

Sampling protocol: Survey_litter
Sampling objective(s): data collection of seafloor litter by trawling
Start of sampling: 2012
Sampling ongoing: yes
<p>Data use</p> <p>Primary data use: litter data from trawl catches is used by the ICES working group on marine litter, to provide input to MSFD assessments.</p>
<p>Sampling design and method</p> <p>The sampling takes place annually and follows the design of the demersal surveys BTS and IBTS_Q1 (see Survey_dem). Both surveys are coordinated by an ICES working group. IBTS_Q1 is coordinated by the International bottom trawl survey working group, BTS by the Working group on beam trawl surveys. The litter sampling protocol is maintained by the Working group on marine litter.</p> <p>Sampling design is in detail described in the (inter)national survey protocols. Gears are standardised, so the data per survey can be used as a timeseries. International spatial coverage has remained constant for IBTS_Q1 since the start of the litter data collection, for BTS the litter data collection has extended to the southeastern North Sea in 2017.</p>
<p>Sampling protocol and data capture</p> <p><i>In the field</i></p> <p>The trawl hauls are processed in a similar manner: after the haul comes on board, the catch is sorted. Litter is collected separately. The litter is sorted by category following the latest version of the international manual.</p> <p>Litter items are treated individually, although similar litter items (litter type and size category) may be processed together. If so, the number of items will be recorded. Length measurements are done using an analogue measuring board, of which the set-off is checked before the start of the survey. Wet weights are taken using electronic scales, to the gram or 5 grammes (depending on the sample size). Scales are maintained annually and calibrated at least daily. Attached organisms are recorded (yes/no), and, if possible, the taxon of the attached organism is noted down. During the IBTS_Q1 a photo is made of the litter items per haul.</p> <p>Data is entered in the computer directly in an Excel file, using a headset if the distance is too far to directly speak to each other.</p> <p><i>In the lab</i></p> <p>No post-processing of samples takes place. The Excel files are stored at a shared and safe network location, before being transposed (standardised script) to the international Exchange format.</p>
<p>Data quality</p> <p>Quality assurance procedure</p> <p>The Excel files are manually screened for consistency of species names of attached organisms, and for completeness of the file (e.g. adding empty line for hauls without litter). For the IBTS_Q1 also a consistency check, e.g. have similar items consistently been allocated to a category, is done using the photos.</p>
Data storage

National database: seafloor litter information is submitted to the national database FRISBE. The relevant aspects of this database are described in [Proc_databases](#).

International database: the litter data is stored in the ICES database DATRAS (<https://www.ices.dk/data/data-portals/Pages/DATRAS.aspx>).

Data availability

Institutional availability: accessibility of the national database FRISBE is described in [Proc_databases](#), data is made available as soon as possible after the survey, mostly within 2 months after the survey has finished.

Public availability: no DATRAS deadlines exist for seafloor litter data, but the data is in general approx. 6 months after the end of the survey made available.

Reference to full documentation:

National manual: CVO_h_003: Damme, C. van, U. Beier, I. de Boois, D. Burggraaf, B. Couperus, R. van Hal, T. Pasterkamp, 2023. Handboek bestandsopnamen en routinematige bemonsteringen op het water. Versie 17, maart 2023. CVO rapport 23.002

International manual:

ICES 2022. ICES Manual for Seafloor Litter Data Collection and Reporting from Demersal Trawl Samples. ICES Techniques in Marine Environmental Science (TIMES). Report. <https://doi.org/10.17895/ices.pub.21435771.v1>

Review frequency full documentation: national manual is annually reviewed; review frequency of the international manual is unknown.

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