



RESEARCH PROJECT

**BIOrdinary**

BIODIVERSITY DILEMMAS IN ORDINARY PLACES

BIOrdinary Summer School 2024

**Place:** Tjärnö, Sweden

**Date:** 17-19<sup>th</sup> June (arrival evening 16<sup>th</sup>)

## Blue BIOrdinaries: Multi-disciplinary methods and vernacular understandings of marine biodiversity shifts

This year's BIOrdinary Summer School takes us to the West Coast of Sweden, between the 16<sup>th</sup> and 19<sup>th</sup> of June, based at the Tjärnö Marine Laboratory.



The Summer School is multidisciplinary, and participants interested in exploring the points of contact between the human and non-human worlds may be both MA and PhD students, as well as to other professionals.

During the Summer School we will explore vernacular understandings of marine biodiversity in local life and ordinary places. To do this, we will meet several actors/stakeholders who have daily interactions with marine worlds: marine biologists, government officials, entrepreneurs working with aquaculture and tourism, educators in museums, and representatives of the local population. Through excursions, conversations, and time spent in the laboratory, the participants of the summer school will learn how different actors perceive marine biodiversity and its changes. We will learn about their methods and ways of knowing the sea, and we will visit sites that help us understand the practices and predicaments by which they interact with and know marine species. Parallel to the school's emphasis on learning from "multispecies human brokers", interactive discussion and reading sessions will provide opportunities to exchange ideas and process the experiences in the light of academic and disciplinary interests and concerns.

Life in most places unfolds in relation to constantly changing circumstances and multitudes of other living beings that constitute multi-species entanglements. Thus, the focus of the BIOrdinary Summer School this year is vernacular marine entanglements. Vernacular marine entanglements encourage us to think beyond the binary of endemic, native species with a right to belong and "invasive" species out of place that has been a dominant starting point for ecological research and policy agendas on biodiversity. Attentiveness to vernacular understandings gives us an opportunity to explore different perceptions of the environment from biologists, locals, multispecies brokers, and perhaps also the sea creatures themselves. By engaging with a range of different ways of knowing and being (entangled), we explore the predicaments along with challenges when it comes to defining and practicing biodiversity. Considering more basic ontological differences in these perceptions as well as possibilities for what we call "troubled coexistence," the school also asks critical questions about what a more inclusive multispecies biodiversity agenda might entail.

For more information and registration contact:

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## Program

### **Arrival, Sunday, 16 June 2024:**

9.29 – Train Departure from Stockholm Central Station to Strömstad (arrival 15.27)

15.40 - Departure by cars or buss to Tjärnö Marine Laboratory (arrival 16.00)

Afternoon- evening: Arrivals at Tjärnö Marine Laboratory

18.00 – Welcome and some refreshments (no dinner)

18.30 – Getting to know each other

19.30 – **After Dinner Talk 1:** Dolly Kikon and Neivikhotso Chaya Opening the Exhibition '*Old Ocean in the Himalayas: Indigenous Ecology, Geology, and Landscape.*'

## Day I, Monday, 17 June 2024: Marine Biology Research Lab



The theme of day one is changing marine biodiversity and exploring it through biological methods in the field and lab. During the day we will learn how to observe the marine biodiversity in two locations, and take some samples for the afternoon experiments in the marine lab. We will focus on learning to see significant qualities and note relevant quantities, and to understand what they can teach us about the relationships between different species. For instance, we will learn to tell different marine species from each other, and guess at what possible relationships they prefer and thrive with.

Focus: habitats, ecosystems, ways of seeing, “rubber-boots” and “snorkeling” methods, the art of counting, measuring and noting.

- What are the specific tools and skills that are needed for marine research?
- Which species did we find, and how do they interact in their habitat?
- How are the “invasive” Pacific oysters relating to other species that we found around them? What sort of places (and habitats) did we find this new species in (i.e. what are their preferences)?
- What did we learn from biologists that we did not have any idea of before?
- How could anthropology potentially broaden the biological understanding of marine species and their entanglements?
- How have marine biologists conceptualized and understood changes of biodiversity in the area over the years?

8.00 – 9.00 Breakfast

9.00 – 10.00 Opening session: Welcome (again) and introduction to Summer School (Biordinary Team)

10.00 – 11.00 Exploring sea biodiversity, marine biologist methods (Åsa Strand)



- What is the perspective of different actors on marine “invasive alien species”, on Pacific oysters, and on endangered species (or species on decline such as European oysters and Blue mussels)?
- How has biodiversity shifted over the years? Given that biodiversity is a relatively new and specialized concept, how have inhabitants and experts conceptualized and understood changes in the area?

8.00 – 9.00 Breakfast

**Excursion II:**

9.00 – 10.00 Trip to Strömstad by car

10.30 – 11.15 Boat from Strömstad to Koster, Ekenäs

11.30 – 12.30 Aquaculture and living off the Sea: Meeting the personnel at OSTREA oyster hatchery

12.30 – 13.30 Lunch (lunch box)

13.30 – 14.30 Sea biodiversity in protected areas (Anita Tullrot, Marine nature conservation manager at County Board of Västra Götaland)

14.30 – 15.30 Walk ‘n’ Talk Conversations, walk to Sillsalteriet Sibirien (3 km)

15.30 – 16.45 Living by the Sea: Koster Hembygdsförening (Göran Larsson) and Kosterers samhällsförening (Mariam Örn)

16.50 – 17.35 Boat from Koster, Långegärde to Strömstad

17.35 – 18.05 Trip by cars back to Tjärnö Marine Laboratory

18.00 – 19.00 Dinner

19.00 – 20.00 **After Dinner Workshop: Summer School Themes**

Followed by free discussions between participants



## Day III, Wednesday, 19 June 2024: “If you can’t beat them, eat them” – Marine Nutrients: Subsistence and Pleasure (Lab)



On the last day we plunge again into the shallow bays of Bohuslän, in our rubber-boots and snorkels, to forage marine species that can turn bare subsistence into an exquisite feast. Could this be a future way towards new ways of knowing the sea, and new practices of relating to its more-than-human world and lives? In *The Gospel of the Eels*, Patrik Svensson suggests that the ban on eel fishing also leads to a loss of knowledge about the eels, a loss of a centuries if not millennia long relationship between humans and these marine creatures. The need for food and dependency on the environment have through history connected humans with other species, in existential and spiritual ways, lost in the modern quest for omnipotent and merciless human government. On this last day of the Summer School we try to feel and sense what sort of connections there might be between gatherers and their victims today.

Focus: gathering; more-than-human relationships; sensing, tasting, smelling and feeling the multispecies entanglements; subsistence; luxurious tourism; “rubber boots” methods; the art of knowing.

- How does it feel to gather marine species?
- What qualities of relationships can there be with other species?
- How does tourism compare to aquaculture when it comes to use of marine resources?
- Which different ways are there to live off the sea, and by the sea?
- How does the knowledge gained through marine science compare to knowledge gained through using a species (and sea) for existence?

7.15 – 8.00 Breakfast

8.00 – 9.00 Leaving Tjärnö Marine laboratory and travel by car to Grebbestad

9.00 – 13.00 **Excursion III:** Gathering local algae with Linnea Sjögren

(including 12.00 – 13.00 lunch with touch of algae)

13.00 – 14.00 Summing up and departure to Strömstad

14.32 Train from Strömstad to Stockholm (arrival 20.29)



# Excursion Descriptions

## **Excursion Day 1:**

The first day starts off with fieldwork tours to a nearby shallow bay, Svalhagen, where one group will collect the samples by wading in rubber-boots, whilst the other group will go on foot to Saltö and free-dive at the locality of Inre Vattenholmen. Both localities are known as places where the newcomer Pacific oysters (*Magallana gigas*) thrive, have established themselves, and proceed to change the soft soil of the bays into a harder substrate of oyster clusters and emergent oyster reefs. We will take the proofs to the Marine Laboratory and test some basic marine experiments and analysis methods in order to see which species share the habitat and in which manner they do that in this kind of ordinary place. Our marine cicero on this day will be Åsa Strand, researcher at IVL and Sweden's foremost expert with decades long experience of Pacific oysters.

## **Excursion Day 2:**

The second day of summer school will take us to Koster islands, where we will meet three different groups of local people who live close to and with the sea. We will start at the Naturum museum, meeting biologist and marine nature conservation manager at County Board of Västra Götaland, Anita Tullrot, who works with governance of marine biodiversity in the protected areas of Koster islands. After that we will visit the local oyster hatchery OSTREA, where innovative experiments are done in order to produce samplings of Pacific oyster's oyster-predecessor on these shores, European oyster (*Ostrea edulis*). The idea of this hatchery is to produce *Ostrea edulis* samplings for export to European oyster farms. Lastly, we will walk to a place where herring was formerly stored for conservation and is today turned into a local museum. There we will meet two local representatives who will tell us how it is to live on Koster and relate to the sea, its species, and their changing qualities and characteristics.

## **Excursion Day 3:**

The summer school will end with a day out in and close by to the sea, learning how to gather local (wild) algae and use them for food. We will gather local algae with Linnea Sjögren (<https://catxalot.se/>) starting from Grebbestad. After we have our sea food, we cook together and enjoy the fruits of our gathering labor.



**Exhibition Details:** *Old Ocean in the Himalayas: Indigenous Ecology, Geology, and Landscape* (displayed for duration of summer school).

Old Ocean in the Himalayas is a research meditation and exploration curated by Naga anthropologist Dolly Kikon and geologist Neivikhotso Chaya. Adopting a framework of decolonization to address an extractive regime that considers mountains and rivers as lifeless entities for humans to assert their dominance, this exhibition draws on Indigenous lifeworlds of salt, land, and soil.

Old Ocean in the Himalayas invites us to dwell on the human spirit of endurance. Following traditional methods of making salt among the Naga people in the Eastern Himalayas, this exhibition showcases how deep histories of land, geology, and time are intertwined through salt, stories, and spirits.

The essence of existence for Indigenous communities lies in interdependence. Their assertion of being Indigenous is not a claim of superiority over the earth and its resources but a commitment to maintaining ties with the past and the present. Old Ocean in the Himalayas explores these delicate connections by layering the geological history with the cultural relations in the Naga homeland.

