Grafisk utforming og produksjon: NINU Grafisk senter → NINU Kommunikasjonsavdetingi

STRATEGIC RESEARCH AREAS 2014-2023



NTNU - Norwegian University of Science and Technology

NTNU is Norway's largest university with 38,000 students and 6,400 full-time equivalents. NTNU has the main responsibility for higher education in technology in Norway. In addition to programmes in technology and the sciences, we offer a rich variety of disciplines in the social sciences, humanities, medicine, teacher education, architecture and fine arts. The whole university works together across all disciplines to create knowledge for a better world.

Through interdisciplinary cooperation, NTNU's strategic research areas address complex challenges of great importance for society.

NTNU Energy – developing knowledge about renewable and environmentally friendly energy for the world community NTNU Health – innovative solutions to complex health challenges

NTNU Oceans – knowledge for a sustainable ocean NTNU Sustainability – knowledge for change

NTNU OCEANS

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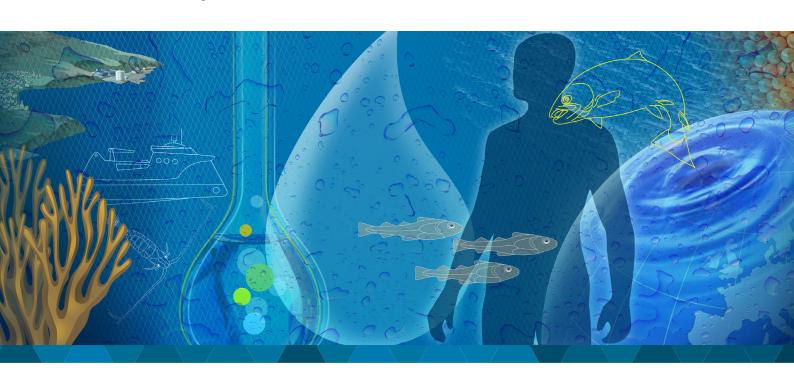


Strategic Research Area 2014–2023

NTNU OCEANS



Environmental interactions of seabased aquaculture













NTNU Oceans Pilot on Aquaculture – Environment Interactions



Photo: Aires Duarte

The NTNU Oceans pilot programs are multidisciplinary and highly innovative research studies where researchers and PhD students from different fields of expertise collaborate to increase the knowledge base. This program is in cooperation with NTNU Sustainability.

The main objective of this program is to establish an interdisciplinary research centre on environment interactions of aquaculture. The program combines the use of in-depth studies of biological processes of sea-based aquaculture with the use of monitoring technologies and numerical modelling to solve the challenges experienced by the industrial aquaculture sector.

The pilot platform involves active cooperation with the Norwegian aquaculture industry cluster and with the public sector. The activity in the program is therefore done in close collaboration with the stakeholders, thus providing highly realistic results for the whole sector. These will contribute to filling out the many knowledge

gaps currently existing in this field and to make research-based decisions for optimized aquaculture production. The ultimate goal is to reach sustainable sea-based salmon aquaculture production, with a high level of innovation and truly knowledge-based governance. Through the program, the active recruitment of technology, bio-(technology and social science students to the sector is stimulated.

Involved departments at NTNU:

Biology (Trondheim and Ålesund), Biotechnology and Food Science, Chemistry, Material Sciences and Engineering, Engineering Cybernetics, Energy and Process Engineering, Civil and Environmental Engineering, Marine Technology, Sociology and Political Science.

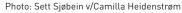


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Photo: Lone Sunniva Jevne

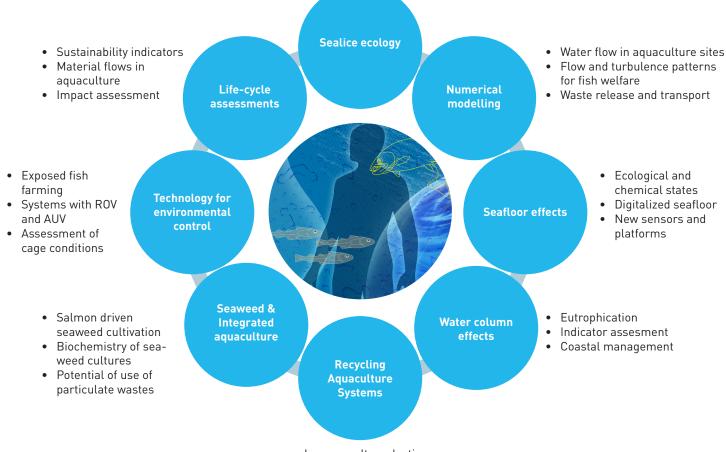








- Ecology and biology of sealice
- Interactions in fish farms
- Interactions with wild salmonid populations
- Focus on plankton stages
- Molecular tracing methods



- Large smolt production
- Functionality of biofilters
- Microbial conditions