

IOW Press Release of August 9, 2017

Marine Litter: Where does all the plastic come from?

The new project "MicroCatch_Balt" funded by the Federal Ministry of Education and Research will investigate the sources of plastic particles within the catchment area of the Baltic Sea by taking the Warnow river catchment basin as an example.

Wherever our beaches are not tidied on an every day basis, it is clear to see: the flotsam transported to the beaches by the sea contains among algae and mussel shells a lot of man-made litter. One can find cigarette butts as well as large, small or smallest plastic particles. Where does all the plastic litter come from? What we already know is, that in coastal waters, the load of plastic litter is especially high in the vicinity of river mouths. Somewhere between the source and the mouth of rivers, there have to be the originators of these particles. The range of possible sources is broad as well as the variety of plastic types getting into the environment.

On August 1, 2017, a new project funded by the Federal Ministry of Education and Research (BMBF) officially started. It focusses on the different sources of plastic particles within the catchment area of the Baltic Sea taking the Warnow catchment basin as an example. The project consortium under the lead of Dr. Matthias Labrenz from IOW gathers the expertise of environmental science, modelling, computer science, geo sciences, agricultural science and communication. They are aiming to detect exemplarily the relevant pathways plastic particles take on their way to the sea and to identify hotspots. Finally, they will conclude their results in a travelling exhibition to be shown in cities and municipalities along the German Baltic Sea coast.

On August 7 - 8, 2017, the project partners met for the first time in Warnemünde in order to coordinate the different working plans and to organize joint activities.

Members of the MicroCatch_Balt consortium are:

- Leibniz Institute for Baltic Sea Research Warnemünde (responsible for the coordination, sampling campaigns and exhibition concepts)
- Leibniz Institute for Polymer Research Dresden (responsible for microplastic analyses)
- Forschungszentrum Jülich (responsible for modelling the pathways of microplastic from diffuse and point sources on the basis of the hydrological conditions within the catchment basin of the Warnow river)

- Thünen Institute of Rural Areas, Braunschweig (responsible for the identification of potential microplastic sources on agricultural areas)
- Fraunhofer Institute for Computer Graphics Research (responsible for the development of a multi-touch application related to the travelling exhibition)

The project will be supported for the next three years with a total funding of 1,7 mio Euro.

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