

2nd Workshop on Marine Science between NTNU and NU

Nagasaki, 13th & 14th November

After the 1st workshop between NTNU and NU in August 2005 at Trondheim, "Agreement on Academic Cooperation" was established on 18 January 2006. Owing to this achievement, research collaboration has started in the area of aquaculture science. In the 2nd workshop, we will further continue identification of common interests for near-future cooperation.

Scheduled presentations on main activities and priorities (about 15-20 min):

Norwegian participants:

Egil Sakshaug Professor, Department of Biology,
Speciality: marine biology, climate, bio-optics
Title of presentation: Photobiology and studies of primary production in the sea

Kjell Morten Vaarum Professor, Department of Biotechnology,
Speciality: biotechnology, marine biochemistry, biopolymers, chitosan
Title of presentation: Value-added products from marine biopolymers

Yngvar Olsen Professor, Department of Biology,
Speciality: marine plankton, live feed technology, larval rearing, marine environment
Title of presentation: Aquaculture environmental interaction with coastal water

Trygve Eikevik Professor, Department of Energy and Processing Engineering,
Speciality: processing engineering, food engineering, drying
Title of presentation: Refrigeration and fish distribution

Harald Ellingsen Professor, Department of Marine Technology
Speciality: fishing technology, environmental effects of fishing, energy use
Title of presentation: Technology development and sustainability in the fishing fleet

Jo Arve Alfredsen Associate professor, Department of Technical Cybernetics
Speciality: Cybernetics, fisheries and aquaculture cybernetics, mathematical modelling, instrumentation and control systems, embedded systems, aquatic telemetry.
Title of presentation: Fisheries and aquaculture from a cybernetic perspective: Research topics at NTNU

Program

Tuesday 13th of November, 09:30-17:00. Bunkyo Campus, Nagasaki Univ.

09:30 – 10:00 Visit to **Hiroshi Saito** (President, Nagasaki Univ.)

Session 1 Research progress by Norwegian and Japanese participants

10:30 – 10:40 Welcome address
Hideaki Nakata (Dean, Faculty of Fisheries, Nagasaki Univ.)

10:40 – 12:40 Presentation by Norwegian participants, contributions of 20 min with questions from all participants (chair **Yngvar Olsen**)

- 1: 10:40 – 11:00 **Egil Sakshaug** (Professor)
“Photobiology and studies of primary production in the sea”
- 2: 11:00 – 11:20 **Kjell Morten Vaarum** (Professor)
“Value-added products from marine biopolymers”
- 3: 11:20 – 11:40 **Yngvar Olsen** (Professor)
“Aquaculture environmental interaction with coastal water”
- 4: 11:40 – 12:00 **Trygve Eikevik** (Professor)
“Refrigeration and fish distribution”
- 5: 12:00 – 12:20 **Harald Ellingsen** (Professor)
“Technology development and sustainability in the fishing fleet”
- 6: 12:20 – 12:40 **Jo Arve Alfredsen** (Associate professor)
“Fisheries and aquaculture from a cybernetic perspective: Research topics at NTNU”

12:40 – 14:30 Lunch

Session 1 Research progress by Norwegian and Japanese participants

14:30 – 15:45 Continued presentation by Japanese participants, contributions of 15 min with questions from all participants (chair **Atsushi Hagiwara**)

1: 14:30 – 14:45 **Tomohiro Takatani** (Associate professor)
“Marine toxins”

2: 14:45 – 15:00 **Yoshiki Matsushita** (Associate professor)
“Mitigating negative impacts of trawl fishing through gear modifications”

3: 15:00 – 15:15 **Ryo Kawabe** (Associate professor)
“Vertical movement patterns of Pacific Bluefin Tuna (*Thunnus orientalis*) and Dolphin Fish (*Coryphaena hippurus*) in northern part of East China Sea”

4: 15:15 – 15:30 **Mitsunori Iwataki** (Assistant professor)
“Morphology and phylogeny of *Cochlodinium polykrikoides* (Gymnodiniales, Dinophyceae) with the occurrence in the East China Sea”

5: 15:30 – 15:45 **Toshiaki Kudo** (Professor)
“Biotechnology of extremophiles, microbes in extreme environments”

15:45 – 16:00 Break

Session 2 Featured topic for promoting future exchange

16:00 – 17:00 Education programmes at NU, Faculty of Fisheries and Graduate School of Science and Technology (chair **Atsushi Hagiwara**)

19:00 - Dinner

Wednesday 14th November, 10:00-17:00. Nagasaki Univ. Bunkyo Campus

10:00 – 11:15 Continued presentation by Japanese participants, contributions of 15 min with questions from all participants (chair **Atsushi Hagiwara**)

- 1: 10:00 – 10:15 **Joji Ishizaka** (Professor)
“Requirement of different parameterization for satellite primary production model for the Japanese coastal zone”
- 2: 10:15 – 10:30 **Kazumi Matsuoka** (Professor)
“Harmful Algal Blooms in the East China Sea”
- 3: 10:30 – 10:45 **Atsushi Ishimatsu** (Professor)
“Marine animals in high CO₂, acidified oceans”
- 4: 10:45 – 11:00 **Atsuyoshi Manda** (Associate professor)
“Physical oceanography at Nagasaki University”
- 5: 11:00 – 11:15 **Koushirou Suga** (Postdoctoral fellow)
“Analysis of genetic information of the rotifer *Brachionus plicatilis*”

Session 3 with Norwegian and Japanese participants, further planning

11:15 – 12:00 Other issues to be discussed:

1. Identification of main themes for cooperation, discussions following presentations
2. Outline of a framework for the cooperation, including exchange of master students, doctoral students, and permanent personnel. What are the options that our universities offers, what are their requirements, and what are the other funding options available?
3. Joint project acquisition and international cooperation. Discussion on possibilities and constraints. Can we apply for joint international projects?
4. Cooperation within teaching

12:00 – 14:00 Visit to Nagasaki-Norway Friendship Association

15:00 – 17:00 General discussion

19:00 - Dinner