

## A lower level sea

Sand and gravel extraction is by no means only an on-land activity. In coastal regions a large share of the demand is covered by utilizing marine aggregates, dug away from the sea floor. Though well concealed from view, this activity generates serious environmental problems. Wide sea areas on our coast are affected, and they are consistently becoming more extensive.



Lumpfish

## Vibrant underwater world

Sea bottom habitats on our coast are refuge to a unique biodiversity. Seaweed thickets and seagrass beds provide cover and nourishment for animals of all sizes, and billions of seashells, gastropods, worms and other creatures dwell in the sea bottom. This diversity is the basis for the natural abundance of fish in our waters, it provides a protective habitat for fish fry and varied, compatible food for the lavish marine wildlife.

Only in recent years has the importance of these communities been fully understood. Some reserves and protected areas have been designated, but most marine habitats are still without protection - and often highly endangered.

## Mecca for ducks

Every autumn our coast sets the scene for an impressive natural spectacle. Tens of thousands of ducks from Scandinavia and Siberia collect in the coastal waters. They make up a good share of the world population especially of long-tailed ducks (*Clangula hyemalis*), common scoters (*Melanitta nigra*), greater scaups (*Aythya marila*) and common eiders (*Somateria mollissima*). The ducks stay for many months. Completely wind- and weather-proof, they brave storms and rains, permanently staying out on sea. They face the rough conditions because they can ensure their survival in these coastal waters: sand banks off the coast with an abundant bottom life sustain them throughout the hard winter. These important feeding grounds lie in a depth of only five to twelve meters.

## Menace for a paradise

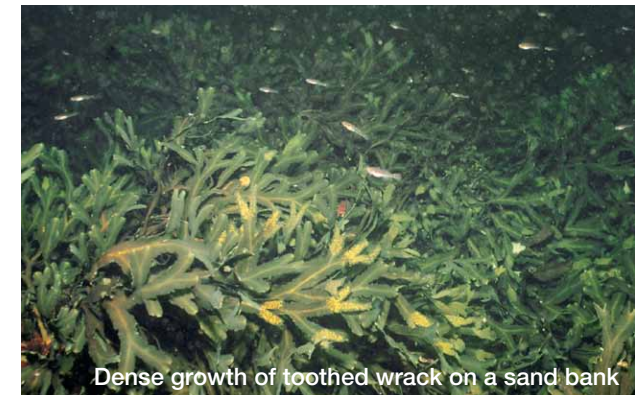
Aggregate extraction destroys this paradisiacal environment. The dredge devours the complete seafloor with all life on and within it. Even neighbouring environments are often harmed, buried and suffocated by stirred mud and turbidities.

After such a disaster some animals still can return before long. But it takes a long time until diverse life communities may regenerate. Even then some species may be missing. In many cases the original habitats are destroyed forever.

When a two meter layer of aggregates is dredged away, the seafloor will invariably lie two meters lower thereafter. Every dive of the foraging ducks will now need substantially more energy. If they need to descend ten instead of eight meters this requires an additional effort of 25% to get down. Additionally, the conditions for plant growth are more difficult in deeper waters, making the regeneration of seagrass and seaweed beds problematic.

## Dredge and destroy?

Dredges rip enormous craters in seafloor and biodiversity, every year again and again. These have totally different dimensions than we know from on-land excavations. Football fields don't suit for a comparison: the permitted extraction grounds dwarf most coastal villages in terms of their extent. The giant areas are needed because the extraction depth at sea is much lower than on land. And because effective environmental regulations are still waived, marine sand and gravel extraction promises juicy profits. The extraction industry therefore demands drastic further expansions, and furthermore public authorities themselves like to exploit this seemingly low-priced resource.



Dense growth of toothed wrack on a sand bank

Much of the sand and gravel from the Baltic Sea is consumed in the building and construction industry. But a lot of material is also used for beach nourishment and coastal land reclamation. The multi-million euro beach nourishment projects are aimed to defy natural erosion processes. Every few years such a nourishment has to be repeated. And every time a part of the sea's natural diversity dwindles away, each of these expensive ventures financed by the taxpayer.

## BUND calls for action:

### No aggregate extraction in marine reserves

No marine aggregate extraction may be undertaken in marine reserves and protected areas. A large part of these have their conservation status because of the occurrence of sandbanks and shallow water areas, and any sand or gravel extraction will spoil just these.

### Effective environmental regulations

Compensation measures have to countervail all resulting damage from the extraction activities. In cases where compensation is not possible extraction must not be permitted.

### No building development on coastlines prone to erosion or flooding

The practice of granting building permits at such locations has to end. Any house construction at these sites demands expensive and environmentally destructive sea defense measures with high costs for taxpayers and nature.

### Beach nourishment with a sense of proportion

Beach nourishment can only be an option at locations where built-up areas lie behind. Sea sand may only be used for this when its extraction is ecologically harmless and environmentally compatible.

### Secure raw material supply from land sources

Sand or gravel pits on land certainly arouse conflicts of interest and planning efforts. But extraction at sea is not less conflicting and additionally often associated with long transport distances.

**The sea must not any longer be misused as a source for supposedly cheap building material**

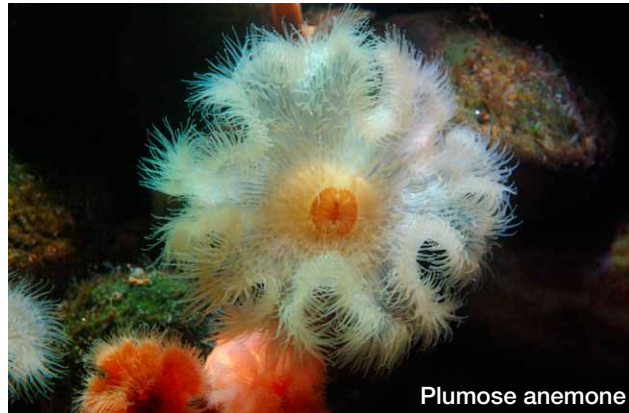
## Moving ahead

Detailed information on how you can contribute to the conservation of our endangered coastal nature is available on BUND MV's web pages:

[www.balticgreenbelt.de](http://www.balticgreenbelt.de)    [www.bund-mv.de](http://www.bund-mv.de)

Additional information in English:

[www.balticgreenbelt.net](http://www.balticgreenbelt.net)



Plumose anemone

**Publisher:** Bund für Umwelt und Naturschutz Deutschland / Friends of the Earth Germany  
Mecklenburg-Vorpommern state branch  
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Text & layout: Jörg Schmiedel, Büro für Landschaftsplanung und Umweltberatung, Rostock

**Picture credits:** Hübner & Krause p.3; Schmiedel p.1, 5, title image

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This leaflet was produced as part of the INTERREG IV B project Baltic Green Belt utilizing part-financing by the European Union (European Regional Development Fund) and funds of the BINGO! environmental lottery from the North German Foundation for Environment and Development (Norddeutsche Stiftung für Umwelt und Entwicklung).



# Marine gravel extraction in the Baltic Sea

## How valuable shallow water habitats are dredged away



Bund für  
Umwelt und  
Naturschutz  
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