

Call for Participants in PICES Summer School 2026 on Ocean Biologging

- *Coastal Monitoring of Marine Life and Environment* –
(Sept 14-18, 2026, Hakodate, Japan)

Application deadline: May 15, 2026.

Organized by
Hokkaido University (Main Host),
Japan Fisheries Research and Education Agency (Local host),
Nagasaki University (Local host), and
PICES AP-NPCOOS (Advisory Panel: North Pacific Coastal Ocean Observing
Systems)



- Synopsis

The 5-day summer school on “Ocean Biologging” will focus on techniques for monitoring both the behavior of marine organisms and the environmental conditions they experience using biologging technology. The program will begin with introductory lectures on biologging, covering fundamental concepts, equipment, and parameters measured by biologging devices.

Following the lectures, participants will engage in laboratory demonstrations and hands-on exercises using live fish in a large experimental aquarium at the Hakodate Research Center for Fisheries and Oceans. Various fish species will be used, allowing participants to directly compare data across species and gain insights into species-specific behaviors. The practical sessions will teach students how to attach sensors to marine organisms, collect time-series data such as depth, acceleration, and body orientation, and analyze the data using the tags they have deployed themselves.

In addition to tracking animal behavior, students will also learn methods to collect and analyze environmental data, such as seawater temperature, using biologging devices. Through these integrated exercises, participants will develop a comprehensive understanding of how

biologging can be applied to study both marine organisms and their surrounding environments, bridging the gap between animal behavior and oceanographic processes.



- Objectives and Goals

The goal of this summer school is to provide students with a comprehensive understanding of modern biologging techniques used to monitor both the behavior of marine organisms and the environmental conditions they experience, across a wide range of temporal and spatial scales.

To achieve this, the program combines detailed lectures by local and invited experts with laboratory demonstrations and hands-on exercises. Participants will learn how to install biologging sensors, collect time-series data such as depth, acceleration, and temperature from tagged organisms, and analyze these data to gain insights into the interactions between marine life and their surrounding environment.

Topics to be covered include: biologging; marine biology; data logger attachment; collecting and processing of timeseries data; Analysis of marine organisms' behavior; GPS positioning; marine environmental monitoring.

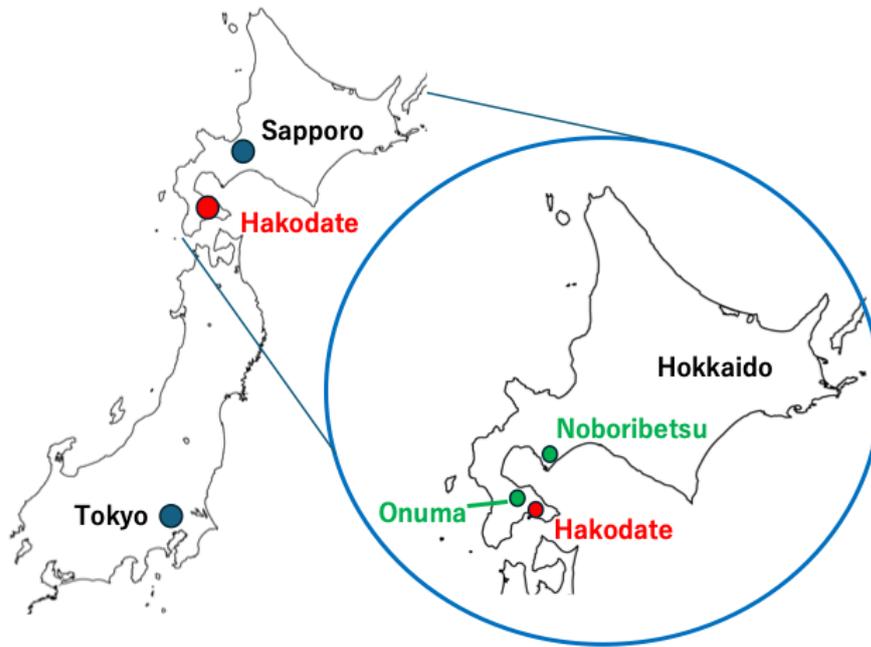
- Date

September 14 -18, 2026

(Arrival Sunday, Sep 13; Depart Saturday, Sep 19)

- Venue

- The summer school is based out of the Hakodate Research Center for Fisheries and Oceans (<https://center.marine-hakodate.jp/en/access/>) in Hakodate city, Hokkaido, Japan. During the summer school, some lectures and practical sessions will also be held at Onuma Park near Hakodate and at the aquarium in Noboribetsu city.



- Schedule

Day 1 — Monday (Sep. 14) Foundations for Field Biologging

(AM) Program Orientation & Introduction to Biologging (at HRC)

- Program orientation & self-introductions
- Introduction to Biologging: principles, technologies, and applications

Instructors: Dr. Miyashita (HU)

(PM) Tagging: Concepts & Hands-on Practice (at HRC)

- Lecture on tagging methods and considerations (attachment methods)
- Hands-on practice: equipment operation and attachment practice

Instructors: Dr. Zhu (HU) + Teaching Assistants (HU)

Day 2 — Tuesday (Sep. 15) Linking Aquarium Knowledge to Research Design

(AM) Lectures: Research on Large Marine Fishes (at Noboribetsu Marine Park Nixe)

- Current research topics, study design, and case studies on sharks

Instructors: Dr. Nakaya (HU)

(PM) Aquarium Tour (at Noboribetsu Marine Park Nixe)

Day 3 — Wednesday (Sep. 16) From Physical Processes to Field Measurements

(AM) Lectures: Environmental Physics & Cyanobacterial Blooms in Onuma (at Onuma Park)

- Marine environment and physical processes

Instructor: Dr. Tanaka (NU)

- Cyanobacterial bloom occurrence and environmental conditions in Onuma

Instructor: Dr. Minami (HU)

(PM) Field Practice: GPS Tracking & Environmental Survey by Boat (at Onuma Park)

- GPS-based movement tracking exercise

Instructors: Dr. Zhu (HU) + Teaching Assistants (HU)

- Boat-based environmental survey and measurements in Lake Onuma

Instructors: Dr. Honma (FRA) + Dr. Yamaguchi (FRA) + Dr. Tanaka (NU)

Day 4 — Thursday (Sep. 17) From Data Recovery to Analytical Workflow

(AM) Observation: Fish Retrieval + Lecture on Biologging Research (at HRC)

- Observation of fish retrieval procedures
- Lecture: Biologging research overview and applications

Instructor: Dr. Suzuki (HU)

(PM) Data Analysis Session (at HRC)

- Data retrieval, basic processing, and analysis exercises

Instructors: Dr. Zhu (HU) + Teaching Assistants (HU)

Day 5 — Friday (Sep. 18) Communicating Results & Synthesis

(AM) Data Analysis & Presentation Preparation (at HRC)

- Final analysis, figure/table making, slide preparation

Instructors: Dr. Zhu (HU) + Teaching Assistants (HU)

(PM) Presentations & Wrap-up (at HRC)

- Group presentations
- Feedback, wrap-up, and closing remarks

HRC: Hakodate Research Center for Fisheries and Oceans

HU: Hokkaido University

FRA: Japan Fisheries Research and Education Agency

NU: Nagasaki University

- Participation and Eligibility

- 15 participants
- Preference to PICES member nations, but open to others, especially in the North Pacific rim
- Graduate school students and early career scientists (less than 5 years after obtaining Ph.D.) are encouraged.
- Encourage participants whose research is related to or will benefit from the summer school curriculum content.
- Submission and Registration Fee: Free

- How to APPLY:

- Submit an application package, which includes:
 - a) Brief CV
 - b) Statement of Interest (1 page maximum)
 - c) Needs for the partial travel support and Accommodation Preference Form

to the organizer: pices2026summer@fra.go.jp, via email attachment by

May 15, 2026.

- APPLICATION FORM

- The organizer will send a confirmation email upon receipt of your submission. If you do not receive a reply within 5 days after sending your email, please contact the organizer again.

- Important Dates

March 2026	Call for applicants open
15 May 2026	Applications due
1 June 2026	Selection decisions made
15 June 2026	Invitees confirm participation
	Issuing the invitation letters for visa applications
14 -18 September 2026	Summer School

- Logistics and Costs

- On-site costs

The organizer will provide lunch, lab and experimental aquarium use, ground transportation between the designated hotel (HakoBA Hakodate, see below) and the venue, ground transportation for the field trips to Onuma and Nobiribetsu, vessel use in Onuma Park, aquarium admission fee in Noboribetsu, and lecture rooms to participants, but participants must cover breakfast, dinner and accommodation themselves.

- Accommodation

Participants are expected to stay at a local hotel in Hakodate downtown (HakoBA Hakodate by THE SHARE HOTELS, <https://www.thesharehotels.com/hakoba/>). Supermarkets, shops and restaurants are available in the downtown area.

Accommodation will generally be in shared rooms (maximum 4 – 8 persons per room). However, participants who prefer a single room or a different hotel in the city may make their own arrangements. Applicants are asked to indicate their accommodation preference (shared or single room or different hotel) in their application package. For shared rooms, the accommodation fee is expected to be approximately JPY ¥4,000 (CAD \$40) per person per night, if a room is shared by 4 persons or more. For questions regarding accommodation details, please contact us at pices2026summer@fra.go.jp.

NOTE that the transportation to and from the venue will be provided only between the venue and the designated hotel (HakoBA Hakodate). Participants staying at other hotels are requested to make their own way to and from the designated hotel.

- Travel Support

Participants are responsible for covering their travel costs to and from Hakodate, Japan. Partial travel support will be available for the accepted applicants from the PICES member countries (Canada, China, Korea, Japan, U.S.A, and Russia) upon their request in their application package. Participants from non-PICES member countries are NOT eligible for the travel support. The amount awarded will be determined by PICES Secretariat based on the submitted application packages. We typically would not provide much financial support to applicants that are more local to the venue and provide more support to those that have more expensive flights. After notifying successful applicants of their acceptance from the organizer, PICES sends financial support notifications to them, and if they accept the offer, they receive the awarded amount onsite when their in-person attendance is confirmed.

- Local Public Transportation

For the access to the venue and to JR Hakodate station from the Hakodate Airport, please refer to the website of the Hakodate Research Center for Fisheries and Oceans (<https://center.marine-hakodate.jp/en/access/>) and the Hakodate Airport (<https://www.hokkaido-airports.com/en/hakodate/access/bus/>).

For the access to the designated hotel from the JR Hakodate station, please take a tram for "Hakodate Dock Mae" and get off at the tram station "Suehirocho" (10 min). From the tram station, about 5 min walk to the hotel (see the hotel's website above for the detailed location).

- Organizers

Primary Sponsor:



PICES (North Pacific Marine Science Organization) Advisory Panel on *North Pacific Coastal Ocean Observing Systems* (AP-NPCOOS)

Local Hosts and Funding Sponsors:



Hokkaido University, Field Science Center for Northern Biosphere (Main host)

Japan Fisheries Research and Education Agency (FRA)



Nagasaki University



MEXT (KAKENHI JP22H05200 - Macro Coastal Oceanography -)

Principal Organizers:

Takahiro Tanaka (Nagasaki University, AP-NPCOOS, Japan)
Yanhui Zhu (Hokkaido University)

School Coordinators:

Kazushi Miyashita (Hokkaido University)
Kenji Minami (Hokkaido University)
Yanhui Zhu (Hokkaido University)

Steering/Selection Committee (SSC):

Takahiro Tanaka (Nagasaki University, AP-NPCOOS, Japan)
Hikaru Homma (FRA, AP-NPCOOS, Japan)
Akira Yamaguchi (FRA, AP-NPCOOS, Japan)
Kazushi Miyashita (Hokkaido University)
Yanhui Zhu (Hokkaido University)
Sung Yong Kim (AP-NPCOOS, Korea)
Jack A. Birth (AP-NPCOOS, USA)

Instructors:

Kazushi Miyashita (Hokkaido University, Principal Lecturer)
Kenji Minami (Hokkaido University)
Yanhui Zhu (Hokkaido University)
Kazuhiro Nakaya (Hokkaido University)
Ippei Suzuki (Hokkaido University)
Hikaru Homma (FRA, AP-NPCOOS, Japan)
Akira Yamaguchi (FRA, AP-NPCOOS, Japan)
Takahiro Tanaka (Nagasaki University, AP-NPCOOS, Japan)

- Contact and Cancellation

If you have any problems or questions, please contact pices2026summer@fra.go.jp. Also, contact us at your earliest convenience in case of cancellation of your participation.