DOME: Frequently Asked Questions

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# DOME

1. What is DOME?

* DOME is the HELCOM and OSPAR contaminant and biological community abundance database. In addition to contaminants in biota (fish/shellfish/mammals/algae), sediment and water, it includes fish disease, and biological effects of contaminants in biota, sediment and water. It is also capable of handling macro- and micro-litter. In addition to HELCOM and OSPAR, data for national and other monitoring programmes can be submitted to DOME. See <http://www.ices.dk/marine-data/data-portals/Pages/DOME.aspx> for more information.

1. What about litter data collected in trawl surveys?

* See DATRAS information at <http://www.ices.dk/marine-data/data-portals/Pages/DATRAS-Docs.aspx>

1. What about eutrophication and core hydrography parameters?

* See Oceanography information at <http://www.ices.dk/marine-data/data-portals/Pages/ocean.aspx>.

1. Isn’t DOME the HELCOM COMBINE database?
   * The HELCOM COMBINE database is a HELCOM term for all HELCOM data hosted by ICES. As such, both the ICES oceanographic (OCEAN) and environmental (DOME) database are part of the COMBINE database.

# ECOSYSTEM DATA (ESD), DOME VIEWS AND ASSESSMENTS

1. Are the environment data available through the Data Portal suitable for assessments?
   * Data at EcoSystemData (ESD) are intended to give an inventory and overview of what is available. Be aware that data in the downloads do not contain all the meta data for the submitted files. These meta data can be necessary for final calculations, interpretations and decisions for including/eliminating data in an assessment. See the DOME views <http://dome.ices.dk/views/index.aspx> for more complete downloads. If the DOME view is not available for a particular data type, contact [accessions@ices.dk](mailto:accessions@ices.dk) for a download.
   * Examples of meta data not included in the ESD download:
     + SAREA (sampler area) for benthos, SMVOL (total sampled volume) for plankton. These are needed for calculating biomass when only number, weight or millilitre is reported
     + STAGE (stage of development), SIZCL (size class) for differentiating the population and explaining apparent duplicates in the ESD download
   * For assessments and indicators, it is best to contact [accessions@ices.dk](mailto:accessions@ices.dk) and discuss an output requirement for a yearly assessment/indicator.
   * Core hydrography parameters (core parameters) and eutrophication data in DOME are considered supplementary data for contaminants. See the OCEAN database.
2. What are the core parameters for hydrography?
   * Core parameters /core hydrography parameters are:
     + Temperature (PARAM=TEMP)
     + Salinity (PARAM=PSAL, PSALA, PSALB, PSALC, PSALD, PSALE, PSALF, PSALG, and PSALX)
     + Oxygen (PARAM=DOXY)
     + Phosphate (PARAM=PHOS), Total Phosphorus (PARAM=PTOT )
     + Silicate (PARAM=SLCA, SIO3-SI, SI, SIO2)
     + Nitrate (PARAM=NTRA), Nitrite (PARAM=NTRI), Nitrate + Nitrite (PARAM=NTRZ), Ammonium (PARAM=AMON), Total Nitrogen (PARAM=NTOT)
     + Hydrogen Sulphide (PARAM=HSUL)
     + pH (PARAM=PH), Alkalinity (PARAM=ALKY)
     + Chlorophyll a (PARAM=CPHL, CPHLL, CPHLC)
     + Secchi​ depths (PARAM=SECCI)
3. I submitted Eutrophication data via the ERF3.2 format so they are now in DOME. Will they get into an assessment?
   * All core hydrography and eutrophication parameters submitted using the ERF3.2 format are transferred to the OCEAN database.
   * If the automatic resubmission tool has been used, it notifies the OCEAN data manager automatically that a file has been submitted. The transfer is, however, a manual process so the ***1 Sept. deadline*** has to be observed otherwise there may not be enough time to get all the water data into OCEAN before the next assessment.
   * The OCEAN database is used for all extractions of the core hydrography and eutrophication parameters for all assessments based on extractions of HELCOM and OSPAR stations as defined in the Station Dictionary. Make sure all stations are defined in the Station Dictionary or the data may not extract correctly.

# FORMATS

1. How should data be submitted?

* The choice of format depends on the data type, monitoring programme requirements and/or the preference of the data submitter. See <http://www.ices.dk/marine-data/guidelines-and-policy/Pages/Submitting-data-and-meta-data.aspx>
* For Guidelines see [http:/www.ices.dk/marine-data/guidelines-and-policy/Pages/default.aspx](http://www.ices.dk/marine-data/guidelines-and-policy/Pages/default.aspx).

1. What formats are available for DOME?

* The Integrated Environmental Reporting Format (ERF3.2), the Phaeocystis format and the Simplified Formata are available. The two latter formats are converted to the ERF3.2 format before entry to DOME.
* The formats can be downloaded here <http://www.ices.dk/marine-data/Documents/ENV/Environment_Formats.zip>.
* For a simplified overview of ERF3.2 see [http://datsu.ices.dk/web/selRep.aspx](http://datsu.ices.dk/web/selRep.aspx%20) (choose version 3.2, Data type) for record/field overviews.
* For actual file examples, see <http://dome.ices.dk/browse/index.aspx>. One can search by various options such as data type (CF/CS/CW/PP/PB/ZP/ZB/LT), reporting lab, monitoring year or country. For example, search for “CF%.IE” to see submitted Irish contaminants in biota data.

1. I have contaminant and eutrophication data in water to report. Do I have to submit water data using two formats - the ERF3.2 format for contaminants and a hydrography format for eutrophication?

* ERF3.2 can be used to submit both, **however**, this will cause additional conversion steps and contact with the Data Centre. Core hydrography and eutrophication parameters submitted using the ERF3.2 format are transferred to the OCEAN database where they undergo further testing before acceptance to the OCEAN database. If you are contacted by the OCEAN data manager to correct the data, a resubmission of the corrected data in the ERF3.2 format is required as the original data will still reside in DOME as supplementary meta data for the contaminants. Correction only to the OCEAN database will give near-duplicate but differing data. The OCEAN database is used for all extractions of the core hydrography and eutrophication parameters for assessments.
* HELCOM recommends that Eutrophication data are submitted using the ocean format. See <http://helcom.fi/Documents/Eutrophication%20assessment%20manual.pdf>.

1. What data types can be submitted using a simplified format?

* Download available formats via <http://www.ices.dk/marine-data/Documents/ENV/Environment_Formats.zip>.
  + Phaeocystis data and simple phytoplankton data (without size class information)
  + Biological effects and chemical data “simplified format”
  + Biological Community data
  + Litter data
  + AMAP data via the SIMON program export

1. What is the difference between *Mandatory* and *Recommended* fields in ERF3.2 format? Are all fields complete for this information?

* Mandatory fields in ERF3.2 refer to fields which, if blank, will give a “critical error“ upon screening and prevent entry into the database.
* Recommended fields in ERF3.2 refer to fields which may be mandatory for certain monitoring programmes and therefore, if blank, will give an “error” upon screening which may prevent inclusion in an assessment.
* ERF3.2 covers 8 different data types, all with different requirements so it is therefore not possible to give a total overview of the fields in the ERF3.2 format description.

1. Where can I find more information on field definitions for data types?

* See <http://datsu.ices.dk/web/selRep.aspx> (choose version 3.2, Data type) for record/field overviews. To the right is a column called “Description”. Put the mouse over the relevant field icon for more information.

1. I don’t have all fields from ERF3.2 in my database. Is that a problem?

* That depends on the field. Some fields can become “mandatory” over time and codes can be “deprecated”. If your database has not included the field, this can give you a problem. For example, some submitters did not include field “SHIPC” (for the vessel code) in their database although the field has been mandatory for data submissions for over 25 years. They manually entered a standard code for “unknown” in their files to ICES. When reporting the actual vessel was made mandatory and “unknown” codes were discontinued (for example, SHIPC \*\*99), some were left with a problem.
* Methods information are increasingly becoming mandatory for certain parameters. If method information is not in your database, this can cause a lot of manual edits to the submission.

1. How and when do changes occur to the ICES’ ERF format and DOME database? Is there a defined process for how these changes are made and how often?

* Changes can be made upon request from ICES Expert Groups or the Commissions. They would bring forward any new developments in their own programmes, other international bodies, or programmes such as the MSFD to the attention of ICES. Depending on who brings it forward, they would come in as a Commissions’ work plan for ICES for the coming year, or an Expert Group’s terms of reference for the coming year. The request would be circulated to all relevant related ICES Expert Groups as a term of reference at their next yearly meeting. If the changes are supported at the Expert Group level, the Data Centre proposes a change to the reporting format. Sometimes this requires the creation of a workshop with experts to describe and iron-out the details in collaboration with the Data Centre. Once the reporting format has been proposed, it is sent to the relevant Expert Groups and Commissions. Typically, format changes take ca. 2 years or more. The changes would then be implemented in DOME.

1. Is there a log outlining changes that have been made over time?

* Each change in ERF 3.2 onwards is documented in the “Change log“ which is found at the end of the Integrated Environmental Reporting Format (ERF3.2).

1. How does one know that the format has been changed?

* Changes are reflected by number in the ERF version. All additions of new records and fields cause a new “release”.

1. Can you give a summary of past changes?

* **ERF2.1** reported fish diseases as bulks. All data were resubmitted in ERF2.2 by the data submitters.
* **ERF2.2** changed reporting of fish disease from bulks to individuals. It also introduced extended data types which included the biological effects techniques for EROD and OEB (oyster embryo bioassy). Each technique had its own method record. A bird record was also introduced.
* **ERF2.2 to ERF version 3** was a radical change at many levels and required a new database. Basically, in version 2.2, each data type had an individual reporting format and database. In version 3, data types were integrated into one format and one database. A conversion program exists to convert ERF2.2 to version 3.
* **ERF3.1** added biological community data as four new data types. Developed over a number of years, the final version was released ca. 2002 but did not obtain final approval in all groups for biological community abundance data. A conversion program exists to convert ERF3.1 to ERF3.2.
* **ERF3.2.1** was released 2005-01-07 and changed the reporting of biological community data. Database structure changes were made to the database and a conversion program exists to convert ERF3.1 to ERF3.2.
* **ERF3.2.2** was released 2006-07-18andchanged reporting of sizeclasses for phytoplankton and introduced SIZRF for HELCOM PEG\_BVOL species/sizeclass reporting.
* **ERF3.2.3** was released 2008-02-27 and introduced new fields including DCFLG for tracking converted legacy formats.
* **ERF3.2.4** was released 2012-11-15 and changed the reporting of transects.
* **ERF3.2.5** was released 2015-03-30 and added litter as a data type.
* Small changes such as clarifications to definitions, new links, expansion of field sizes etc. are documented but do not cause a new number release.
* Contact the Data Centre if more information is needed.

# FILE STRUCTURE

1. Can one submit more than one year of data in one file?

* ERF3.2 format requires that data are submitted as one file/reporting lab/data type/monitoring year.
* All “simplified formats” require one file/reporting lab/data type but will accept multiple monitoring years in one file.

1. Where can I find a diagram of the file structure?

* In ERF3.2.doc in <http://ices.dk/marine-data/Documents/ENV/Environment_Formats.zip>.
* For individual files at <http://dome.ices.dk/browse/index.aspx>
  + Press “View file” to the left of the File Name for view of records
  + Download the file in the far right column for file hierarchy

1. How many header records (type 00) are needed?

* Only 1 header record is needed

1. How many method records (type 21) are needed?

* Only unique method records are needed, i.e., one method record with one AMLNK can link to many different parameters if the same method was used by the same ALABO for the different parameters
  + An exception is when an individual method type 21 record has additional linked Quality Assurance (QA) information which is parameter specific. For example, when one parameter would link to a type 93 record (Control chart record) for an individual CRMCO or type 94 record (Intercomparison Record) for an individual ICCOD but another parameter using the same method would link to a different CRMCO or ICCOD.

1. Do I have to report QA information? Do I have to report a type 93 Control chart record or a type 94 Intercomparison record?
   * HELCOM and OSPAR now require the reporting of uncertainty (UNCRT) in the type 10 Parameter Measurement record. When uncertainty is reported, records 93 and 94 are not necessary.
   * Report record type 93 and/or record type 94 if uncertainty values cannot be reported.
   * An alternative to the type 94 record is to report fields ACCRD (Accredited laboratory for the linked parameter) and ACORG (Accrediting organisation) to show if the lab is accredited and by which origanisation.
2. When is a Site Description Record (type 92) used?

* Not often and rarely necessary except for some biological effects parameters where, for example, water temperature may be wanted.
* Water Parameters submitted in the 92 record are not transferred to the OCEAN data database.
* A site description record is used to add supporting parameters of a different data type than that reported in the Parameter Measurement Record (type 10) for chemical data or the Abundance/Biomass record (type 38) for biological community data. For example:
  + if the data type is biota (DTYPE=CF) and one is reporting fish disease parameters in the type 10 records, the 92 record could be used to report the water temperature (PARAM=TEMP).
  + if the data type is phytoplankton (DTYPE=PP), the species are reported in the type 38 records and the 92 record could be used to report the wave height at time of sampling (MATRIX=SI, PARAM=WAVHT). See [PARGROUP](http://vocab.ices.dk/?ref=78) S-DES.

# CODES

1. Where do I find codes?

* See the field links in the *Valid value* column of the ERF3.2.doc found at <http://ices.dk/marine-data/Documents/ENV/Environment_Formats.zip> or search directly for the field or option at <https://vocab.ices.dk/>.
* Find reporting/analytical/sampling laboratory (RLABO/ALABO/SLABO) address at <http://datsu.ices.dk/web/rlabo_ls.aspx>. Find the code at <http://vocab.ices.dk/?ref=101>.
* EDMO codes are now required for new laboratory code requests as EDMO does tracking through time. See <http://seadatanet.maris2.nl/v_edmo/welcome.asp>. Contact Peter Thijsse at [peter@maris.nl](mailto:peter@maris.nl) and Freddy Kaan at [freddy@maris.nl](mailto:freddy@maris.nl) for an EDMO code.

1. I need a new code. Is it possible to add codes to the existing options?

* Options can be added as needed to the various code types at <https://vocab.ices.dk/>. Send requests for a new code to [accessions@ices.dk](mailto:accessions@ices.dk). Definitions and/or web links should be supplied when requesting new codes.
* For a new parameter code, send in the CAS number. If a combination of compounds is needed, please state the CAS numbers of the individual components. If CAS numbers are not relevant or available, codes can still be created.
* Where both a parameter that is designated as a group or mixture (CAS=GM) and a parameter with a CAS number exists, for example TBTIN vs TBSN+, the parameter with the more exact information on what is being measured should be reported, i.e., the parameter with the CAS number. MCWG requested that ions are reported for clarity.

1. My Institute/lab isn’t on the list. Can I submit data?

* Anyone can submit data. Just request a laboratory code. EDMO codes are now required for new laboratory code requests as EDMO does tracking through time. See <http://seadatanet.maris2.nl/v_edmo/welcome.asp>. Contact Peter Thijsse at [peter@maris.nl](mailto:peter@maris.nl) and Freddy Kaan at [freddy@maris.nl](mailto:freddy@maris.nl) for an EDMO code. If you have difficulties, contact accessions@ices.dk.

1. My Institute/lab has received a new name. Do I need a new lab code?

* No. Codes are linked to data time series and meta data such as QUASIMEME participation result files so sometimes it is more helpful to keep a code even though the name has changed.
* New codes are issued if the lab has been moved to a new location and it is necessary to make a distinction between the two locations. Start and end years should be submitted for the previous code. Make the change at EDMO. Contact Peter Thijsse at [peter@maris.nl](mailto:peter@maris.nl) or Freddy Kaan at [freddy@maris.nl](mailto:freddy@maris.nl).

1. We don’t use a ship to collect data. We don’t store the ship information. What do I put in the mandatory field SHIPC when there is no ship?

* Use an “AA..” code from the SHIPC list. For example:
  + if fish are obtained from local fishermen but it is not the same fisherman and vessel each time, use AA36 for “UNSPECIFIED FISHING VESSEL”
  + If samples are gathered by hand or hunters, use AA71 for “UNSPECIFIED HUMAN”
* To search for codes:
  + go to the Requests page <http://vocab.ices.dk/Request> and search in the box marked “Quick Code Status Check” on the left hand side of the page.
    - Search for “Unspecified” for AA codes
  + <http://vocab.ices.dk/?ref=315>
* When the data file is screened in DATSU, you will receive a vacabulary-based warning about the ‘Deprecated code’. As the AA-codes are fine to use for the env.data, ignore this warning.

1. How do I request a ship/platform code?

* Request a user and password from [accessions@ices.dk](mailto:accessions@ices.dk). You can then log on to the request program at <http://vocab.ices.dk/Request>.
  + To eliminate transfer errors, please do not send the platform information in an email.
* Fill in the request form “Request a new platform code”
  + Check that your platform does not have a code already (search for name, call sign, IMO number).
  + Supply as much information as possible in the <http://vocab.ices.dk/Request> program form - especially the IMO number where possible.
  + Add multiple links to various internet sources which confirm the supplied information. This speeds the process.

1. Where can I download the SHIPC list?

* Use our web service at <http://vocab.ices.dk/services/>
* <http://data.ices.dk/Reports/ShipC.aspx>

1. Why do I need a platform code? Platform code is mandatory – why?

* Platform codes have been mandatory since at least the 1990’s. Platform codes are used in quality control and can link data to meta data.
* Platform codes are used to create Cruise Summary Reports (CSR) for water data where meta data concerning the cruise/instruments/calibration/methods/personell are stored.
* Platform codes are used in speed checks to determine if a ship could actually be where it was reported to be.
* In other data types they are used to organise and separate monitoring events. For example, data associated with different hunters can be separated by assigning a new “cruise” to an additional type 90 record with SHIPC AA71 (unspecified human).
  + 90,AA71,Winter,
  + 90,AA71, Summer,

1. I have previously reported “xx99” for my data but I now receive an error. Why?

* Data submitters have been asked to report the actual vessel for years (since the 1990’s) but they have ignored the request. The lack of information results in some checks not being performed. For example, the speed check which checks coordinates cannot function correctly when the vessel is not known. We have now made this an error so newer data will be reported with a relevant code.
* SHIPC codes in the form “CountryCode99” (“xx99”) were for “unknown” platform for a particular country. “99” codes have been deprecated by SeaDataNet and can no longer be used in newer data. See “AA” codes.

1. Why does it take so long to receive a ship code?

* All requests for ship/platform codes go through a verification process. The first check is at ICES. Once the information is verified, a code is proposed and the information is sent to a content governance group. Final approval is made by NOAA. When the process has completed, you will be notified that the code can be used.
* When a new organisation joins the SeaDataNet platform system, thousands of requests can be received at one time. This delays the handling of requests as we have limited manpower hours.
* Rush jobs are possible, see below.

1. I need a platform code NOW! How can I speed up the process?

* If a code is needed “NOW”, send an email to [accessions@ices.dk](mailto:accessions@ices.dk) and request that the code is handled as a fast “Rush job”.
* Supply as much information as possible in the [Request](http://vocab.ices.dk/Request) program attribute form. Adding multiple links to internet sources which can verify the supplied information speeds the process.

1. How do I add multiple reference links?

* Open the “Submit attributes” form, add a URL, save and close the form. Additional references can be entered by opening and saving one additional form per URL.

1. How can I see multiple URLs? They don’t appear on the “Attributes” tab – but I know I added more than one!

* Click on the “View Attribute History” tab. You will see all the references but only the first saved URL will be “checked” and visible on the “Attributes” tab.

1. What common errors cause delay in assigning platform codes?

* The name in the platform request does not match the name in the supplied references.
* The flag does not match the call signs or MMSI’s allocated to the country. See country’s assigned call sign series at <http://www.arrl.org/international-call-sign-series>. See country’s assigned MMSI digits at <https://www.itu.int/en/ITU-R/terrestrial/fmd/Pages/mid.aspx>
* The supplied IMO is for another vessel with the same name.
* No time frame is submitted. Supply the build date, i.e., when the vessel was completed, not launched. Supply a commissioned/decommissioned date for when data can be found for the vessel or when the vessel had the requested name. There are many vessels with the same name and some vessels change names often in their lifetime.
* The call sign does not match the requested name.
* The title is included as part of the name. Remove the title from the name and enter it in its own attribute field.

1. Can ICES change the rules for assigning SeaDataNet platform codes?

* ICES does not decide the rules for assigning codes and attributes for the platforms. Rules were originally decided by the Platform content governance group (which consists of multiple SeaDataNet country members, ICES, BODC, and NOAA) on behalf of SeaDataNet. Any change would need discussion and approval by the Platform content governance group.

1. What is a content governance group?

* A content governance group is a group of international experts who quality control the process of assigning codes for ICES vocabularies. This can include establishing and maintaining rules for assignment of codes and pointing out developments which may require modifications to the existing rules. They also check the content of the code lists for errors and point out and prevent possible redundancies.

1. Why can’t the “country” part of the platform code be the country that is collecting data?

* A code should not carry any information and although the original codes had country as the first two digits, this is not always the case and the platform governance group has agreed that the country can be removed from the code.
* There are multiple countries involved in a vessel – the country of the owner, the country of registration, the country of the governance organisation, and the country of the institute collecting data. We have instances where the “country” for all of these variations are different for a single vessel.
* Ships are shared by different institutes in different countries all of which collect data in the same year; there are sometimes multiple projects collecting data for institutes from different countries on the same cruise.
* Ship codes are assigned for identification and tracking of the vessel so one can link data to the vessel. Who uses the vessel is not traceable but the flag/call sign/MMSI/IMO attributes are.
  + See <http://www.pogo-oceancruises.org/content/content.asp?pageid=4> for information on how ship facilities are shared

# SPECIES

1. Can I report a Latin name or do I have to report an AphiaID from WoRMS?

* You can choose to report as a Latin name or an AphiaID. In the field RLIST, if Latin name is reported in the SPECI field, report “ER”. If AphiaID is reported in the SPECI field, add “ERID” in RLIST.

1. I have data which uses the old RUBIN lists for species. Can I submit data using RUBIN?

* ICES uses WoRMS <http://www.marinespecies.org/> for checking and storing species names. If WoRMS is not used, an error will be received when checking the data in DATSU. However, for legacy biological community data, the error is not critical and species from ITIS and RUBIN can be accepted into the database as long as the species is on the reported list. Submitters are encouraged to convert their legacy data to WoRMS.

1. My species is in WoRMS but is not accepted by DATSU. Why not?

* DATSU is updated periodically against WoRMS. If a species has been added since we last updated, DATSU will give an error. Contact ICES so we can update DATSU.
* Sometimes a quick fix is necessary. See if the species is in ITIS. If it is, you can temporarily use option ITLN in field RLIST. RLIST must be corrected to WoRMS, however, as soon as possible.

1. My species is not in WoRMS. What should I do?

* Contact ICES at [accessions@ices.dk](mailto:accessions@ices.dk). Supply the name of your taxonomy expert and we will contact WoRMS. They will add the species to WoRMS after control by their experts and with the help of your expert.

1. We have fresh water and brackish water species found in an estuary of the Baltic. Will WoRMS add them?

* Yes. WoRMS can add Baltic species.

1. There are duplicate taxon names in WoRMS. How do I report?

* Sometimes duplicate taxon names exist in WoRMS. They will not have the same status, for example, one of the entries could be “accepted” whereas the other one is “unaccepted”. In these cases, report using the AphiaID, not the Latin name.
* When a taxon name is added the **first** time to DOME, DOME looks up the AphiaID from WoRMS and adds it to the DOME code table. It will refuse to add the code from WoRMS if more than one record is returned for the same taxon name. A mail will at the same time be sent to [accessions@ices.dk](mailto:accessions@ices.dk) to notify the Data Manager and the upload will be refused.
* It is a possibility that a taxon has already been entered in the DOME code table and later, due to a change in WoRMS, becomes a case where duplicate entities exist for the same taxon name. Since the code has already been entered in DOME, the data will be entered with the first code without any warning. Taxonomists should be aware of the changes occurring in the taxonomy world so they should monitor their species and inform their data submitters/database people when an AphiaID should be reported instead of a Latin name.

# STATION DICTIONARY

1. Where and what is the station dictionary?

* The station dictionary is described at <http://www.ices.dk/marine-data/tools/Pages/Station-dictionary.aspx>.
* One can request and define stations at [http://vocab.ices.dk/Request/](http://vocab.ices.dk/Request/Login.aspx?ReturnUrl=%2frequest%2f) Choose “Station”. Approved stations are available at <http://vocab.ices.dk/?ref=1399>.
* Downloads:
  + - Legacy stations <http://ices.dk/marine-data/Documents/ENV/StationDictionary.zip> . This is a snapshot from 2017 and is not up-to-date.
    - For an up-to-date list see <http://vocab.ices.dk/?ref=1399> or use our webservice at <http://vocab.ices.dk/services/>
    - Users of the request program can download the stations from within the program.

1. How can I see the latest version of the Station Dictionary?

* On <http://vocab.ices.dk/>, choose “Begins with” and search for "Station dictionary". To the right, one can see the Version number, Created date and the Modified date. Sort the Modified column. This will show the last date the dictionary was updated.

1. How can I see if my latest station changes/additions have been finalised in the Station Dictionary?

* Make the above search. Then click on "Station" so one can see all stations. Sort by create date and/or modified date or search for the Station name.

1. How can I see if my country has updated the Station Dictionary since last year’s data submission?

* On <http://vocab.ices.dk/>, click on “show advanced search”.
* Choose “Begins with”, select “Code type”, enter search keyword “Station Dictionary”, press “+”
* Choose “Begins with”, select “Related Code type”, enter search keyword “ISO”, press “+”
* Choose “Ends with” with, select “Related Code”, enter search keyword “France”, press “+”
* Choose tab called “Codes” to view result.
* Sort by Modified date

1. Do I have to log-on to view a station map?

* View stations at <http://gis.ices.dk/sf/index.html?widget=station>. No log-on is necessary.

1. Do all stations have to be defined?

* Station names are mandatory for OSPAR and HELCOM data.
* Station names can be added for other programmes. See the list of monitoring programmes at PRGOV <http://vocab.ices.dk/?ref=1473>.
* National station names can also be added and some countries use the ICES station dictionary instead of developing their own country overviews of stations.

1. Who can edit the station dictionary?

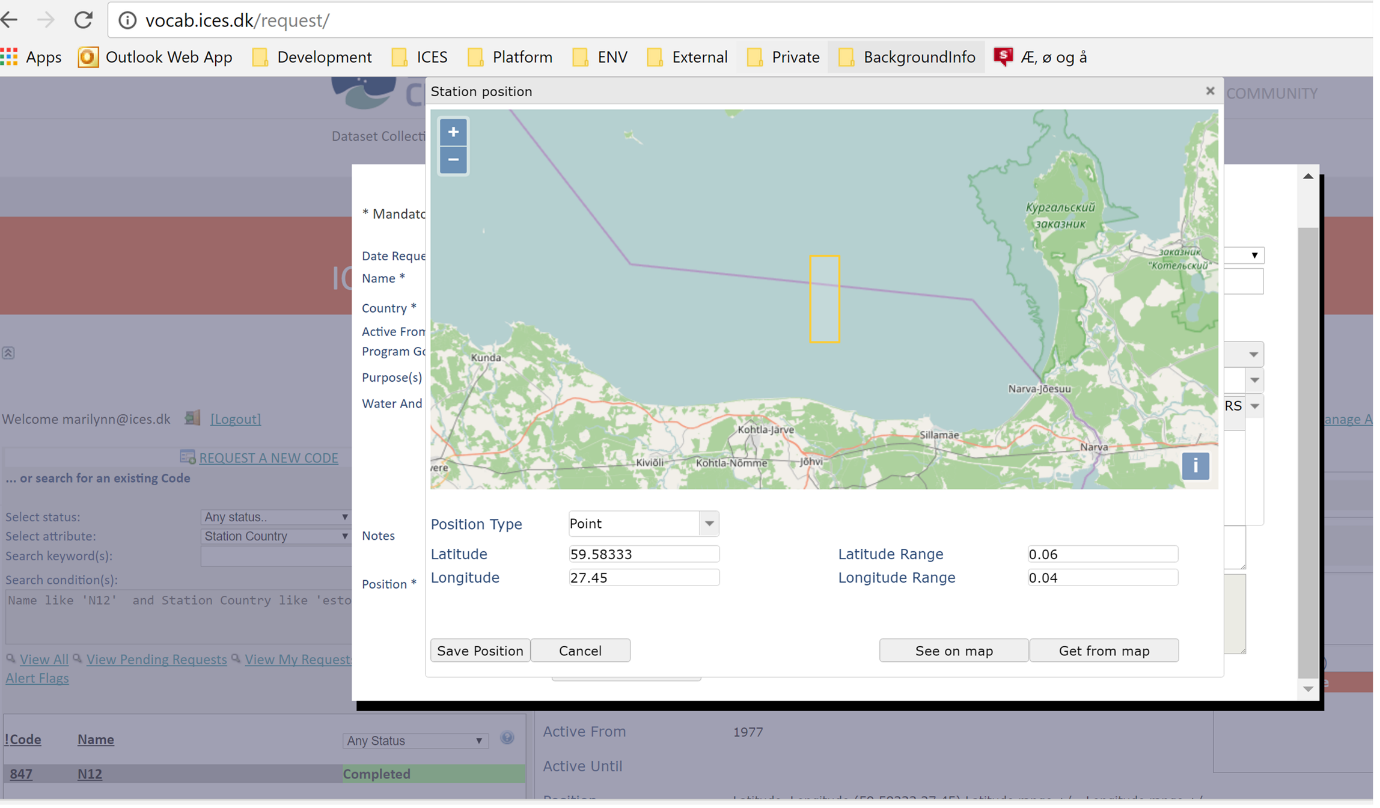
* Each country can identify an organistation for the station governance – see <http://vocab.ices.dk/?ref=1398>. Manual edits/additions can be made after requesting a user and password to the station request program on the web. Contact [accessions@ices.dk](mailto:accessions@ices.dk). It is best that only one person has the responsibility for each organisation or country.

1. Do I have to manually edit all stations?

* There is a bulk upload procedure where all stations or just one station can be uploaded via a file. If you are interested in bulk uploads, contact [accessions@ices.dk](mailto:accessions@ices.dk) and request access rights. Bulk uploads can be made using tab files.

1. How do I edit the ranges? Can I see my positions on a map?

* To change the ranges, log on to the station dictionary and search for the station name and country. Press “Submit attributes”. Press “Set position”. Press “-“ to adjust the view of the map.



* Edit the Latitude range and the Longitude range. For example:
  + - The Latitude range will be 59.58333 plus/minus 0.06.  This gives Latitude range of 59.64333-59.52333.
    - The Longitude range will be 27.45 plus/minus 0.04. This give Longitude range of 27.49-27.41.
* Press “Save position”. On the attribute form, press “Save changes” and exit.

1. I can’t see my changes on the Station Dictionary form!

* Go to the **attribute tab** if you want to make sure that you saved correctly. Depending on your access level, the ICES data manager may need to approve changes before they can be seen on the forms. The station status will show “Pending ICES” when waiting for approval.

1. Why do I have to enter MPROG and STATN in the data when their equivalents (PRGOV and Name) are in the station dictionary? Why can’t the data be automatically marked for the Commission from the station dictionary?

* Some countries have not updated their Station dictionaries for years but MPROG is mandatory in the data.
* When quality checking the data, coordinates/MPROG/STATN in the data vs coordinates/PRGOV/NAME in the station dictionary are good checks that information is up-to-date and coordinated – especially when it is not the same person who handles the station dictionary and data submissions.
* MPROG is a mandatory field in the data and checks are triggered in DATSU based on which MPROG is set. So, if CEMP is marked in one dataset and COMB in another, they can have different requirements and different results in DATSU. It is important that MPROG is filled in with the correct programme. “NATL” will get the least amount of checks.
* Samples are taken for many purposes. Some do not want certain samples included with their yearly monitoring data because they were taken for a different species or project or analysed with different methods etc. even though they may be at a Commission “station”. Many working group projects are run simultaneously with Commission monitoring at the same spot to save cruise costs. There are also many samples that are “borderline” for an area because of station drift. Some stations overlap and are dependent on species. This designation has to be controlled by the data submitter. ICES can’t determine these situations and it is up to the data submitter to state the programme and purpose and, in the station dictionary, the relevant data type for the station.
* ICES also uses MPROG to report to Commissions so they can follow the stages of reporting. At one meeting delegates state what they plan to monitor, at another they state what they did monitor, and at the third, what they have reported. All three should match. We check the third by checking that the data reported for the Commission are in the database – not just sent to ICES. This can be seen at <http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx>. Choose the relevant Commission overview.

# SUBMITTING DATA: ACCESSIONS/SUBMISSIONS

1. Where/how do I send the data? Will I receive an aknowledgement?

* A user/password is now needed to use DATSU data screening, as it will soon be possible to upload a submission via our new automatic Submission facility. Contact [accessions@ices.dk](mailto:accessions@ices.dk) for a user/password.
* If you forgot your password, you can reset it at <http://ices.dk/Pages/Password.aspx>. You are recommended to personalize it at <http://community.ices.dk/SitePages/Change%20Password.aspx>
* Send the completed, DATSU-screened file to [accessions@ices.dk](mailto:accessions@ices.dk) where you will receive an aknowledgement and an **accession number**.
* Name the file according to RLABO+MYEAR+DTYPE\_submissionDate.CNTRY (for example NERI2008CF\_2015Sept15.DK). This speeds up the handling of files considerably.
* Accession numbers are not given in advance of file submission. The status of the file can be followed at [<http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx>](http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx).

1. When should the data be sent? Is there a deadline for submission or assessments?

* Data can be submitted at any time of the year. However, to be included in the autumn assessments and Commission summary reports, **1 September is the latest date that a successfully screened new file can be submitted.** Please request help and codes well in advance of the 1 September deadline and send data well in advance of this deadline – especially if hydrography core parameters are included in the ERF3.2 formats as these require further testing and transfer to the OCEAN database. Because of the amount of submissions received at that time of year, please allow for delays and additional processing time before ICES is contacted again for an acknowledgement.

1. What is the status of my data submission?

* Status for all data can be found at <http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx>.
* Various groupings of data submissions can be found. For example: for all data, data according to data type, or data according to monitoring program (MPROG).

1. Can I check my stations on a map facility?

* Once the file has been entered into DOME, stations can be viewed at <http://dome.ices.dk/browse/index.aspx>. Press “View stations” to the right of your file name.

1. Is my data set complete? Did I forget a parameter? Did I mark it for OSPAR/HELCOM?

* Check your file at <http://dome.ices.dk/browse/index.aspx>. Search, for example, for RLABO and DTYPE “NIVA%CS” or DTYPE and CNTRY “CS%.NL”.
* Check the data summaries
  + - Submitted parameters can be viewed according to data type (DTYPE) for all years at <http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx> – see summaries per data type with label "In database".
    - Submitted parameters can be viewed according to Commission / Monitoring Programme (MPROG) at <http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx> – see summaries per Commission with label "Go to document".
* Check a specific partial extraction for a parameter or other attribute such as ALABO/MPROG/MYEAR/COUNTRY at <http://dome.ices.dk/views/ContaminantsBiota.aspx>

1. My data are not in the HELCOM Commission summary. Where are they?

* To mark data for a Commission, MPROG needs to include the Commission’s monitoring programme. Marking for a Commision, for example, COMBINE:
  + - implies that the HELCOM sampling and analysis guidelines have been followed
    - data screening will be more strict – for example, uncertainty is required, Station names are required and must match the Station Dictionary definitions etc.
    - data will be included in the HELCOM overviews of data submissions and parameter summaries such as those grouped under “HELCOM Data” at <http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx>
    - data will be included in an assessment by the assessors unless they eliminate/downweigh them due to quality issues
    - When data are not marked as HELCOM, they do not show in the HELCOM overviews. The data are in the database, and, since they are in the Baltic, they are still included in an extraction to the assessors. The assessors decide if they will include data not marked for HELCOM, i.e. often marked as MPROG=NATL, in the assessments.

1. My "NTRZ" parameters are not in the Commission summaries and not in the data type summaries. Why not?
   * NTRZ stands for "Nitrite + Nitrate". As a core parameter, these values are transferred to the OCEAN database. The OCEAN database converts these values to "Nitrate" so the parameter "NTRZ" will not appear in the summaries. They will however be included with "NTRA" values.
2. I need to edit and resubmit my file / accession which is already in DOME. Do you accept partial submissions?

* Partial submissions are not accepted. To ensure that corrections are both at ICES and your institute, extract the data from your database and create a new ERF3.2 file for a total resubmission. If this is not possible, contact accessions@ices.dk.
* Screen the resubmission in DATSU. If there are no critical errors, a "resubmission" link will appear. Press this and log on to the auto-resubmission tool using your assigned password. If a new password is needed, go to <http://ices.dk/Pages/Password.aspx>.
* See section [Auto-resubmission](#_AUTO-RESUBMISSION) for further information

1. I need to add additional parameters to an old accession but I no longer have access to QA data so I cannot regenerate an ERF3.2 file from my institute’s database. How do I maintain the QA data for the old data and add the new parameters as well?

* Download the old accession from DOME at <http://dome.ices.dk/browse/index.aspx> . Note that there is a maximum limit of 100,000 lines for download so make sure that the number of lines is under 100,000. If not (fish disease data will most likely go over this limit), contact [accessions@ices.dk](mailto:accessions@ices.dk) for the original file. All versions of previously submitted files are saved at ICES.
* Edit the file and screen in DATSU. If there are no critical errors, a "resubmission" link will appear. Press this and log on to the auto-resubmission tool using your assigned password. If a new password is needed go to <http://ices.dk/Pages/Password.aspx>.

# DATA CHECKING - DATSU

1. Is my file OK? Can you help me check my file?

* The best check of a data file is to use the web-based program DATSU. All files must be screened before submission. The program is found at <http://dome.ices.dk/datsu/>. All users must now have an individual user/password to screen and submit their data. Contact [accessions@ices.dk](mailto:accessions@ices.dk) for a user/password.

1. My file is not ok, but I can not fix the error.

Errors in data submissions are often case-specific. So if you can not fix the error, it is always a good idea to contact [accessions@ices.dk](mailto:accessions@ices.dk) to proceed with the data submission.

When critical errors occur in legacy (historical) data, and these cannot be corrected, send the submission to ICES for manual entry.

1. Where can I see the checks made on the data?

* Checks can be found 2 places on the web:
  + For an overview of checks for ERF3.2 see <http://datsu.ices.dk/web/selRep.aspx> (choose version 3.2, Data type) then choose “Checks” for record/field checks.
  + To view the QC database for all Data Centre checks, go to <http://ices.dk/marine-data/tools/Pages/quality-control.aspx>. It is recommended that you ”Export to CSV”. Import the file with headers into EXCEL using # as the deliminator. Filter according to ”datasets” to view the data checks. This is a new facility and is still under development.

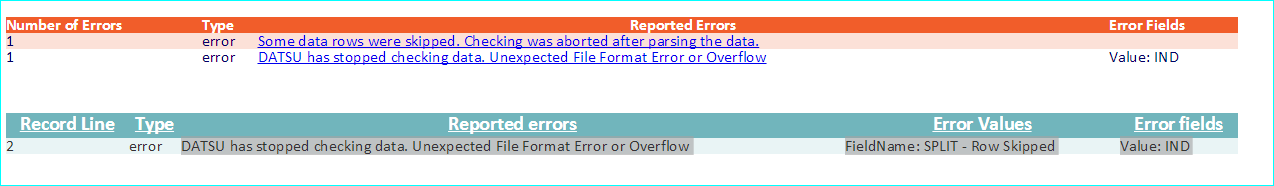
1. What are the different message types in the DATSU report?

* Message types include information, warnings, errors and critical errors (which prevent entrance to the database).
* Errors which state “preventing entry” are critical and MUST be corrected.

1. There are so many messages! Can I turn some off?

* The warnings can be turned off until the critical errors are corrected. On the DATSU page <http://dome.ices.dk/datsu/>, put a check in the box ”Ignore the warnings”.
* It also helps to display only one error/warning message at a time with use of links from the screening summary

1. *What does this message mean?* “DATSU has stopped checking data”.



* Check the field where the error occurs. Here it was in the field “SPLIT”. The value of “IND” is not a correct option for the field “SPLIT“. Check that column order is correct.
* If column order is correct, be sure that the delimiter is not the same as the decimal seperator. That is, if you are using commas as field separators in your csv file, make sure that the number format does not use commas (i.e., “34,5“ must be entered as “34.5“).

1. My species is in WoRMS but is not accepted by DATSU. Why not?

* DATSU is updated periodically against WoRMS. If a species has been added since we last updated, DATSU will give an error. Contact ICES so we can update DATSU.
* *Sometimes a quick fix is necessary because of a deadline. See if the species is in ITIS. If it is, you can temporarily use option ITLN in field RLIST. RLIST must be corrected to WoRMS, however, as soon as possible.*

1. What are supporting parameters and cofactors and how should they be reported?

* Support parameters and cofactors are parameters that help in the interpretation of the data, especially in an assessment. They can be reported in 2 ways:
  + If they are measured in the same data type, sample and matrix, report them together with the monitored parameters in an additional type 10 record. For example in data type sediment (CS), the cofactors aluminum and total organic carbon would be reported in the same fraction as the monitored parameter. In data type biota (CF), length, weight and dry weight percent would be reported in additional type 10 records.
  + If the supporting parameters are from a different matrix than the data type, report using record 92 (site description record). For example, in data type biota (CF), parameter EROD requires the reporting of bottom temperature of the water, i.e., a different data type (CW). Use a 92 record and associate with the relevant 91 record (station record). Report PARAM “BotTemp” with MATRX code “SI” site matrix. This type of parameter is not transferred to the hydrographic database even though it is a water measurement.

1. In biological community data, I have results for measurents of parameters other than the usual abundance/biomass parameters. How do I report parameters like those found in PARGROUP S-DES or P-PHYS? Can I report, for example, Secchi depth in my zoobenthos file?

* Yes, report this type of supporting  parameters in a type 92 record with MATRX “SI”.

1. How can I report that fish in a single sample may have come from multiple trawls of an area?

* To indicate that the fish came from multiple trawls, fill in the field NOAGG in the type 03 record (sample record) with the number of hauls taken to comprise the sample.

1. *What does this message mean?* “If sizeclass is reported, the reference list must be reported in method record:field 21:SIZRF”. I have filled in 21:SIZRF but I still get this message.”

* The records aren’t linked. Check that AMLNK is reported both in the 21 record AND the 38 record and that AMLNK is the same number in both records.

1. *What does this message mean?* “Multiple occurences of a parameter under one sample record requires more information“.

* This occurs when DATSU sees duplicates.

Examples are:

* Genus level is reported with “SPP“ in SFLAG but there are more than one different species and they can’t be identified. Solve this by uniquely identifying each species with SFLAG = SPP -1, SPP -2, SPP -3 etc.
* Results have been reported in multiple records but without identifying sex, size, stage, trophic level etc.. Fill in more fields on the 38 record: SEXCO, SIZCL, STAGE, TRPHY etc.
* Station name has been used in the 91 record field STTNO but the station has been visited more than once during the cruise. Change STNNO to a sampling event identifier. This can be a sequential number, or the actual cruise/station number from the ship’s log, or the Station name with an identifier etc. For example, MyStation-2017-6-27, or MyStation-1.

1. Why is record 34:field FNFLA(fauna and flora found) mandatory for zoobenthos and phytobenthos data?

* It is important to know that no fauna/flora were found (FNFLA=N) because this will affect the interpretation and calculations of the data in extractions and assessments. “0” values may not be reported at a species level in the 38 record. This is to avoid reporting “templates” of thousands of species that were actually not looked for. FNFLA=N shows that a sample was taken and nothing was there. This is especially important in the Baltic where there can be periodic oxygen depletion.
* When reporting FNFLA=N in the 34 record, type 38 records cannot be reported.
* When reporting FNFLA=Y in the 34 record, type 38 records are mandatory.

1. What is VFLAG? Is it necessary?
   * Validity flag gives more information to help determine the quality and therefore the use of the data. For exampe, using “A” for Acceptable value shows that the data have undergone internal quality control checks by the data originator. If no checks are made, leave blank.
2. Data that were previously submitted and uploaded now cause critical errors. Why?
   * OSPAR and HELCOM have requested that their databases respond to advances in methodology and error detection via assessments. Therefore, DATSU is constantly being updated. If data have previously received a warning that has been ignored, the next year the message could cause an error. If the data have previously caused an error, the next year it can cause a critical error preventing entry into the database.
   * As procedures are developed to allow automatically uploaded data, additional checks are added and made to be stricter. If you disagree with a check, contact [accessions@ices.dk](mailto:accessions@ices.dk) since exceptions to a check are sometimes needed and can be defined. See <http://ices.dk/marine-data/tools/Pages/quality-control.aspx> for the latest checks.

# REPORTING LESS-THAN VALUES

1. How should “less than” values be reported? How should DETLI/LMQNT/QFLAG be reported?

There has been much confusion about how to flag values that are “less-thans”. Assessors evaluating the data during the 2018 MIME assessment have written the following guidance to submitters who report data for the automatic assessment tool (Annex 5 to the OSPAR MIME 2018 report).

**Reporting of less-than values and uncertainties for chemical concentrations**

This Annex aims to clarify the way that less-than values and uncertainties should be reported to the ICES database. It applies to the reporting of chemical concentration measurements (and biological effects measurements, such as bile metabolite concentrations or EROD activities, which must be positive and which have limits of detection and quantification analogous to those for concentration measurements). Correct reporting of less-than values and uncertainties is important to avoid spurious results in the OSPAR MIME assessment.

**Recommended way of reporting less-than values**

Chemical measurements can be reported to the ICES database as either the measured value or as a less‑than value. The limit of detection should be used to determine whether the measured value or a less-than value is reported, with measured values below the limit of detection being reported as less-than values. (In practice the limit of quantification is sometimes used, although this is not recommended – see later.) If a measurement is reported as a less-than value, then a data-analyst should subsequently infer that that the measured value is somewhere between zero and the reported value. For example, a less-than value of 0.3 should mean that the measured value is somewhere between 0 and 0.3.

Let:

* MV be the measured value for a sample;
* LOD be the limit of detection for the sample
* LOQ be the limit of quantification for the sample

The reporting of these data involves four variables:

* VALUE is a number that gives either the measured value or a less-than value
* [QFLAG](https://vocab.ices.dk/?ref=180) is a code that indicates whether VALUE is the measured value or a less-than value and, in the latter case, describes whether the less-than value is based on the limit of detection or quantification
* [DETLI](https://vocab.ices.dk/?CodeID=54316) is a number that gives the limit of detection
* [LMQNT](https://vocab.ices.dk/?CodeID=54317) is a number that gives the limit of quantification

The data should be reported as:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Case | VALUE | QFLAG | DETLI | LMQNT |
| LOQ < MV | MV |  | LOD | LOQ |
| LOD < MV ≤ LOQ | MV |  | LOD | LOQ |
| MV ≤ LOD | LOD | D | LOD | LOQ |

Notes:

* There is redundancy in these reporting rules in that QFLAG can be inferred from VALUE and DETLI. However, the redundancy is useful for trapping reporting errors. Also, all four variables (VALUE, QFLAG, DETLI and LMQNT) are required for the alternative ways of reporting that are sometimes used (see later).
* QLAG is not intended to identify measured values that are between the LOD and the LOQ. Data-analysts who require this information should infer it from VALUE and LMQNT.
* A common practice in statistical analyses is to replace less-than values by half the limit of detection (or some similar calculation). Measured values below the LOD should always be reported with VALUE = LOD; i.e. never report VALUE = LOD /2 (or similar).

**Alternative acceptable ways of reporting less-than values**

Sometimes it is not possible to follow the recommended approach for reporting less-than values described above. This can arise e.g. because the analytical laboratory has not provided the reporting institute with the required information, or because there are limitations in the database operated by the reporting institute. Different scenarios are listed below with guidelines on how the data should be reported.

1. The MV and the LOD are available but the LOQ is not:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Case | VALUE | QFLAG | DETLI | LMQNT |
| LOD < MV | MV |  | LOD |  |
| MV ≤ LOD | LOD | D | LOD |  |

1. The MV is only available when above the LOQ:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Case | VALUE | QFLAG | DETLI | LMQNT |
| LOQ < MV | MV |  | LOD | LOQ |
| MV ≤ LOQ | LOQ | Q | LOD | LOQ |

Notes:

* Some analytical laboratories only provide measured values above the LOQ, arguing that measured values below the LOQ have greater uncertainty. However, this results in a loss of information (compared to the recommended way of reporting) when the measured value is between the LOD and LOQ. The increase in uncertainty can be accounted for in the statistical analysis of the data, provided that the uncertainty associated with the measured value is correctly reported (see later in this document).
* If the analytical laboratory provides measured values below the LOD as <LOD and measured values between the LOD and LOQ as <LOQ, then QFLAG = Q and VALUE = LOQ should be used in both cases. A mixture of QFLAG = Q and QFLAG = D should be avoided because it introduces bias into the statistical assessment. The problem is that, when QFLAG = Q, the data-analyst will infer that the measured value is between 0 and LOQ, whereas it is actually between LOD and LOQ.
* If the LOD is not available, DETLI should be left blank.

1. The LOD and LOQ are available but cannot be reported in DETLI and LMQNT:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Case | VALUE | QFLAG | DETLI | LMQNT |
| LOQ < MV | MV |  |  |  |
| LOD < MV ≤ LOQ | MV |  |  |  |
| MV ≤ LOD | LOD | < |  |  |

Note: this situation might appear unlikely, but there are situations where e.g. the LOD is greater than the accredited limit of detection of an analytical laboratory, but only the accredited limit of detection can be passed on to a third party. This might arise when e.g. the volume of sample material for chemical analysis is smaller than typically analysed.

1. Data are available with less-than values indicated by the “<” prefix, but it is unclear whether these refer to the LOD or LOQ:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Case | VALUE | QFLAG | DETLI | LMQNT |
| MV | MV |  |  |  |
| Less-than value | Less-than value | < |  |  |

**DATSU checks on less-than values beginning in June 2019**

DATSU is the data screening programme that checks data submissions for errors and inconsistencies. The reporting institute will receive the following warning / error messages if the data are incorrectly reported.

|  |  |  |  |
| --- | --- | --- | --- |
| Check | MYEAR ≥ 2019 | MYEAR = 2018 | MYEAR < 2018 (legacy data) |
| Multiple QFLAG values | Critical error | Critical error | Error |
| VALUE ≠ DETLI and QFLAG = D | Critical error | Critical error | Error |
| VALUE ≠ LMQNT and QFLAG = Q | Critical error | Critical error | Error |
| LMQNT < DETLI | Critical error | Critical error | Error |
| VALUE ≤ DETLI and QFLAG = NULL | Error | Warning | Warning |
| VALUE ≠ DETLI and QFLAG = < | Error | Warning | Warning |
| VALUE = DETLI and QFLAG = < | Warning | Warning |  |
| QFLAG = < and LMQNT ≠ NULL | Warning | Warning |  |

**Uncertainties**

The reporting of uncertainties involves two variables:

* [UNCRT](https://vocab.ices.dk/?CodeID=54314) is a number giving the analytical uncertainty in the measurement reported in VALUE
* [METCU](https://vocab.ices.dk/?ref=213) is a code that describes the method for expressing uncertainty

UNCRT only relates to analytical uncertainty and does not include any aspects of sampling uncertainty. UNCRT should ideally include all aspects that contribute to the analytical uncertainty in the measurement reported in VALUE. However, for MIME assessment purposes, it is acceptable if UNCRT only includes the most important aspects contributing to the analytical uncertainty; i.e. reporting institutes do not need to take any measures if some minor aspects (e.g. dilution effects) are not included in the uncertainty calculations they are provided with.

The uncertainty calculation should include a relative component and a constant component. The relative component will dominate when the measured value is above the LOQ. The constant component will have an increasing effect as the measured value decreases below the LOQ and will dominate when the measured value is close to the LOD. Analytical laboratories often provide uncertainties based only on the relative component, even when the measured value is below the LOQ. However, this approach makes the uncertainty of values below the LOQ too small and consequently these observations will have too much influence on the statistical analysis of the data in the MIME assessment.

A simple way of calculating an uncertainty that includes the constant component is as follows. Suppose that the analytical laboratory provides uncertainties based only on only relative component *v*. Thus the uncertainties received from the analytical laboratory would be 100 × *v* (if provided as a percentage) or VALUE × *v* (if provided as a standard deviation) or 2 × VALUE × *v* (if provided as an expanded uncertainty). Let *s* be the standard deviation of the replicate measurements of the blank used to define the LOD (for example, the LOD might typically be defined as 3 × *s*). Then let



The uncertainty incorporating both the relative and constant components is then:

UNCRT = *u* if expressed as a standard deviation (METCU = SD)

UNCRT = 2 × *u* if expressed as an expanded uncertainty (METCU = U2)

UNCRT = 100 × *u* / VALUE if expressed as a percentage (METCU = %)

Uncertainties should be reported with METCU = U2 or SD. Using METCU = % will result in a warning (with a critical error if VALUE = 0).

UNCRT should always be ≥ 0.

# LITTER

1. Can I report litter data to ICES?
   * Yes. ICES accepts macro- and micro-litter data. Litter data can go into the DOME database or the DATRAS database. To determine how to report, identify how the sampling is done. Is it in connection with DATRAS trawl surveys, or contaminant monitoring or community abundance monitoring, or separate litter monitoring?
2. What format and records can be used for reporting litter data?
   * If you are monitoring micro-plastics in stomachs, submit that data in the ERF3.2 format using data type biota (CF). Report the micro-plastic as a parameter (see PARAMs begining wth “LT” and < 5 mm in Pargroup “LT-MC”) in record 10 with MATRX stomach.
   * If you have separate sampling of litter data (not with trawl survey data or contaminant monitoring), report using the ERF 3.2 format using DTYPE “LT” in the 34 record and type 36 records for the litter parameters. The Simplified Format for litter can be used as a first step towards the ERF3.2 format and submission to DOME.
   * If you are recording litter with fisheries trawl survey data, report using the DATRAS litter format. See <http://www.ices.dk/marine-data/data-portals/Pages/DATRAS-Docs.aspx> .
   * Get a quick overview at http://datsu.ices.dk/web/selRep.aspx. Choose "Litter data from DATRAS trawl surveys" or "version 3.2 litter, LT" and review record/fields.

# PARAMETER-RELATED QUESTIONS

1. In seawater data, what is the difference between the parameter SUSP and the matrix SPM?

* Parameter SUSP (suspended solids) is the fraction that doesn’t pass through a filter.
* MATRX SPM (suspended particulate matter) is the part that remains on the filter and is used for measuring chemicals that have adsorbed to the particulate fraction.
* Parameter SUSP should only be reported in MATRX WT (in legacy data, MATRX BF) with concentrations in mass/volume. Legacy data however could have errors due to misinterpretations which lead to MATRX AF/BF deprecation. See “DOWNLOADS and EXTRACTIONS” below.

1. Can I report ocean acidification data?

* DOME can accept ocean acidification data and supporting meta data including supporting parameters, method information and links to Cruise summary reports - all of which were specified as necessary information by SGOA and MCWG. The data checking program DATSU checks that data marked for ocean acidification meets the specified criteria. DOME can accept ocean acidification data but it is designed for bottle data, not continuous data.
* Some data submitters report ocean acidification data to ICES and periodically to Ocean Carbon Data System (OCADS) operated by NOAA’s National Centers for Environmental Information (NCEI) <https://www.nodc.noaa.gov/ocads/>.  This can take underway data, bottle data and mooring data and also provides access to synthesis products such as GLODAPV2 and SOCAT (Surface Ocean CO2 atlas).

1. What parameters should be reported to OSPAR? What parameters should be reported to HELCOM?

* One should check the monitoring requirements at the respective Commission websites as these can change from a voluntary parameter to a mandatory parameter or a “pre-CEMP” status to a “CEMP” status. Countries can also opt out of monitoring certain parameters/matrices and we have no way of knowing this.
  + More information on the CEMP can be found at <https://www.ospar.org/convention/agreements>
* Some guidance concerning cofactors and substances can be found in the MPROGinfo table at [<https://vocab.ices.dk/?ref=90>](https://vocab.ices.dk) but this is not to be considered complete or up-to-date. Choose, for example, “OSPAR\_Mandatory”.
* Depending on the programme, some requirement information can be found in the DATSU checks.
  + See http://datsu.ices.dk/web/selRep.aspx (choose version 3.2, Data type) then choose “Checks” for record/field checks.
  + For all Data Centre checks, go to <http://www.ices.dk/marine-data/tools/Pages/quality-control.aspx>.

1. BULKID: How can I indicate that an individual (sub-sample) has also been analysed in another (pooled) sub-sample?

* If an individual (or parts thereof) has been analysed in one or more bulks, insert the SUBNO identification(s) of the bulk(s) in the field BULKID. Separate multiple bulks with “**~**”. Do not use spaces. Note that the BULKID can only refer to a SUBNO from the same sample number (SMPNO).
* For example, in haul 1, 25 fish were caught. 25 muscles were analysed individually for metal content. 25 livers were bulked into 5 groups of 5 individuals for organic measurements. 20 kidneys were used for biological effects measurements in 2 groups of 10 for Metallothionein.
* This would give the following SUBNO's (32 type 04 specimen records):

SUBNOs 1-25 are individuals (metals) (NOINP=1)

SUBNOs 26-30 are bulks of 5 livers (organics) (NOINP=5). Individuals 1-5 are included in SUBNO 26, Individuals 6-10 are included in SUBNO 27 etc...

SUBNOs 31-32 are bulks of 10 kidneys (metallothionein). Individuals 6-15 are included in SUBNO 31, Individuals 16-25 are included in SUBNO 32

* The fields would look like this:

Record 04: SUBNO=3 BULKID=26

Record 04: SUBNO=6 BULKID=27~31

Record 04: SUBNO=27 BULKID is blank.

Record 04: SUBNO=31 BULKID is blank.

1. How should I report passive sampling data?

There are certain requirements for reporting passive sampling data:

* Sampling information is needed:
  + SMTYP should be reported as “PS-DGT", "PS-LDPE", "PS-POCIS", "PS-SPMD", or "PS-SR”.
  + The duration of exposure (DUREX) and estimated flow rate (ESTFR) should be reported
* Parameters requested:
  + The temperature (TEMP) and salinity (PSAL\*) at either the start/end of the duration or the minimum/maximum values of the duration
    - "TEMPstart", "TEMPend", "TEMPMIN", "TEMPMAX", "PSALstart", "PSALend", "PSALMIN", "PSALMAX” can also be used.

1. DATSU gives an error stating that sediment data are missing normalisers. What does this mean and why are these necessary?

* When assessing contamination in sediments, the natural variability of the sediment composition needs to be taken into account in order to ensure comparable data. Typical Normalisers (cofactors) are grain-size distribution (MATRX=SED\*, PARAM=GS\*), Aluminium (PARAM=AL) and organic carbon (PARAM=CORG) content.
* An excerpt from an OSPAR [report](https://qsr2010.ospar.org/media/assessments/p00390_supplements/p00461_Background_Doc_CEMP_Assessmt_Criteria_Haz_Subs.pdf) on assessment criteria explains: “The procedure that has been used to date in CEMP data assessments is based upon the frequent observation that, within a localised survey area, contaminant concentrations are generally higher in muddy sediments than in sand. Furthermore, the contaminant concentrations are often linearly related to expressions of the bulk properties of the sediment, such as the particle size distribution or organic carbon content. The geochemical normalisation used by MON is based upon these linear relationships, and seeks to use the normalisation process to express contaminant concentrations in sediments of different bulk properties in terms of the equivalent concentrations in a “typical” muddy sediment, considered to contain 5% aluminium (mainly from clay minerals) and 2.5% organic carbon. The composition selected for this “typical” sediment has been found to be generally appropriate for sediments in and around the North Sea and Celtic Seas. However, it is less applicable to muddy sediments in the Iberian area. Information from Spain and Portugal indicates that typical aluminium concentrations in muddy sediments are around 2%, and that organic carbon concentrations are generally less than 2.5%.”

1. VDSI: How can I report that a previously monitored species has disappeared? In our recent imposex survey, we only went to sites that previously had a problem, in order to check on their recovery.  However, at some sites dogwhelks were absent; the population that was previously there was not present.  In the OSPAR scheme this means they have a classification status of “F” (see below), but do not have a VDSI score. How should I report?

* Report:

PARAM=POPDEN, MATRX=POP, MUNIT=nr/m2, VALUE=0, NOINP=0.

Table 1.        Interpretations of the assessment classes, which refer to *Nucella lapillus* as representing the most TBT sensitive gastropod species used in the OSPAR monitoring guideline

|  |  |  |
| --- | --- | --- |
| **Assessment class** | ***Nucella* VDSI** | **Effects and impacts** |
| A | VDSI = <0.3 | The level of imposex in the more sensitive gastropod species is close to zero (0 - ~30% of females have imposex) indicating exposure to TBT concentrations close to zero, which is the objective in the OSPAR hazardous substances Strategy. |
| B | VDSI = 0.3 - <2.0 | The level of imposex in the more sensitive gastropod species (~30 - ~100 % of the females have imposex) indicates exposure to TBT concentrations below the EAC derived for TBT. E.g. adverse effects in the more sensitive taxa of the ecosystem caused by long-term exposure to TBT are predicted to be unlikely to occur. |
| C | VDSI = 2.0 - <4.0 | The level of imposex in the more sensitive gastropod species indicates exposure to TBT concentrations higher than the EAC derived for TBT. E.g. there is a risk of adverse effects, such as reduced growth and recruitment, in the more sensitive taxa of the ecosystem caused by long-term exposure to TBT. |
| D | VDSI = 4.0 - 5.0 | The reproductive capacity in the populations of the more sensitive gastropod species, such as *Nucella lapillus*, is affected as a result of the presence of sterile females, but some reproductively capable females remain. E.g. there is evidence of adverse effects, which can be directly associated with the exposure to TBT. |
| E | VDSI = > 5.0 | Populations of the more sensitive gastropod species, such as *Nucella lapillus*, are unable to reproduce. The majority, if not all females within the population have been sterilised. |
| **F** | **VDSI = -** | The populations of the more sensitive gastropod species, such as *Nucella lapillus* and *Ocinebrina aciculata*, are absent/expired. |

1. What MUNIT should I use to report numbers?

In general, for diseases, use MUNIT “AFNR“, affected number. There will then be a check against the field NOINP (total number) to make sure that the data are reported correctly. Note that some parameters require specific MUNITs or MATRX. For example:

* Parameters with percent in the code or description must be reported with MUNIT %.
* MATRX BRD (Brood) or FRY reporting parameters such as FECUND or NAD should report MUNIT “NR“.

Check the QC database, export it, and search for the relevant parameter for more information.

# AUTO-RESUBMISSION

1. How can I make corrections to my data?

If you wish to resubmit the data, you can do so by using the automatic Resubmission facility. Log in with your user/password and screen your file as usual using DATSU. If you can’t remember your password, reset it at <http://ices.dk/Pages/Password.aspx>. If the file is already in the database and there are no critical errors in the resubmission, the report will show a new link  with the text “This could be a resubmission, click here to try to resubmit file”. Press this link and a new page will open asking for your user name and password.

The auto-resubmission will then start and compare the file existing in the database to the resubmission.

* Make sure that you chose the correct file for comparison in the drop-down box.
* If data were added or corrected and you are happy with the comparison, press the resubmission button. The file will be entered that night and you will be automatically notified.
* If data were deleted but you are happy with the comparison, a button will appear to send the file to [accessions@ices.dk](mailto:accessions@ices.dk) for manual handling. You will be contacted by a data manager when the file has been successfully uploaded.

*Note that resubmissions should be generated from the national databases to ensure that ICES held data and the national database are in agreement. If the resubmitted accession was downloaded from the ICES website for correction instead of being regenerated from the national database and have “00-CONV-xx” in the header record, these data were originally converted by ICES to ERF3.2 before entering the database. Once resubmitted, ICES will no longer check the accession for any conversion errors discovered in the future.*

1. How does the auto-resubmission tool work?

* If **no critical errors** are found and the file **already exists in DOME**, a link will appear after running DATSU. Pressing the link will give access to the auto-resubmission facility.
* **Submitter control**: User name and Passwords are individually assigned in order to screen a file and upload a submission to the database.
* **Accession identification**: The facility checks the resubmission based on RLABO, MYEAR and DTYPE and identifies the accession in DOME after checking the database for duplicates. The submitter receives a list of multiple search results from DOME and can highlight the correct accession.
* **Comparison**: The resubmission is compared to the file in DOME and a result form is presented showing
  + *Information*:
  + the number of stations
  + the number of measurements
    - If the resubmission has fewer measurements, the resubmission is refused in the tool and the file should be sent to [accessions@ices.dk](mailto:accessions@ices.dk)
  + the parameter groups
  + *Parameter Summary* table:
  + the number of parameter measurements for an ALABO
  + *Station Summary* table:
  + Coordinates / STATN /SDATE
* *Species Summary* table:
  + Number of measurements for Species / RLIST
* **File acceptance or rejection:** 
  + If the resubmission passes acceptance criteria, a link will be offered to directly update the database
  + If the resubmission is smaller or too different than the original, the resubmission facility will not automatically update the database. Instead, a link to resubmit the file directly to [accessions@ices.dk](mailto:accessions@ices.dk) will be offered. To speed-up the resubmission process, it is a good idea to send us a follow-up e-mail to the accessions with the details why this re-submission is smaller/too different from the original.
* **Replacement of accession:** 
  + The resubmission replaces previous file in DOME
  + File name will be identical to the DOME filename except for the new date (standard format)
  + The file will be added to the DAD Raw file repository
  + The resubmission will be logged in DAD (date, name, email, data importer “Auto”)

• Programme field (MPROG) is extracted from the file and overwrites the existing field in DAD

* User receives a confirmation email that the upload has succeeded
* Water data (i.e., DTYPE = CW, NW, EW) will be exported from DOME to the OCEAN database which is the ”home” of standard hydrography parameters. The data submitter may be contacted when these data go through additional checks before upload to OCEAN. See <http://www.ices.dk/marine-data/data-portals/Pages/ocean.aspx>.

1. Auto-resubmission does not work for me. What’s wrong?

If you have any doubts about functioning of the auto-resubmission tool, please send the request to the [accessions@ices.dk](mailto:accessions@ices.dk) attaching the file and the screenshot of the page in question.

# SIMPLIFIED FORMAT PROCEDURE

Download the relevant simplified format at <http://www.ices.dk/marine-data/Documents/ENV/Environment_Formats.zip>.

Once the data file has been filled in, the submitter should convert the file at <http://vocab.ices.dk/DataConversion/>. From that drop-down box, choose the data type, for example, “Contaminants simplified format”, add email address, and load the file. Note that **MULTIPLE** years of data can be included in one simplified format file. The conversion program will then convert it to ERF3.2 format with **ONE** year per data file. Download the output file and check the data for errors at <http://dome.ices.dk/datsu/>. Contact [accessions@ices.dk](mailto:accessions@ices.dk) for a user/password.

Once the data have successfully been screened, send the file to [accessions@ices.dk](mailto:accessions@ices.dk). If no critical errors are found, the file will receive an accession number and ICES will load the file into DOME at <http://dome.ices.dk/browse/index.aspx>.

***Remember to use the accession number in the subject of all future emails concerning the data.***Follow the progress at <http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx>.

Once the submission is loaded into DOME, the submitter will be able to use the auto- resubmission tool. This however requires that the submitter reruns the conversion program at <http://vocab.ices.dk/DataConversion/> and then checks the data via DATSU. The automatic resubmission tool will be available via a link after a successful run of DATSU.

# DOWNLOADS AND EXTRACTIONS

1. How do I find and access the data? How can I search for data? Where can I download data?

* Data can be found
  + via map queries <http://ecosystemdata.ices.dk/>
    - See the instruction video for the Data Portal at <http://ices.dk/Pages/Data-portal-tutorials.aspx>
  + via DOME views
    - <http://dome.ices.dk/views/ContaminantsBiota.aspx>
    - <http://dome.ices.dk/views/Phytoplankton.aspx>
    - <http://dome.ices.dk/views/FishDisease.aspx> etc.
  + via file submissions at <http://dome.ices.dk/browse/index.aspx>

1. My institute no longer has a copy of historic legacy data. Can ICES provide our data?
   * For documentation and tracking purposes, ICES keeps all versions of submissions. We can therefore provide:
     + national data submissions in ERF3.2 format (less than 100,000 lines) can be downloaded at <http://dome.ices.dk/browse/index.aspx>
     + national data submissions over 100,000 lines (usually fish disease data) in ERF3.2 format can be requested at accessions@ices.dk
     + original data files in the historic reporting format upon request to [accessions@ices.dk](mailto:accessions@ices.dk)
2. How can I check that a certain parameter has been submitted every year?
   * Download a partial extraction at DOME views, for example <http://dome.ices.dk/views/ContaminantsBiota.aspx>
   * Check the data summaries labeled "in database" at <http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx>
3. My seawater extraction from EcoSystemData has the column MATRX which contains four different codes (AF, BF, SPM, WT). What do these mean?

AF (after filtration), BF (before filtration) and SP (suspended particulate matter) are discontinued legacy matrix codes for water. In water, one looked for whether the parameter was dissolved or bound to particulates, or if it was a total measurement of dissolved plus bound. In theory, MATRX AF/BF/SP were supposed to give this information, i.e., AF for dissolved concentration, SP for particulate matter, BF for dissolved plus particulate. But modern methods have made the MATRX AF/BF obsolete:

* People used them inconsistently and the old data checking programs were not detailed enough to catch this
* In the legacy reporting format ERF2.2, contaminants in MATRX SP were requested to be reported as mass/volume. This was changed to mass/mass in the ERF3.2 format around 2007. Mass/volume measurements in SPM should be questioned.
* Some chemicals can adsorb to a filter so the concentration in MATRX AF and BF could be incorrect
* Some chemicals can adsorb to suspended particulate matter so the concentration in MATRX AF could be incorrect
* The size of the filter determines if the parameter passes through or not
* Passive sampling techniques don’t use a filter but a membrane exposed for days/weeks

AF/BF MATRX codes can no longer be reported but are still in the database. SP is now referred to and reported as SPM. One now reports water (WT) or Suspended Particulate Matter (SPM) plus the mandatory field “method of pretreatment” (METPT) to show whether a filter was used, and if so, specify the filter size and type.

1. I can’t find station names in the file download. Where can I find station names?

* See the stations for your country at <http://gis.ices.dk/sf/index.html?widget=station>. Each station should be defined in the station dictionary so if your coordinates fall in the defined range, you can work out the station name.
* If the file was submitted in an older format, it was converted to the 3.2 format. You can see if it was converted by the text “00-CONV-xx” in the header record. If the station name isn’t in the file, you can request the earlier version of the submission. Contact [accessions@ices.dk](mailto:accessions@ices.dk).
* If the header says “00-CONV-22”, it was submitted in the ERF2.2 reporting format which dealt in areas rather than station names. If a JMP area (field JMPAR) or ICES area (field ICEAR) were reported in the original 2.2 file, these fields were not converted to the ERF3.2 format as these areas were discontinued. If Other area or station code (field OTHAR) were reported in the original 2.2 file, they were transferred to the station name field (STATN).
  + You can request conversion documentation at [accessions@ices.dk](mailto:accessions@ices.dk).
  + You can request a description of the former JMP area codes (JMPAR) from <accessions@ices.dk>. Ask for ERF2.2 Legacy Format Annex 5.2 or RECO JMPAR.

# DATA DELIVERIES TO OTHER ORGANISATIONS

1. What is EMODnet?

* EMODnet has a data portal that gives access to distributed marine data (<http://www.emodnet.eu/>). The SeaDataNet Common Data Index (CDI) (<http://www.seadatanet.org/Data-Access/Common-Data-Index-CDI>) offers a search, shopping and tracking mechanism which is used in the EMODnet portals for identifying and requesting access to background datasets from data providers.

1. How do I arrange for ICES to submit data to EMODnet?

* Contact ICES at [accessions@ices.dk](mailto:accessions@ices.dk). ICES is aware that we do not own these data and while some institutes welcome ICES to make their data discoverable in EMODnet and SDN, others will prefer to be the first or only source. Therefore, we request you to clarify what your country/institute prefers for both chemical and biological data.

1. Are the data originators credited?

* To ensure the data originator is properly credited, data are traced by using EDMO codes. For ICES to do this we link RLABOs to EDMO codes. New labs are requested to give their EDMO code upon creation of a new lab code at ICES.

# Useful Links:

|  |  |
| --- | --- |
| Contact DOME | <mailto:accessions@ices.dk> |
| Convert Simplified Format | http://vocab.ices.dk/DataConversion/ |
| DOME home page | [http://ices.dk/marine-data/data-portals/Pages/DOME.aspx](http://ices.dk/marine-data/data-portals/Pages/DOME.aspx%20) |
| DOME reporting formats | <http://ices.dk/marine-data/Documents/ENV/Environment_formats.zip> |
| DOME files | <http://dome.ices.dk/browse/index.aspx> |
| DOME checking program DATSU | <http://dome.ices.dk/datsu/> |
| DATSU sessions | <http://datsu.ices.dk/web/ListSessions.aspx> |
| DATSU checks/QC database | <http://ices.dk/marine-data/tools/Pages/quality-control.aspx> |
| DOME FAQ | <http://ices.dk/marine-data/Documents/ENV/DOME%20Frequently%20asked%20questions.docx> |
| DOME RLABO | <http://datsu.ices.dk/web/rlabo_ls.aspx> |
| DOME submission status | <http://www.ices.dk/marine-data/tools/Pages/Submission%20status.aspx> |
| DOME station dictionary | <http://www.ices.dk/marine-data/tools/Pages/Station-dictionary.aspx> |
| DOME views | <http://dome.ices.dk/views/index.aspx> |
| DOME Web services | <http://dome.ices.dk/Webservices/index.aspx> |
| ICES Expert group reports | <http://ices.dk/community/groups/Pages/default.aspx> |
| ICES overview of data formats, checks and species | [http://datsu.ices.dk/web/selRep.aspx](http://datsu.ices.dk/web/selRep.aspx%20) |
| ICES overview of data checks | <http://ices.dk/marine-data/tools/Pages/quality-control.aspx> |
| ICES Data Policy | [http://www.ices.dk/marine-data/guidelines-and-policy/Pages/ICES-datapolicy.aspx](http://www.ices.dk/marine-data/guidelines-and-policy/Pages/ICES-datapolicy.aspx%20) |
| ICES Data Portal | <http://ecosystemdata.ices.dk/> |
| ICES Data Portal Tutorial | <http://ices.dk/Pages/Data-portal-tutorials.aspx> |
| ICES Geonetwork | <http://GEO.ices.dk/geonetwork/srv/en/main.home?search=ices_datasets> |
| ICES spatial facility | <http://GEO.ices.dk/> |
| ICES Vocabulary Server | <http://VOCAB.ices.dk/> |
| ICES/SeaDataNet Platform requests | <http://vocab.ices.dk/Request/Login.aspx?ReturnUrl=%2frequest%2f> |
| ICES Station requests | <http://vocab.ices.dk/Request/> Choose “Station” |
| SeaDataNet approved codes | <http://seadatanet.maris2.nl/v_bodc_vocab_v2/search.asp?lib=C17> |
| Station dictionary map | <http://gis.ices.dk/sf/index.html?widget=station> |
| WoRMS database | <http://www.marinespecies.org/> |
| HELCOM PEG Biovolume report | <http://ices.dk/marine-data/Documents/ENV/PEG_BVOL.zip> |
| DATRAS information | <http://ices.dk/marine-data/Documents/DATRAS/DATRAS_FAQs.pdf> |
| OCEAN hydrography and eutrophication information | <http://www.ices.dk/marine-data/data-portals/Pages/ocean.aspx> |