

# Master thesis topics

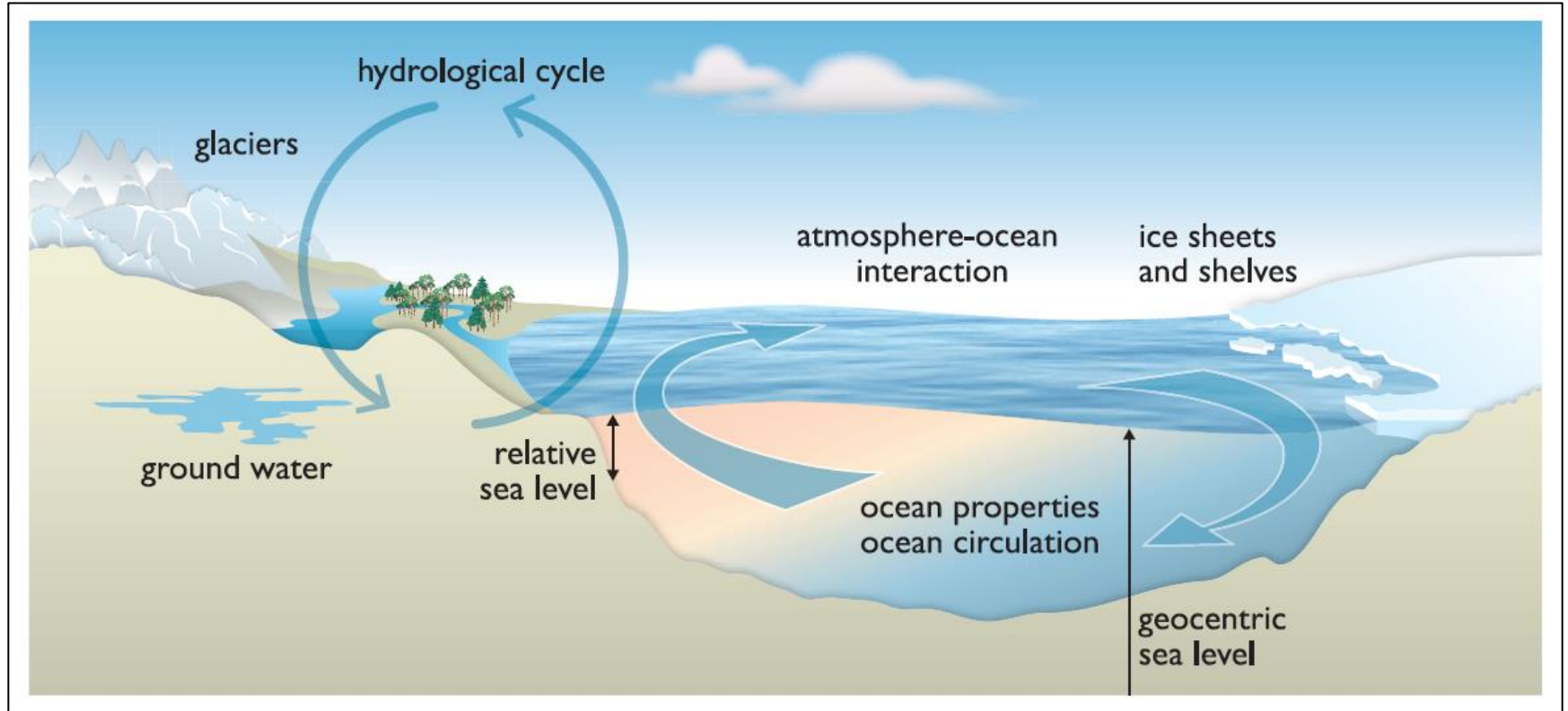
## Physical Geography (sea level)

### 2025

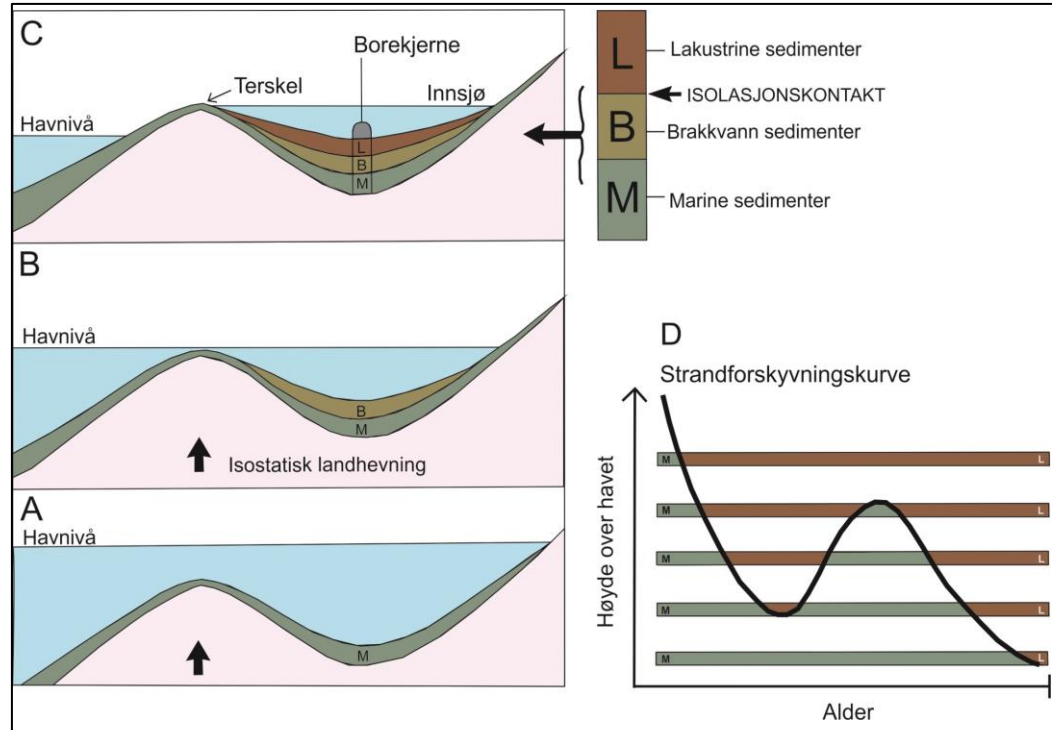
[Kristian.Vasskog@uib.no](mailto:Kristian.Vasskog@uib.no)



# Sea-level change



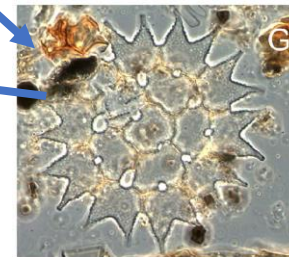
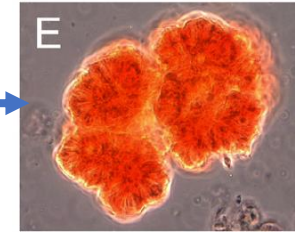
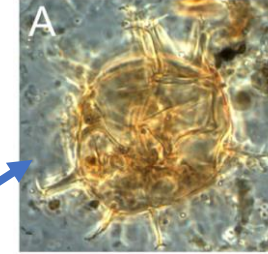
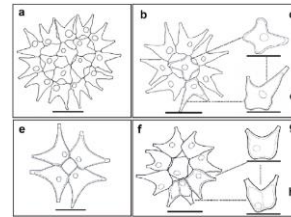
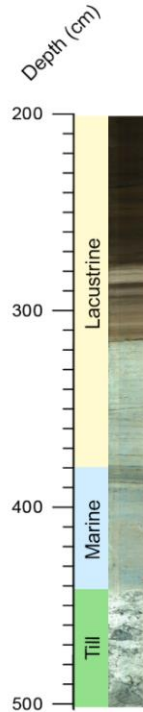
# Reconstruction of past sea level: Isolation basins



# Reconstruction of past sea level: Fieldwork

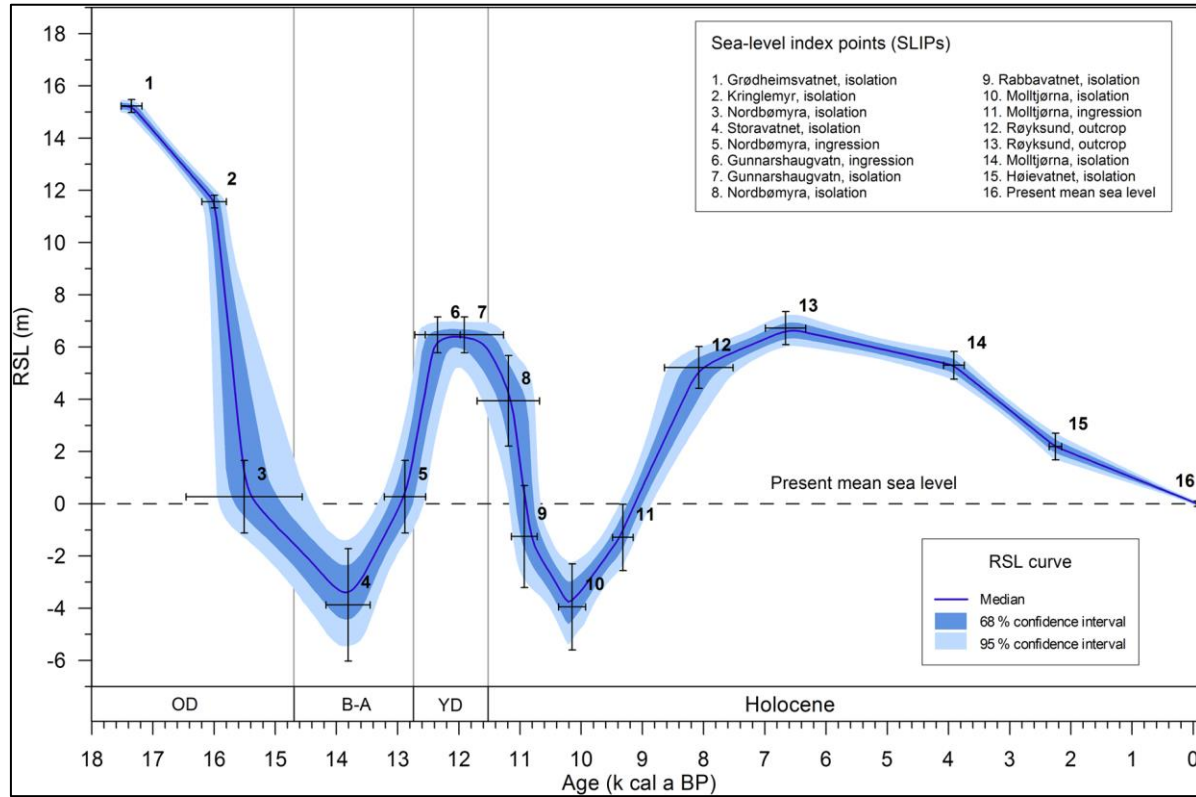


# Reconstruction of past sea level: Lab work



Phytoplankton analysis



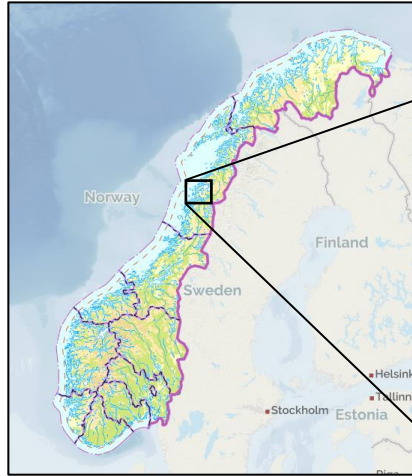


- Relative sea-level curve from Karmøy (Vasskog et al., 2019)



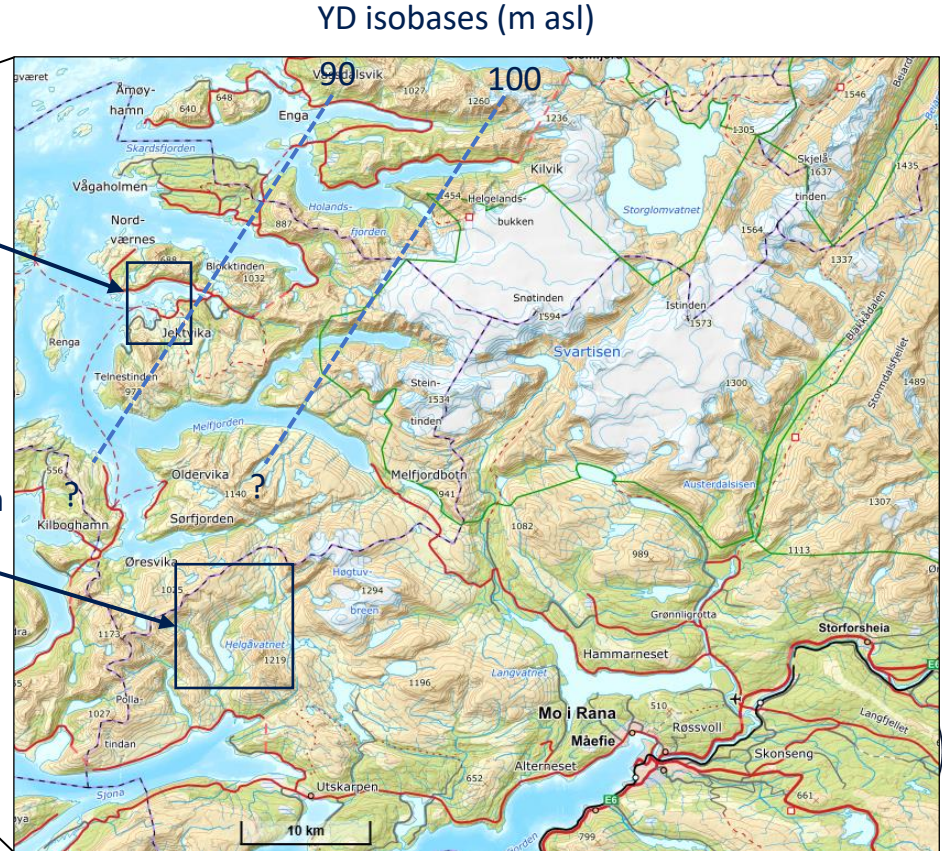


# Study area: Svartisen (Rana)



Jektvika: Existing  
sea-level curve

Potential new  
sites: 112 m, 99 m  
and 85 m asl



# Study area: Svartisen (Rana)

## 1-2 Master projects

- Mapping with focus on shoreline features
  - Reconstruct Late Glacial and Early Holocene relative sea-level (RSL) history
  - Isolation basin analysis (lake coring)
  - Shoreline analysis Rødøy-Melfjord-Langvatnet
- 
- Main supervisor: Kristian Vasskog

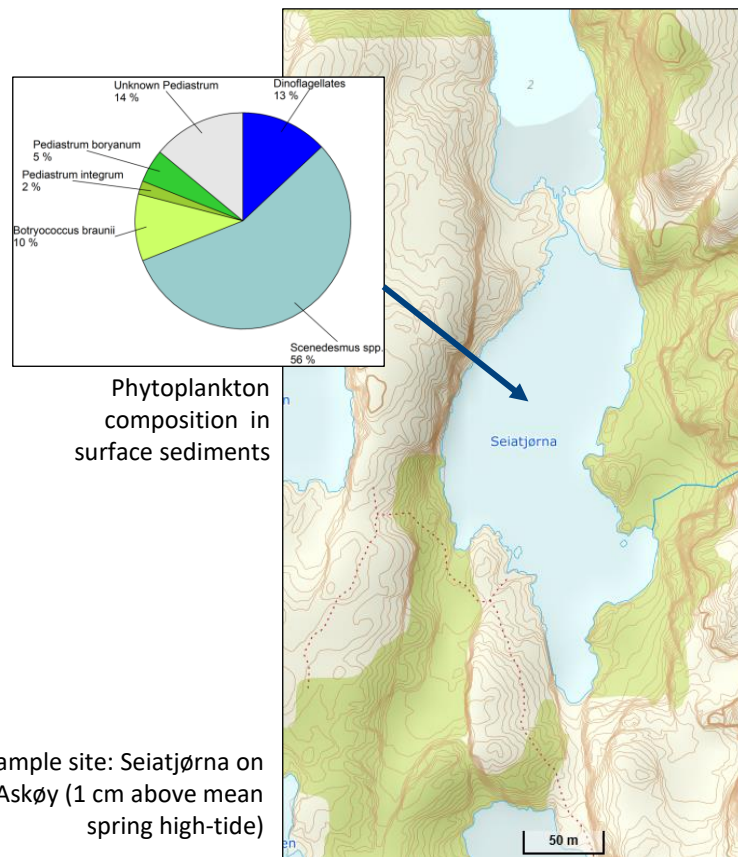


Gårdsvatnet, Rødøy. Coring in summer 2021



# Method development: Phytoplankton analysis

- 1-2 Master projects
- Field area: Western Norway
- Fieldwork: Collect CTD profiles (temperature, salinity, density) and surface sediment samples from low-lying isolation basins (in the process of isolation)
- Lab work: Preparation and analysis of phytoplankton samples
- Research aims: Develop a modern-day calibration dataset to infer salinity from phytoplankton analysis in isolation basins (qualitatively or quantitatively)
- Main supervisor: Kristian Vasskog
- Co-supervisor: Jan Magne Cederstrøm (Earth Science)



Example site: Seiatjørna on Askøy (1 cm above mean spring high-tide)

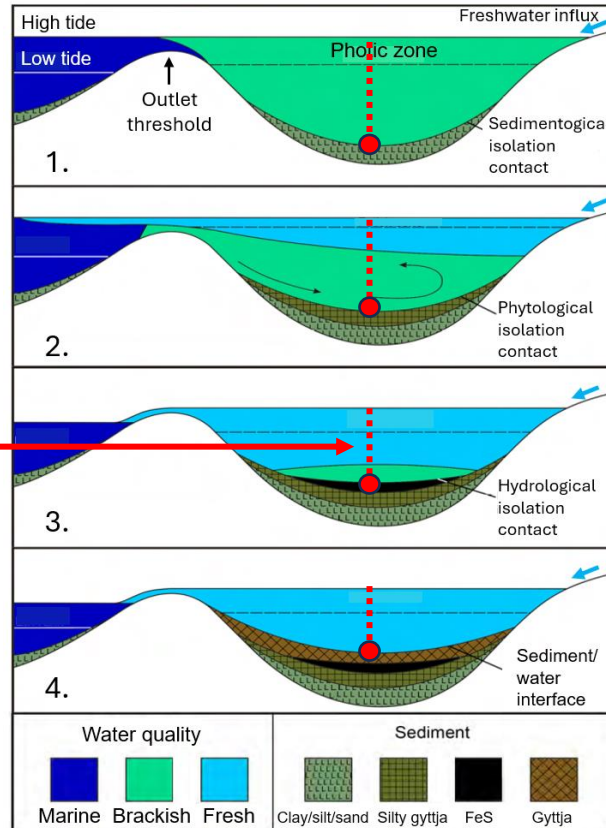
# Method development: Phytoplankton analysis

Modern basins in different stages of isolation

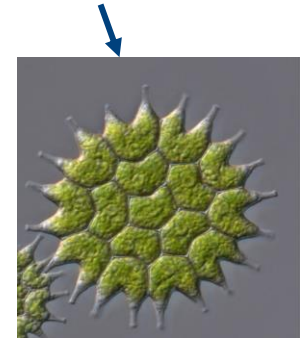
CTD profiles (repeat for different seasons)



SonTek CastAway CTD



● Surface sediment samples



Analyze phytoplankton content





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