

# BALTIC BLUE BIO- MASS BUSINESS / WP1 Cultivation tech- nique

**Origin by Ocean**

BSAP-2021-141  
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## **Executive summary of the project**

In the present work, we developed a small-scale industrial scale bladder wrack (*Fucus vesiculosus*) cultivation techniques for the northern Baltic Sea conditions.

The development work took place both in a laboratory and a field scales. As the results, we found that by manipulating environmental conditions during a reproduction period, it was possible to produce gametes outside the natural reproduction period. Gamete production and survival proportions were relatively high compared to wild populations. Juvenile growth was successful in the proper environmental conditions.

We conclude that it is possible to create the industrial scale method to produce juveniles in controlled conditions. Moreover, *Fucus vesiculosus* stand was able to intake nutrients (NO<sub>3</sub>-N) which is the most harmful source of eutrophication in the Baltic Sea. Therefore, *F. vesiculosus* cultivation is an efficient way to remove harmful nutrients from the Baltic Sea as well