

# Introduction

## Beach wrack – what is it?

There was some debate over the terms used to describe material that is washed ashore by the sea and deposited onto our beaches. Of the many terms that exist in national languages of Baltic countries, some are colloquial, some are used interchangeably even on a local level and others are used in several different countries. The terminology does not seem so important at first glance, however it plays a major role in the discussion when it comes to processing the material, e.g. with or without litter. From an extensive literature search we are able to identify the two terms that are most commonly used: beach cast and beach wrack. Both refer to the material that can be found all over the world in the swash zone, in lines along the foreshore and sometimes at the back of the beach, especially after storms. The amount and composition varies depending on the season, coastal landform, offshore substrates (determining algae/seagrass growth), currents, tidal forces, wind and wave action.

Thus, we propose the following interpretations for better understanding: Beach cast as an umbrella term for all washed up material consisting of beach wrack as the largest component, terrestrial debris, litter and living animals that inhabit it, but excluding materials such as sand, stones or pebbles. And beach wrack as purely the marine organic component of beach cast that originates from the sea, e.g. torn off seagrass, macro- and microalgae, shells, dead fish etc.

Since it is very difficult to mechanically collect "pure" beach wrack from beaches without sand, we additionally refer to it as being "collected beach wrack", particularly in relation to processing and treatment of the material.

"As long as we have to compete with pristine and white catalogue beaches, we have to present our beaches to tourists in the same way" (quote from a German spa manager Markus Frick, Island of Poel). There is no doubt that beach wrack (cf. inbox), as a natural part of coastal ecosystems, is often regarded as a nuisance, particularly when it lands unexpectedly and in large quantities on beaches. It can cover beaches for weeks, rotting to a smelly soup that leaches back into the water. Consequently, beach wrack can be an annoying problem particularly to those whose economies rely on beach tourism. During the summer season, it is already being regularly removed as part of expensive beach cleaning routines in most touristic regions. But again and again the question is raised: what can be done with all the collected biomass that is invariably at differing stages of decay and comprises of 50–80% sand? Could it be used as a resource rather than being disposed of as waste?

The discussion about beach wrack treatment is not new, having been pursued, mostly on a local basis, during various past projects. Some solutions have already been found and applied, but they remain local and fragmented. Local authorities are trying hard to independently find affordable, legal and worthwhile use options for this biomass, but are being restricted by regulatory barriers, the resources that can be spent, a lack of knowledge and cooperation. Hence, the challenge of beach wrack removal is to find a balance between public demand for 'clean' beaches, environmental protection and the economy.

CONTRA aimed to change how coastal municipalities see and deal with beach wrack and help convert this nuisance into a resource and asset. We hope that doors will be open to future cross-border collaboration a little wider, with the ultimate aim of delivering a 'win-win-win' situation – namely, improvements in coastal water quality, clean & healthy beaches and blue growth opportunities for the Baltic Sea Region.