

MICRO-workshop on microplastics sampling techniques

On the 11th of February 2013, an international workshop on techniques for sampling microplastics, small plastic particles in the marine environment was organized within the framework of the Interreg 2 Seas MICRO-project.

The workshop was coordinated by Lisa Devriese (ILVO) on the new research vessel RV Simon Stevin (VLIZ, DAB fleet). Several samples were collected on the Belgian part of the North Sea during the workshop: sediment samples with a Van Veen grab and floating marine litter using a plankton pump and Manta trawl. The Manta trawl represents a Manta ray and is used for collecting samples from the upper 25cm of the sea surface. With this technique plastic particles up to 330 µm can be collected. An element of this part of the workshop consists of an evaluation of two different techniques for floating marine litter, the Manta trawl and the plankton pump.

The Manta trawl is placed at our disposal for the workshop by Rijkswaterstaat Dienst Noordzee and Deltares. Thomas Maes (Cefas) joined the survey to exchange knowledge and practical experience. Hannelore Theetaert (ILVO), David Vuylsteke (ILVO), Marc Long (CNRS), Rossana Sussarellu (Ifremer) and Myra Van Der Meulen (Deltares) attended the workshop.

Despite a cold wind and local snow-showers, all project partners were motivated for the early mornings depart from Ostend. The sampling of floating marine litter with the Manta trawl was complicated by the high waves, but eventually all the desired samples on the Belgian part of the North Sea were collected. Certain samples contained visible plastic fragments, but it is expected that mostly microscopic plastic will be present. Samples from the Manta trawl, plankton pump and Van Veen grab will be examined in the labs of ILVO. Here, the amount of plastic particles per litre, as well as the types of plastics collected (fibres, pellets, fragments, etc.) will be analysed.

A second part of the workshop consisted of an explanation of the lab assessment of the collected samples. The analysis couldn't be completed on board of a research vessel, but this workshop offered an ideal opportunity for exchanging knowledge and experience between all project partners. Eventually, many other action points of the MICRO-project were discussed, thus optimizing the time between the sampling stations.

The international MICRO-workshop was challenging at times due to the harsh weather conditions and the fact that many of the techniques were new to the researchers, but most of all it was an interesting experience for all project partners.



