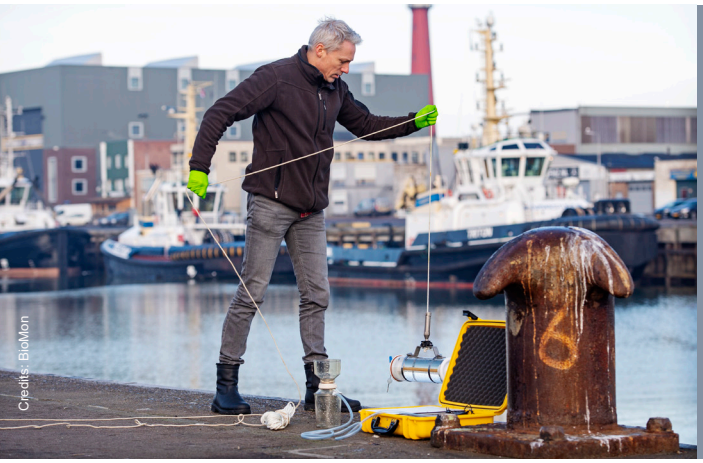
Biodiversity Genomics Europe
BiodiversityGenomics.eu

# We need your help to detect invasive species in European coastal waters!

The **Biodiversity Genomics Europe** project (BGE) is a large-scale project aiming to accelerate the use of genomic science to enhance understanding of biodiversity, monitor biodiversity change, and guide interventions to address its decline. BGE combines several sources of existing biodiversity data with cutting-edge techniques in genetics and genomics to achieve this aim. The project consists of a consortium of 33 institutions from all over Europe and North America. It is funded under the European Union's Horizon Europe Research and Innovation Actions.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## What is environmental DNA (eDNA)?

All life forms, from whales to viruses, contain DNA and/or RNA. When organisms live somewhere, they leave cells behind. Either just by being there, dying and decomposing, or in the case of larger organisms also by shedding cells from their living bodies. These cells and the DNA they contain then form a small part of the environment (air, water, sediment) they exist in. DNA extracted from this environment (eDNA) can be sequenced, and the sequences can be used to identify the organisms that live there.

## How can you help us?

Part of BGE will apply the powerful technique of environmental DNA (eDNA) analysis to look for invasive species in European coastal waters. Invasive species present a serious threat to biodiversity globally. BGE wants to harness the **power of citizen scientists** and eDNA techniques to provide a powerful new perspective on marine invasive species occurrence and distribution in European waters.

## What does BGE need now?

First of all, we need to know who would like to help us! We therefore ask interested individuals, groups and organizations to register their interest via our registration form.

## What will you do?

We need the help of **citizens (you!)** to filter seawater from locations around ports in their area. We will provide all the necessary equipment and detailed written and video instructions. You can use a smartphone app to record all the required information when you sample.

Once the water is filtered, the filters are put in an envelope, dropped off at a courier pick-up point and sent away for eDNA analysis. You can then track the progress of their sample analysis and eventually check the results on a web portal. Your sampling activity might be stand alone or coincide with other organized activities, like beach clean-up days.

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