



BalticWaters

Fish Laboratory

A research laboratory for exploring the Baltic Sea's fish species — from eggs to adults.

The Baltic Sea is not like other seas

It is a vast, almost completely enclosed sea area, with its only connections to the world's oceans through the Danish Straits and the North Sea. The species living in the Baltic Sea have adapted to this unique environment, and many of them live close to the limits of their natural distribution. These sensitive ecosystems, combined with the pressures from nearly 90 million people living in the catchment area, make the Baltic Sea highly vulnerable.

We often hear that the Baltic Sea is the world's most heavily trafficked, overfished and eutrophied sea. The challenges are many, and change takes time.

For us, a lifeless sea is unthinkable — and we believe you feel the same. Because there is no alternative, we need to keep the sea alive. Otherwise, we die a little too. It's a battle of life and death. And we are on the side of life.

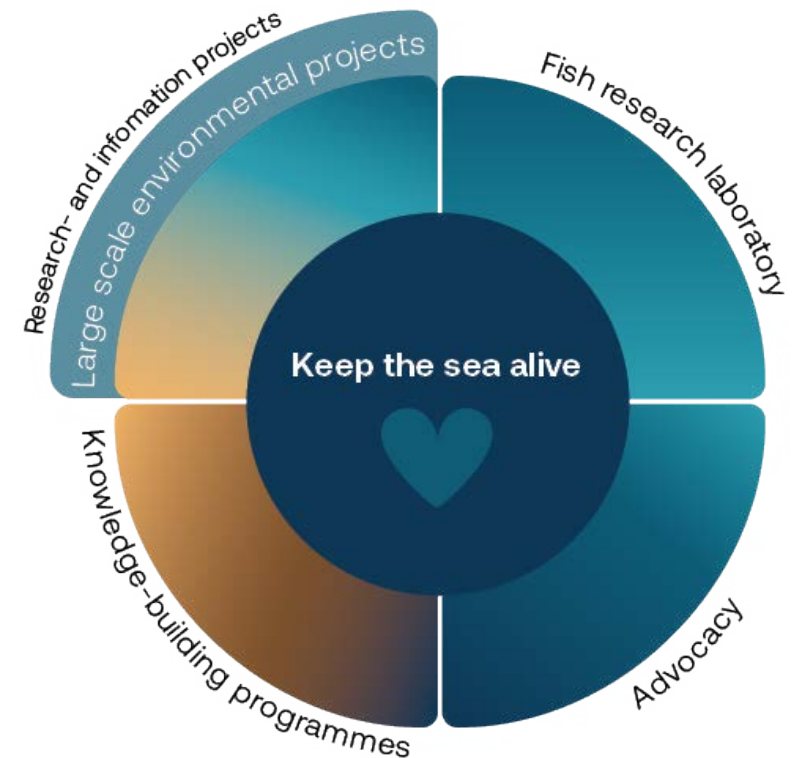
Keep the sea alive

BalticWaters' vision is a thriving Baltic Sea. Achieving this requires new knowledge that shows change is possible.

There is a need for a politically independent actor that works persistently and decisively to realize the vision.

The Baltic Sea is saved through action, not words.

That is why BalticWaters exists.



Innovation and science

The need to protect the Baltic Sea's ecosystem, biodiversity and natural resources has never been greater. At the same time, the need for new knowledge is critical. To create conditions for new research on reproduction and restocking of endangered fish species, BalticWaters is establishing a new research laboratory.

The laboratory will be a place where fish can be studied throughout all life stages in a controlled environment. Understanding how different stress factors affect fish health and resilience is crucial in a sea where environmental conditions are constantly changing. This knowledge will help promote long-term sustainable management of the sea and the ecosystem services it provides.

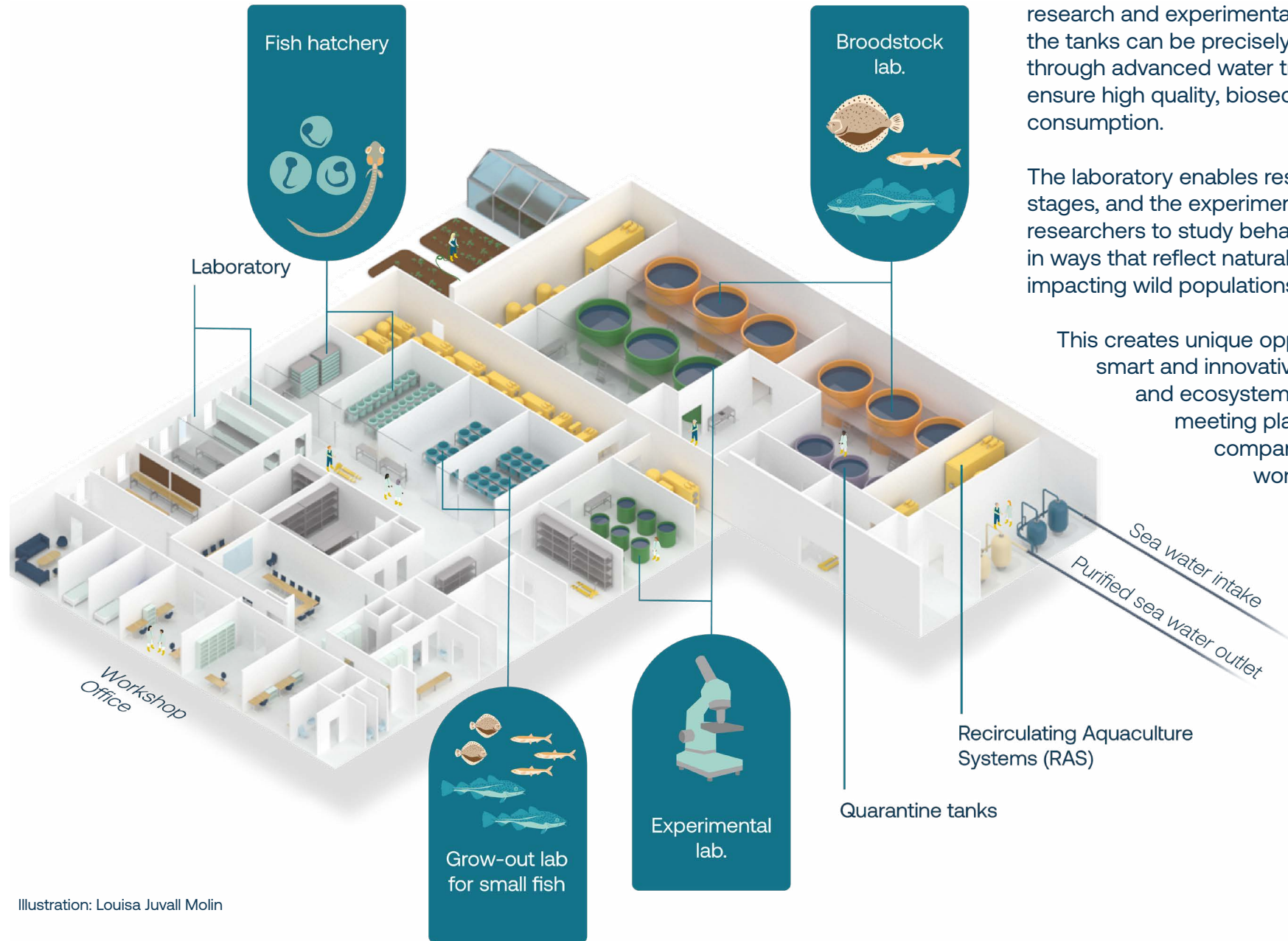
In addition to research, the laboratory will contribute to the development of new technologies and methods for sustainable land-based aquaculture, as well as for large-scale breeding, restocking and research to support the recovery of fish populations in the sea.

As a knowledge hub, the laboratory will enable research and support projects that contribute to:

- new knowledge on fish breeding and restocking
- recovery and conservation of fish stocks
- sustainable and circular aquaculture
- knowledge sharing to inspire action



A modular experimental environment



BalticWaters Fish Laboratory is a state-of-the-art research and experimental facility. The water in the tanks can be precisely controlled and adjusted through advanced water treatment systems that ensure high quality, biosecurity and low water consumption.

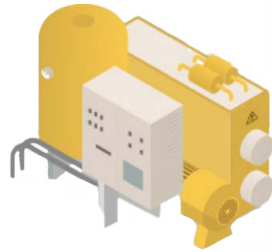
The laboratory enables research on fish at all life stages, and the experimental environments allow researchers to study behavior, growth and health in ways that reflect natural conditions — without impacting wild populations.

This creates unique opportunities for climate-smart and innovative research on fish and ecosystems and serves as a meeting place for researchers and companies from around the world who wish to study cold-water marine species.

Laboratory facilities

Recirculating Aquaculture Systems (RAS)

RAS are land-based systems that treat and recirculate the water in most of the laboratory's tanks. The water passes through mechanical and biological filters that remove particles, nutrients and organic waste. The system also regulates, among other things, temperature, salinity, and oxygen levels to create optimal conditions for different fish species and their life stages.



In total there are 21 RAS units of various sizes. Most are used to purify and circulate water in the tanks, while some are connected to treatment of water taken in from and released back into Tvären Bay.

Circular aquaculture

The nutrients remaining from the RAS units can be reused in test cultivation systems, offering opportunities for research on how residual products can be transformed into new resources. This also opens the possibility to study cultivation both on land and in aquaponic systems, where plants and fish interact in a circular system.

Quarantine tanks (3)

The first stop for newly arrived fish. Fish are kept in quarantine until they have acclimated. One RAS supplies all three quarantine tanks.

Broodstock tanks (6)

Here the brood fish live and spawn naturally. When spawning is successful, fertilized eggs are collected and transferred to the hatchery. There are six tanks connected to two separate RAS units.

Hatchery 1

A hatchery for demersal species such as cod. A total of 36 incubators connected to two separate RAS units.

Hatchery 2

A hatchery for pelagic species such as herring. Two hatchery units with 40 trays, connected to two separate RAS units.

Rearing laboratories 1 & 2

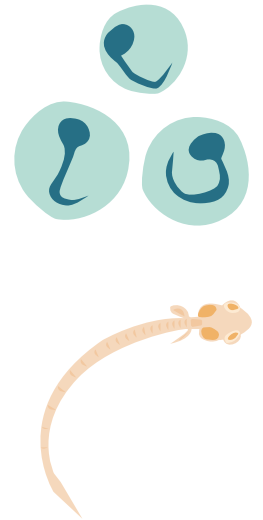
A total of 32 tanks distributed across four RAS units. Fish larvae are moved here once they reach the appropriate size.

Research tanks (3 + 9)

Used for experiments and comparisons of parameters such as water temperature, salinity, oxygen levels, pH and feed. Each tank is connected to its own RAS.

Experimental & feed laboratories

Dry and wet labs for instrumentation studies, chemical treatments, feed production/preparation and dissections.



Full service and expert support

At cost price

It is possible to rent part of or the entire laboratory at cost price. We provide access to water, treatment systems and fish, as well as technical expertise.

Expert support

Our experienced operations technicians, specialized in RAS, and our scientific reference group are available to support researchers.

Offices and other facilities

The laboratory includes office workspaces, meeting rooms and rest areas. Accommodation and a restaurant are available on site (Studs-vik Tech Park).

There are also a fully equipped workshop and a laboratory shop selling consumables.

Training in RAS and sustainable aquaculture will be offered in the future.



Projects at the laboratory, 2026/2027

ReCod — release of small cod in the Baltic Sea

BalticWaters

CLUPEA — Mapping the genetics of Baltic herring

Uppsala University

Contact information

Would you like to learn more about the laboratory's capacity and opportunities for collaboration? Please contact us!

Frida Tornberg, Head of Collaboration and Communication at
BalticWaters Fish Laboratory
Frida.Tornberg@balticwaters.org
+46 70-285 87 49

Konrad Stralka, Executive Director BalticWaters
Konrad.Stralka@balticwaters.org
+46 70-750 23 31

About BalticWaters

BalticWaters is an independent foundation with a single goal: to keep our sea alive. The foundation carries out environmental projects and conducts applied research to demonstrate which measures can contribute to a healthier Baltic Sea and resilient fish stocks.

BalticWaters also develops and disseminates knowledge about the sea to the general public, authorities, and decision-makers. The aim is to increase awareness of the challenges facing the sea and to build public support so that decisions are made and actions are taken.

WWW.BALTICWATERS.ORG

BalticWaters Fish Laboratory
Horsviksvägen 9a
611 99 Tystberga

Support our work
PG: 900779-0
Swish: 9007790



SVENSK
INSAMLINGS
KONTROLL