<i>Hydroprogne caspia</i>	X	X	X	-	X	-	(Ø)	(Ø)	(X)	-	(X)	567825				(Pallas, 1770)		Animalia	Chordata	Aves	Charadriiformes	Sternae	<i>Hydroprogne</i>	Species	Caspian tern		Breeding bird	
24	<i>Larus argentatus</i>	<i>Larus argentatus</i>	X	X	X	X	X	X	X	X	X	X	X	137138				Pontoppidan, 1763		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Species	European herring gull; herring gull		Breeding and Wintering birds	
25	<i>Larus canus</i>	<i>Larus canus</i>	X	X	X	X	X	X	X	X	X	X	X	137141				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Species	Common gull; mew gull		Breeding and Wintering birds	
26	<i>Larus fuscus fuscus</i>	<i>Larus fuscus fuscus</i>	X	X	X	-	X	-	-	-	(X)	X(7)	-	148795				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Subspecies	Lesser black-backed gull		Breeding bird	
27	<i>Larus fuscus intermedius</i>	<i>Larus fuscus intermedius</i>	X	-	-	-	-	-	-	-	-	X	X	232050				Schödlér, 1922		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Subspecies	Lesser Black-backed Gull (intermedius)		Breeding bird	
28	<i>Larus marinus</i>	<i>Larus marinus</i>	X	X	X	-	X	X	-	-	-	X	X	137146				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Species	Great black-backed gull; greater black-backed gull		Breeding and Wintering birds	
29	<i>Larus melanocephalus</i>	<i>Larus melanocephalus</i>	(X)	-	-	-	-	-	-	-	X	X	X	137147				Temminck, 1820		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Species	Mediterranean gull		Breeding bird	
30	<i>Hydrocoloeus minutus</i>	<i>Larus minutus</i> (Hydrocoloeus minutus)	X	X	X	X	X	X	X	X	(X)	-	X	567440				(Pallas, 1776)		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Hydrocoloeus</i>	Species	Little gull		Breeding and Wintering birds	
31	<i>Larus ridibundus</i>	<i>Larus ridibundus</i> (Chroicocephalus ridibundus)	X	X	X	X	X	X	X	X	X	X	X	137149				Linnaeus, 1766		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Species	Black-headed gull; common black-headed gull		Breeding and Wintering birds	
32	<i>Limosa limosa</i>	<i>Limosa limosa</i>	X	X	X	X	X	X	X	X	X	X	X	159035				(Linnaeus, 1758)		Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Limosa</i>	Species	Black-tailed godwit		Breeding bird	
33	<i>Melanitta fusca</i>	<i>Melanitta fusca</i>	X	X	X	-	X	-	-	-	-	-	-	137072				(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Melanitta</i>	Species	Velvet scoter; white-winged scoter		Breeding and Wintering birds	
34	<i>Mergellus albellus</i>	<i>Mergus albellus</i> (Mergellus albellus)	X	X	(Ø)	-	-	-	-	-	-	-	-	232039				(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Mergellus</i>	Species	Smew		Breeding and Wintering birds	
35	<i>Mergus merganser</i>	<i>Mergus merganser</i>	X	X	X	X	X	X	X	X	X	X	X	159097				Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Mergus</i>	Species	Common merganser; goosander		Breeding and Wintering birds	
36	<i>Mergus serrator</i>	<i>Mergus serrator</i>	X	X	X	X	X	X	X	X	X	X	X	159098				Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Mergus</i>	Species	Red-breasted merganser		Breeding and Wintering birds	
37	<i>Motacilla alba</i>	<i>Motacilla alba</i>	X	X	X	X	X	X	X	X	X	X	X	232066				Linnaeus, 1758		Animalia	Chordata	Aves	Passeriformes	Motacillidae	<i>Motacilla</i>	Species	Pied wagtail; white wagtail		Breeding bird	
38	<i>Oenanthe oenanthe</i>	<i>Oenanthe oenanthe</i>	X	X	X	X	X	X	X	X	X	X	X	426237				(Linnaeus, 1758)		Animalia	Chordata	Aves	Passeriformes	Motacillidae	<i>Oenanthe</i>	Species	Northern wheatear; wheatear		Breeding bird	
39	<i>Pandion haliaetus</i>	<i>Pandion haliaetus</i>	X	X	X	X	X	X	X	X	X	Ø	X	159077				(Linnaeus, 1758)		Animalia	Chordata	Aves	Falconiformes	Accipitridae	<i>Pandion</i>	Species	Osprey; western osprey		Breeding bird	
40	<i>Phalacrocorax carbo sinensis</i>	<i>Phalacrocorax carbo sinensis</i>	X	X	X	X	X	X	X	X	X	X	X	404241				Blumenbach, 1798		Animalia	Chordata	Aves	Suliformes	Phalacrocoracidae	<i>Phalacrocorax</i>	Subspecies	Great Cormorant (Continental)		Breeding and Wintering birds	
41	<i>Philomachus pugnax</i>	<i>Philomachus pugnax</i>	X	X	X	(X)	X	X	X	X	X	Ø	X	159046				(Linnaeus, 1758)		Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Philomachus</i>	Species	Ruff		Breeding bird	
42	<i>Podiceps auritus</i>	<i>Podiceps auritus</i>	X	X	X	-	X	X	X	(Ø)	-	(X)	(X)	137181				(Linnaeus, 1758)		Animalia	Chordata	Aves	Podicipediformes	Podicipedidae	<i>Podiceps</i>	Species	Horned grebe; Slavonian grebe		Breeding and Wintering birds	
43	<i>Podiceps cristatus</i>	<i>Podiceps cristatus</i>	X	X	X	X	X	X	X	X	X	X	X	137182				(Linnaeus, 1758)		Animalia	Chordata	Aves	Podicipediformes	Podicipedidae	<i>Podiceps</i>	Species	Great crested grebe; great-crested grebe		Breeding and Wintering birds	
44	<i>Recurvirostra avosetta</i>	<i>Recurvirostra avosetta</i>	X	-	-	X	-	X	X	X	X	X	X	232721				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Recurvirostridae	<i>Re</i>					

HELCOM Checklist 2.0 for Breeding Baltic Sea Birds																												
X= breeding; (X)= sporadic breeding (only occasional breeding records); 0= extinct (breeding in the past, but no actual breeding records); (0)= sporadic breeder in the past, no breeding records during the last 3 generations or 10 years; 0(X)=extinct as a regular breeder, but sporadic breeding records during the last 3 generations or 10 years; - = no breeding birds; P= present; W= wintering			Distribution											Aphia ID	ITS-TSN	Other ID	Source Other ID	Scientific name authorship	Scientific synonyma	Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Vernacular names	Remarks
			A	B	C	D	E	F	G	H	I	J	K															
No	Valid scientific name (2019)	Scientific name in previous Checklist (2012)	Sweden	Finland	Russia/St. Petersburg	Russia/Kaliningrad	Estonia	Latvia	Lithuania	Poland	Germany/Mecklenburg-Vorpommern	Germany/Schleswig-Holstein	Denmark															
74	<i>Chlidonias niger</i>						X							137137				Linnaeus, 1758	<i>Sterna niger</i>	Animalia	Chordata	Aves	Charadriiformes	Sternidae	<i>Chlidonias</i>	Species	Black tern	Breeding bird
75	<i>Circus aeruginosus</i>										X	X		508541				Linnaeus, 1758		Animalia	Chordata	Aves	Falconiformes	Accipitridae	<i>Circus</i>	Species	Eurasian marsh harrier; western marsh harrier	Breeding bird
76	<i>Cuculus canorus</i>										X	X		212682				Linnaeus, 1758		Animalia	Chordata	Aves	Cuculiformes	Cuculidae	<i>Cuculus</i>	Species	European cuckoo; cuckoo; common cuckoo	Breeding bird
77	<i>Cygnus cygnus</i>						X							109089				Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Cygnus</i>	Species	Whooper swan	Breeding and Wintering birds
78	<i>Emberiza schoeniclus</i>										X	X		508540				Linnaeus, 1758		Animalia	Chordata	Aves	Passeriformes	Emberizidae	<i>Emberiza</i>	Species	Reed bunting; common reed bunting	Breeding and Wintering birds
79	<i>Fulica atra</i>						X				X	X		212054				Linnaeus, 1758		Animalia	Chordata	Aves	Gruiformes	Rallidae	<i>Fulica</i>	Species	Eurasian coot; coot; common coot	Breeding and Wintering birds
80	<i>Gallinago gallinago</i>						X				X	X		108949				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Gallinago</i>	Species	Common snipe; snipe	Breeding and Wintering birds
81	<i>Gallinula chloropus</i>										X	X		109000				Linnaeus, 1758		Animalia	Chordata	Aves	Gruiformes	Rallidae	<i>Gallinula</i>	Species	Moorhen; common moorhen	Breeding bird
82	<i>Grus grus</i>										X			1037310				Linnaeus, 1758	<i>Ardea grus</i>	Animalia	Chordata	Aves	Gruiformes	Gruidae	<i>Grus</i>	Species	Common crane	Breeding bird
83	<i>Locustella luscinioides</i>						X				X	X		1037313				Savi, 1824		Animalia	Chordata	Aves	Passeriformes	Sylviidae	<i>Locustella</i>	Species	Savi's warbler	Breeding bird
84	<i>Motacilla flava</i>						X							212754				Linnaeus, 1758		Animalia	Chordata	Aves	Passeriformes	Motacillidae	<i>Motacilla</i>	Species	Yellow wagtail; western yellow wagtail	Breeding bird
85	<i>Motacilla flava flava</i>										X	X		278496				Linnaeus, 1758		Animalia	Chordata	Aves	Passeriformes	Motacillidae	<i>Motacilla</i>	Subspecies	Blue-headed wagtail; Blue-headed yellow wagtail	Breeding bird
86	<i>Netta rufina</i>										X	-		416688				Pallas, 1773		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Netta</i>	Species	Red-crested pochard	Breeding bird
87	<i>Numenius arquata</i>										X	-		109017				Linnaeus, 1758	<i>Scolopax arquata</i>	Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Numenius</i>	Species	Eurasian curlew; curlew	Breeding and Wintering birds
88	<i>Panurus biarmicus</i>										X	X		1037321				Linnaeus, 1758	<i>Parus biarmicus</i>	Animalia	Chordata	Aves	Passeriformes	Sylviidae	<i>Panurus</i>	Species	Bearded tit	Breeding bird
89	<i>Podiceps grisegena</i>						X				X	X		117181				Boddaert, 1783	<i>Colymbus grisegena</i>	Animalia	Chordata	Aves	Podicipediformes	Podicipedidae	<i>Podiceps</i>	Species	Red-necked grebe	Breeding and Wintering birds
90	<i>Tachybaptus ruficollis</i>										X	X		148790				Pallas, 1764	<i>Colymbus ruficollis</i>	Animalia	Chordata	Aves	Podicipediformes	Podicipedidae	<i>Tachybaptus</i>	Species	Little grebe; dabchick	Breeding and Wintering birds

HELCOM Checklist 2.0 for Wintering Baltic Sea Birds			Distribution											Alpha ID	ITS-TSN	Other ID	Source Other ID	Scientific name authorship	Scientific synonym	Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Vernacular names	Remarks
			A	B	C	D	E	F	G	H	I	J	K															
No	Valid scientific name (2019)	Scientific name in previous Checklist (2012)	Sweden	Finland	Russia/St. Petersburg	Russia/Kaliningrad	Estonia	Latvia	Lithuania	Poland	Germany/Niedersachsen-Vorpommern	Germany/Schleswig-Holstein	Denmark															
1	<i>Gavia stellata</i>		P	P		P	P	P	P	P	P	P	P	137188			(Pontoppidan, 1763)	<i>Colymbus stellatus</i>	Animalia	Chordata	Aves	Gaviiformes	Gaviidae	<i>Gavia</i>	Species	Red-throated diver; red-throated loon	Wintering birds	
2	<i>Gavia arctica</i>		P	P		P	P	P			P	P	P	137186			(Linnaeus, 1758)	<i>Colymbus arcticus</i>	Animalia	Chordata	Aves	Gaviiformes	Gaviidae	<i>Gavia</i>	Species	Black-throated diver; black-throated loon	Wintering birds	
3	<i>Gavia immer</i>													137187			(Brünnich, 1764)	<i>Colymbus immer</i>	Animalia	Chordata	Aves	Gaviiformes	Gaviidae	<i>Gavia</i>	Species	Common loon; great northern diver; great northern loon; great-northern diver	Wintering birds, Europe	
4	<i>Gavia adamsii</i>													137185			(Gray, 1859)		Animalia	Chordata	Aves	Gaviiformes	Gaviidae	<i>Gavia</i>	Species	White-billed diver; yellow-billed diver; yellow-billed loon	Wintering birds, N Europe	
5	<i>Tachybaptus ruficollis</i>											P	P	148790			(Pallas, 1764)	<i>Colymbus ruficollis</i>	Animalia	Chordata	Aves	Podicipediformes	Podicipedidae	<i>Tachybaptus</i>	Species	Dabchick; little grebe	Breeding and Wintering birds	
6	<i>Podiceps cristatus</i>		P	P		P	P	P	P	P	P	P	P	137182			(Linnaeus, 1758)	<i>Colymbus cristatus</i>	Animalia	Chordata	Aves	Podicipediformes	Podicipedidae	<i>Podiceps</i>	Species	Great crested grebe; great-crested grebe	Breeding and Wintering birds	
7	<i>Podiceps grisegena</i>		P	P				P	P			P	P	137183			(Boddart, 1783)	<i>Colymbus grisegena</i>	Animalia	Chordata	Aves	Podicipediformes	Podicipedidae	<i>Podiceps</i>	Species	Red-necked grebe	Breeding and Wintering birds	
8	<i>Podiceps auritus</i>		P	P				P	P			P	P	137181			(Linnaeus, 1758)	<i>Colymbus auritus</i>	Animalia	Chordata	Aves	Podicipediformes	Podicipedidae	<i>Podiceps</i>	Species	Horned grebe; Slavonian grebe	Breeding and Wintering birds	
9	<i>Phalacrocorax carbo sinensis</i>		P	P		P	P	P	P	P	P	P	P	804231			Blumenbach, 1798		Animalia	Chordata	Aves	Suliformes	Phalacrocoracidae	<i>Phalacrocorax</i>	Subspecies	Great Cormorant (Continental)	Breeding and Wintering birds. Wintering birds/N & C European sub-population	
10	<i>Phalacrocorax carbo carbo</i>													174716			Linnaeus, 1758		Animalia	Chordata	Aves	Suliformes	Phalacrocoracidae	<i>Phalacrocorax</i>	Subspecies	Great Cormorant (North Atlantic)	Wintering birds/NW European sub-population	
11	<i>Cygnus cygnus</i>		P	P				P	P		P	P	P	150080			(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Cygnus</i>	Species	Whooper swan	Breeding and Wintering birds	
12	<i>Cygnus columbianus</i>							P	P		P	P	P	150088			(Ord, 1815)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Cygnus</i>	Species	Bewick's swan; Bewic's swan; tundra swan	Wintering birds	
13	<i>Cygnus olor</i>		P	P		P	P	P			P	P	P	150090			(Gmelin, 1789)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Cygnus</i>	Species	Mute swan	Breeding and Wintering birds	
14	<i>Anser fabalis fabalis</i>									W			P	714766			Latham, 1787		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anser</i>	Subspecies	Taiga Bean Goose (Western)	Wintering birds/ NE & NW European sub-population	
15	<i>Anser fabalis rossicus</i>													714768			Buturlin, 1933		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anser</i>	Subspecies		Wintering birds/W & C Siberian, NE & NW European sub-population	
16	<i>Anser brachyrhynchus</i>													416863			Ballon, 1834		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anser</i>	Species	Pink-footed goose	Wintering birds, NW Europe	
17	<i>Anser albifrons</i>													150139			(Scopoli, 1769)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anser</i>	Species	Greater white-fronted goose; white-fronted goose	Wintering birds	
18	<i>Anser erythropus</i>											P	P	416864			(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anser</i>	Species	Lesser white-fronted goose	Wintering birds, N Europe	
19	<i>Anser anser</i>											P	P	416862			(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anser</i>	Species	Greylag goose	Breeding and Wintering birds	
20	<i>Branta canadensis</i>												P	150176			(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Branta</i>	Species	Canada goose	Breeding and Wintering birds	
21	<i>Branta leucopsis</i>				W	W					W	W		150177			(Bechstein, 1803)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Branta</i>	Species	Barnacle goose	Breeding and Wintering birds	
22	<i>Branta bernicla hrota</i>												W	175012			O. F. Muller, 1776		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Branta</i>	Subspecies		Wintering birds	
23	<i>Anas penelope</i>		P	P				P			P	P	P	150168			Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anas</i>	Species	Eurasian wigeon; widgeon; wigeon	Breeding and Wintering birds	
24	<i>Anas strepera</i>											P	P	150171			Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anas</i>	Species	Gadwall	Breeding and Wintering birds	
25	<i>Anas crecca</i>		P	P				P	P			P	P	150943			Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anas</i>	Species	Common teal; Eurasian teal; green-winged teal; teal	Breeding and Wintering birds	
26	<i>Anas platyrhynchos</i>		P	P		P	P	P	P	P	P	P	P	148791			Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anas</i>	Species	Mallard	Breeding and Wintering birds	
27	<i>Anas acuta</i>		P	P				P			P	P	P	150899			Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anas</i>	Species	Northern pintail; pintail	Breeding and Wintering birds	
28	<i>Anas clypeata</i>													150941			Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Anas</i>	Species	Northern shoveler; shoveler	Breeding and Wintering birds, NW & C Europe	
29	<i>Aythya ferina</i>		P	P				P	P		P	P	P	212097			(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Aythya</i>	Species	Common pochard; pochard	Breeding and Wintering birds	
30	<i>Aythya fuligula</i>		P	P		P	P	P	P	P	P	P	P	150164			(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Aythya</i>	Species	Tufted duck	Breeding and Wintering birds	
31	<i>Aythya marila</i>		P	P				P	P		P	P	P	150172			(Linnaeus, 1761)	<i>Anas marila</i>	Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Aythya</i>	Species	Greater scaup; scaup	Breeding and Wintering birds	
32	<i>Somateria mollissima</i>		P	P		P	P	P	P	P	P	P	P	137074			(Linnaeus, 1758)	<i>Anas mollissima</i>	Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Somateria</i>	Species	Common eider; eider; eider duck	Breeding and Wintering birds	
33	<i>Somateria spectabilis</i>													137075			(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Somateria</i>	Species	King eider	Wintering birds, E Greenland NE Europe & W Siberia	
34	<i>Polysticta stelleri</i>		P	P				P	P	P	P			232041			(Pallas, 1769)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Polysticta</i>	Species	Steller's eider	Wintering birds	
35	<i>Clangula hyemalis</i>		P	P		P	P	P	P	P	P	P	P	137071			(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Clangula</i>	Species	Long-tailed duck; oldsquaw	Wintering birds	
36	<i>Melanitta nigra</i>		P	P		P	P	P	P	P	P	P	P	137073			(Linnaeus, 1758)	<i>Anas nigra</i>	Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Melanitta</i>	Species	Black scoter; common scoter	Wintering birds	
37	<i>Melanitta fusca</i>		P	P		P	P	P	P	P	P	P	P	137072			(Linnaeus, 1758)	<i>Anas fusca</i>	Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Melanitta</i>	Species	Velvet scoter; white-winged scoter	Breeding and Wintering birds	
38	<i>Bucephala clangula</i>		P	P				P	P		P	P	P	150197			(Linnaeus, 1758)		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Bucephala</i>	Species	Common goldeneye; goldeneye	Breeding and Wintering birds	
39	<i>Mergellus albellus</i>		P	P		P	P	P	P	P	P	P	P	212039			(Linnaeus, 1758)	<i>Mergus albellus</i>	Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Mergellus</i>	Species	Smew	Breeding and Wintering birds	
40	<i>Mergus serrator</i>		P	P		P	P	P	P	P	P	P	P	150198			Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Mergus</i>	Species	Red-breasted merganser	Breeding and Wintering birds	
41	<i>Mergus merganser</i>		P	P		P	P	P	P	P	P	P	P	150907			Linnaeus, 1758		Animalia	Chordata	Aves	Anseriformes	Anatidae	<i>Mergus</i>	Species	Common merganser; goosander	Breeding and Wintering birds	
42	<i>Haliaeetus albicilla</i>											P	P	212053			(Linnaeus, 1758)		Animalia	Chordata	Aves	Falconiformes	Accipitridae	<i>Haliaeetus</i>	Species	White-tailed eagle	Breeding and Wintering birds	
43	<i>Fulica atra</i>		P	P		P	P	P			P	P	P	212054			Linnaeus, 1758		Animalia	Chordata	Aves	Gruiformes	Rallidae	<i>Fulica</i>	Species	Common coot; coot; Eurasian coot	Breeding and Wintering birds	
44	<i>Calidris maritima</i>											P	P	150052			(Brünnich, 1764)	<i>Tringa maritima</i>	Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Calidris</i>	Species	Purple sandpiper	Wintering birds	
45	<i>Hydrocoloeus minutus</i>							P	P			P	P	567489			(Pallas, 1776)	<i>Larus minutus</i>	Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Hydrocoloeus</i>	Species	Little gull	Breeding and Wintering birds	
46	<i>Larus ridibundus</i>		P	P		P	P	P	P	P	P	P	P	137149			Linnaeus, 1766	<i>Chroicocephalus ridibundus</i>	Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Species	Black-headed gull; common black-headed gull	Breeding and Wintering birds	
47	<i>Larus canus</i>		P	P		P	P	P	P	P	P	P	P	137141			Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Species	Common gull; mew gull		

HELCOM Checklist 2.0 for Wintering Baltic Sea Birds																													
X= breeding; (X)= sporadic breeding (only occasional breeding records); 0= extinct (breeding in the past, but no actual breeding records); (0)= sporadic breeder in the past, no breeding records during the last 3 generations or 10 years; 0(X)=extinct as a regular breeder, but sporadic breeding records during the last 3 generations or 10 years; - = no breeding birds; P= present; W= wintering			Distribution											Alpha ID	ITIS-TSN	Other ID	Source Other ID	Scientific name authorship	Scientific synonyms	Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Vernacular names	Remarks	
			A	B	C	D	E	F	G	H	I	J	K																
No	Valid scientific name (2019)	Scientific name in previous Checklist (2012)	Sweden	Finland	Russia/St. Petersburg	Russia/Kaliningrad	Estonia	Latvia	Lithuania	Poland	Germany/Mecklenburg-Vorpommern	Germany/Schleswig-Holstein	Denmark																
63	<i>Larus fuscus</i>			P						P				137142				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Laridae	<i>Larus</i>	Species	Lesser black-backed gull; Scandinavian lesser black-backed gull	Breeding and Wintering birds	
64	<i>Phalacrocorax carbo</i>		P	P			P	P		P				137179				(Linnaeus, 1758)	<i>Pelecanus carbo</i>	Animalia	Chordata	Aves	Pelecaniformes	Phalacrocoracidae	<i>Phalacrocorax</i>	Species	Common cormorant; cormorant; great cormorant; long-tailed cormorant	Wintering birds	
65	<i>Calidris alpina alpina</i>										P	P		176662				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Calidris</i>	Species		Wintering birds	
66	<i>Gallinago gallinago</i>						P							155949				Linnaeus, 1758		Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Gallinago</i>	Species	Common snipe; snipe	Breeding and Wintering birds	
67	<i>Falco peregrinus</i>										P			155153				Tunstall, 1771		Animalia	Chordata	Aves	Falconiformes	Falconidae	<i>Falco</i>	Species	Peregrine falcon; peregrine	Wintering birds	
68	<i>Numenius arquata</i>										P	P		155057				Linnaeus, 1758	<i>Scolopax arquata</i>	Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Numenius</i>	Species	Eurasian curlew; curlew	Breeding and Wintering birds	
69	<i>Tringa totanus</i>										P	P		158970				(Linnaeus, 1758)	<i>Scolopax totanus</i>	Animalia	Chordata	Aves	Charadriiformes	Scolopacidae	<i>Tringa</i>	Species	Common redshank; redshank	Breeding and Wintering birds	



Fish & lamprey

HELCOM Checklist 2.0 for Baltic Sea Fish and Lamprey Species																																			
R=Regular reproduction; X=regular occurrence, no reproduction; T=temporary occurrence; ?=occurrence uncertain; -no occurrence; P=present			Distribution (2018 subbasins)																		Alpha ID	ITS-TSN	Other ID	Source Other ID	Scientific name authorship	Scientific synonyms	Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Vernacular names	Introduced species
No	Valid scientific name (2019)	Scientific name in previous checklist (2012)	Kattegat	Great Belt	Hel Bay	Bay of Mecklenburg	The Sound	Aarhus Basin	Northern Basin	Western Gotland Basin	Eastern Gotland Basin	Adriatic Basin	Verulian Lagoon	Curonian Lagoon	Gulf of Riga	Northern Baltic Proper	Gulf of Finland	Azov Sea	Baltic Sea	The Quark															
1	<i>Myxine glutinosa</i>	<i>Myxine glutinosa</i>	R																			101170	Linnaeus, 1758	<i>Gasterobranchus glutinosus</i> ; <i>Gasterobranchus coecus</i> ; <i>Myxine glutinosa australis</i> ; <i>Myxine glutinosa limosa</i> ; <i>Myxine glutinosa septentrionalis</i>	Animalia	Chordata	Myxini	Myxiniiformes	Myxiniidae	<i>Myxine</i>	Species	Atlantic hagfish; hagfish			
2	<i>Lampetra fluviatilis</i>	<i>Lampetra fluviatilis</i>	X	T	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	101172	(Linnaeus, 1758)	<i>Ammocoetes communis</i> ; <i>Lampetra fluviatilis f. praecox</i> ; <i>Lampetra fluviatilis ladogensis</i> ; <i>Lampetra fluviatilis praecox</i> ; <i>Lampetra fluviatilis typica</i> ; <i>Lampetra opisthodon</i> ; <i>Petromyzon argenteus</i> ; <i>Petromyzon argenteus</i> ; <i>Petromyzon branchialis</i> ; <i>Petromyzon fluviatilis</i> ; <i>Petromyzon fluviatilis f. major</i> ; <i>Petromyzon fluviatilis major</i> ; <i>Petromyzon jurae</i> ; <i>Petromyzon macrops</i> ; <i>Petromyzon omali</i> ; <i>Petromyzon pricka</i> ; <i>Petromyzon sanguisuga</i>	Animalia	Chordata	Petromyzonti	Petromyzontiformes	Petromyzontidae	<i>Lampetra</i>	Species	Lampern; lamprey; river lamprey; stone eel			
3	<i>Petromyzon marinus</i>	<i>Petromyzon marinus</i>	X	T	T	T	X	T	X	T	T	T	T	T	T	T	T	T	T	T	T	101174	Linnaeus, 1758	<i>Ammocoetes bicolor</i> ; <i>Botrymyzon bairdi</i> ; <i>Lampetra marina</i> ; <i>Oceanomyzon wilsoni</i> ; <i>Petromyzon adriaticus</i> ; <i>Petromyzon americanus</i> ; <i>Petromyzon bairdi</i> ; <i>Petromyzon concolor</i> ; <i>Petromyzon lampetra</i> ; <i>Petromyzon maculosus</i> ; <i>Petromyzon marinus dorsatus</i> ; <i>Petromyzon marinus unicolor</i> ; <i>Petromyzon maximus</i> ; <i>Petromyzon nigricans</i> ; <i>Petromyzon ruber</i>	Animalia	Chordata	Petromyzonti	Petromyzontiformes	Petromyzontidae	<i>Petromyzon</i>	Species	Great sea lamprey; green sea lamprey; marine lamprey; nannie nine eyes			
4	<i>Lamna nasus</i>	<i>Lamna nasus</i>	T	T	T		T												T			105841	(Bonnaterre, 1788)	<i>Isurus nasus</i> ; <i>Lamna cornubica</i> ; <i>Lamna pennanti</i> ; <i>Lamna philippi</i> ; <i>Lamna punctata</i> ; <i>Lamna whiteley</i> ; <i>Lamna nasus</i> ; <i>Oxyrhina daekayi</i> ; <i>Selomanius walker</i> ; <i>Squalus cornubicus</i> ; <i>Squalus cornubiensis</i> ; <i>Squalus moronis</i> ; <i>Squalus nasus</i> ; <i>Squalus pennanti</i> ; <i>Squalus selomani</i>	Animalia	Chordata	Elasmobranchii	Lamniformes	Lamnidae	<i>Lamna</i>	Species	(Common) Atlantic mackerel shark; American porbeagle; Atlantic porbeagle; Beumaris shark; blue dog; blue shark; bottle-nosed shark; common porbeagle; herring shark; mackerel shark			
5	<i>Cetorhinus maximus</i>	<i>Cetorhinus maximus</i>	T	T	T	T	T	T	T								T					105817	(Gunnerus, 1765)	<i>Cetorhinus blainvillii</i> ; <i>Cetorhinus maccoyi</i> ; <i>Cetorhinus maximus infanuncula</i> ; <i>Cetorhinus maximus normani</i> ; <i>Cetorhinus normani</i> ; <i>Cetorhinus rostratus</i> ; <i>Halsidus maccoyi</i> ; <i>Halsidus maximus</i> ; <i>Halsidus pontoppidani</i> ; <i>Hannovera aurata</i> ; <i>Polyprosopus macei</i> ; <i>Scolaphis atlanticus</i> ; <i>Selache elephas</i> ; <i>Selache maxima</i> ; <i>Selache maximum</i> ; <i>Selache maximus</i> ; <i>Selachus pennanti</i> ; <i>Squalus gunneri</i> ; <i>Squalus shovianus</i> ; <i>Squalus cetaceus</i> ; <i>Squalus elephas</i> ; <i>Squalus gunnerianus</i> ; <i>Squalus homianus</i> ; <i>Squalus isodus</i> ; <i>Squalus maximus</i> ; <i>Squalus pelegrinus</i> ; <i>Squalus peregrinus</i> ; <i>Squalus rasleighianus</i> ; <i>Squalus rhinoceros</i> ; <i>Squalus rostratus</i> ; <i>Tetraodon angiova</i> ; <i>Tetraodon angiova</i> ; <i>Tetraodon maccoyi</i>	Animalia	Chordata	Elasmobranchii	Lamniformes	Cetorhinidae	<i>Cetorhinus</i>	Species	Basking shark; bone shark; Cape basking shark; capido; cow-fish; elephant shark; foolish shark; giant basking shark; gurny shark; hoe mother; homer; long-nosed shark; omfish			
6	<i>Alopias vulpinus</i>	<i>Alopias vulpinus</i>	T	T			T															105836	(Bonnaterre, 1788)	<i>Allopias barae</i> ; <i>Allopias chilensis</i> ; <i>Allopias longimana</i> ; <i>Allopias vulpes</i> ; <i>Allopias caudatus</i> ; <i>Allopias greyi</i> ; <i>Allopias macrurus</i> ; <i>Allopias vulpes</i> ; <i>Carcharias vulpes</i> ; <i>Galeus vulpecula</i> ; <i>Squalus allopias</i> ; <i>Squalus vulpes</i> ; <i>Squalus vulpes</i> ; <i>Squalus vulpinus</i> ; <i>Vulpecula marina</i>	Animalia	Chordata	Elasmobranchii	Lamniformes	Alopiidae	<i>Alopias</i>	Species	Common thresher; fox shark; long-tailed shark			
7	<i>Galeus melastomus</i>	<i>Galeus melastomus</i>	T																			105812	Rafinesque, 1810	<i>Galeus melastomus</i> ; <i>Pristiurus melanostomus</i> ; <i>Pristiurus melastomus</i> ; <i>Pristiurus souverbiei</i> ; <i>Scyllium ardei</i> ; <i>Scyllium ardei</i> ; <i>Scyllium melanostomus</i> ; <i>Squalus annulatus</i> ; <i>Squalus delorichianus</i> ; <i>Squalus priusius</i>	Animalia	Chordata	Elasmobranchii	Carcharhiniformes	Pentanchidae	<i>Galeus</i>	Species	Blackmouth catshark; black-mouthed dogfish			
8	<i>Scyliorhinus canicula</i>	<i>Scyliorhinus canicula</i>	R	T					T	T												105814	(Linnaeus, 1758)	<i>Catulus duhamelli</i> ; <i>Scyllorhinus canicula</i> ; <i>Scyliorhinus canicula albomaculata</i> ; <i>Scyliorhinus canicula</i> ; <i>Scyllium acutidens</i> ; <i>Scyllium canicula</i> ; <i>Scyllium spinacipellum</i> ; <i>Squalus canicula</i> ; <i>Squalus catulus</i> ; <i>Squalus elegans</i>	Animalia	Chordata	Elasmobranchii	Carcharhiniformes	Scyliorhinidae	<i>Scyliorhinus</i>	Species	Dogfish; lesser spotted dogfish; rough hound; sandy dogfish; small spotted catshark			
9	<i>Scyliorhinus stellaris</i>	<i>Scyliorhinus stellaris</i>	T																			105815	(Linnaeus, 1758)	<i>Scyllium acanthodontum</i> ; <i>Scyllium catulus</i> ; <i>Squalus stellaris</i>	Animalia	Chordata	Elasmobranchii	Carcharhiniformes	Scyliorhinidae	<i>Scyliorhinus</i>	Species	Greater spotted dogfish; nursehound			
10	<i>Galeorhinus galeus</i>	<i>Galeorhinus galeus</i>	X	T				T	T													105820	(Linnaeus, 1758)	<i>Carcharhinus cyano</i> ; <i>Eugaleus galeus</i> ; <i>Galeorhinus australis</i> ; <i>Galeorhinus chilensis</i> ; <i>Galeorhinus vitaminicus</i> ; <i>Galeorhinus zyopterus</i> ; <i>Galeus australis</i> ; <i>Galeus canis</i> ; <i>Galeus chilensis</i> ; <i>Galeus communis</i> ; <i>Galeus linnei</i> ; <i>Galeus molinae</i> ; <i>Galeus nilsson</i> ; <i>Galeus vulgaris</i> ; <i>Galeus zyopterus</i> ; <i>Notogaleus australis</i> ; <i>Notogaleus rhinophanes</i> ; <i>Squalus galeus</i> ; <i>Squalus rhinophanes</i>	Animalia	Chordata	Elasmobranchii	Carcharhiniformes	Triakidae	<i>Galeorhinus</i>	Species	Sweet william; tope; tope shark			
11	<i>Mustelus astieris</i>	<i>Mustelus astieris</i>	T																			105821	Cloquet, 1819	<i>Mustelus plebejus</i> ; <i>Mustelus stellatus</i> ; <i>Squalus albomaculatus</i> ; <i>Squalus edentulus</i> ; <i>Squalus himulus</i>	Animalia	Chordata	Elasmobranchii	Carcharhiniformes	Triakidae	<i>Mustelus</i>	Species	Starry smooth hound; starry smooth-hound			
12	<i>Mustelus mustelus</i>	<i>Mustelus mustelus</i>		T																		105822	(Linnaeus, 1758)	<i>Galeus laevis</i> ; <i>Mustelus laevis</i> ; <i>Mustelus equestris</i> ; <i>Mustelus laevis</i> ; <i>Mustelus vulgaris</i> ; <i>Squalus mustelus</i>	Animalia	Chordata	Elasmobranchii	Carcharhiniformes	Triakidae	<i>Mustelus</i>	Species	Smooth hound; smoothhound; smooth-hound; sweet william			
13	<i>Prionace glauca</i>	<i>Prionace glauca</i>	T	T	T	T	T															105801	(Linnaeus, 1758)	<i>Carcharhinus musk</i> ; <i>Carcharias acethias</i> ; <i>Carcharias glaucus</i> ; <i>Carcharias gracilis</i> ; <i>Carcharias hirundinaceus</i> ; <i>Carcharias pugae</i> ; <i>Carcharias glaucus</i> ; <i>Galeus thalassinus</i> ; <i>Glyphis glaucus</i> ; <i>Hypoprion isodus</i> ; <i>Isurus glaucus</i> ; <i>Prionace mackie</i> ; <i>Prionace glauca</i> ; <i>Squalus adscensionis</i> ; <i>Squalus caeruleus</i> ; <i>Squalus glaucus</i> ; <i>Squalus rondeletti</i> ; <i>Thalassius rondeletti</i> ; <i>Thalassius rondeletti</i> ; <i>Thalassius rondeletti</i>	Animalia	Chordata	Elasmobranchii	Carcharhiniformes	Carcharhinidae	<i>Prionace</i>	Species	Blue shark			
14	<i>Etmopterus spinax</i>	<i>Etmopterus spinax</i>	T																			105913	(Linnaeus, 1758)	<i>Etmopterus aculeatus</i> ; <i>Spinax gunneri</i> ; <i>Spinax linnei</i> ; <i>Spinax niger</i> ; <i>Spinax vitulinus</i> ; <i>Squalus infernus</i> ; <i>Squalus niger</i> ; <i>Squalus spinax</i>	Animalia	Chordata	Elasmobranchii	Squaliformes	Etmopteridae	<i>Etmopterus</i>	Species	Velvet belly; velvet-belly			
15	<i>Somniosus microcephalus</i>	<i>Somniosus microcephalus</i>	T	T																		105919	(Bloch & Schneider, 1801)	<i>Loemargus microcephalus</i> ; <i>Leiodon echinatus</i> ; <i>Scymnus glacialis</i> ; <i>Scymnus gunneri</i> ; <i>Scymnus micropterus</i> ; <i>Somniosus brevipinna</i> ; <i>Squalus borealis</i> ; <i>Squalus microcephalus</i> ; <i>Squalus norvegicus</i>	Animalia	Chordata	Elasmobranchii	Squaliformes	Somniosidae	<i>Somniosus</i>	Species	Greenland shark			
16	<i>Oxyntotus centrina</i>	<i>Oxyntotus centrina</i>	T																			105914	(Linnaeus, 1758)	<i>Cetorhinus musk</i> ; <i>Carcharias acethias</i> ; <i>Carcharias glaucus</i> ; <i>Carcharias gracilis</i> ; <i>Carcharias hirundinaceus</i> ; <i>Carcharias pugae</i> ; <i>Carcharias glaucus</i> ; <i>Galeus thalassinus</i> ; <i>Glyphis glaucus</i> ; <i>Hypoprion isodus</i> ; <i>Isurus glaucus</i> ; <i>Prionace mackie</i> ; <i>Prionace glauca</i> ; <i>Squalus adscensionis</i> ; <i>Squalus caeruleus</i> ; <i>Squalus glaucus</i> ; <i>Squalus rondeletti</i> ; <i>Thalassius rondeletti</i> ; <i>Thalassius rondeletti</i> ; <i>Thalassius rondeletti</i>	Animalia	Chordata	Elasmobranchii	Squaliformes	Oxyntotidae	<i>Oxyntotus</i>	Species	Angular rough-shark			
17	<i>Squalus acanthias</i>	<i>Squalus acanthias</i>	R	T	T	T	T	T	T	T	T								T	T		105923	Linnaeus, 1758	<i>Acanthias americanus</i> ; <i>Acanthias antiquorum</i> ; <i>Acanthias communis</i> ; <i>Acanthias lebruni</i> ; <i>Acanthias linnei</i> ; <i>Acanthias vulgaris</i> ; <i>Spinax mediterraneus</i> ; <i>Squalus acanthias acanthias</i> ; <i>Squalus acanthias africana</i> ; <i>Squalus acanthias ponticus</i> ; <i>Squalus acanthias</i> ; <i>Squalus acanthias</i> ; <i>Squalus antiquorum</i> ; <i>Squalus barbouri</i> ; <i>Squalus canis</i> ; <i>Squalus fernandinus</i> ; <i>Squalus kirkii</i> ; <i>Squalus tasmaniensis</i> ; <i>Squalus walkeye</i> ; <i>Squalus whiteley</i>	Animalia	Chordata	Elasmobranchii	Squaliformes	Squalidae	<i>Squalus</i>	Species	Picked dogfish; picky dog; piked dogfish; spiny dogfish; spurdog			
18	<i>Pristis pectinata</i>	<i>Pristis pectinata</i> *										T										105848	Latham, 1794	<i>Pristis acutirostris</i> ; <i>Pristis amandae</i> ; <i>Pristis evermanni</i> ; <i>Pristis granulosa</i> ; <i>Pristis leptodon</i> ; <i>Pristis megalodon</i> ; <i>Pristis occa</i> ; <i>Pristis pectinata</i> ; <i>Pristis serra</i> ; <i>Pristis waermanni</i> ; <i>Pristisobatus occa</i>	Animalia	Chordata	Elasmobranchii	Pristiformes	Pristidae	<i>Pristis</i>	Species	Smalltooth sawfish	yes		
19	<i>Squatina squatina</i>	<i>Squatina squatina</i>	T																			105928	(Linnaeus, 1758)	<i>Rhina squatina</i> ; <i>Squalia acephala</i> ; <i>Squalia cervicata</i> ; <i>Squalus squatina</i> ; <i>Squatina angelus</i> ; <i>Squatina angelus</i> ; <i>Squatina europaea</i> ; <i>Squatina laevis</i> ; <i>Squatina lewis</i> ; <i>Squatina vulgaris</i>	Animalia	Chordata	Elasmobranchii	Squatiniiformes	Squatiniidae	<i>Squatina</i>	Species	Angelshark; monkfish; puppy-fish			
20	<i>Torpedo marmorata</i>	<i>Torpedo marmorata</i>	T																			271684	Risso, 1810	<i>Narcacion marmoratus</i> ; <i>Narcobatus marmoratus</i> ; <i>Torpedo (Torpedo) marmorata</i> ; <i>Torpedo diversicolor</i> ; <i>Torpedo galvani</i> ; <i>Torpedo immaculata</i> ; <i>Torpedo picta</i> ; <i>Torpedo punctata</i> ; <i>Torpedo trepidans</i> ; <i>Torpedo vulgaris</i>	Animalia	Chordata	Elasmobranchii	Torpediniformes	Torpedinidae	<i>Torpedo</i>	Species	Marbled electric ray			
21	<i>Tetronarce nobiliana</i>	<i>Torpedo nobiliana</i>	T																			321911	(Bonaparte, 1835)	<i>Narcacion nobiliana</i> ; <i>Narcobatus nobiliana</i> ; <i>Torpedo (Tetronarce) nobiliana</i> ; <i>Torpedo emarginata</i> ; <i>Torpedo hebetans</i> ; <i>Torpedo nigra</i> ; <i>Torpedo nobiliana</i> ; <i>Torpedo nobiliana</i> ; <i>Torpedo nobiliana</i> ; <i>Torpedo occidentalis</i> ; <i>Torpedo walshii</i>	Animalia	Chordata	Elasmobranchii	Torpediniformes	Torpedinidae	<i>Tetronarce</i>	Species	Black marlin; electric ray			
22	<i>Amblyraja radiata</i>	<i>Amblyraja radiata</i>	R	T	T	T	R	T	T		T											105865	(Donovan, 1808)	<i>Raja americana</i> ; <i>Raja scabrata</i> ; <i>Raja radiata</i>	Animalia	Chordata	Elasmobranchii	Rajiformes	Rajidae	<i>Amblyraja</i>	Species	Starry ray; thorny skate			

[illegible]

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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P																		
No	Valid scientific name (2019)	Scientific name in previous checklist (2012)	Kiel Bight	Great Belt	Kiel Bay	Bay of Mecklenburg	The Sound	Arvika Bay	Bornholm Basin	Western Gotland Basin	Eastern Gotland Basin	Gdansk Basin	Velika Lagoon	Curonian Lagoon	Gulf of Riga	Northern Baltic Proper	Gulf of Finland	Azov Sea	Bothnian Sea	The Quark	Bothnian Bay												
40	<i>Alosa fallax</i>	<i>Alosa fallax</i>	T	T	T	T	T	X	X	T	X	X	X	X	R	X	T	T	T	T	T	126415	(Lacepède, 1803)	Animalia	Chordata	Actinopterygii	Clupeiformes	Clupeidae	<i>Alosa</i>	Species	Shad; twait shad; twaite; twaite shad		
41	<i>Clupea harengus</i>	<i>Clupea harengus</i>	R	R	R	R	R	R	R	R	R	R	R	R	T	R	R	R	R	R	R	126417	Linnaeus, 1758	Animalia	Chordata	Actinopterygii	Clupeiformes	Clupeidae	<i>Clupea</i>	Species	Atlantic herring; hafsild; herring		
42	<i>Sardina pilchardus</i>	<i>Sardina pilchardus</i>	T	T																		126421	(Walbaum, 1792)	Animalia	Chordata	Actinopterygii	Clupeiformes	Clupeidae	<i>Sardina</i>	Species	European pilchard; European pilchard (=sardine); pilchard; sardine		
43	<i>Sprattus sprattus</i>	<i>Sprattus sprattus</i>	R	R	R	R	R	R	R	R	R	R	T	T	R	R	R	R	R	R	R	126425	(Linnaeus, 1758)	Animalia	Chordata	Actinopterygii	Clupeiformes	Clupeidae	<i>Sprattus</i>	Species	European sprat; sprat		
44	<i>Engraulis encrasicolus</i>	<i>Engraulis encrasicolus</i>	T	T	T	T	T	T	T	T	T				T	T	T	T				126426	(Linnaeus, 1758)	Animalia	Chordata	Actinopterygii	Clupeiformes	Engraulidae	<i>Engraulis</i>	Species	Anchovy; European anchovy; Southern African anchovy		
45	<i>Rhodeus sericeus</i>	<i>Rhodeus sericeus</i>								T					T	X						154613	(Pallas, 1776)	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Rhodeus</i>	Species	Bitterling		
46	<i>Carassius carassius</i>	<i>Carassius carassius</i>					T	X		T		R	R	T	R	R	R	R	R			154297	(Linnaeus, 1758)	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Carassius</i>	Species	Bronze carp; crucian carp		
47	<i>Carassius gibelio</i>	<i>Carassius gibelio</i> *									T	R	R	R	R	X	R	P				234033	(Bloch, 1782)	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Carassius</i>	Species	Gibel carp	yes	
48	<i>Cyprinus carpio</i>	<i>Cyprinus carpio</i> *	T	T			T	T		T	X	X	X	X	X	T	T					154582	Linnaeus, 1758	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Cyprinus</i>	Species	Carp; common carp		
49	<i>Barbus barbus</i>	<i>Barbus barbus</i>							T	T	T	T										154292	(Linnaeus, 1758)	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Barbus</i>	Species	Barbel		
50	<i>Abramis brama</i>	<i>Abramis brama</i>	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		154281	(Linnaeus, 1758)	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Abramis</i>	Species	Bronze bream; common bream; freshwater bream		
51	<i>Leuciscus aspius</i>	<i>Aspius aspius</i>							T	T	T	X	X	T		X	X	T				3015724	(Linnaeus, 1758)	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Leuciscus</i>	Species	Asp		
52	<i>Ballerus ballerus</i>	<i>Ballerus ballerus</i>					X	T								T	T	T				279859	(Linnaeus, 1758)	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Ballerus</i>	Species	Blue bream		
53	<i>Blicca bjoerkna</i>	<i>Blicca bjoerkna</i>	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		154274	(Linnaeus, 1758)	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Blicca</i>	Species	Silver bream; white bream		
54	<i>Leucaspis delineatus</i>	<i>Leucaspis delineatus</i>							T			X	R		T							154321	(Heckel, 1843)	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Leucaspis</i>	Species	Able de Heckel; sunbleak		

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No	Valid scientific name (2019)	Scientific name in previous checklist (2012)	Kattegat	Great Belt	Kiel Bay	Bay of Mecklenburg	The Sound	Aarhus Bay	Bornholm Basin	Western Gotland Basin	Eastern Gotland Basin	Gdansk Basin	Velika Lagoon	Curonian Lagoon	Gulf of Riga	Northern Baltic Proper	Gulf of Finland	Aaland Sea	Bothnian Sea	The Quark	Bothnian Bay															
55	<i>Leuciscus idus</i>	<i>Leuciscus idus</i>	T	T	X	X	X	X	X	X	X	X	X	R	X	R	R	R	R	R	R		154324		(Linnaeus, 1758)	<i>Cyprinus idarus</i> ; <i>Cyprinus idus</i> ; <i>Cyprinus jessei</i> ; <i>Cyprinus microlepidotus</i> ; <i>Cyprinus orfus</i> ; <i>Cyprinus orphus</i> ; <i>Idus idus</i> ; <i>Idus melanotus</i> ; <i>Idus melanotus orientalis</i> ; <i>Idus miniatus</i> ; <i>Idus miniotus</i> ; <i>Idus oxianus</i> ; <i>Leuciscus idus auratus</i> ; <i>Leuciscus idus idus</i> ; <i>Leuciscus idus idus natio sibiricus</i> ; <i>Leuciscus idus lapponicus</i> ; <i>Leuciscus idus oxianus</i> ; <i>Leuciscus neglectus</i> ; <i>Squalius oxianus</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Leuciscus</i>	Species	Idc; orfe		
56	<i>Leuciscus leuciscus</i>	<i>Leuciscus leuciscus</i>							T		T			R	T		X	X	X	X	X		154599		(Linnaeus, 1758)	<i>Cyprinus dobula</i> ; <i>Cyprinus graining</i> ; <i>Cyprinus grislagine</i> ; <i>Cyprinus lancastriensis</i> ; <i>Cyprinus leuciscus</i> ; <i>Cyprinus mugilis</i> ; <i>Cyprinus salax</i> ; <i>Cyprinus simus</i> ; <i>Cyprinus squalus</i> ; <i>Cyprinus umbra</i> ; <i>Idus stagnalis</i> ; <i>Leuciscus argenteus</i> ; <i>Leuciscus dobula</i> ; <i>Leuciscus leuciscus baicalensis natio kirgisorum</i> ; <i>Leuciscus leuciscus baicalensis natio teletzkensis</i> ; <i>Leuciscus leuciscus roulei</i> ; <i>Leuciscus majalis</i> ; <i>Leuciscus rodens</i> ; <i>Leuciscus rostratus</i> ; <i>Leuciscus rostratus</i> ; <i>Leuciscus saltator</i> ; <i>Leuciscus vulgaris</i> ; <i>Squalius chalybeius</i> ; <i>Squalius lepusculus</i> ; <i>Squalius leuciscus elato</i> ; <i>Squalius leuciscus elongata</i> ; <i>Squalius leuciscus lateristriga</i> ; <i>Squalius mehder</i> ; <i>Squalius suworzewi</i> ; <i>Squalius vulgaris argenteus</i> ; <i>Squalius vulgaris leptorhinus</i> ; <i>Squalius vulgaris minor</i> ; <i>Squalius vulgaris robustior</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Leuciscus</i>	Species	Dace		
57	<i>Pelecus cultratus</i>	<i>Pelecus cultratus</i>			T		T	T	T	T	X	R	R	R	T	T	R	T	T	T	T		282185		(Linnaeus, 1758)	<i>Clupea ziga</i> ; <i>Cyprinus cultratus</i> ; <i>Salmo microps</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Pelecus</i>	Species	Knife; razorfish; sabrefish		
58	<i>Phoxinus phoxinus</i>	<i>Phoxinus phoxinus</i>									R				R	R	R	R	R	R	R		154326		(Linnaeus, 1758)	<i>Cyprinus aphyia</i> ; <i>Cyprinus chrysoprasus</i> ; <i>Cyprinus galan</i> ; <i>Cyprinus letensis</i> ; <i>Cyprinus lumaireui</i> ; <i>Cyprinus morella</i> ; <i>Cyprinus phoxinus</i> ; <i>Cyprinus rivularis</i> ; <i>Leuciscus phoxinus</i> ; <i>Phoxinus csiki</i> ; <i>Phoxinus laevis</i> ; <i>Phoxinus laevis balchaschana</i> ; <i>Phoxinus marsili</i> ; <i>Phoxinus phoxinus carpaticus</i> ; <i>Phoxinus phoxinus colchicus</i> ; <i>Phoxinus phoxinus phoxinus</i> ; <i>Phoxinus phoxinus strandiae</i> ; <i>Phoxinus rivularis</i> ; <i>Phoxinus varius</i> ; <i>Phoxinus montanus</i> ; <i>Salmo rivularis</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Phoxinus</i>	Species	Minnow		
59	<i>Rutilus rutilus</i>	<i>Rutilus rutilus</i>	T		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		154333		(Linnaeus, 1758)	<i>Cyprinus fulvus</i> ; <i>Cyprinus jaculus</i> ; <i>Cyprinus lacustris</i> ; <i>Cyprinus pigus</i> ; <i>Cyprinus rubellus</i> ; <i>Cyprinus rutilus</i> ; <i>Cyprinus rutilus</i> ; <i>Cyprinus simus</i> ; <i>Cyprinus xanthopterus</i> ; <i>Gardonus pigulus</i> ; <i>Gardonus rubeculus</i> ; <i>Gardonus rutilus</i> ; <i>Leuciscus decipiens</i> ; <i>Leuciscus heckelii</i> ; <i>Leuciscus junini</i> ; <i>Leuciscus lividus</i> ; <i>Leuciscus pallens</i> ; <i>Leuciscus pausingeri</i> ; <i>Leuciscus pigus</i> ; <i>Leuciscus pigus dojanensis</i> ; <i>Leuciscus prasinus</i> ; <i>Leuciscus rutiloides</i> ; <i>Leuciscus rutilus</i> ; <i>Leuciscus rutilus aurata</i> ; <i>Leuciscus rutilus auratus</i> ; <i>Leuciscus rutilus bolnensis</i> ; <i>Leuciscus rutilus caspicus</i> ; <i>Leuciscus rutilus communis</i> ; <i>Leuciscus rutilus communis</i> ; <i>Leuciscus rutilus crassa</i> ; <i>Leuciscus rutilus daugawensis</i> ; <i>Leuciscus rutilus elato</i> ; <i>Leuciscus rutilus elongata</i> ; <i>Leuciscus rutilus erytraea</i> ; <i>Leuciscus rutilus fluvialis</i> ; <i>Leuciscus rutilus terekensis</i> ; <i>Leuciscus rutilus wobia</i> ; <i>Leuciscus rutilus wobia</i> ; <i>Leuciscus selysi</i> ; <i>Leucos cenisophius</i> ; <i>Leucos cenisophius</i> ; <i>Leucos pigulus</i> ; <i>Rutilus caspicus</i> ; <i>Rutilus heckelii</i> ; <i>Rutilus rutilus aralensis</i> ; <i>Rutilus rutilus aralensis natio phragmiteti</i> ; <i>Rutilus rutilus bucharensis</i> ; <i>Rutilus rutilus carpatorossicus</i> ; <i>Rutilus rutilus caspicus</i> ; <i>Rutilus rutilus caspicus natio geoktschaicus</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Rutilus</i>	Species	Roach		
60	<i>Scardinius erythrophthalmus</i>	<i>Scardinius erythrophthalmus</i>	T	X	X			X	R	X	T	X	R	R	R	R	R	R	R	R	R		154165		(Linnaeus, 1758)	<i>Cyprinus caeruleus</i> ; <i>Cyprinus compressus</i> ; <i>Cyprinus erythrophthalmus</i> ; <i>Cyprinus erythroptus</i> ; <i>Cyprinus fuscus</i> ; <i>Cyprinus scardula</i> ; <i>Leuciscus apollonitis</i> ; <i>Leuciscus caeruleus</i> ; <i>Leuciscus erythrophthalmus</i> ; <i>Scardinius crocophthalmus</i> ; <i>Scardinius erythrophthalmus</i> ; <i>Scardinius erythrophthalmus</i> ; <i>Scardinius erythrophthalmus achrus</i> ; <i>Scardinius erythrophthalmus dojanensis</i> ; <i>Scardinius erythrophthalmus racovitza</i> ; <i>Scardinius erythrophthalmus rutiloides</i> ; <i>Scardinius erythrophthalmus var. dojanensis</i> ; <i>Scardinius macrophthalmus</i> ; <i>Scardinius platiza</i> ; <i>Scardinius scardafia ohridana</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Scardinius</i>	Species	Rudd		
61	<i>Squalius cephalus</i>	<i>Squalius cephalus</i>		X	X			X	X	X	X	X	T	T			X	T	T				282855		(Linnaeus, 1758)	<i>Cyprinus albus</i> ; <i>Cyprinus capito</i> ; <i>Cyprinus cephalus</i> ; <i>Cyprinus chub</i> ; <i>Cyprinus kietabelli</i> ; <i>Cyprinus kittabelli</i> ; <i>Cyprinus lugdunensis</i> ; <i>Cyprinus orthotatus</i> ; <i>Cyprinus rufus</i> ; <i>Cyprinus salmoneus</i> ; <i>Leucolburnus kasswigi</i> ; <i>Leuciscus albiensis</i> ; <i>Leuciscus albus</i> ; <i>Leuciscus brutius</i> ; <i>Leuciscus cabeda</i> ; <i>Leuciscus cabeda pamvoticus</i> ; <i>Leuciscus cavedonius</i> ; <i>Leuciscus cephalus</i> ; <i>Leuciscus cephalus albus</i> ; <i>Leuciscus cephalus cabeda</i> ; <i>Leuciscus cephalus cephalus</i> ; <i>Leuciscus cephalus macedonius</i> ; <i>Leuciscus cephalus moreoticus</i> ; <i>Leuciscus cephalus orientalis</i> ; <i>Leuciscus cephalus orientalis natio aralychensis</i> ; <i>Leuciscus cephalus orientalis natio ardebilicus</i> ; <i>Leuciscus cephalus orientalis natio karakow</i> ; <i>Leuciscus cephalus orientalis natio thracka</i> ; <i>Leuciscus cephalus orientalis natio thracicus</i> ; <i>Leuciscus cephalus orientalis natio zangicus</i> ; <i>Leuciscus cephalus prespensis</i> ; <i>Leuciscus cephalus ruffoi</i> ; <i>Leuciscus cephalus var. wjatkensis</i> ; <i>Leuciscus cephalus vardarensis</i> ; <i>Leuciscus cephalus wjatkensis</i> ; <i>Leuciscus chub pictava</i> ; <i>Leuciscus fellowesii</i> ; <i>Leuciscus frigidus</i> ; <i>Leuciscus latifrons</i> ; <i>Leuciscus nothulus</i> ; <i>Leuciscus orientalis</i> ; <i>Leuciscus pamvoticus</i> ; <i>Leuciscus peloponensis</i> ; <i>Leuciscus rissoi</i> ; <i>Leuciscus ruffoi</i> ; <i>Leuciscus squalius</i> ; <i>Leuciscus squalius</i> ; <i>Leuciscus szallize zmanjae natio risae</i> ; <i>Squalius albus</i> ; <i>Squalius cephalopsis</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Squalius</i>	Species	Chub		
62	<i>Vimba vimba</i>	<i>Vimba vimba</i>						X	X	X	X	X	X	X	X	X	X	X	X	T	T		283150		(Linnaeus, 1758)	<i>Abramis fridlezkyi</i> ; <i>Abramis nordmanni</i> ; <i>Abramis parva pontica</i> ; <i>Abramis tenellus</i> ; <i>Abramis vimba</i> ; <i>Cyprinus carinatus</i> ; <i>Cyprinus persa</i> ; <i>Cyprinus sarta</i> ; <i>Cyprinus vimba</i> ; <i>Cyprinus vimpa</i> ; <i>Cyprinus zerta</i> ; <i>Leuciscus parvulus</i> ; <i>Vimba vimba bergi</i> ; <i>Vimba vimba carinata</i> ; <i>Vimba vimba persa</i> ; <i>Vimba vimba tenella</i> ; <i>Vimba vimba tenella natio abulyantis</i> ; <i>Vimba vimba tenella natio aphnitis</i> ; <i>Vimba vimba tenella natio istanbulensis</i> ; <i>Vimba vimba tenella natio karasuensis</i> ; <i>Vimba vimba tenella natio sapancae</i> ; <i>Vimba vimba vimba</i> ; <i>Vimba vimba vimba natio boysthenica</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Vimba</i>	Species	Vimba bream		
63	<i>Ctenopharyngodon idella</i>	<i>Ctenopharyngodon idella</i> *			T	T						T											154314		(Valenciennes, 1844)	<i>Ctenopharyngodon laticeps</i> ; <i>Leuciscus tschiliensis</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Ctenopharyngodon</i>	Species	Grass carp; grasscarp	yes	
64	<i>Tinca tinca</i>	<i>Tinca tinca</i>	T		T	X	X	X	X			R	R	X	X	R	R	R					154343		(Linnaeus, 1758)	<i>Cyprinus tinca</i> ; <i>Cyprinus tinca auratus</i> ; <i>Cyprinus tincaauratus</i> ; <i>Cyprinus tincaurea</i> ; <i>Cyprinus zeel</i> ; <i>Tinca aurea</i> ; <i>Tinca chrysis</i> ; <i>Tinca communis</i> ; <i>Tinca italica</i> ; <i>Tinca limosa</i> ; <i>Tinca linnei</i> ; <i>Tinca vulgaris</i> ; <i>Tinca vulgaris cestellae</i> ; <i>Tinca vulgaris maculata</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Tinca</i>	Species	Tench		
65	<i>Hypophthalmichthys molitrix</i>	<i>Hypophthalmichthys molitrix</i> *						T					T	T									154319		(Valenciennes, 1844)	<i>Hypophthalmichthys dabryi</i> ; <i>Hypophthalmichthys dybowskii</i> ; <i>Leuciscus hypophthalmus</i> ; <i>Leuciscus molitrix</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Hypophthalmichthys</i>	Species	Silver carp	yes	
66	<i>Hypophthalmichthys nobilis</i>	<i>Hypophthalmichthys nobilis</i> *				T							T	T									154600		(Richardson, 1845)	<i>Aristichthys nobilis</i> ; <i>Leuciscus nobilis</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Hypophthalmichthys</i>	Species	Bighead; bighead carp	yes	

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No	Valid scientific name (2019)	Scientific name in previous checklist (2012)	Kattegat	Great Belt	Kiel Bay	Bay of Mecklenburg	The Sound	Adriatic	Bornholm Basin	Western Gotland Basin	Western Gotland Basin	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic																		Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic	Adriatic

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No	Valid scientific name (2019)	Scientific name in previous checklist (2012)	Mecklenburg	Great Belt	Hel Bay	Bay of Mecklenburg	The Sound	Arkona Basin	Bornholm Basin	Western Gotland Basin	Gotland Basin	Velina Lagoon	Cornwall Lagoon	Gulf of Riga	Northern Baltic Proper	Gulf of Finland	Åland Sea	Baltic Sea	The Quark	Bornholm Bay																	
135	<i>Syngnathus typhle</i>	<i>Syngnathus typhle</i>	R	R	R	R	R	R	R	R	R	R		T	R	R	R	R	T			127393	Linnaeus, 1758	<i>Siphonostoma typhle</i> ; <i>Siphostoma typhle</i> ; <i>Syngnathus argentatus</i> ; <i>Syngnathus pelagicus</i> ; <i>Syngnathus ponticus</i> ; <i>Syngnathus pyraeis</i> ; <i>Syngnathus rondeletii</i> ; <i>Syngnathus rotundatus</i> ; <i>Syngnathus thyphele</i> ; <i>Syngnathus typhle rondeleti</i> ; <i>Syngnathus widus</i> ; <i>Syphonostoma typhle</i> ; <i>Typhle hexagonus</i>	Animalia	Chordata	Actinopterygii	Syngnathiformes	Syngnathidae	<i>Syngnathus</i>	Species		Broad-nosed pipefish; deep-nosed pipefish; deep-snouted pipefish				
136	<i>Hippocampus hippocampus</i>	<i>Hippocampus hippocampus</i>		T																		127380	(Linnaeus, 1758)	<i>Gasterosteus equus</i> ; <i>Hippocampus antiquorum</i> ; <i>Hippocampus antiquus</i> ; <i>Hippocampus brevivirostris</i> ; <i>Hippocampus europaeus</i> ; <i>Hippocampus heptagonus</i> ; <i>Hippocampus pentagonus</i> ; <i>Hippocampus vulgaris</i> ; <i>Syngnathus hippocampus</i>	Animalia	Chordata	Actinopterygii	Syngnathiformes	Syngnathidae	<i>Hippocampus</i>	Species		Seahorse; short-snouted seahorse				
137	<i>Sebastes norvegicus</i>	<i>Sebastes norvegicus</i>	T			T																151324	(Ascanius, 1772)	<i>Perca norvegica</i> ; <i>Sebastes (Sebastes) norvegicus</i> ; <i>Sebastes marinus</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Sebastidae	<i>Sebastes</i>	Species		Golden redfish; red-fish				
138	<i>Sebastes viviparus</i>	<i>Sebastes viviparus</i>	X																			127255	Krøyer, 1845	<i>Sebastes (Sebastes) viviparus</i> ; <i>Sebastes marinus viviparus</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Sebastidae	<i>Sebastes</i>	Species		Norway haddock				
139	<i>Chelidonichthys cuculus</i>	<i>Chelidonichthys cuculus</i>	T																			127259	(Linnaeus, 1758)	<i>Aspitrigla cuculus</i> ; <i>Chelidonichthys cuculus</i> ; <i>Trigla cuculus</i> ; <i>Trigla grunniens</i> ; <i>Trigla pini</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Triglidae	<i>Chelidonichthys</i>	Species		Red gurnard				
140	<i>Chelidonichthys lucerna</i>	<i>Chelidonichthys lucerna</i>	X	T	T	T	X	T	T		T	T										127262	(Linnaeus, 1758)	<i>Chelidonichthys lucernus</i> ; <i>Chelidonichthys lucernus</i> ; <i>Trigla corax</i> ; <i>Trigla cornus</i> ; <i>Trigla hirundo</i> ; <i>Trigla lucerna</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Triglidae	<i>Chelidonichthys</i>	Species		Tub gurnard				
141	<i>Eutrigla gurnardus</i>	<i>Eutrigla gurnardus</i>	R	R	R	R	R	R	T		T	T										150617	(Linnaeus, 1758)	<i>Chelidonichthys gurnardus</i> ; <i>Eutrigla gurnardus gurnardus</i> ; <i>Eutrigla gurnardus milvus</i> ; <i>Eutrigla gurnardus</i> ; <i>Trigla gurnardus</i> ; <i>Trigla milvus</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Triglidae	<i>Eutrigla</i>	Species		Grey gurnard				
142	<i>Chelidonichthys lastoviza</i>	<i>Trigloporus lastoviza</i>	T																			127261	(Bonnaterre, 1788)	<i>Chelidonichthys africana</i> ; <i>Cuculus lineatus</i> ; <i>Trigla (Trigloporus) africana</i> ; <i>Trigla (Trigloporus) lastoviza</i> ; <i>Trigla adriatica</i> ; <i>Trigla africana</i> ; <i>Trigla ganotus</i> ; <i>Trigla lastoviza</i> ; <i>Trigla lineata</i> ; <i>Trigloporus lastoviza</i> ; <i>Trigloporus lastoviza</i> ; <i>Trigloporus lastoviza africanus</i> ; <i>Trigloporus lineata</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Triglidae	<i>Chelidonichthys</i>	Species		Streaked gurnard				
143	<i>Cottus gobio</i>	<i>Cottus gobio</i>							T					R	R	R	R	R	R			127196	Linnaeus, 1758	<i>Cottus affinis</i> ; <i>Cottus ferrugineus</i> ; <i>Cottus ferrugineus</i> ; <i>Cottus gobio gobio</i> ; <i>Cottus gobio haemus</i> ; <i>Cottus gobio jakartensis</i> ; <i>Cottus gobio jakartensis</i> ; <i>Cottus gobio macrostomus</i> ; <i>Cottus gobio pellegrini</i> ; <i>Cottus gobio pellegrini</i> ; <i>Cottus gobio roseus</i> ; <i>Cottus haemus</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Cottidae	<i>Cottus</i>	Species		Bullhead; freshwater sculpin; Miller's thumb; sculpin				
144	<i>Cottus poecilopus</i>	<i>Cottus poecilopus</i>													T		T	T				127197	Heckel, 1837	<i>Cottus canago</i> ; <i>Cottus poecilopterus</i> ; <i>Cottus poecilopus altaicus</i> ; <i>Cottus poecilopus macrostomus</i> ; <i>Cottus poecilopus microstomus</i> ; <i>Cottus poecilopus poecilopus</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Cottidae	<i>Cottus</i>	Species		Spotted sculpin				
145	<i>Myoxocephalus scorpius</i>	<i>Myoxocephalus scorpius</i>	R	R	R	R	R	R	R	R	R	R		T	R	R	R	R	R	T		127203	(Linnaeus, 1758)	<i>Acanthocottus scorpius</i> ; <i>Cottus groenlandicus</i> ; <i>Cottus scorpius</i> ; <i>Cottus verrucosus</i> ; <i>Myoxocephalus scorpius groenlandicus</i> ; <i>Myoxocephalus scorpius scorpius</i> ; <i>Myoxocephalus scorpius</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Cottidae	<i>Myoxocephalus</i>	Species		Bull rout; father lasher; sculpin; sea scorpion; shorthorn sculpin; short-spined sea scorpion				
146	<i>Taurulus bubalis</i>	<i>Taurulus bubalis</i>	R	R	R	R	R	R	R	R	R	T			R	R	R	R	R			127204	(Euphrasen, 1786)	<i>Acanthocottus bubalis</i> ; <i>Aspicottus bubalis</i> ; <i>Ceratoctonus bubalis</i> ; <i>Cottus bubalis</i> ; <i>Cottus maculatus</i> ; <i>Enophrys bubalis</i> ; <i>Myoxocephalus bubalis</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Cottidae	<i>Taurulus</i>	Species		Sea scorpion				
147	<i>Triglops murrayi</i>	<i>Triglops murrayi</i>	T																			127205	Günther, 1888	<i>Cottus murrayi ommatistius</i> ; <i>Triglops murrayi terraenovae</i> ; <i>Triglops ommatistius</i> ; <i>Triglops ommatistius ommatistius</i> ; <i>Triglops ommatistius terraenovae</i> ; <i>Triglops ommatistius terraenovae</i> ; <i>Triglops pingelli islandicus</i> ; <i>Triglops pingelli murrayi</i> ; <i>Triglops pingelli pietschmanni</i> ; <i>Triglops pingelli terraenovae</i> ; <i>Triglops pingelli var. subborealis</i> ; <i>Triglops terraenovae</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Cottidae	<i>Triglops</i>	Species		Mailed sculpin; moustache sculpin				
148	<i>Myoxocephalus quadricornis</i>	<i>Triglopsis quadricornis</i>						T	T	R	R	T			R	R	R	R	R			254529	(Linnaeus, 1758)	<i>Cottus hexacornis</i> ; <i>Cottus latifrons</i> ; <i>Cottus quadricornis</i> ; <i>Cottus quadricornis asundensis</i> ; <i>Cottus quadricornis borkensis</i> ; <i>Cottus quadricornis fykeiensis</i> ; <i>Cottus quadricornis kalleiensis</i> ; <i>Cottus quadricornis lombergi</i> ; <i>Cottus quadricornis oermensis</i> ; <i>Cottus quadricornis pygmaeus</i> ; <i>Cottus quadricornis relicta</i> ; <i>Cottus quadricornis vaenemensis</i> ; <i>Cottus quadricornis vermelensis</i> ; <i>Myoxocephalus quadricornis hexacornis</i> ; <i>Myoxocephalus quadricornis lombergi</i> ; <i>Myoxocephalus quadricornis onegensis</i> ; <i>Myoxocephalus quadricornis quadricornis</i> ; <i>Myoxocephalus quadricornis relicta</i> ; <i>Onchocottus hexacornis</i> ; <i>Onchocottus quadricornis</i> ; <i>Onocottus hexacornis</i> ; <i>Triglops quadricornis</i> ; <i>Triglopsis quadricornis</i> ; <i>Triglopsis quadricornis quadricornis</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Cottidae	<i>Myoxocephalus</i>	Species		Fourhorn sculpin				
149	<i>Agonus cataphractus</i>	<i>Agonus cataphractus</i>	R	R	R	R	R	X	X	X	T	R					T					127190	(Linnaeus, 1758)	<i>Aspidophorus armatus</i> ; <i>Aspidophorus cataphractus</i> ; <i>Aspidophorus europaeus</i> ; <i>Cataphractus schoneveldi</i> ; <i>Cottus bradamus</i> ; <i>Cottus cataphractus</i> ; <i>Paragonus sertoni</i> ; <i>Phalangiastes cataphractus</i> ; <i>Ribeiroa sertoni</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Agonidae	<i>Agonus</i>	Species		Armed bullhead; hook-nose; hook-nose; poggie				
150	<i>Cyclopterus lumpus</i>	<i>Cyclopterus lumpus</i>	R	R	R	R	R	R	R	R	R	R	T	T	R	R	R	R	R			127214	Linnaeus, 1758	<i>Cyclopterus caeruleus</i> ; <i>Cyclopterus coronatus</i> ; <i>Cyclopterus lumpus hudsonius</i> ; <i>Cyclopterus minutus</i> ; <i>Cyclopterus pavoianus</i> ; <i>Cyclopterus pyramidalis</i> ; <i>Lumpus anglorum</i> ; <i>Lumpus vulgaris</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Cyclopteridae	<i>Cyclopterus</i>	Species		Henfish; lumpfish; lump sucker				
151	<i>Liparis liparis liparis</i>	<i>Liparis liparis</i>	R	T		T	R	T	T	T	R	R			R	R	R	R	T			293624	(Linnaeus, 1766)	<i>Cyclopterus lineatus</i> ; <i>Cyclopterus liparis</i> ; <i>Cyclopterus liparoides</i> ; <i>Liparis lineatus</i> ; <i>Liparis lineatus var. assimilis</i> ; <i>Liparis lineatus var. decorus</i> ; <i>Liparis lineatus var. fuscus</i> ; <i>Liparis lineatus var. mixus</i> ; <i>Liparis lineatus var. multistriatus</i> ; <i>Liparis lineatus var. scorpioides</i> ; <i>Liparis lineatus var. scriptus</i> ; <i>Liparis lineatus var. subfuscus</i> ; <i>Liparis liparis</i> ; <i>Liparis stellatus</i> ; <i>Liparis vulgaris</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Liparidae	<i>Liparis</i>	Subspecies		Striped seasnail				
152	<i>Liparis montagui</i>	<i>Liparis montagui</i>	R	R		R																127220	(Donovan, 1804)	<i>Cyclopterus gobius</i> ; <i>Cyclopterus montagui</i> ; <i>Liparis ekstromi</i> ; <i>Liparis maculatus</i> ; <i>Liparis montagui annulatus</i> ; <i>Liparis montagui obscurus</i> ; <i>Liparis montagui pictus</i> ; <i>Liparis montagui principalis</i> ; <i>Liparis montagui striatus</i>	Animalia	Chordata	Actinopterygii	Scorpaeniformes	Liparidae	<i>Liparis</i>	Species		Montagu's sea snail; Montagu's sea-snail				
153	<i>Dicentrarchus labrax</i>	<i>Dicentrarchus labrax</i>	T	T		T	T	T	T	T	T			T		T	T	T				126975	(Linnaeus, 1758)	<i>Centropomus lupus</i> ; <i>Centropomus nullus</i> ; <i>Dicentrarchus elongatus</i> ; <i>Dicentrarchus lupus</i> ; <i>Labrax diacanthus</i> ; <i>Labrax elongatus</i> ; <i>Labrax labrax</i> ; <i>Labrax linnei</i> ; <i>Labrax lupus</i> ; <i>Labrax vulgaris</i> ; <i>Marone labrax</i> ; <i>Perca diacantha</i> ; <i>Perca elongata</i> ; <i>Perca labrax</i> ; <i>Perca sinuosa</i> ; <i>Roccus labrax</i> ; <i>Sciaenoda diacantha</i> ; <i>Sciaenoda labrax</i>	Animalia	Chordata	Actinopterygii	Perciformes	Moronidae	<i>Dicentrarchus</i>	Species		Bass; European seabass; sea bass; seabass				
154	<i>Polyprion americanus</i>	<i>Polyprion americanus</i>	T			T																126998	(Bloch & Schneider, 1801)	<i>Amphiprion americanus</i> ; <i>Polyprion americanum</i> ; <i>Polyprion cernium</i> ; <i>Polyprion massillense</i> ; <i>Polyprion maeone</i> ; <i>Spanus cernua</i>	Animalia	Chordata	Actinopterygii	Perciformes	Polyprionidae	<i>Polyprion</i>	Species		Stone-bass; stonefish; wreckfish; wreck-fish				
155	<i>Gymnocephalus cernua</i>	<i>Gymnocephalus cernua</i>		T	R	R		R	R	R	T	X	R	R	R	R	R	R	R			405451	(Linnaeus, 1758)	<i>Acerina cernua</i> ; <i>Acerina cernua danubica</i> ; <i>Acerina cernua essipovi</i> ; <i>Acerina czekanowskii</i> ; <i>Acerina fischeri</i> ; <i>Acerina vulgaris</i> ; <i>Cernua fluviatilis</i> ; <i>Gymnocephalus cernua</i> ; <i>Gymnocephalus cernua</i> ; <i>Volocentrus pect</i> ; <i>Perca cernua</i>	Animalia	Chordata	Actinopterygii	Perciformes	Percidae	<i>Gymnocephalus</i>	Species		Ruffe				
156	<i>Perca fluviatilis</i>	<i>Perca fluviatilis</i>	T	T	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R			151353	Linnaeus, 1758	<i>Perca fluviatilis aurea</i> ; <i>Perca fluviatilis gibbo</i> ; <i>Perca fluviatilis gracilis</i> ; <i>Perca fluviatilis intermedius</i> ; <i>Perca fluviatilis macedonica</i> ; <i>Perca fluviatilis maculata</i> ; <i>Perca fluviatilis nigrescens</i> ; <i>Perca fluviatilis phragmiteti</i> ; <i>Perca fluviatilis zaissanica</i> ; <i>Perca fluviatilis</i> ; <i>Perca helvetica</i> ; <i>Perca Italia</i> ; <i>Perca vulgaris</i> ; <i>Perca vulgaris</i> ; <i>Perca vulgaris</i> ; <i>Perca vulgaris aurata</i>	Animalia	Chordata	Actinopterygii	Perciformes	Percidae	<i>Perca</i>	Species		European perch; perch				

[illegible]

HELCOM Checklist 2.0 for Baltic Sea Fish and Lamprey Species																																		
R=Regular reproduction; X=regular occurrence, no reproduction; T=temporary occurrence; ?=occurrence uncertain; -=no occurrence; P=present			Distribution (2018 subbasins)															Alpha ID	ITS-TSN	Other ID	Source	Other ID	Scientific name authorship	Scientific synonyms	Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Vernacular names	Introduced species	
No	Valid scientific name (2019)	Scientific name in previous Checklist (2012)	Atgga	Gre	Hel	Bay of Me	The Sound	Adriatic	Bornholm	Western Gotland	Western Gotland Basin	Gotland Basin	Velika Lagoon	Curonian Lagoon	Gulf of Riga	Northern Baltic Proper	Gulf of Finland																	Azov Sea
188	<i>Anarhichas minor</i>	<i>Anarhichas minor</i>	T																					Olafsen, 1772	<i>Anarhichas karrok</i> ; <i>Anarhichas karrok</i> ; <i>Anarhichas leopardus</i> ; <i>Anarhichas maculatus</i> ; <i>Anarhichas scansor</i> ; <i>Anarhichas steenstrupi</i> ; <i>Anarhichas leopardus</i> ; <i>Anarhichas pantherinus</i> ; <i>Anarhichas steenstrupi</i>	Animalia	Chordata	Actinopterygii	Perciformes	Anarhichadidae	<i>Anarhichas</i>	Species	Spotted catfish; spotted wolffish	
189	<i>Ammodytes marinus</i>	<i>Ammodytes marinus</i>	R	?	?	?	R	?																Raitt, 1934		Animalia	Chordata	Actinopterygii	Perciformes	Ammodytidae	<i>Ammodytes</i>	Species	Lesser sandeel; Raitt's sand eel; Raitt's sandeel	
190	<i>Ammodytes tobianus</i>	<i>Ammodytes tobianus</i>	R	R	R	R	R	R	R	R	R	R	R	T	R	R	R	R	R					Linnaeus, 1758	<i>Ammodytes lancea</i> ; <i>Ammodytes tobianus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Ammodytidae	<i>Ammodytes</i>	Species	Gibbin; lesser sand eel; lesser sand-eel; riggle; sandeel; sand-eel; sand-lance; small sandeel	
191	<i>Hyperoplus lanceolatus</i>	<i>Hyperoplus lanceolatus</i>	R	R	R	R	R	R	R	R	R	R				R	R	R	T				(Le Sauvage, 1824)	<i>Ammodytes lanceolatus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Ammodytidae	<i>Hyperoplus</i>	Species	Great sandeel; greater sandeel; launce		
192	<i>Echichthys vipera</i>	<i>Echichthys vipera</i>	T																				(Cuvier, 1829)	<i>Trachinus horridus</i> ; <i>Trachinus vipera</i>	Animalia	Chordata	Actinopterygii	Perciformes	Trachinidae	<i>Echichthys</i>	Species	Lesser weever		
193	<i>Trachinus draco</i>	<i>Trachinus draco</i>	R	R	T		R	T	T														Linnaeus, 1758	<i>Echichthys draco</i> ; <i>Trachinus lineatus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Trachinidae	<i>Trachinus</i>	Species	Greater weever; weever		
194	<i>Callionymus lyra</i>	<i>Callionymus lyra</i>	R	R	T	T	R																Linnaeus, 1758	<i>Callionymus dracunculus</i> ; <i>Callionymus elegans</i> ; <i>Callionymus suevici</i> ; <i>Uranoscopus micropterygius</i>	Animalia	Chordata	Actinopterygii	Perciformes	Callionymidae	<i>Callionymus</i>	Species	Common dragonet; dragonet		
195	<i>Callionymus maculatus</i>	<i>Callionymus maculatus</i>	R	T	T	T	T	T															Rafinesque, 1810		Animalia	Chordata	Actinopterygii	Perciformes	Callionymidae	<i>Callionymus</i>	Species	Spotted dragonet		
196	<i>Aphia minuta</i>	<i>Aphia minuta</i>	R	R	R	R	R	X															(Risso, 1810)	<i>Aphia meridionalis</i> ; <i>Aphia minuta</i> ; <i>Aphia pellicuda</i> ; <i>Argentina aphia</i> ; <i>Atherina minuta</i> ; <i>Brachyochirus aphia</i> ; <i>Brachyochirus pellicudus</i> ; <i>Gobius albus</i> ; <i>Gobius pellicudus</i> ; <i>Gobius pellicudus</i> ; <i>Gobius stuwitzii</i> ; <i>Gobius stuwitzii</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Aphia</i>	Species	Transparent goby		
197	<i>Babka gymnotrachelus</i>	<i>Babka gymnotrachelus</i> *											T	R									(Kessler, 1857)	<i>Gobius burmeisteri</i> ; <i>Gobius gymnotrachelus</i> ; <i>Gobius macropus</i> ; <i>Mesogobius gymnotrachelus</i> ; <i>Mesogobius gymnotrachelus otchakovius</i> ; <i>Neogobius gymnotrachelus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Babka</i>	Species	Racer goby	yes	
198	<i>Crystallagobius linearis</i>	<i>Crystallagobius linearis</i>	R	R																			(Düben, 1845)	<i>Crystallagobius niloticus</i> ; <i>Gobius linearis</i> ; <i>Gobius niloticus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Crystallagobius</i>	Species	Crystal goby		
199	<i>Gobius niger</i>	<i>Gobius niger</i>	R	R	R	R	R	R	R	R	R	R	R		R	R	R	R	R				Linnaeus, 1758	<i>Gobius britannicus</i> ; <i>Gobius fuliginosus</i> ; <i>Gobius gorgone</i> ; <i>Gobius jozo</i> ; <i>Gobius jozo</i> ; <i>Gobius jozo albescentis</i> ; <i>Gobius jozo major</i> ; <i>Gobius jozo minor</i> ; <i>Gobius jozo nigrescens</i> ; <i>Gobius jozo pontica</i> ; <i>Gobius longiradiatus</i> ; <i>Gobius niger hispanicus</i> ; <i>Gobius niger jozo</i> ; <i>Gobius niger nigerimus</i> ; <i>Gobius punctulatus</i> ; <i>Gobius viridis</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Gobius</i>	Species	Black goby		
200	<i>Gobiusculus flavescens</i>	<i>Gobiusculus flavescens</i>	R	R	R	R	R	R	R	R	R	R			R	R	R	R				(Fabricius, 1779)	<i>Corphopterus flavescens</i> ; <i>Gobius flavescens</i> ; <i>Gobius flavescens</i> ; <i>Gobius ruthenspari</i> ; <i>Gobius ruthenspari</i> ; <i>Gobius ruthenspari</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Gobiusculus</i>	Species	Two spot goby; two-spotted goby			
201	<i>Lebetus guilleli</i>	<i>Lebetus guilleli</i>																				(Le Danois, 1913)	<i>Gobius scorpioides guilleli</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Lebetus</i>	Species	Guillet's goby			
202	<i>Lebetus scorpioides</i>	<i>Lebetus scorpioides</i>	R																			(Collett, 1874)	<i>Gobius orca</i> ; <i>Gobius scorpioides</i> ; <i>Lebetus orca</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Lebetus</i>	Species	Diminutive goby			
203	<i>Lesueurigobius friesii</i>	<i>Lesueurigobius friesii</i>	R																			(Malm, 1874)	<i>Gobius friesii</i> ; <i>Gobius friesii</i> ; <i>Gobius friesii friesii</i> ; <i>Gobius gracilis</i> ; <i>Gobius macrolepis</i> ; <i>Lesueurigobius friesii</i> ; <i>Lesueurigobius friesii</i> ; <i>Lesueurigobius friesii</i> ; <i>Lesueurigobius friesii</i> ; <i>Lesueurigobius friesii</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Lesueurigobius</i>	Species	Fries's goby			
204	<i>Neogobius fluviatilis</i>	<i>Neogobius fluviatilis</i> *										T											(Pallas, 1814)	<i>Apollonia fluviatilis</i> ; <i>Gobius fluviatilis</i> ; <i>Gobius fluviatilis nigra</i> ; <i>Gobius sordidus</i> ; <i>Gobius steverni</i> ; <i>Gobius steverni</i> ; <i>Neogobius fluviatilis fluviatilis</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Neogobius</i>	Species	Monkey goby	yes	
205	<i>Neogobius melanostomus</i>	<i>Neogobius melanostomus</i> *	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	T				(Pallas, 1814)	<i>Apollonia melanostoma</i> ; <i>Gobius affinis</i> ; <i>Gobius cephalargus</i> ; <i>Gobius chilo</i> ; <i>Gobius exanthematosus</i> ; <i>Gobius grassholtzi</i> ; <i>Gobius lugens</i> ; <i>Gobius melano</i> ; <i>Gobius melanostomus</i> ; <i>Gobius sulcatus</i> ; <i>Gobius virens</i> ; <i>Neogobius cephalargus</i> ; <i>Neogobius cephalargus cephalargus</i> ; <i>Neogobius melanostomus affinis</i> ; <i>Ponticola cephalargus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Neogobius</i>	Species	Round goby	yes	
206	<i>Pomatoschistus microps</i>	<i>Pomatoschistus microps</i>	R	R	R	R	R	R	R	R	R	R	T	R	R	R	R	R	R				(Krøyer, 1838)	<i>Gobius kateps</i> ; <i>Gobius microps</i> ; <i>Gobius microps microps</i> ; <i>Gobius microps puerilis</i> ; <i>Gobius minutus minor</i> ; <i>Gobius parvelli</i> ; <i>Gobius pusillus</i> ; <i>Pomatoschistus microps microps</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Pomatoschistus</i>	Species	Common goby		
207	<i>Pomatoschistus minutus</i>	<i>Pomatoschistus minutus</i>	R	R	R	R	R	R	R	R	R	R	T	R	R	R	R	R	R				(Pallas, 1770)	<i>Gobius cobitiformis</i> ; <i>Gobius ekstromi</i> ; <i>Gobius elongatus</i> ; <i>Gobius gracilis</i> ; <i>Gobius gracilis</i> ; <i>Gobius minutus</i> ; <i>Gobius minutus guilleli</i> ; <i>Gobius minutus major</i> ; <i>Gobius taalmankipii</i> ; <i>Gobius unipunctatus</i> ; <i>Pomatoschistus minutus elongatus</i> ; <i>Pomatoschistus minutus minutus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Pomatoschistus</i>	Species	Sand goby		
208	<i>Pomatoschistus norvegicus</i>	<i>Pomatoschistus norvegicus</i>	R																			(Collett, 1902)	<i>Gobius minutus norvegicus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Pomatoschistus</i>	Species	Norway goby			
209	<i>Pomatoschistus pictus</i>	<i>Pomatoschistus pictus</i>	R	R		P	R	P														(Malm, 1865)	<i>Gobius affinis</i> ; <i>Gobius pictus</i> ; <i>Gobius rhodopterus</i> ; <i>Pomatoschistus pictus adriaticus</i> ; <i>Pomatoschistus pictus pictus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Pomatoschistus</i>	Species	Painted goby			
210	<i>Proterorhinus marmoratus</i>	<i>Proterorhinus marmoratus</i> *																				(Pallas, 1814)	<i>Gobius blennioides</i> ; <i>Gobius macropterus</i> ; <i>Gobius marmoratus</i> ; <i>Gobius marmoratus nasalis natio pontica</i> ; <i>Gobius nasalis</i> ; <i>Gobius quadricapillus</i> ; <i>Gobius rubromaculatus</i> ; <i>Gobius semilunaris</i> ; <i>Proterorhinus marmoratus nasalis</i> ; <i>Proterorhinus marmoratus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Proterorhinus</i>	Species	Tubenose goby	yes		
211	<i>Thoragobius ephippiatus</i>	<i>Thoragobius ephippiatus</i>	R	P		P	P															(Lowe, 1839)	<i>Gobius ephippiatus</i> ; <i>Gobius forsteri</i> ; <i>Gobius thori</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gobiidae	<i>Thoragobius</i>	Species	Leopard-spotted goby			
212	<i>Nesiarichthys nasutus</i>	<i>Nesiarichthys nasutus</i>	T	T																		Johnson, 1862	<i>Bipinnula violacea</i> ; <i>Escalar violaceus</i> ; <i>Promethes paradoxus</i> ; <i>Thysitops violaceus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Gempylidae	<i>Nesiarichthys</i>	Species	Black gemfish; Johnson's scabbardfish; scabbardfish			
213	<i>Xiphias gladius</i>	<i>Xiphias gladius</i>	T	T	T	T	T	T	T	T	T	T											Linnaeus, 1758	<i>Phaeothorichthys tuberculatus</i> ; <i>Tetrapterus imperator</i> ; <i>Xiphias gladius</i> ; <i>Xiphias estora</i> ; <i>Xiphias gladius estora</i> ; <i>Xiphias imperator</i> ; <i>Xiphias rondeletii</i> ; <i>Xiphias rondeletii</i> ; <i>Xiphias thermicus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Xiphiidae	<i>Xiphias</i>	Species	Swordfish; swordfish sucker		
214	<i>Axius rochei rochei</i>	<i>Axius rochei</i>	T	T			T															(Risso, 1810)	<i>Axius bisus</i> ; <i>Axius maru</i> ; <i>Axius ramsayi</i> ; <i>Axius rochei</i> ; <i>Axius thynnoides</i> ; <i>Axius vulgaris</i> ; <i>Scomber bisus</i> ; <i>Scomber rochei</i> ; <i>Thunnus rocheanus</i> ; <i>Thynnus rocheanus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Scombridae	<i>Axius</i>	Subspecies	Bullet tuna			
215	<i>Euthynnus alletteratus</i>	<i>Euthynnus alletteratus</i>	T				T															(Rafinesque, 1810)	<i>Euthynnus alletteratus</i> ; <i>Euthynnus alletteratus</i> ; <i>Euthynnus alletteratus</i> ; <i>Euthynnus alletteratus alletteratus</i> ; <i>Euthynnus alletteratus auraloralis</i> ; <i>Euthynnus alletteratus</i> ; <i>Euthynnus alletteratus</i> ; <i>Euthynnus quadripunctatus</i> ; <i>Euthynnus thunina</i> ; <i>Gymnosarda alletterata</i> ; <i>Gymnosarda alletterata</i> ; <i>Orcynus thunina</i> ; <i>Pelamys alletterata</i> ; <i>Scomber alletteratus</i> ; <i>Scomber quadripunctatus</i> ; <i>Thynnichthys brevipinnis</i> ; <i>Thynnichthys thunina</i> ; <i>Thynnus brasiliensis</i> ; <i>Thynnus brevipinnis</i> ; <i>Thynnus leachianus</i> ; <i>Thynnus thunina</i>	Animalia	Chordata	Actinopterygii	Perciformes	Scombridae	<i>Euthynnus</i>	Species	Little tunny			
216	<i>Katsuwonus pelamis</i>	<i>Katsuwonus pelamis</i>	T	T																		(Linnaeus, 1758)	<i>Euthynnus pelamis</i> ; <i>Euthynnus pelamis</i> ; <i>Gymnosarda pelamis</i> ; <i>Gymnosarda pelamis</i> ; <i>Katsuwonus pelamis</i> ; <i>Katsuwonus pelamis</i> ; <i>Katsuwonus pelamis</i> ; <i>Orcynus pelamis</i> ; <i>Orcynus pelamis</i> ; <i>Scomber pelamides</i> ; <i>Scomber pelamis</i> ; <i>Scomber pelamis</i> ; <i>Thunnus pelamis</i> ; <i>Thynnus pelamis</i> ; <i>Thynnus pelamis</i> ; <i>Thynnus pelamis</i>	Animalia	Chordata	Actinopterygii	Perciformes	Scombridae	<i>Katsuwonus</i>	Species	Oceanic bonito; skipjack tuna			
217	<i>Sarda sarda</i>	<i>Sarda sarda</i>	T	T			T										T	T				(Bloch, 1793)	<i>Palamita sarda</i> ; <i>Pelamis sarda</i> ; <i>Pelamys sarda</i> ; <i>Sarda mediterranea</i> ; <i>Sarda pelamis</i> ; <i>Scomber mediterraneus</i> ; <i>Scomber palomitis</i> ; <i>Scomber ponticus</i> ; <i>Scomber sarda</i> ; <i>Thynnus brachypterus</i> ; <i>Thynnus sardus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Scombridae	<i>Sarda</i>	Species	Atlantic bonito; bonito			
218	<i>Scomber scombrus</i>	<i>Scomber scombrus</i>	X	X	X	X	X	X	X	X	T	T			T	T	T	T	T	T			Linnaeus, 1758	<i>Scomber glaucicus</i> ; <i>Scomber punctatus</i> ; <i>Scomber scomber</i> ; <i>Scomber scriptus</i> ; <i>Scomber vernalis</i> ; <i>Scomber vulgaris</i> ; <i>Scomber vulgaris</i>	Animalia	Chordata	Actinopterygii	Perciformes	Scombridae	<i>Scomber</i>	Species	Atlantic mackerel; mackerel		

HELCOM Checklist 2.0 for Baltic Sea Fish and Lamprey Species																																				
R=Regular reproduction; X=regular occurrence, no reproduction; T=temporary occurrence; ?=occurrence uncertain; -=no occurrence; P=present			Distribution (2018 subbasins)															Alpha ID	ITS-TSN	Other ID	Source	Other ID	Scientific name authorship	Scientific synonyms	Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Vernacular names	Introduced species			
No	Valid scientific name (2019)	Scientific name in previous Checklist (2012)	Mecklenburg	Great Belt	Great Belt	Bay of Mecklenburg	The Sound	Altena Basin	Bornholm Basin	Western Gotland Basin	Eastern Gotland Basin	Gotland Basin	Velika Lagoon	Curonian Lagoon	Gulf of Riga	Northern Baltic Proper	Gulf of Finland																	Azov Sea	Black Sea	The Quark
219	<i>Thunnus thynnus</i>	<i>Thunnus thynnus</i>	T	T	T							T										127029				(Linnaeus, 1758)	<i>Albacora thynnus</i> ; <i>Orcynus secundadorsalis</i> ; <i>Orcynus thynnus</i> ; <i>Scomber thynnus</i> ; <i>Thunnus secundadorsalis</i> ; <i>Thunnus thynnus thynnus</i> ; <i>Thunnus thynnus</i> ; <i>Thunnus vulgaris</i> ; <i>Thynnus linnei</i> ; <i>Thynnus mediterraneus</i> ; <i>Thynnus secundadorsalis</i> ; <i>Thynnus thynnus</i> ; <i>Thynnus vulgaris</i>	Animalia	Chordata	Actinopterygii	Perciformes	Scombridae	<i>Thunnus</i>	Species	Atlantic bluefin tuna; bluefin tuna; blue-fin tuna; blue-fin tunny; horse mackerel; northern bluefin tuna	
220	<i>Centrolophus niger</i>	<i>Centrolophus niger</i>	T	T			T															126831				(Gmelin, 1789)	<i>Acentrolophus maculosus</i> ; <i>Centrolophodes irwini</i> ; <i>Centrolophodes irwini</i> ; <i>Centrolophus liparis</i> ; <i>Centrolophus maoricus</i> ; <i>Centrolophus morio</i> ; <i>Centrolophus pompius</i> ; <i>Centrolophus valencienensis</i> ; <i>Coryphaena pompius</i> ; <i>Gymnocephalus messinensis</i> ; <i>Mipus bifasciatus</i> ; <i>Perca nigra</i> ; <i>Schedophilus elongatus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Centrolophidae	<i>Centrolophus</i>	Species	Black fish; black ruff; blackfish	
221	<i>Schedophilus medusophagus</i>	<i>Schedophilus medusophagus</i>	T	T	T		T															126833				(Cocco, 1839)	<i>Centrolophus britannicus</i> ; <i>Centrolophus medusophagus</i> ; <i>Linus medusophagus</i> ; <i>Mipus medusophagus</i>	Animalia	Chordata	Actinopterygii	Perciformes	Centrolophidae	<i>Schedophilus</i>	Species	Brown ruff; Cornish blackfish	
222	<i>Capros aper</i>	<i>Capros aper</i>										T										127419				(Linnaeus, 1758)	<i>Perca brunich</i> ; <i>Perca pusilla</i> ; <i>Zeus aper</i>	Animalia	Chordata	Actinopterygii	Perciformes	Caproidae	<i>Capros</i>	Species	Boarfish; boar-fish; oar-fish	
223	<i>Lepidorhombus whiffiagonis</i>	<i>Lepidorhombus whiffiagonis</i>	T	T	T		T															127146				(Walbaum, 1792)	<i>Lepidorhombus megastoma</i> ; <i>Pleuronectes megastoma</i> ; <i>Pleuronectes pseudopalus</i> ; <i>Pleuronectes whiffiagonis</i> ; <i>Rhombus (Lepidorhombus) whiffiagonis</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Scophthalmidae	<i>Lepidorhombus</i>	Species	Megrim; sail-fluke; whiff	
224	<i>Phrynorhombus norvegicus</i>	<i>Phrynorhombus norvegicus</i>	R	T		R																127147				(Günther, 1862)	<i>Rhombus norvegicus</i> ; <i>Zeugopterus norvegicus</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Scophthalmidae	<i>Phrynorhombus</i>	Species	Norwegian topknot	
225	<i>Scophthalmus maximus</i>	<i>Scophthalmus maximus</i>	R	R	R	R	R	R	R	R	R	R	R	T		R	R	R	R	T		127149				(Linnaeus, 1758)	<i>Pleuronectes cyclops</i> ; <i>Pleuronectes maximus</i> ; <i>Pleuronectes turbot</i> ; <i>Psetta maxima</i> ; <i>Psetta maxima maxima</i> ; <i>Rhombus oculatus</i> ; <i>Rhombus magnus</i> ; <i>Rhombus maximus</i> ; <i>Rhombus stellatus</i> ; <i>Scophthalmus maximus</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Scophthalmidae	<i>Scophthalmus</i>	Species	Turbot	
226	<i>Scophthalmus rhombus</i>	<i>Scophthalmus rhombus</i>	R	R	R	R	R	R	R	R	T	T	T									127150				(Linnaeus, 1758)	<i>Pleuronectes laevis</i> ; <i>Pleuronectes rhombus</i> ; <i>Pleuronectes rhombus var. laevis</i> ; <i>Rhombus laevis</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Scophthalmidae	<i>Scophthalmus</i>	Species	Brill; kite	
227	<i>Zeugopterus punctatus</i>	<i>Zeugopterus punctatus</i>	R	T		R																127151				(Bloch, 1787)	<i>Pleuronectes punctatus</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Scophthalmidae	<i>Zeugopterus</i>	Species	Topknot	
228	<i>Amoglossus laterna</i>	<i>Amoglossus laterna</i>	R	R	T	T	R	T														127126				(Walbaum, 1792)	<i>Amoglossus laterna microstoma</i> ; <i>Amoglossus macrostoma</i> ; <i>Pleuronectes amoglossus</i> ; <i>Pleuronectes conspersus</i> ; <i>Pleuronectes diaphanus</i> ; <i>Pleuronectes laterna</i> ; <i>Pleuronectes leotardi</i> ; <i>Pleuronectes pelliculatus</i> ; <i>Rhombus soleaeformis</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Bothidae	<i>Amoglossus</i>	Species	Mediterranean caldfish; caldfish	
229	<i>Glyptocephalus cynoglossus</i>	<i>Glyptocephalus cynoglossus</i>	R	X	T	T																127136				(Linnaeus, 1758)	<i>Glyptocephalus acadianus</i> ; <i>Platessa elongata</i> ; <i>Pleuronectes cynoglossus</i> ; <i>Pleuronectes nigromanus</i> ; <i>Pleuronectes sociata</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Pleuronectidae	<i>Glyptocephalus</i>	Species	Flet; pole dab; skaerising; witch; witch flounder	
230	<i>Hippoglossoides platessoides</i>	<i>Hippoglossoides platessoides</i>	R	R	R	R	R	T	T													127137				(Fabricius, 1780)	<i>Drepanopsetta platessoides</i> ; <i>Hippoglossoides limandae</i> ; <i>Hippoglossoides platessoides</i> ; <i>Pleuronectes limandae</i> ; <i>Pleuronectes platessoides</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Pleuronectidae	<i>Hippoglossoides</i>	Species	American plaice; Canadian plaice; long rough dab; sand-dab	
231	<i>Hippoglossus hippoglossus</i>	<i>Hippoglossus hippoglossus</i>	T	T	T	T																127138				(Linnaeus, 1758)	<i>Hippoglossus americanus</i> ; <i>Hippoglossus gigas</i> ; <i>Hippoglossus linnei</i> ; <i>Hippoglossus maximus</i> ; <i>Hippoglossus vulgaris</i> ; <i>Pleuronectes hippoglossus</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Pleuronectidae	<i>Hippoglossus</i>	Species	Atlantic halibut; halibut	
232	<i>Limanda limanda</i>	<i>Limanda limanda</i>	R	R	R	R	R	R	R	R	R	T	T			T	T	T				127139				(Linnaeus, 1758)	<i>Lipsetta limanda</i> ; <i>Pleuronectes limanda</i> ; <i>Pleuronectes limandula</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Pleuronectidae	<i>Limanda</i>	Species	Common dab; dab	
233	<i>Lipsetta glacialis</i>	<i>Lipsetta glacialis</i> *									T											275844				(Pallas, 1776)	<i>Pleuronectes glacialis knipowitschi</i> ; <i>Platessa dwinitensis</i> ; <i>Pleuronectes cicatricosus</i> ; <i>Pleuronectes franklini</i> ; <i>Pleuronectes glacialis</i> ; <i>Pleuronectes glacialis caninensis</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Pleuronectidae	<i>Lipsetta</i>	Species	Arctic flounder	yes
234	<i>Microstomus kitt</i>	<i>Microstomus kitt</i>	R	R	T	T	R	T														127140				(Walbaum, 1792)	<i>Microstomus lotidensis</i> ; <i>Platessa pola</i> ; <i>Pleuronectes gilli</i> ; <i>Pleuronectes kitt</i> ; <i>Pleuronectes laevis</i> ; <i>Pleuronectes microcephalus</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Pleuronectidae	<i>Microstomus</i>	Species	Lemon sole	
235	<i>Platichthys flesus</i>	<i>Platichthys flesus</i>	R	R	R	R	R	R	R	R	R	R	X	X	R	R	R	R	R	X	X	127141				(Linnaeus, 1758)	<i>Fleus vulgaris</i> ; <i>Platessa camaria</i> ; <i>Platessa globra</i> ; <i>Platichthys flesus bogdanovi</i> ; <i>Platichthys flesus flesus</i> ; <i>Platichthys flesus luscus</i> ; <i>Platichthys flesus mamorata</i> ; <i>Platichthys flesus trachurus</i> ; <i>Pleuronectes bogdanovi</i> ; <i>Pleuronectes flesoides</i> ; <i>Pleuronectes flesus</i> ; <i>Pleuronectes flesus balticus</i> ; <i>Pleuronectes flesus caninensis</i> ; <i>Pleuronectes flesus leirurus</i> ; <i>Pleuronectes flesus luscus</i> ; <i>Pleuronectes flesus septentrionalis</i> ; <i>Pleuronectes flesus septentrionalis</i> ; <i>Pleuronectes flesus trachurus</i> ; <i>Pleuronectes italicus</i> ; <i>Pleuronectes luscus</i> ; <i>Pleuronectes passer</i> ; <i>Pleuronectes rosus</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Pleuronectidae	<i>Platichthys</i>	Species	European flounder; flounder; fluke	
236	<i>Pleuronectes platessa</i>	<i>Pleuronectes platessa</i>	R	R	R	R	R	R	R	T	R	T		T	T	T	T	T				127143				Linnaeus, 1758	<i>Platessa latus</i> ; <i>Platessa platessa</i> ; <i>Platessa vulgaris</i> ; <i>Pleuronectes borealis</i> ; <i>Pleuronectes latus</i> ; <i>Pleuronectes platessa baltica</i> ; <i>Pleuronectes platessus</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Pleuronectidae	<i>Pleuronectes</i>	Species	European plaice; plaice	
237	<i>Buglossidium luteum</i>	<i>Buglossidium luteum</i>	R	T		R																127153				(Risso, 1810)	<i>Boglossidium luteum</i> ; <i>Monochirus luteus</i> ; <i>Pleuronectes luteus</i> ; <i>Rhombus luteus</i> ; <i>Solea lutea</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Soleidae	<i>Buglossidium</i>	Species	Solenette	
238	<i>Solea solea</i>	<i>Solea solea</i>	R	R	X	X	R	X	T		T											127160				(Linnaeus, 1758)	<i>Pleuronectes solea</i> ; <i>Solea vulgaris</i> ; <i>Solea vulgaris vulgaris</i>	Animalia	Chordata	Actinopterygii	Pleuronectiformes	Soleidae	<i>Solea</i>	Species	Common sole; Dover sole; slip; sole	
239	<i>Balistes capricus</i>	<i>Balistes capricus</i>					T															134721				Gmelin, 1789	<i>Balistes burina</i> ; <i>Balistes caprinus</i> ; <i>Balistes capricus</i> ; <i>Balistes carolinensis</i> ; <i>Balistes carolinensis</i> ; <i>Balistes forcipatus</i> ; <i>Balistes fuliginosus</i> ; <i>Balistes moribundus</i> ; <i>Balistes powelli</i> ; <i>Balistes spilopterygius</i> ; <i>Balistes taeniogaster</i> ; <i>Nematobalistes forcipatus</i>	Animalia	Chordata	Actinopterygii	Tetraodontiformes	Balistidae	<i>Balistes</i>	Species	Gray triggerfish; leather-jacket; triggerfish; turbot	
240	<i>Mola mola</i>	<i>Mola mola</i>	T	T	T	T	T	T	T	T												127405				(Linnaeus, 1758)	<i>Aleodon capensis</i> ; <i>Aleodon storeri</i> ; <i>Cephalus brevis</i> ; <i>Cephalus ortogaster</i> ; <i>Cephalus pallasiensis</i> ; <i>Diodon carinatus</i> ; <i>Diodon mola</i> ; <i>Diodon nummularis</i> ; <i>Diplanthis nasus</i> ; <i>Mola aculeata</i> ; <i>Mola aspera</i> ; <i>Mola hispida</i> ; <i>Mola rotunda</i> ; <i>Molacanthus pallasi</i> ; <i>Orthogasteriscus analis</i> ; <i>Orthogasteriscus mola</i> ; <i>Orthogasteriscus analis</i> ; <i>Orthogasteriscus blochii</i> ; <i>Orthogasteriscus elegans</i> ; <i>Orthogasteriscus fasciatus</i> ; <i>Orthogasteriscus ghini</i> ; <i>Orthogasteriscus hispidus</i> ; <i>Orthogasteriscus lunaris</i> ; <i>Orthogasteriscus mola</i> ; <i>Orthogasteriscus redi</i> ; <i>Orthogasteriscus retzi</i> ; <i>Orthogasteriscus rondeletii</i> ; <i>Orthogasteriscus rondeletii</i> ; <i>Orthogasteriscus luna</i> ; <i>Oxodora orsinii</i> ; <i>Pedallion gigas</i> ; <i>Tetraodon mola</i> ; <i>Trematopsis willughbi</i> ; <i>Tympanomium plani</i>	Animalia	Chordata	Actinopterygii	Tetraodontiformes	Molidae	<i>Mola</i>	Species	Ocean sunfish; sunfish; sun-fish	
241	<i>Percottus glenii</i>																P					234083				Dybowski, 1877	<i>Eleotris dybowskii</i> ; <i>Eleotris pleskei</i> ; <i>Percottus glenii</i> ; <i>Percottus glenii</i>	Animalia	Chordata	Actinopterygii	Perciformes	Odontobutidae	<i>Percottus</i>	Species		
242	<i>Romanogobio alpinus</i>																P					1015653				Lukasch, 1933	<i>Percottus pleskei</i>	Animalia	Chordata	Actinopterygii	Cypriniformes	Cyprinidae	<i>Romanogobio</i>	Species		



Macrophytes

HELCOM Checklist for Baltic Sea Macrophyte Species																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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Petersburg	Oslo	Gothenburg	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesund	Trondheim	Ålesu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HELCOM Checklist for Baltic Sea Macrophyte Species																													
No	Valid scientific name (DIN)	Scientific name in previous checklist (2012)	Distribution (2018 subbasins)												Alpha ID	ITS-SN	Other ID	Source Diver ID	Scientific name authority	Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Verenaf # names	Comments	
			A	B	C	D	E	F	G	H	I	J	K	L															
46	<i>Alaria esculenta</i>	<i>Alaria esculenta</i>	X												145738				(Linnaeus) Greville, 1830	Chromista	Ochrophyta	Phaeophyceae	Laminariales	Alariaceae	<i>Alaria</i>	Species		Baberlocks; dabblerocks	
47	<i>Alisma graminum</i>	<i>Alisma graminum</i>											X		145866	276	FloraKas	URS		Plantae	Tracheophyta	Magnoliopsida	Alismatales	Alismataceae	<i>Alisma</i>	Species			
48	<i>Alisma plantago-aquatica</i>	<i>Alisma plantago-aquatica</i>											X	X	X	123456			L. 1753	Plantae	Tracheophyta	Magnoliopsida	Alismatales	Alismataceae	<i>Alisma</i>	Species			
49	<i>Alisma wahlenbergii</i>	<i>Alisma wahlenbergii</i>											X	X	X	172288			(Holmb.) Joz.	Plantae	Tracheophyta	Magnoliopsida	Alismatales	Alismataceae	<i>Alisma</i>	Species			
50	<i>Antithamion cruciatum</i>	<i>Antithamion cruciatum</i>	X	X		X									144928				(F. Agardh) Nagel, 1847	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Antithamion</i>	Species			
51	<i>Antithamion villorum</i>	<i>Antithamion villorum</i>	X	X											144937				(Kützting) Ahniasaia, 1993	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Antithamion</i>	Species			
52	<i>Antithamionella floccosa</i>	<i>Antithamionella floccosa</i>	X												144928				(O.F. Müller) Whittick, 1980	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Antithamionella</i>	Species			
53	<i>Aphanochaete repens</i>	<i>Aphanochaete repens</i>			X								X	X	X	144928			A. Braun, 1850	Plantae	Chlorophyta	Chlorophyceae	Chaetophorales	Aphanochaetaceae	<i>Aphanochaete</i>	Species			
54	<i>Apogonum racibulum</i>	<i>Apogonum racibulum</i>	X												144927				(Turner) J. Agardh, 1898	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Delesseriaceae	<i>Apogonum</i>	Species			
55	<i>Arthrocladia villosa</i>	<i>Arthrocladia villosa</i>	X												145828				(Hudson) Dabry, 1839	Chromista	Ochrophyta	Phaeophyceae	Desmarestiales	Arthrocladiaceae	<i>Arthrocladia</i>	Species			
56	<i>Acophyllum nodosum</i>	<i>Acophyllum nodosum</i>	X	X	X	X									145454				(Linnaeus) Le Jolis, 1863	Chromista	Ochrophyta	Phaeophyceae	Fucales	Fucales	<i>Acophyllum</i>	Species			
57	<i>Aperococcus bulbosus</i>	<i>Aperococcus bulbosus</i>	X												145831				J. V. Lamourou, 1813	Chromista	Ochrophyta	Phaeophyceae	Dictyosphaeriales	Chordariaceae	<i>Aperococcus</i>	Species			
58	<i>Aperococcus enalbmis</i>	<i>Aperococcus enalbmis</i>	X												173988				(Dele Chapt.) M.J. Wynne, 2003	Chromista	Ochrophyta	Phaeophyceae	Dictyosphaeriales	Chordariaceae	<i>Aperococcus</i>	Species			
59	<i>Aperococcus fluitans</i>	<i>Aperococcus fluitans</i>	X	X	X	X	X	X							145831				(Hudson) W. J. Hooker, 1833	Chromista	Ochrophyta	Phaeophyceae	Dictyosphaeriales	Chordariaceae	<i>Aperococcus</i>	Species			
60	<i>Arctophora hyginoides</i>	<i>Arctophora hyginoides</i>	X												145829				P. L. Crouan & H. M. Crouan, 1848	Plantae	Rhodophyta	Phaeophyceae	Arctophorales	Arctophoraceae	<i>Arctophora</i>	Species			
61	<i>Bangia atropurpurea</i>	<i>Bangiaulidiscus atropurpurea</i>	X	X	X	X	X	X	X	X	X	X	X	X	144928				(Mertens ex Roth) C. Agardh, 1824	Plantae	Rhodophyta	Bangiophyceae	Bangiales	Bangiales	<i>Bangia</i>	Species			
62	<i>Batrachospermum atrum</i>	<i>Batrachospermum atrum</i>													144928				(Hudson) M. J. Wynne, 2019	Plantae	Rhodophyta	Floridiophyceae	Batrachospermales	Batrachospermaceae	<i>Batrachospermum</i>	Species			
63	<i>Blidingia pilosipes</i>	<i>Blidingia pilosipes</i>	X	X	X	X									144928				Roth, 1797	Plantae	Rhodophyta	Floridiophyceae	Batrachospermales	Batrachospermaceae	<i>Batrachospermum</i>	Genus			
64	<i>Blidingia rhogosa</i>	<i>Blidingia rhogosa</i>	X	X	X										144928				Reinke, 1889	Plantae	Chlorophyta	Ulvoiphyceae	Bryopsidales	Chaetophoraceae	<i>Blidingia</i>	Species			
65	<i>Blidingia marginata</i>	<i>Blidingia marginata</i>	X	X	X					X					145838				(J. Agardh) P. J. L. Dangard ex Biding, 1963	Plantae	Chlorophyta	Ulvoiphyceae	Ulvales	Kormmanniaceae	<i>Blidingia</i>	Species			
66	<i>Blidingia minima</i>	<i>Blidingia minima</i>	X	X	X	X	X	X	X	X	X	X	X		145838				(Nagel ex Kützting) Kylin, 1947	Plantae	Chlorophyta	Ulvoiphyceae	Ulvales	Kormmanniaceae	<i>Blidingia</i>	Species			
67	<i>Bolbocephalus piliferum</i>	<i>Bolbocephalus piliferum</i>	X	X	X	X	X	X	X	X	X	X	X	X	144928				N. Pringheim, 1862	Plantae	Chlorophyta	Ulvoiphyceae	Ulvales	Bolbolocleaceae	<i>Bolbocephalus</i>	Species			
68	<i>Bolbocephalus maritimus</i>	<i>Bolbocephalus maritimus</i>	X			X	X	X	X	X	X	X	X	X	144928				(L.) Palla	Plantae	Tracheophyta	Magnoliopsida	Poales	Cyperaceae	<i>Bolbocephalus</i>	Species			
69	<i>Bonnemaisonia asparagoides</i>	<i>Bonnemaisonia asparagoides</i>	X	X											144928				(Woodward) C. Agardh, 1822	Plantae	Rhodophyta	Floridiophyceae	Bonnemaisoniales	Bonnemaisoniaceae	<i>Bonnemaisonia</i>	Species			
70	<i>Bonnemaisonia hamifera</i>	<i>Bonnemaisonia hamifera</i>	X	X	X	X									144928				Harvie, 1891	Plantae	Rhodophyta	Floridiophyceae	Bonnemaisoniales	Bonnemaisoniaceae	<i>Bonnemaisonia</i>	Species			
71	<i>Batrachella micromera</i>	<i>Batrachella micromera</i>	X	X	X	X	X								144928				Bory de Saint-Vincent, 1822	Chromista	Ochrophyta	Phaeophyceae	Dictyosphaeriales	Chordariaceae	<i>Batrachella</i>	Species			
72	<i>Batrachella reticulata</i>	<i>Batrachella reticulata</i>	X	X											144928				(Reinke) Kormann & Sahling, 1988	Chromista	Ochrophyta	Phaeophyceae	Dictyosphaeriales	Chordariaceae	<i>Batrachella</i>	Species			
73	<i>Bryopsis bryoides</i>	<i>Bryopsisbryopsis bryoides</i>	X	X	X	X									144928				(Goodenough & Woodward) Kuntze, 1891	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Rhododermaceae	<i>Bryopsis</i>	Species			
74	<i>Bryopsis hyginoides</i>	<i>Bryopsis hyginoides</i>	X	X	X	X									144928				J. V. Lamourou, 1809	Plantae	Chlorophyta	Ulvoiphyceae	Bryopsidales	Bryopsidaceae	<i>Bryopsis</i>	Species			
75	<i>Bryopsis plumosa</i>	<i>Bryopsis plumosa</i>	X	X	X	X	X								144927				(Hudson) C. Agardh, 1823	Plantae	Chlorophyta	Ulvoiphyceae	Bryopsidales	Bryopsidaceae	<i>Bryopsis</i>	Species			
76	<i>Butomus umbellatus</i> L.	<i>Butomus umbellatus</i> L.								X			X	X	X	144927				(L.)	Plantae	Tracheophyta	Magnoliopsida	Alismatales	Butomaceae	<i>Butomus</i>	Species		
77	<i>Callithamion corymbosum</i>	<i>Callithamion corymbosum</i>	X	X	X	X	X	X							144928				(Smith) Lyngbye, 1819	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Callithamiales	<i>Callithamion</i>	Species			
78	<i>Callithamion tetragonum</i>	<i>Callithamion tetragonum</i>	X	X		X									144928				(Withering) S. F. Gray, 1821	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Callithamiales	<i>Callithamion</i>	Species			
79	<i>Callitriche capheocarpa</i>	<i>Callitriche capheocarpa</i>											X	X	X	144928				Sedner	Plantae	Tracheophyta	Magnoliopsida	Lamiales	Callitricaceae	<i>Callitriche</i>	Species		
80	<i>Callitriche hermaphrodica</i>	<i>Callitriche hermaphrodica</i>								X			X	X	X	144928				(L. de Saint-Vincent, 1822)	Plantae	Tracheophyta	Magnoliopsida	Lamiales	Plantaginaceae	<i>Callitriche</i>	Species		
81	<i>Callitriche palustris</i>	<i>Callitriche palustris</i>											X	X	X	144928				Linnaeus	Plantae	Tracheophyta	Magnoliopsida	Lamiales	Plantaginaceae	<i>Callitriche</i>	Species		
82	<i>Euthora cristata</i>	<i>Callithyllis cristata</i>	X	X	X										173770				(C. Agardh) J. Agardh, 1847	Plantae	Rhodophyta	Floridiophyceae	Gigartinales	Kallimniaceae	<i>Euthora</i>	Species			
83	<i>Cartha palustris</i>	<i>Cartha palustris</i>											X	X	X	144928				Linnaeus	Plantae	Tracheophyta	Magnoliopsida	Ranunculales	Ranunculaceae	<i>Cartha</i>	Species		
84	<i>Caposiphon fulvens</i>	<i>Caposiphon fulvens</i>	X	X	X	X	X	X	X	X	X	X	X	X	144928				(C. Agardh) Setchell & N. L. Gardner, 1920	Plantae	Chlorophyta	Ulvoiphyceae	Ulvales	Caposiphonaceae	<i>Caposiphon</i>	Species			
85	<i>Ceramium cimbrium</i>	<i>Ceramium cimbrium</i>	X	X	X		X								144928				H. L. Petersen, 1924	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Ceramium</i>	Species			
86	<i>Ceramium diaphanum</i>	<i>Ceramium diaphanum</i>	X	X	X	X	X	X	X	X	X	X			144928				(Lighthoot) Roth, 1806	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Ceramium</i>	Species			
87	<i>Ceramium echinostomum</i>	<i>Ceramium echinostomum</i>			X										144927				J. Agardh, 1844	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Ceramium</i>	Species			
88	<i>Ceramium pallidum</i>	<i>Ceramium pallidum</i>	X												144928				(Kützting) Magg & Hommersand, 1993	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Ceramium</i>	Species			
89	<i>Ceramium alliquosum</i>	<i>Ceramium alliquosum</i>	X	X		X	X	X	X	X					144928				(Kützting) Magg & Hommersand, 1993	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Ceramium</i>	Species			
90	<i>Ceramium tenuicorne</i>	<i>Ceramium tenuicorne</i>	X	X	X	X	X	X	X	X	X	X	X	P	144928				(Kützting) Waern, 1952	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Ceramium</i>	Species			
91	<i>Ceramium virgatum</i>	<i>Ceramium virgatum</i>	X	X	X	X	X	X	X	X	X	X	X	X	173770				Roth, 1797	Plantae	Rhodophyta	Floridiophyceae	Ceramiales	Ceramiales	<i>Ceramium</i>	Species			
92	<i>Ceratocylus hantzii</i>	<i>Ceratocylus hantzii</i>	X	X	X	X									144928				(Roosvinge) L. Le Gal & G. W. Saunders, 2010	Plantae	Rhodophyta	Floridiophyceae	Gigartinales	Phylloporaceae	<i>Ceratocylus</i>	Species			
93	<i>Ceratophyllum demersum</i>	<i>Ceratophyllum demersum</i>	X	X	X	X	X	X	X	X	X	X	X	X	144928				L.	Plantae	Tracheophyta	Magnoliopsida	Ceratophyllales	Ceratophyllaceae	<i>Ceratophyllum</i>	Species			
94	<i>Chaetomorpha aerea</i>	<i>Chaetomorpha aerea</i>	X</																										

BOLCOM Checklist for Baltic Sea Macrophyte Species																																				
No.	Valid scientific name (2019)	Scientific name in previous checklist (2012)	Distribution (2018 subspecies)																		Depth (m)	ITS-20A	CHN-IID	Source (line ID)		Scientific name subsp. var.		Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Vernacular names	Comments
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q																	
98	<i>Chara aspera</i>	<i>Chara aspera</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2006a	C.L.Willénen, 1809		<i>Chara aspera f. brachyphylla; Chara aspera f. brevifolia; Chara aspera f. brevispinia; Chara aspera f. capillata; Chara aspera f. condensata; Chara aspera f. longispina; Chara aspera f. macrostaphana; Chara aspera f. occulta; Chara aspera f. vulgaris; Chara aspera var. acuticosta; Chara aspera var. capillacea; Chara aspera var. laevistra; Chara aspera var. marica; Chara aspera var. nitida; Chara aspera var. nudissima; Chara aspera var. angustata; Chara aspera var. subsericea; Chara aspera; Chara delicatula; Chara filosa; Chara galloides; Chara globularis var. affinis; Chara intertexta; Chara pulchella var. aspera; Chara pulchella var. delicatula; Chara pusilla</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species	Rough stonewort		
100	<i>Chara baltica</i>	<i>Chara baltica</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2006c	(C.J.Hartmann) Bruzelius, 1824		<i>Chara acicularis; Chara agardhiana; Chara baltica var. affinis; Chara baltica var. rigida; Chara firma; Chara frigida var. baltica; Chara frigida var. baltica</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species	Baltic stonewort		
101	<i>Chara braunii</i>	<i>Chara braunii</i>																X	X	X	X	X	49347	C.C.Gmelin, 1826		<i>Chara braunii f. braunii; Chara braunii f. colombiana; Chara braunii f. transcaspica; Chara braunii var. braunii; Chara braunii var. braunii f. sumatrana; Chara braunii var. solanalis; Chara braunii var. stalli; Chara coronata; Chara coronata f. albocinctulata; Chara coronata f. cortiana; Chara coronata f. sungarica; Chara coronata f. stalli; Chara coronata var. braunii; Chara coronata var. hantschedolai; Chara coronata var. solanalis; Chara coronata var. stalli; Chara cortiana; Chara fraunii; Chara jahnenii; Chara longipora; Chara stalli; Chara braunii; Metalia braunii</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species	Braun's stonewort		
102	<i>Chara canescens</i>	<i>Chara canescens</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2006d	Loiselier, 1810		<i>Chara aspera f. spitzbergensis; Chara canescens f. pseudoglossosima; Chara canescens f. spitzbergensis; Chara canescens f. stricta; Chara condensata; Chara crinita; Chara crinita f. brachyphylla; Chara crinita f. bulbilifera; Chara crinita f. ceratophylloides; Chara crinita f. cometa; Chara crinita f. comosa; Chara crinita f. compacta; Chara crinita f. cressaginata; Chara crinita f. elegans; Chara crinita f. filiformis; Chara crinita f. gracilis; Chara crinita f. gracilima; Chara crinita f. gymnocladia; Chara crinita f. gymnocladioides; Chara crinita f. gymnocladioides; Chara crinita f. heterostyles; Chara crinita f. hypnoides; Chara crinita f. leptostoma; Chara crinita f. longispina; Chara crinita f. major; Chara crinita f. mikrostaphana; Chara crinita f. nigricans; Chara crinita f. pachymeris; Chara crinita f. pallidivirens; Chara crinita f. parvifolia; Chara crinita f. pseudo-spinosissima; Chara crinita f. serotina; Chara crinita f. spinosissima; Chara crinita f. stricta; Chara crinita f. tenuifolia; Chara crinita f. tenuispina; Chara crinita f. thermale; Chara crinita f. virginica; Chara crinita f. variabilis; Chara crinita var. americana; Chara crinita var. toletana; Chara crinita; Chara pusilla; Chara sphagnum</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species	Bearded stonewort		
103	<i>Chara canescens</i>	<i>Chara canescens</i>																					2006e	P.Salmann ex A.Braun, 1835		<i>Chara canescens; Chara canescens var. heteromorphe; Chara duriei; Chara galloides var. duriei; Chara globularis f. conviens</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species	Converged stonewort		
104	<i>Chara globularis</i>	<i>Chara globularis</i>																					49348	J.L.Thuilleur, 1799		<i>Chara capillacea; Chara capillacea; Chara conniventifragilis; Chara diffusa; Chara foliolata; Chara fragilis; Chara fragilis f. brevibracteata; Chara fragilis f. brevifolia; Chara fragilis f. capillata; Chara fragilis f. cressata; Chara fragilis f. flexiformis; Chara fragilis f. gracilis; Chara fragilis f. insignis; Chara fragilis f. laevis; Chara fragilis f. microphylla; Chara fragilis f. macrostaphana; Chara fragilis f. major; Chara fragilis f. micropetala; Chara fragilis f. migulac; Chara fragilis f. mollis; Chara fragilis f. nitellodes; Chara fragilis f. pseudocrinita; Chara fragilis f. pusilla; Chara fragilis f. tenuifolia; Chara fragilis f. tenax; Chara fragilis var. angustata; Chara fragilis var. basilaris; Chara fragilis var. capillacea; Chara fragilis var. elongata; Chara fragilis var. levigata; Chara fragilis var. longibracteata; Chara fragilis var. meridionalis; Chara fragilis var. subsericea; Chara fragilis var. subsericea f. platensis; Chara fragilis; Chara globularis f. inflexa; Chara globularis f. seminudifolia; Chara globularis var. belingensis; Chara globularis var. capillacea; Chara globularis var. euphemialis; Chara hirta; Chara leptostoma; Chara pulchella; Chara pulchella var. capillacea; Chara trichophylla; Chara viridis</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species	Fragile stonewort		
105	<i>Chara hispida</i>	<i>Chara hispida</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2006f	Linnaeus, 1753		<i>Chara hispida f. heterostyles; Chara hispida f. elongata; Chara hispida f. heterostyles; Chara hispida f. stricta; Chara hispida var. gymnotodes; Chara hispida var. major f. major; Chara hispida var. major; Chara major</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species			
106	<i>Chara horrida</i>	<i>Chara horrida</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2006g	L.J.Wahlstedt, 1862		<i>Chara baltica var. fastigiata; Chara hispida f. fastigiata; Chara hispida subsp. horrida</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species			
107	<i>Chara polycaantha</i>	<i>Chara polycaantha</i>																					2006h	A.Brühn, 1889		<i>Chara hispida var. despectantia; Chara hispida var. hispida f. polycaantha; Chara hispida var. polycantha; Chara pedunculata; Chara polycaantha f. despectantia; Chara polycaantha; Chara pinnatifida; Chara pinnatifida f. pinnatifida</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species			
108	<i>Chara tomentosa</i>	<i>Chara tomentosa</i>																					2006i	Linnaeus, 1753		<i>Chara ceratophylla; Chara ceratophylla subsp. ceratophylla; Chara ceratophylla var. inflexum; Chara ceratophylla var. macrophylla; Chara ceratophylla var. microphylla; Chara helvola</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species	Coral stonewort; mossy stonewort		
109	<i>Chara virgate</i>	<i>Chara virgate</i>																				X	49349	Kützting, 1834		<i>Chara delicatula; Chara fragilis f. viridis; Chara fragilis subsp. delicatula; Chara fragilis var. delicatula; Chara fragilis var. virgate; Chara globularis var. delicatula; Chara globularis var. virgate; Chara globularis var. virgata f. virgate; Chara lampyris; Chara pilifera; Chara trichodes; Chara verrucosa</i>	Plantae	Charophyta	Charophyceae	Charales	Characeae	Chara	Species	Delicate stonewort		
110	<i>Chara vulgaris</i>	<i>Chara vulgaris</i>																					2006j	Linnaeus, 1753		<i>Chara bethschlageri; Chara boveana; Chara elongata; Chara betetida; Chara betetida f. capitata; Chara betetida f. compacta; Chara betetida f. cressibracteata; Chara betetida f. cressata; Chara betetida f. diversifolia; Chara betetida f. flagellifera; Chara betetida f. flexilis; Chara betetida f. heterovericillata; Chara betetida f. incurvata; Chara betetida f. longicinctula; Chara betetida f. mikrostaphana; Chara betetida f. pseudopinnatifida; Chara betetida f. incurvata; Chara betetida f. rivisii; Chara betetida f. rosularis; Chara betetida f. tenuis; Chara betetida f. subsericea; Chara betetida f. subsericea; Chara betetida f. subsericea; Chara betetida f. thermale; Chara betetida f. virescens; Chara betetida var. gallicantata; Chara betetida var. steudneri; Chara betetida; Chara montana; Chara pilifera; Chara pil</i>										

COM Checklist for Baltic Sea Macrophyte Species																													
No	Valid scientific name (2019)	Scientific name in previous editions (2012)	Distribution (2018 subbasins)												Alpha ID	TSN	Obs ID	Source Obs ID	Scientific name authority	Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Vernacular names	Comments	
			A	B	C	D	E	F	G	H	I	J	K	L															
			Arctic	Arctic	Arctic	Arctic	Arctic	Arctic	Arctic	Arctic	Arctic	Arctic	Arctic	Arctic															
126	<i>Cladophora hutchinsiae</i>	<i>Cladophora hutchinsiae</i>	X												14004			(Dillwyn) Kützting, 1845		Plantae	Chlorophyta	Ulvoiphyceae	Cladophorales	Cladophoraceae	Cladophora	Species			
127	<i>Cladophora laetevirens</i>	<i>Cladophora laetevirens</i>	X	X					X						14005			(Dillwyn) Kützting, 1843		Plantae	Chlorophyta	Ulvoiphyceae	Cladophorales	Cladophoraceae	Cladophora	Species			
128	<i>Cladophora lehmanniana</i>	<i>Cladophora lehmanniana</i>	X	X											14002			(Lindenberg) Kützting, 1843		Plantae	Chlorophyta	Ulvoiphyceae	Cladophorales	Cladophoraceae	Cladophora	Species			
129	<i>Cladophora pachyderma</i>	<i>Cladophora pachyderma</i>	X	X	X	X	X	X					X	X	12126			(Jellman) Brand, 1908		Plantae	Chlorophyta	Ulvoiphyceae	Cladophorales	Cladophoraceae	Cladophora	Species			
130	<i>Cladophora pygmaea</i>	<i>Cladophora pygmaea</i>	X	X	X	X	X	X							14003			(Reinelt M.) Wynne, 2017		Plantae	Chlorophyta	Ulvoiphyceae	Cladophorales	Cladophoraceae	Cladophora	Species			
131	<i>Cladophora rupestris</i>	<i>Cladophora rupestris</i>	X	X	X	X	X	X	X	X	X	X	X	X	14006			(Linnaeus) Kützting, 1843		Plantae	Chlorophyta	Ulvoiphyceae	Cladophorales	Cladophoraceae	Cladophora	Species	Rock weed		
132	<i>Cladophora sericea</i>	<i>Cladophora sericea</i>	X	X	X	X	X	X					X	X	14008			(Hudson) Kützting, 1843		Plantae	Chlorophyta	Ulvoiphyceae	Cladophorales	Cladophoraceae	Cladophora	Species			
133	<i>Cladophora vadorum</i>	<i>Cladophora vadorum</i>	X												14009			(Areschoug) Kützting, 1849		Plantae	Chlorophyta	Ulvoiphyceae	Cladophorales	Cladophoraceae	Cladophora	Species			
134	<i>Cladophora vagabunda</i>	<i>Cladophora vagabunda</i>		X						X					14007			(Linnaeus) Hook, 1963		Plantae	Chlorophyta	Ulvoiphyceae	Cladophorales	Cladophoraceae	Cladophora	Species			
135	<i>Cladophyon contortus</i>	<i>Cladophyon contortus</i>	X	X											14010			(Thuret) Kylin, 1940		Chromista	Ochrophyta	Phaeophyceae	Ectocarinales	Chordariaceae	Cladophyon	Species			
136	<i>Cladophyon zosteræ</i>	<i>Cladophyon zosteræ</i>	X	X	X	X							X	X	14011			(J. Agardh) Kylin, 1940		Chromista	Ochrophyta	Phaeophyceae	Ectocarinales	Chordariaceae	Cladophyon	Species			
137	<i>Cladostephus spongiosus</i>	<i>Cladostephus spongiosus</i>	X	X											14008			(Hudson) C. Agardh, 1817		Chromista	Ochrophyta	Phaeophyceae	Sphecoarinales	Cladostephaceae	Cladostephus	Species			
138	<i>Coccomyxa parvifolia</i>	<i>Coccomyxa parvifolia</i>	X												14040			R.N.Stevenson & G.R.South, 1974		Plantae	Chlorophyta	Trebouxiophyceae	Trebouxiophyceae ordo incertae sedis	Coccomyaceae	Coccomyxa	Species			
139	<i>Coccythys truncatus</i>	<i>Coccythys truncatus</i>	X	X	X	X	X	X	X	X	X	X	X	P	14054			(Pallas) M.J. Wynne & J.N. Heine, 1992		Plantae	Rhodophyta	Rhodideophyceae	Gigartinales	Phylloporaceae	Coccythys	Species	Felt alga; forked felt alga; sponge seaweed		
140	<i>Codium fragile</i>	<i>Codium fragile</i>	X	X		X								P	14006			(Suringar) Hariot, 1889		Plantae	Chlorophyta	Ulvoiphyceae	Bryopsidales	Codiaceae	Codium	Species			
141	<i>Colaconema daviesi</i>	<i>Colaconema daviesi</i>	X	X	X	X	X								14013			(Dillwyn) Stengels, 1895		Plantae	Rhodophyta	Rhodideophyceae	Colaconematales	Colaconemataceae	Colaconema	Species			
142	<i>Colaconema membranaceum</i>	<i>Colaconema membranaceum</i>	X	X	X										49688			(Magnus) S.L. Clayden & G.W. Saunders, 2010		Plantae	Rhodophyta	Rhodideophyceae	Palmariales	Meiodisaceae	Rubrorhizus	Species			
143	<i>Colaconema nemalinum</i>	<i>Colaconema nemalinum</i>	X	X											14015			(De Notaris ex L. Dufour) Stengels, 1895		Plantae	Rhodophyta	Rhodideophyceae	Colaconematales	Colaconemataceae	Colaconema	Species			
144	<i>Colaconema pectinatum</i>	<i>Colaconema pectinatum</i>	X	X	X										14012			(Wylin) J.T. Harper & G.W. Saunders, 2002		Plantae	Rhodophyta	Rhodideophyceae	Colaconematales	Colaconemataceae	Colaconema	Species			
145	<i>Cylindria rosulata</i>	<i>Colaconema strictum</i>	X	X		X		X							49672			Rosenberg, 1909		Plantae	Rhodophyta	Rhodideophyceae	Acrochaetales	Acrochaetaceae	Cylindria	Species			
146	<i>Colopomena peregrina</i>	<i>Colopomena peregrina</i>	X	X											14016			Sauvageau, 1927		Chromista	Ochrophyta	Phaeophyceae	Ectocarinales	Scytosiphonaceae	Colopomena	Species	Oyster thief		
147	<i>Compsoanema saxicola</i>	<i>Compsoanema saxicola</i>	X	X		X									14018			(Kuckuck) Kuckuck, 1953		Chromista	Ochrophyta	Phaeophyceae	Ectocarinales	Chordariaceae	Compsoanema	Species			
148	<i>Compsothamnion gracilimum</i>	<i>Compsothamnion gracilimum</i>	X												14017			De Toni, 1903		Plantae	Rhodophyta	Rhodideophyceae	Ceramiales	Ceramiales	Compsothamnion	Species			
149	<i>Compsothamnion thuioides</i>	<i>Compsothamnion thuioides</i>	X												14019			(Smith) Nageli, 1862		Plantae	Rhodophyta	Rhodideophyceae	Ceramiales	Ceramiales	Compsothamnion	Species			
150	<i>Corallina officinalis</i>	<i>Corallina officinalis</i>	X	X		X									14018			Linnaeus, 1758		Plantae	Rhodophyta	Rhodideophyceae	Corallinales	Corallinaceae	Corallina	Species	Coral weed; coral weed		
151	<i>Crasilla aquatica</i>	<i>Crasilla aquatica</i>									X	P	P	P	X	10986			(L.) Schönland		Plantae	Tracheophyta	Magnoliopsida	Saxifragales	Crossulaceae	Crossula	Species		
152	<i>Cruoria pilosa</i>	<i>Cruoria pilosa</i>	X	X	X	X									14022			(Lyngby) Fries, 1835		Plantae	Rhodophyta	Rhodideophyceae	Gigartinales	Cruoriaceae	Cruoria	Species			
153	<i>Cruoriopsis danica</i>	<i>Cruoriopsis danica</i>	X	X											14028			Rosenberg, 1918		Plantae	Rhodophyta	Rhodideophyceae	Pyrosomnetales	Pyrosomnetaeae	Cruoriopsis	Species			
154	<i>Cutleria multifida</i>	<i>Cutleria multifida</i>	X	X											14020			(Turner) Grunlie, 1830		Chromista	Ochrophyta	Phaeophyceae	Cutleriales	Cutleriaceae	Cutleria	Species			
155	<i>Cystoclonium purpuraceum</i>	<i>Cystoclonium purpuraceum</i>	X	X	X	X	X	X							14053			(Hudson) Batters, 1902		Plantae	Rhodophyta	Rhodideophyceae	Gigartinales	Cystocloniaceae	Cystoclonium	Species			
156	<i>Cystoseira baccata</i>	<i>Cystoseira baccata</i>	X												14027			(S.G. Gmelin) P.C. Silva, 1952		Chromista	Ochrophyta	Phaeophyceae	Fucales	Sargassaceae	Cystoseira	Species			
157	<i>Dargomannia microcystis</i>	<i>Dargomannia microcystis</i>								X					49708			M.J. Wynne, G. Furnari, A. Kryden & T.Friedl, 2014		Plantae	Chlorophyta	Ulvoiphyceae	Oltmannsiellales	Oltmannsiellaceae	Nodogemmonia	Species			
158	<i>Daya baillouviana</i>	<i>Daya baillouviana</i>	X	X	X	X									14014			(S.G. Gmelin) Montagne, 1841		Plantae	Rhodophyta	Rhodideophyceae	Ceramiales	Dasyaceae	Daya	Species			
159	<i>Delamarea attenuata</i>	<i>Delamarea attenuata</i>	X	X											14017			(Jellman) Rosenberg, 1903		Chromista	Ochrophyta	Phaeophyceae	Ectocarinales	Chordariaceae	Delamarea	Species			
160	<i>Deliseria sanguinea</i>	<i>Deliseria sanguinea</i>	X	X	X	X	X	X							14016			(Hudson) J. V. Lamouroux, 1813		Plantae	Rhodophyta	Rhodideophyceae	Ceramiales	Deliseriaceae	Deliseria	Species	Sea beech		
161	<i>Derbesia marina</i>	<i>Derbesia marina</i>	X	X	X										14042			(Lyngby) Soler, 1846		Plantae	Chlorophyta	Ulvoiphyceae	Bryopsidales	Derbesiaceae	Derbesia	Species			
162	<i>Desmarestia aculeata</i>	<i>Desmarestia aculeata</i>	X	X	X	X	X	X							14030			(Linnaeus) J. V. Lamouroux, 1813		Chromista	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia	Species			
163	<i>Desmarestia viridis</i>	<i>Desmarestia viridis</i>	X	X	X	X	X	X		X					14033			(D.F. Muller) J. V. Lamouroux, 1813		Chromista	Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	Desmarestia	Species			
164	<i>Dictyosiphon chardaria</i>	<i>Dictyosiphon chardaria</i>	X	X	X	X	X	X		X	X	X	P	X	14039			Areschoug, 1847		Chromista	Ochrophyta	Phaeophyceae	Ectocarinales	Chordariaceae	Dictyosiphon	Species			

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			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P														
			Almogel	Åland Sea	Bay of Åland	Bay of Bothnia	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk	Bay of Gdansk												
265	<i>Titanoderma pustulatum</i>	<i>Lithophyllum pustulatum</i>	X	X		X															140528	(J. V. Lamouroux, 1841, 1858		Plantae	Rhodophyta	Florideophyceae	Corallinales	Lithophyllaceae	<i>Titanoderma</i>	Species		
266	<i>Lithothamnion glaciale</i>	<i>Lithothamnion glaciale</i>	X	X		X		X													140510	Kjellman, 1883		Plantae	Rhodophyta	Florideophyceae	Corallinales	Lithothamnaceae	<i>Lithothamnion</i>	Species	Maerl	
267	<i>Lithothamnion sandei</i>	<i>Lithothamnion sandei</i>	X	X		X															140518	Lyck, 1883		Plantae	Rhodophyta	Florideophyceae	Corallinales	Lithothamnaceae	<i>Lithothamnion</i>	Species		
268	<i>Litosiphon laminariae</i>	<i>Litosiphon laminariae</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140527	Lyngby & Harvey, 1949		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Litosiphon</i>	Species		
269	<i>Lomentaria articulata</i>	<i>Lomentaria articulata</i>	X																		140525	(Hudson) Lyngbye, 1839		Plantae	Rhodophyta	Florideophyceae	Rhodymeniales	Lomentariaceae	<i>Lomentaria</i>	Species		
270	<i>Lomentaria clavellosa</i>	<i>Lomentaria clavellosa</i>	X	X		X															140526	Lightfoot & Turner, Gallion, 1828		Plantae	Rhodophyta	Florideophyceae	Rhodymeniales	Lomentariaceae	<i>Lomentaria</i>	Species		
271	<i>Lomentaria arcademis</i>	<i>Lomentaria arcademis</i>	X																		140528	(Harvey) F. S. Collins, 1937		Plantae	Rhodophyta	Florideophyceae	Rhodymeniales	Lomentariaceae	<i>Lomentaria</i>	Species		
272	<i>Mastocarpus stellatus</i>	<i>Mastocarpus stellatus</i>	X	X	X																140520	(Stackhouse) Guiry, 1984		Plantae	Rhodophyta	Florideophyceae	Gigartinales	Phyllogloaceae	<i>Mastocarpus</i>	Species	False carrageen moss, false Irish moss	
273	<i>Meiodiscus spetsbergensis</i>	<i>Meiodiscus spetsbergensis</i>	X	X	X	X															140573	(Kjellman) (G.W. Saunders & McLachlan, 1911		Plantae	Rhodophyta	Florideophyceae	Palmariales	Meiodiscaceae	<i>Meiodiscus</i>	Species		
274	<i>Melobesia membranacea</i>	<i>Melobesia membranacea</i>	X	X	X	X															140522	(Esper) J. V. Lamouroux, 1812		Plantae	Rhodophyta	Florideophyceae	Haplidiales	Haplidiaceae	<i>Melobesia</i>	Species		
275	<i>Membranoptera alata</i>	<i>Membranoptera alata</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140529	(Hudson) Stackhouse, 1867		Plantae	Rhodophyta	Florideophyceae	Ceramiales	Delesseriaceae	<i>Membranoptera</i>	Species		
276	<i>Mesogloia lamosa</i>	<i>Mesogloia lamosa</i>	X																		140527	(P. L. Croun & H.M. Croun, 1967		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Mesogloia</i>	Species		
277	<i>Mesogloia vermiculata</i>	<i>Mesogloia vermiculata</i>	X	X	X	X															140528	(Smith) S. F. Gray, 1821		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Mesogloia</i>	Species		
278	<i>Microcaryne ocellata</i>	<i>Microcaryne ocellata</i>	X	X																	140525	Strömberg, 1888		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Microcaryne</i>	Species		
279	<i>Microgongium globosum</i>	<i>Microgongium globosum</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140575	Reinke, 1888		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Microgongium</i>	Species		
280	<i>Microgongium tenuissimum</i>	<i>Microgongium tenuissimum</i>	X	X	X	X															107074	(P. L. Croun & H.M. Croun) Cornick & G. Furnari, 2012		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Microgongium</i>	Species		
281	<i>Mikrogyphar polydiphaniae</i>	<i>Mikrogyphar polydiphaniae</i>	X	X	X																140527	Kuckuck, 1897		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Mikrogyphar</i>	Species		
282	<i>Mikrogyphar parvifera</i>	<i>Mikrogyphar parvifera</i>	X	X	X																140528	Kuckuck, 1897		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Mikrogyphar</i>	Species		
283	<i>Mikrogyphar astensis</i>	<i>Mikrogyphar astensis</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140528	Kuckuck, 1895		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Mikrogyphar</i>	Species		
284	<i>Monostroma balticum</i>	<i>Monostroma balticum</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140528	(Aeschschoug) Witkowski, 1866		Plantae	Chlorophyta	Ulvophyceae	Ulotrichales	Monostromataceae	<i>Monostroma</i>	Species		
285	<i>Monostroma grevillei</i>	<i>Monostroma grevillei</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140526	(Thuret) Witkowski, 1866		Plantae	Chlorophyta	Ulvophyceae	Ulotrichales	Monostromataceae	<i>Monostroma</i>	Species		
286	<i>Myricictula chordea</i>	<i>Myricictula chordea</i>	X																		140528	(Aeschschoug) Leaning, 1937		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myricictula</i>	Species		
287	<i>Myricictula ficurum</i>	<i>Myricictula ficurum</i>	X	X	X																140528	(Kosvening) Kilm, 1947		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myricictula</i>	Species		
288	<i>Myricictula haydeni</i>	<i>Myricictula haydeni</i>	X																		140528	(Gatty) Leaning, 1937		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myricictula</i>	Species		
289	<i>Myricictula rivulariae</i>	<i>Myricictula rivulariae</i>	X		X																140525	(Schur & Aeschschoug) Feldmann, 1937		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myricictula</i>	Species		
290	<i>Myricictula leventi</i>	<i>Myricictula leventi</i>	X	X	X																140525	J. Agardh, 1843		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myricictula</i>	Species		
291	<i>Myriomena balticum</i>	<i>Myriomena balticum</i>	X	X	X	X															140575	(Reinke) Fodde, 1894		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myriomena</i>	Species		
292	<i>Myriomena magnusi</i>	<i>Myriomena magnusi</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140528	(Nauyas) Lohse, 1967		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myriomena</i>	Species		
293	<i>Myriomena variatum</i>	<i>Myriomena variatum</i>	X	X	X																140528	(Reinke) Kilm, 1947		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myriomena</i>	Species		
294	<i>Myriomena strangulans</i>	<i>Myriomena strangulans</i>	X	X	X	X	X														140528	Greville, 1827		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myriomena</i>	Species		
295	<i>Myriophyllum alterniflorum</i>	<i>Myriophyllum alterniflorum</i>																			30389	30389	DC.	Plantae	Tracheophyta	Magnoliopsida	Saxifragales	Haloragaceae	<i>Myriophyllum</i>	Species	Alternatetlower watermilfoil	
296	<i>Myriophyllum sibiricum</i>	<i>Myriophyllum sibiricum</i>																			107075	Kom.		Plantae	Tracheophyta	Magnoliopsida	Saxifragales	Haloragaceae	<i>Myriophyllum</i>	Species	Spiked water-milfoil	
297	<i>Myriophyllum spicatum</i>	<i>Myriophyllum spicatum</i> L.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	43205		Plantae	Tracheophyta	Magnoliopsida	Saxifragales	Haloragaceae	<i>Myriophyllum</i>	Species			
298	<i>Myriophyllum verticillatum</i>	<i>Myriophyllum verticillatum</i>																			127845		Plantae	Tracheophyta	Magnoliopsida	Saxifragales	Haloragaceae	<i>Myriophyllum</i>	Species	Parrot's feather		
299	<i>Myriotrichia claviformis</i>	<i>Myriotrichia claviformis</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	140533	(Havell) J. Verdc., 1973		Chromista	Ochrophyta	Phaeophyceae	Ectocarpales	Chordariaceae	<i>Myriotrichia</i>	Species		
300	<i>Najas marina</i>	<i>Najas marina</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	43207	(L.) Leaning, 1834		Plantae	Charophyta	Magnoliopsida	Alismatales	Hydrocharitaceae	<i>Najas</i>	Species	Holly-leaved naiad	
301	<i>Nemalion elminthoides</i>	<i>Nemalion elminthoides</i>	X	X	X	X	X														140576	(L.) Batters, 1902		Plantae	Rhodophyta	Florideophyceae	Nemaliales	Nemaliaceae	<i>Nemalion</i>	Species	Sea noodle	
302	<i>Polydiphania elongella</i>	<i>Neosiphonia elongella</i>	X																		140529	(Havell) 1833		Plantae	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	<i>Polydiphania</i>	Species		
303	<i>Melanconium harveyi</i>	<i>Neosiphonia harveyi</i>	X	X																	107074	(Bailey) Diaz-Tapia & Mages, 2017		Plantae	Rhodophyta	Florideophyceae	Ceramiales	Rhodomelaceae	<i>Melanconium</i>	Species		
304	<i>Nitella confervacea</i>	<i>Nitella confervacea</i>																			40108	(Brébisson) A. Braun & Leonhardt, 1863		Plantae	Charophyta	Charophyceae	Charales	Characeae	<i>Nitella</i>	Species	Least stonewort	
305	<i>Nitella flexilis</i>	<i>Nitella flexilis</i>																			401027	(Linnaeus) C. Agardh, 1824		Plantae	Charophyta	Charophyceae	Charales	Characeae	<i>Nitella</i>	Species	Smooth stonewort	
306	<i>Nitella gracilis</i>	<i>Nitella gracilis</i> (Sm.)																			401028	(J. E. Smith) C. Agardh, 1824		Plantae	Charophyta	Charophyceae	Charales	Characeae	<i>Nitella</i>	Species	Slender stonewort	
307	<i>Nitella hyalina</i>	<i>Nitella hyalina</i>																			401029	(De Candolle) C. Agardh, 1824		Plantae	Charophyta	Charophyceae	Charales	Characeae	<i>Nitella</i>	Species	Many-branched stonewort	
308	<i>Nitella mucronata</i>	<i>Nitella mucronata</i>	X																		401028	(A. Braun) F. Miquel, 1840		Plantae	Charophyta	Charophyceae	Charales	Characeae	<i>Nitella</i>	Species	Pointed stonewort	
309	<i>Nitella opaca</i>	<i>Nitella opaca</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	401028	(C. Agardh & Bruzelius) C. Agardh, 1824		Plantae	Charophyta	Charophyceae	Charales	Characeae	<i>Nitella</i>	Species	Dark stonewort	
310	<i>Nitella sycopaca</i>	<i>Nitella sycopaca</i>	X	X	X											</																

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			A	B	C	D	E	F	G	H	I	J	K	L															
316	<i>Nymphaea candida</i>	<i>Nymphaea candida</i>																		Plantae	Tracheophyta	Magnoliopsida	Nymphaeales	Nymphaeaceae	Nymphaea	Species			
317	<i>Ochlocheate hystris</i>	<i>Ochlocheate hystris</i>	X	X	P		X	X												Plantae	Chlorophyta	Ulvophyceae	Ulvales	Ochlocheate	Species		incorporated comment: added occurrence in Kiel Bay		
318	<i>Odonthobolus dentatus</i>	<i>Odonthobolus dentatus</i>	X	X	X	X														Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Rhodomelaceae	Odonthobolus	Species			
319	<i>Osmundea pinatifida</i>	<i>Osmundea pinatifida</i>	X																	Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Rhodomelaceae	Osmundea	Species	Pepper dulce		
320	<i>Osmundea truncata</i>	<i>Osmundea truncata</i>	X	X	X															Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Rhodomelaceae	Osmundea	Species			
321	<i>Ostreobium quereletii</i>	<i>Ostreobium quereletii</i>	X	X	X															Plantae	Chlorophyta	Ulvophyceae	Byrsoidiales	Ostreobium	Species				
322	<i>Palmaria palmata</i>	<i>Palmaria palmata</i>	X	X	X	X														Plantae	Rhodophyta	Rhodophyceae	Palmariales	Palmaraceae	Palmaria	Species	Dillisk, dulce		
323	<i>Percursaria percurso</i>	<i>Percursaria percurso</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Chlorophyta	Ulvophyceae	Ulvales	Ulvaceae	Percursaria	Species			
324	<i>Petaloidea fasciata</i>	<i>Petaloidea fasciata</i>	X	X	X	X														Chromista	Ochromyza	Phaeophyceae	Scotocarpales	Scytosiphonaceae	Petaloidea	Species			
325	<i>Pleurodictyon asterifolium</i>	<i>Pleurodictyon asterifolium</i>	X	X	X	X														Chromista	Ochromyza	Phaeophyceae	Scotocarpales	Scytosiphonaceae	Pleurodictyon	Species			
326	<i>Petroderma maculiforme</i>	<i>Petroderma maculiforme</i>	X	X	X	X														Chromista	Ochromyza	Phaeophyceae	Rafiales	Rafaliaceae	Petroderma	Species			
327	<i>Physcometria adyi</i>	<i>Physcometria adyi</i> f. <i>adyi</i>	X	X	X	X														Plantae	Rhodophyta	Rhodophyceae	Pyrenomonadales	Pyrenomonadaceae	Physcometria	Species			
328	<i>Phaeophila dendroidea</i>	<i>Phaeophila dendroidea</i>	X	X	X	X	X													Plantae	Chlorophyta	Ulvophyceae	Ulvales	Phaeophila	Species				
329	<i>Phaeophila endophytum</i>	<i>Phaeophila endophytum</i>	X	X	X	X	X													Plantae	Chlorophyta	Ulvophyceae	Ulvales	Phaeophila	Species				
330	<i>Phaeostrroma pulvisculum</i>	<i>Phaeostrroma pulvisculum</i>	X	X	X	X	X													Chromista	Ochromyza	Phaeophyceae	Scotocarpales	Scytosiphonaceae	Phaeostrroma	Species			
331	<i>Phragmites australis</i>	<i>Phragmites australis</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Tracheophyta	Magnoliopsida	Poales	Poaceae	Phragmites	Species	Common reed, reed grass		
332	<i>Phycoclitus breuandii</i>	<i>Phycoclitus breuandii</i>	X	X																Chromista	Ochromyza	Phaeophyceae	Scotocarpales	Chordariaceae	Phycoclitus	Species			
333	<i>Phycodrys rubens</i>	<i>Phycodrys rubens</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Delesseriaceae	Phycodrys	Species			
334	<i>Phyllophora crispata</i>	<i>Phyllophora crispata</i>	X	X	X	X														Plantae	Rhodophyta	Rhodophyceae	Gigartinales	Phyllophoraceae	Phyllophora	Species			
335	<i>Phyllophora pseudocoronata</i>	<i>Phyllophora pseudocoronata</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Rhodophyta	Rhodophyceae	Gigartinales	Phyllophoraceae	Phyllophora	Species			
336	<i>Phymatolithon calcareum</i>	<i>Phymatolithon calcareum</i>	X																	Plantae	Rhodophyta	Rhodophyceae	Corallinales	Lithothamnaceae	Phymatolithon	Species	Common maerl, maerl		
337	<i>Phymatolithon laevigatum</i>	<i>Phymatolithon laevigatum</i>	X	X	X															Plantae	Rhodophyta	Rhodophyceae	Corallinales	Lithothamnaceae	Phymatolithon	Species			
338	<i>Phymatolithon lenormandi</i>	<i>Phymatolithon lenormandi</i>	X	X	X	X	X													Plantae	Rhodophyta	Rhodophyceae	Corallinales	Lithothamnaceae	Phymatolithon	Species			
339	<i>Phymatolithon purpureum</i>	<i>Phymatolithon purpureum</i>	X	X	X	X														Plantae	Rhodophyta	Rhodophyceae	Corallinales	Lithothamnaceae	Phymatolithon	Species			
340	<i>Phymatolithon tenue</i>	<i>Phymatolithon tenue</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Rhodophyta	Rhodophyceae	Corallinales	Lithothamnaceae	Phymatolithon	Species			
341	<i>Pilina rimosa</i>	<i>Pilina rimosa</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Chromista	Ochromyza	Phaeophyceae	Scotocarpales	Chordariaceae	Pilina	Species			
342	<i>Plagiospora gracilis</i>	<i>Plagiospora gracilis</i>	X	X	X															Plantae	Rhodophyta	Rhodophyceae	Gigartinales	Glossophagaceae	Plagiospora	Species			
343	<i>Pleurodictyon lauterbornii</i>	<i>Pleurodictyon lauterbornii</i>	X	X																Plantae	Chlorophyta	Ulvophyceae	Ulvales	Ulvaceae	Pleurodictyon	Species			
344	<i>Pleurodictyon lauterbornii</i>	<i>Pleurodictyon lauterbornii</i>																		Chromista	Ochromyza	Phaeophyceae	Scotocarpales	Scytosiphonaceae	Pleurodictyon	Species			
345	<i>Plocamium cartilagineum</i>	<i>Plocamium cartilagineum</i>	X																	Plantae	Rhodophyta	Rhodophyceae	Plocamiales	Plocamiaceae	Plocamium	Species			
346	<i>Plumaria plumosa</i>	<i>Plumaria plumosa</i>	X	X	X	X	X													Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Callithamnaceae	Plumaria	Species			
347	<i>Pneophyllum coronatum</i>	<i>Pneophyllum coronatum</i>	X																	Plantae	Rhodophyta	Rhodophyceae	Corallinales	Mastopogonaceae	Pneophyllum	Species			
348	<i>Pneophyllum confervicola</i>	<i>Pneophyllum confervicola</i>	X	X	X	X														Plantae	Rhodophyta	Rhodophyceae	Corallinales	Mastopogonaceae	Pneophyllum	Species			
349	<i>Pneophyllum fragile</i>	<i>Pneophyllum fragile</i>	X	X	X	X														Plantae	Rhodophyta	Rhodophyceae	Corallinales	Mastopogonaceae	Pneophyllum	Species			
350	<i>Pneophyllum limbatum</i>	<i>Pneophyllum limbatum</i>	X	X	X	X														Plantae	Rhodophyta	Rhodophyceae	Corallinales	Mastopogonaceae	Pneophyllum	Species			
351	<i>Pneophyllum subulatum</i>	<i>Pneophyllum subulatum</i>	X																	Plantae	Rhodophyta	Rhodophyceae	Corallinales	Mastopogonaceae	Pneophyllum	Species			
352	<i>Pogotrichum filiforme</i>	<i>Pogotrichum filiforme</i>	X																	Chromista	Ochromyza	Phaeophyceae	Scotocarpales	Acinetogonaceae	Pogotrichum	Species			
353	<i>Poreicaria foliosa</i>	<i>Poreicaria foliosa</i>																		Plantae	Tracheophyta	Magnoliopsida	Caryophyllales	Polygonaceae	Poreicaria	Species			
354	<i>Polyides rotundus</i>	<i>Polyides rotundus</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Rhodophyta	Rhodophyceae	Gigartinales	Polyidaceae	Polyides	Species			
355	<i>Polyisiphonia brodiaei</i>	<i>Polyisiphonia brodiaei</i>	X	X																Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Rhodomelaceae	Polyisiphonia	Species			
356	<i>Polyisiphonia elongata</i>	<i>Polyisiphonia elongata</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Rhodomelaceae	Polyisiphonia	Species			
357	<i>Polyisiphonia fibrillosa</i>	<i>Polyisiphonia fibrillosa</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Rhodomelaceae	Polyisiphonia	Species			
358	<i>Vertebrata fucoides</i>	<i>Polyisiphonia fucoides</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Rhodomelaceae	Vertebrata	Species			
359	<i>Vertebrata nigra</i>	<i>Polyisiphonia nigra</i>	X	X																Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Rhodomelaceae	Vertebrata	Species			
360	<i>Polyisiphonia stricta</i>	<i>Polyisiphonia stricta</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Plantae	Rhodophyta	Rhodophyceae	Ceramiales	Rhodomelaceae	Polyisiphonia	Species			

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Marine mammals

HELCOM Checklist 2.0 for Baltic Sea Marine Mammals																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
No	Valid scientific name (2019)	Scientific name in previous Checklist (2012)	Distribution (2018 subbasins)																Aphia ID	ITIS-TSN	Other ID	Source Other ID	Scientific name authorship	Scientific synonyms	Kingdom	Phylum	Class	Order	Family	Genus	Taxonomic rank	Vernacular names																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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			Kattegat	Great Belt	Kiel Bay	Bay of Mecklenburg	The Sound	Arkona Basin	Bornholm Basin	Eastern Gotland Basin	Western Gotland Basin	Northern Baltic Proper	Gdansk Basin	Gulf of Riga	Gulf of Finland	Åland Sea	The Bothnian Sea	The Quark															Bothnian Bay																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
1	<i>Halichoerus grypus</i>	<i>Halichoerus grypus</i>	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	137080				(Fabricius, 1791)	<i>Phoca grypus</i>	Animalia	Chordata	Mammalia	Carnivora	Phocidae	<i>Halichoerus</i>	Species	Gray seal; grey seal																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2	<i>Phoca vitulina</i>	<i>Phoca vitulina vitulina</i>	x	x	x	x	x	x	x				x						137084				Linnaeus, 1758		Animalia	Chordata	Mammalia	Carnivora	Phocidae	<i>Phoca</i>	Species	Atlantic harbor seal; harbour seal; common seal																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
3	<i>Pusa hispida botnica</i>	<i>Pusa hispida</i>									x		x	x	x	x	x	x		622062			Gmelin, 1788		Animalia	Chordata	Mammalia	Carnivora	Phocidae	<i>Pusa</i>	Subspecies	Baltic ringed seal																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				