

Matre Research Station – state of the art



Photos: Øivind Torslett

BY TOM HANSEN

Since the opening in 1971, the research station in Matre, 80 km north of Bergen, has been the core facility for the salmonid research of the Institute of Marine Research and of several national and international collaborators. In 2006, the research station was totally modernised with new water supplies, new and better experimental facilities and new analytical laboratories.

Matre Research Station is designed to do both small and large-scale studies on present and future aquaculture species. The facilities are also excellent for studies on wild fish species, including climate-change studies and pollution related experiments.



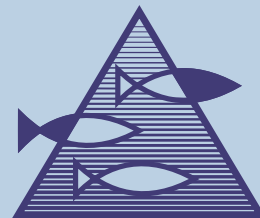
AQUACULTURE RELATED STUDIES

Fish nutrition – All tanks are equipped with an accurate feeding system and waste feed collectors.

Fish welfare studies – It is possible to study variations in parameters like temperature, salinity, water current, oxygen, carbon dioxide, feeding, photoperiod and light intensity, fish density etc. The facilities are equipped with state-of-the-art environmental control and monitoring systems.

Fish growth and reproduction – The environmental parameters can be controlled in





INSTITUTE OF MARINE RESEARCH
HAVFORSKNINGSINSTITUTTET

What is new?

- ▶ Temperatures down to 1 °C and up to 20 °C controlled to 0.1 °C accuracy all year round. Super-cooled water (below 0 °C) and water with temperature above 20 °C can be made available for shorter periods of time
- ▶ All salinities between 0 and 35 ppt
- ▶ Photoperiod and light intensity control
- ▶ Cycles (e.g. daily, monthly and yearly) in all water quality parameters can be programmed and closely monitored
- ▶ Water flow can be regulated in litres or to give a pre-programmed oxygen level in the outlet
- ▶ Oxygenated fresh or seawater can be added to all tanks
- ▶ Other gases or fluids (e.g. carbondioxid, ammonia) can be added
- ▶ Seawater with only 60 % saturation is available
- ▶ A large quarantine section enables work with animals with unknown health status, and the station is also certified for work with GMOs
- ▶ Tanks between 60 cm and 300 cm diameter (180 to 7000 litres)

Matre Research Station — state of the art

experimental tanks suited for a range of fish species, in small and large groups, and also on large broodstock.

A specialised laboratory for studies on individual fish (e.g. cannulation studies) is built. The laboratory is fully equipped with all water qualities, photoperiod control and waste feed collection. It is also integrated with a fully equipped analytical laboratory.

FISHERIES RELATED STUDIES

The facilities are excellent for short and long term studies on wild fish species like cod, herring, mackerel and horse mackerel. Possible issues are: how environmental factors and food availability affect growth and reproduction; how climate changes will influence on these processes; and how organic and inorganic pollutants will interact with the physiological processes. Consequences of the acidification of the seas are now to be studied in Matre. Modell studies will be used to find out how this change will effect the life of marine species.



INSTITUTE OF MARINE RESEARCH

Nordnesgaten 50
P.O. Box 1870 Nordnes
NO-5817 Bergen – Norway
Tel.: +47 55 23 85 00
Fax: +47 55 23 85 31

www.imr.no

TROMSØ DEPARTMENT

Sykehusveien 23
P.O. Box 6404
NO-9294 Tromsø – Norway
Tel.: +47 55 23 85 00
Fax: +47 77 60 97 01

FLØDEVIGEN RESEARCH STATION

NO-4817 His – Norway
Tel.: +47 55 23 85 00
Fax: +47 37 05 90 01

AUSTEVOLL RESEARCH STATION

NO-5392 Storebø – Norway
Tel.: +47 55 23 85 00
Fax: +47 56 18 22 22

MATRE RESEARCH STATION

NO-5984 Matredal – Norway
Tel.: +47 55 23 85 00
Fax: +47 56 36 75 85

RESEARCH VESSELS DEPARTMENT

Tel.: +47 55 23 68 49
Fax: +47 55 23 85 32

PUBLIC RELATIONS AND COMMUNICATION

Tel.: +47 55 23 85 38
Fax: +47 55 23 85 55
E-mail: informasjonen@imr.no

CONTACTS

Tom Hansen
Research Coordinator
Tel.: +47 56 36 75 11
E-mail: tom.hansen@imr.no

Øivind Torslett
Head of Station
Tel.: +47 56 36 75 11
E-mail: ovind.torslett@imr.no

