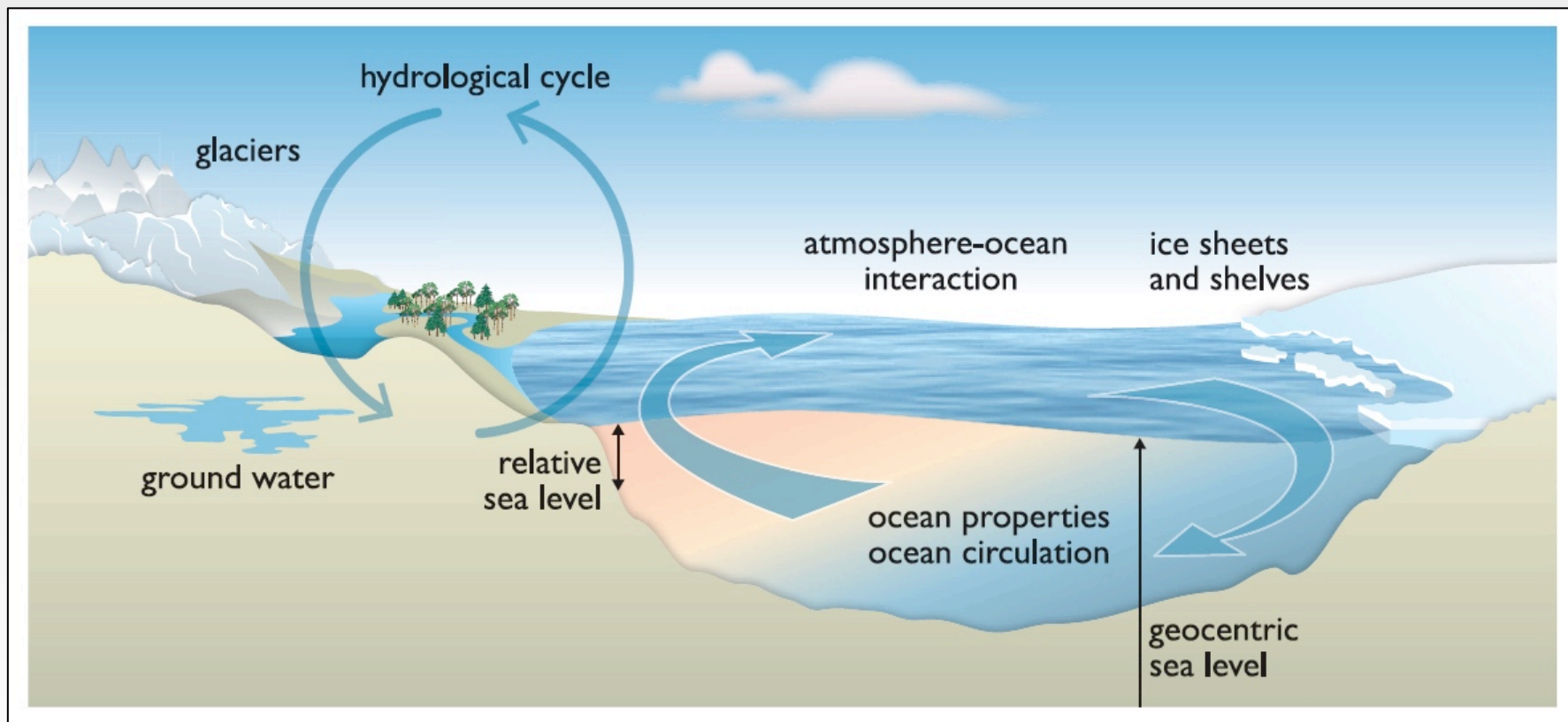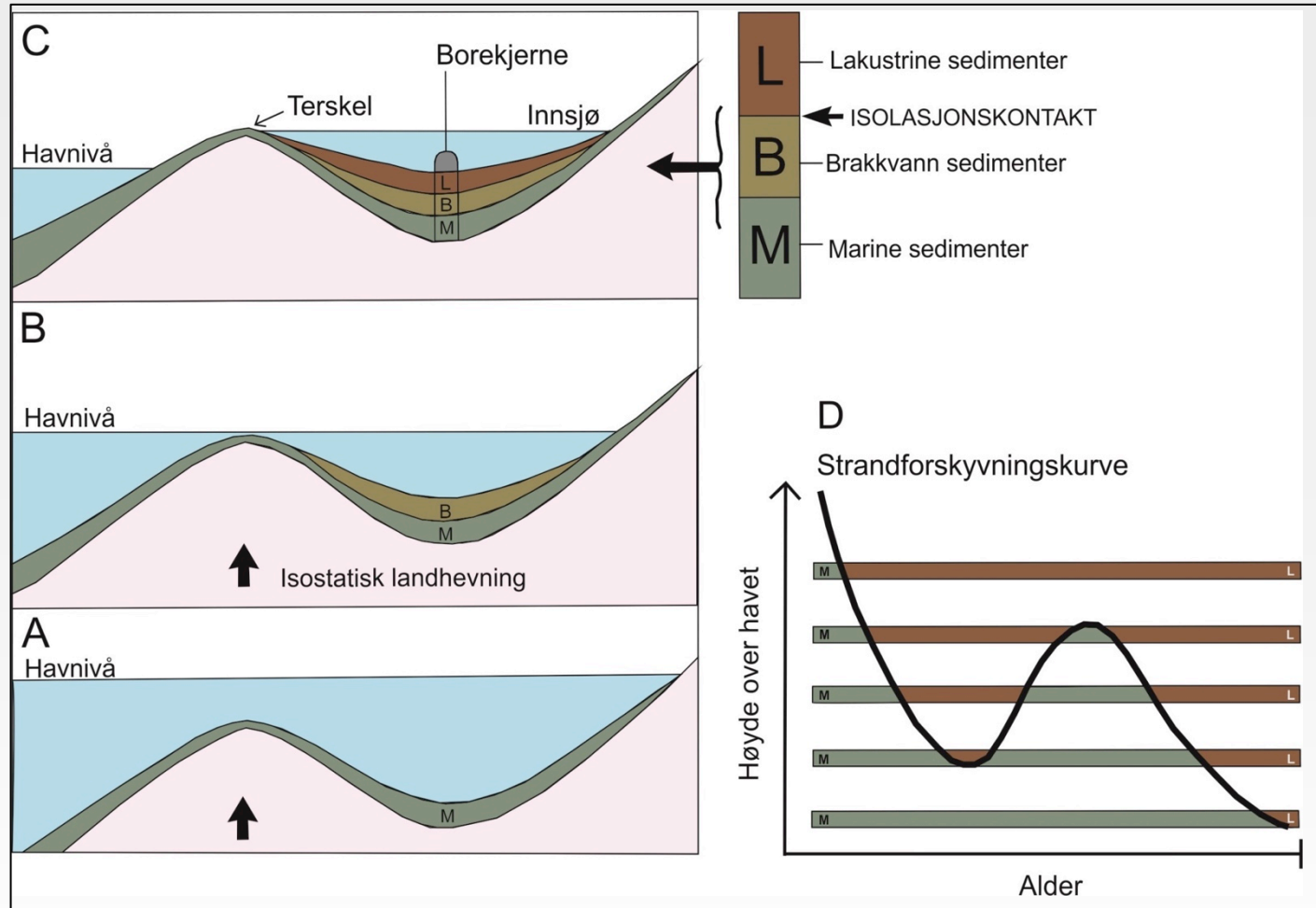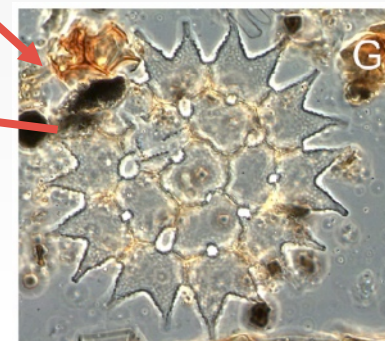# Sea-level change

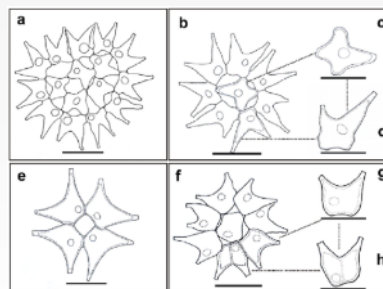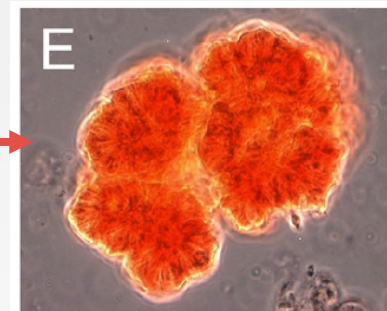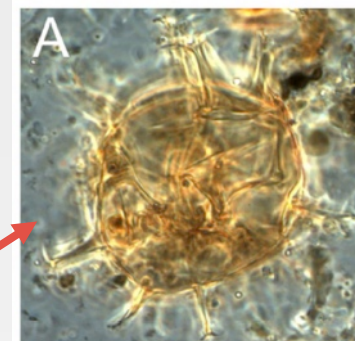# Reconstruction of past sea level: Isolation basins

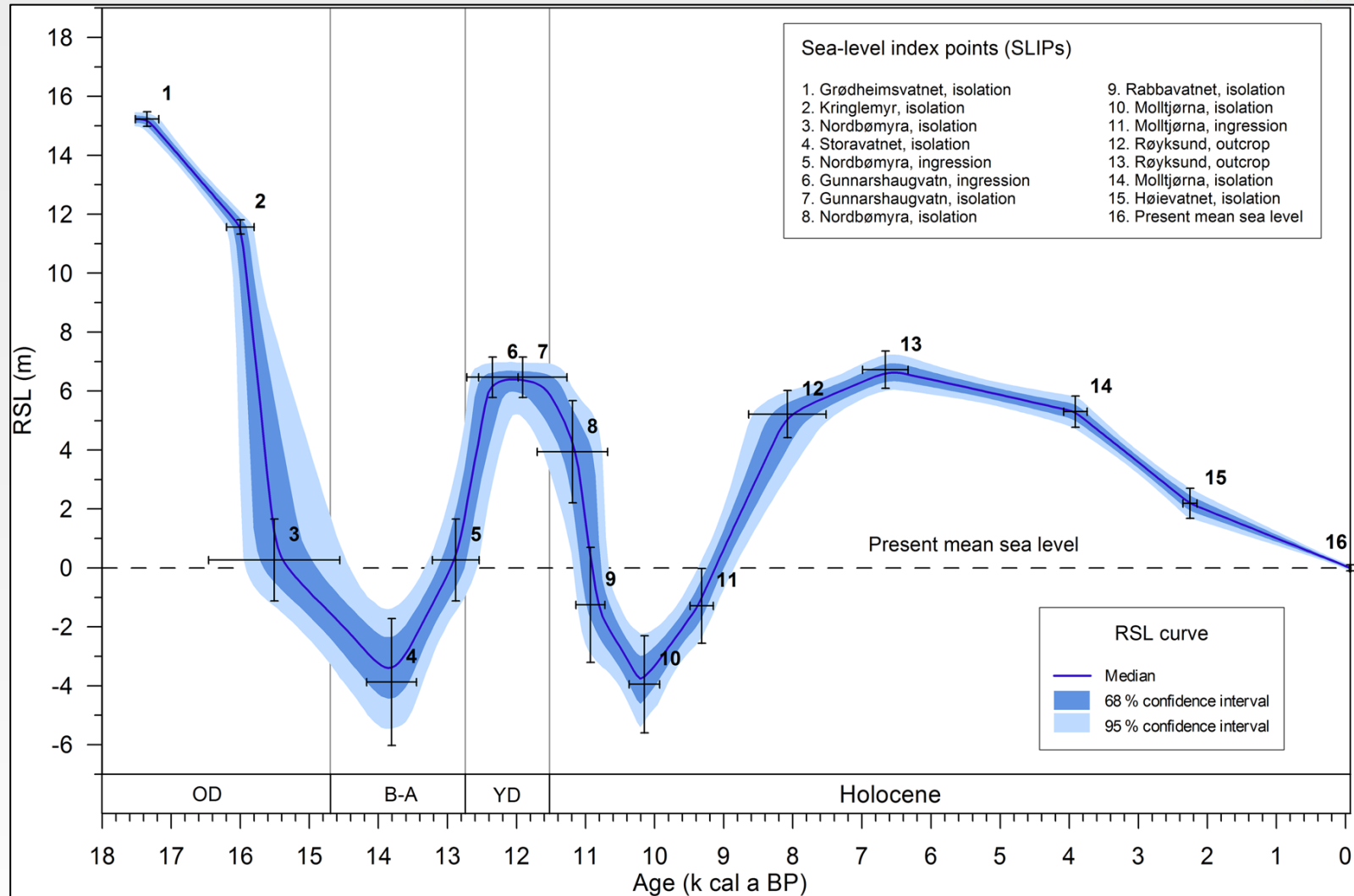# Reconstruction of past sea level: Fieldwork

Reconstruction of past sea level: Lab work

Phytoplankton analysis

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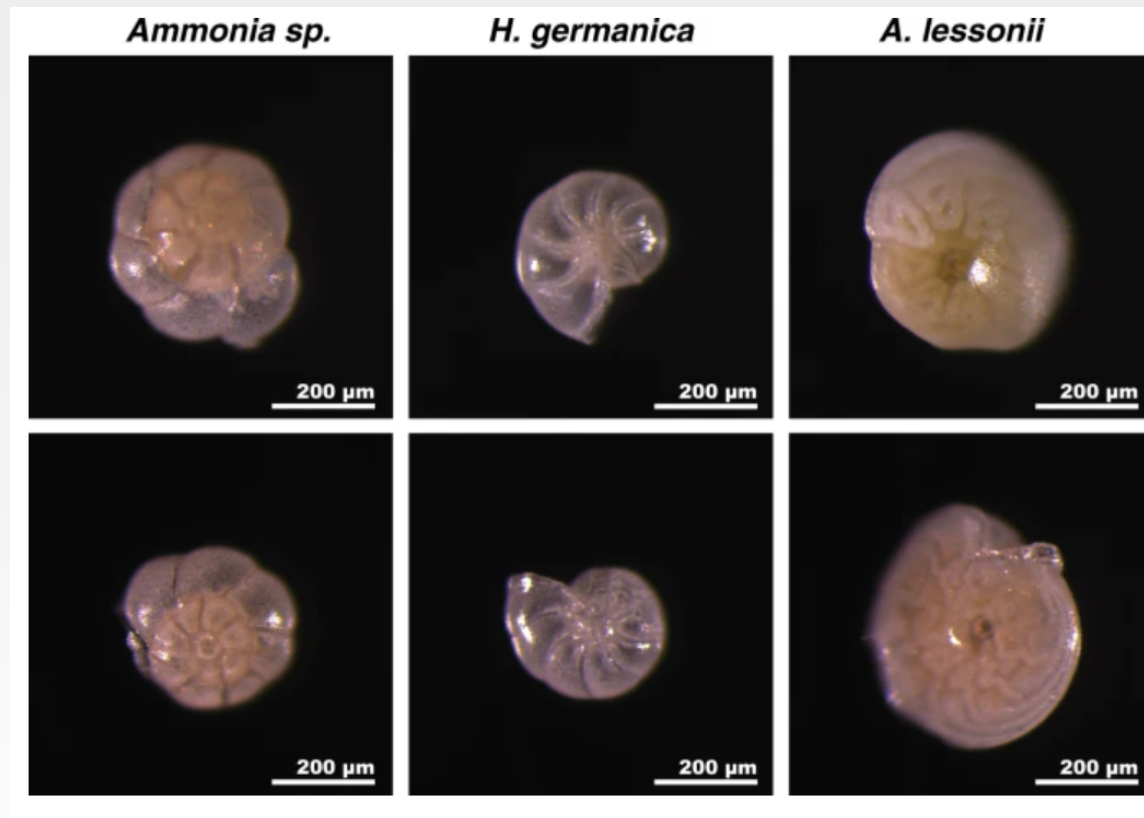
Salt marshes

- Can be used to reconstruct more recent sea-level change, overlapping with instrumental data

- Basal dates give long-term trend, reflecting how the salt marsh moves land- or seaward

- High-resolution sea-level reconstruction from cores
  - Fossil records analyzed using transfer functions from modern assemblages of shells, foraminifera and microscopic fauna
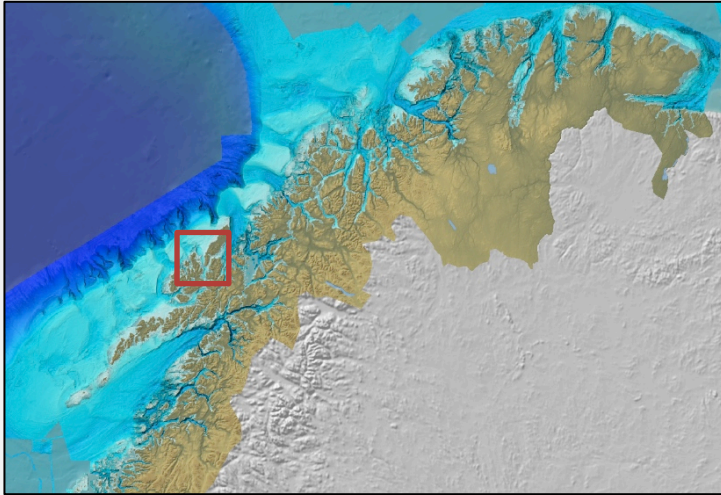
foraminifera

Sea-level from salt marshes on Andøya

- 1 master project
- Reconstruct recent sea-level change on Andøya, using salt marsh sediments
- Collect surface samples to establish modern faunal assemblages through the tidal zone (dGPS used for precise altitudes)
- Collect cores to reconstruct how the faunal assemblages have varied over time
- Use simplified transfer function approach to obtain past sea-level variation

- Supervisors: Oskar Eide Lilienthal and Kristian Vasskog

Study area: Svartisen
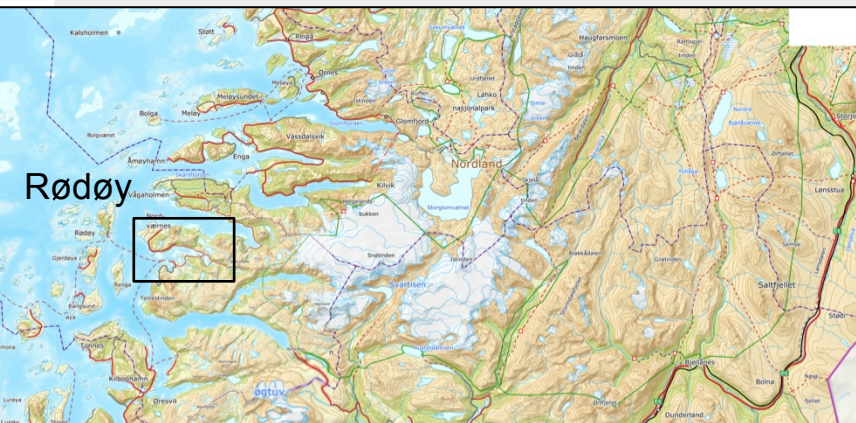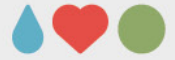
Gårdsvatnet, Rødøy

1-2 Master projects

- Quaternary mapping with focus on shoreline features
- Identification of the Marine Limit
- Reconstruct Holocene relative sea-level (RSL) history
- Isolation basin analysis
- Interaction between Svartisen and sea level
- Regional implications
- Supervisors: Kristian Vasskog and Svein Olaf Dahl

Study area: Bokn

Johnsen (2017)

1 Master project

- Part of the QUANTSEA project
- QUANTSEA will use reconstructions of past sea level along the Norwegian coast to learn more about the processes behind sea-level change, and how sea level might change in the future
- This Master project will focus on the Late Glacial period on Bokn
- Can we find traces of the global Meltwater Pulse 1A on Bokn?
- Supervisors: Kristian Vasskog and John-Inge Svendsen

Strømsnes (2018)