"Linking past and present marine ecosystems to inform future fisheries and aquaculture"

Webinar meeting Host of webinar, Arctic Research Center, Hokkaido University Date: 30 May – 4 June, 2021

Ecosystem Studies of Subarctic and Arctic Seas (ESSAS), one of the regional programs of the Integrated Marine Biosphere Research project (IMBeR). The goal of the ESSAS Program is to compare, quantify and predict the impact of climate variability on the productivity and sustainability of Subarctic and Arctic marine ecosystems. Although the ESSAS Annual Science Meeting (ASM) scheduled in July 2020 had to be canceled due to COVID-19, the **2021 ASM will be held as a webinar (web seminar) style meeting (as of 30 Jan, 2021)**.

Both academic communities and local stakeholders in Hokkaido are interested in how Arctic and sub-Arctic marine systems will change in the future. Of relevance to these concerns is information from the natural and social sciences, including economics. The 2021 ESSAS ASM will build on a previous international project funded by the Belmont Forum, which examined the resilience and adaptive capacity of Arctic and sub-Arctic marine systems. We seek to understand the mechanisms by which climate change will affect aquaculture and capture fisheries, how these changes will affect resource-dependent communities, and how management can foster resilience in these systems.

We welcome submission of abstracts to the General Session of the 2021 ASM on 1 June to address the above themes. Specifically, we seek contributions that draw on findings from all fields, including paleoecology, contemporary ecology and the social sciences, to help inform our understanding of future changes affecting fisheries and aquaculture in high-latitude marine ecosystems. In addition, we would like to invite you to the virtual excursion to renewal "UPOPOY, National Ainu Museum and Park*". Please access to the following URL, https://ainu-upopoy.jp/en/ and click the YouTube mark on the top page of website for vertical excursion in the museum.

We look forward to productive discussions with many participants!

* https://ainu-upopoy.jp/en/

- Deadline for abstract submission: 15 Mar, 2021
- Deadline for registration on the website: 30 April, 2021
- For registration & abstract submission, please go to:

https://essas.arc.hokudai.ac.jp/what_s_new/2021-essas-annual-science-

meeting/

If you have submitted your abstract at the last year, please submit it again. Thank you for your cooperation.

• Registration fee: Free

• The URL of the web conference will be sent to those who have registered for participation by email the day before the event.

Program: (Date and time in Japan Standard Time)

30 May (Sun)

18:00–19:00 (Live, in Japanese)Public session "Marine Mammal (tentative title)" by Dr. Yoko Mitani, Associate Prof., Hokkaido University

31 May (Mon)

Contribution from ESSAS community to the local communities in Japan

Live (L), In Japanese (J), In English (E), Simultaneous translation of Japanese-English (J-E or E-J), On-demand contents in English (ODE)

09:00–10:25 JST = 17:00–18:25 Pacific Daylight Time = 02:00–03:25 Central European Summer Time 13:00–15:00 JST = 21:00–23:00 PDT = 06:00–08:00 CEST

09:00-09:05	Welcome address by Prof. Fukamachi, Director of Arctic Research Center,
	Hokkaido University (L, J, J-E)

- 09:10–09:35 Keynote talk 1 "The song of the spring, the story of the wind: Relationships among air, sea, ice, people and Pacific herring (*Clupea pallasii*) in the past, present and future" Dr. Naoki Tojo Assistant Prof. Hokkaido University (L, J, ODE)
- 09:35–10:00 Keynote talk 2 "Assessing and managing fish stocks in a rapidly changing environment" Dr. Franz Mueter, Professor of Fisheries, University of Alaska Fairbanks (L, E, E-J)
- 10:00–10:25 Keynote talk 3 "Community resilience under rapid socio-environmental change. But how can we enhance it?" Dr. Aoi Sugimoto, Researcher, National Research Institute of Fisheries Science (L, J, ODE)

10:25–13:00 Lunch break

13:00–15:00 Discussion led by Prof. Makino (Identify key issues & challenges; identify ways to enhance collaborations between scientists and stakeholders) (L, J, J-E/E-J)

1 June (Tue)

Contribution from ESSAS community to the Japanese ESSAS related community Three hours general sessions will be held in the morning and evening. 05:00–08:00 JST = 13:00–16:00 PDT = 22:00–01:00 CEST 15:00–18:00 JST = 23:00–02:00 PDT = 08:00–11:00 CEST

- 05:00–06:15 General Session (15min x 5 talks)
- 06:15–06:35 Break
- 06:35–07:50 General Session (15min x 5 talks)

15:00-16:15	General Session (15min x 5 talks)
16:15-16:35	Coffee break
16:35-17:50	General Session (15min x 5 talks)

2 June (Wed)

Contribution from ESSAS working group (PESSAS and AnalogueArt) Leader of the working group will decide schedule and time.

Plenary talks based on sharing methods and data sets available (PESAS and AnalogueArt) Open discussion (on potential challenges and strategies for connecting paleo-and neo-data sets with reference to conceptual and methodological issues e.g., working assumptions, chronological resolution, averaging, scaled and unscaled variables...)

3 June (Thu) (Only SSC)

05:00–08:00 ESSAS SSC meeting 05:00–08:00 JST = 13:00–16:00 PDT = 22:00–01:00 CEST

Virtual Excursion

UPOPOY, National Ainu Museum and Park opened on 24 April, 2020 in Shiraoi, Hokkaido Japanese site https://ainu-upopoy.jp/library/

English site https://ainu-upopoy.jp/en/

Sites in Chinese, Taiwanese, Korean, Thai and Russian are available.

Schedule of ESSAS ASIM webliat								
	30-May	31-May	1-Jun	2-Jun	4-Jun			
AM		Stakeholder Meeting (Presentation)	General Session	Working Group Session	SSC			
РМ	Preparation of webinar Public Session	Stakeholder Meeting (Discussion)	General Session	Working Group Session				
Host place	Arctic Res. Center, Hokkaido Univ.							

Schedule of ESSAS ASM Webinar