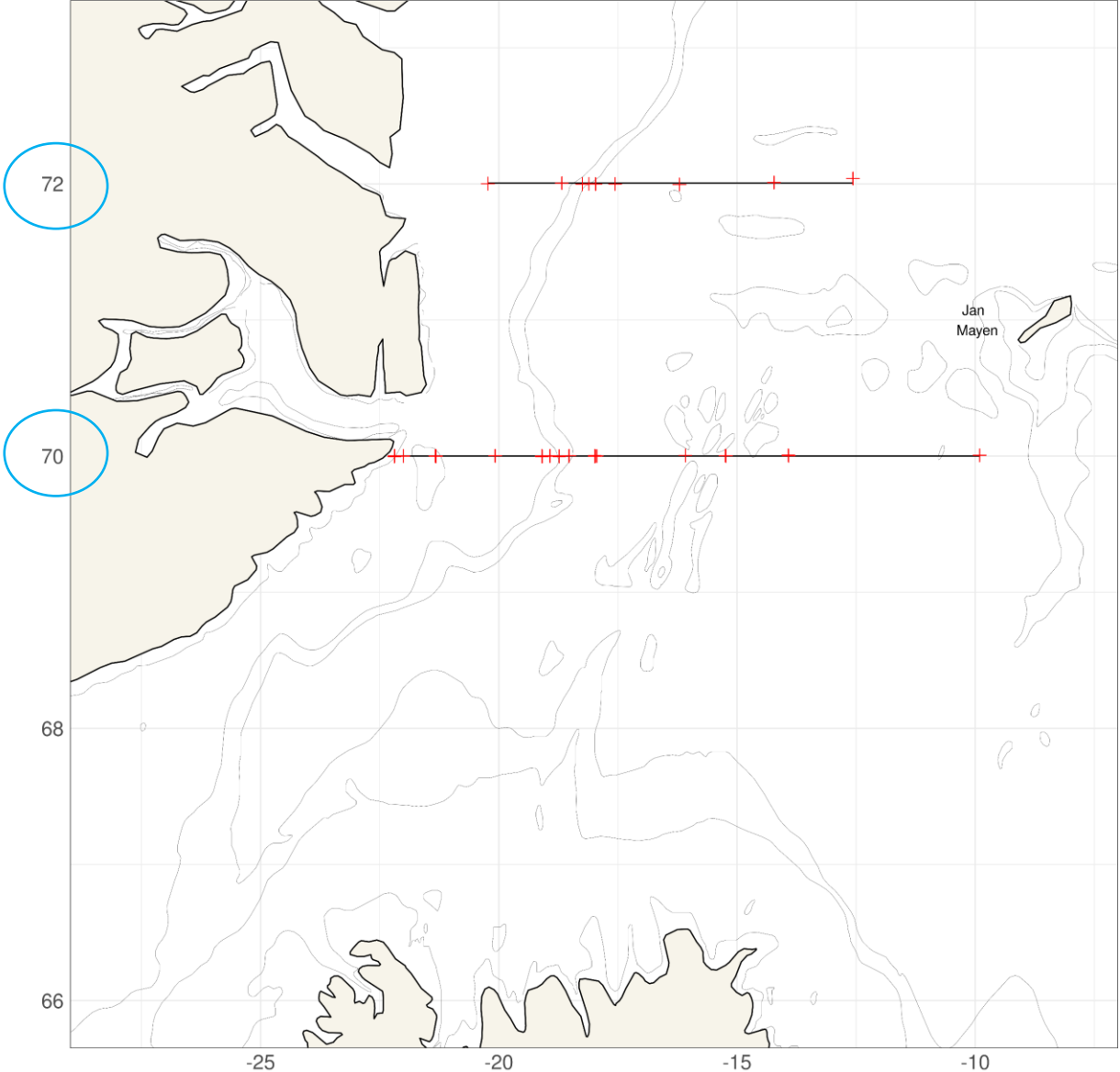


Capelin distribution in East Greenland water masses during autumn feeding

Warsha Singh, Kristinn Gudnason, Sigurður Þ. Jónsson, Teresa Silva

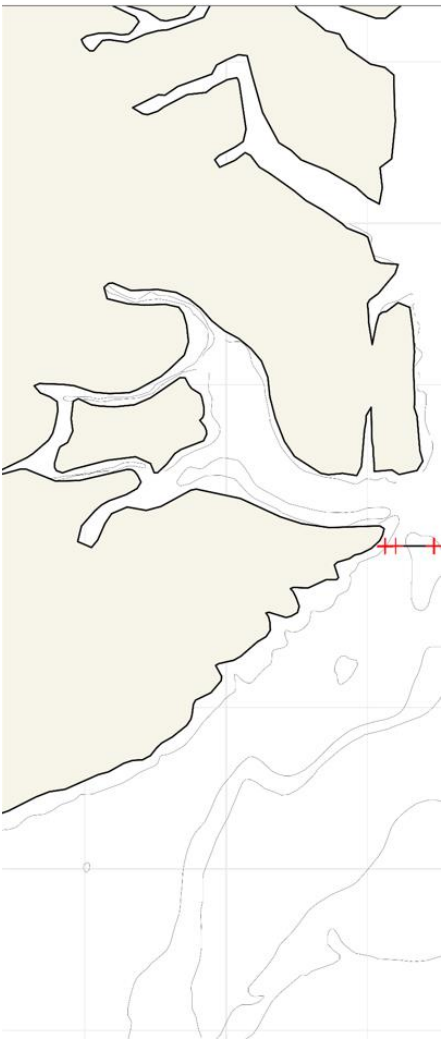
Marine and Freshwater Research Institute

Hydrographic sections

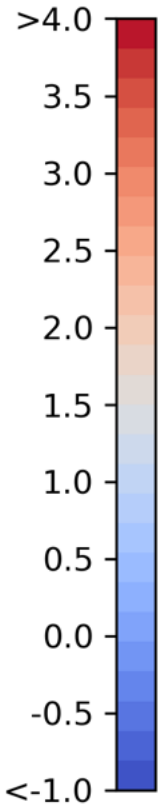


Autumn Survey
2019-2020

Latitude 70

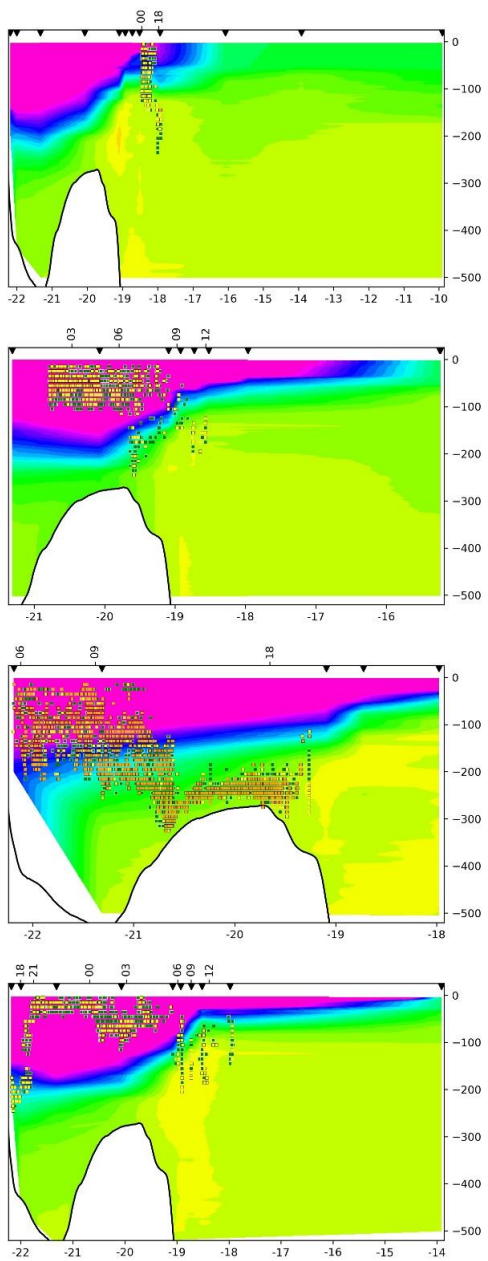
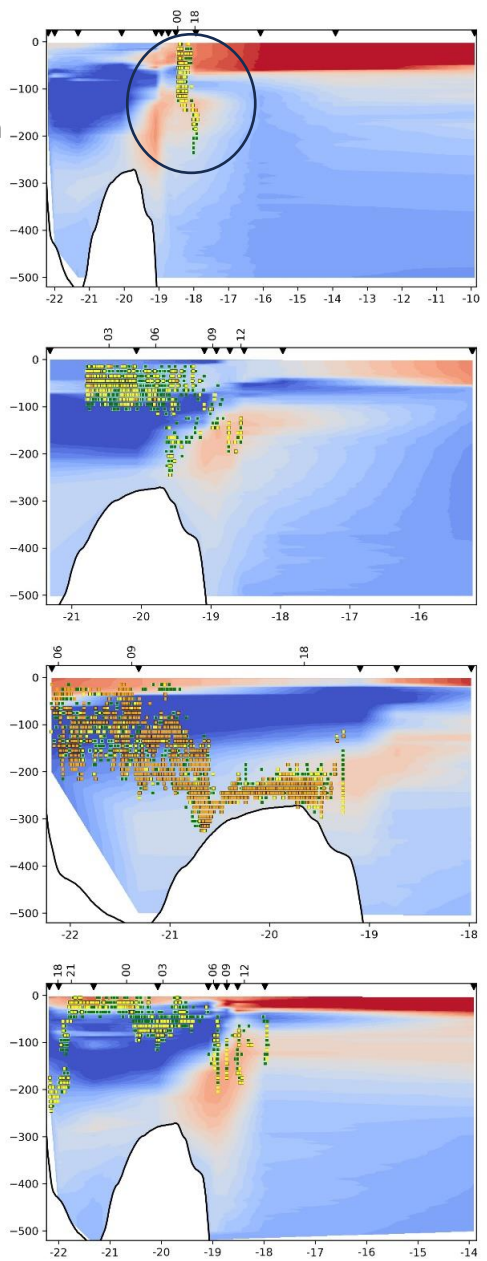


Capelin
Green: low
Yellow: medium
Orange: high

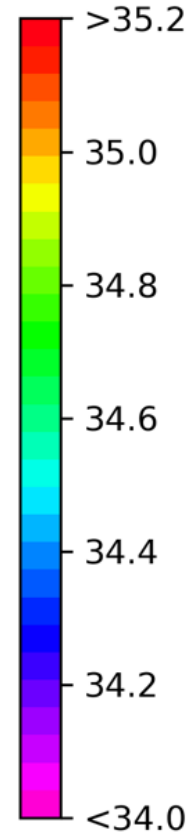


Temperature

Salinity



0
↓
500 m



2019

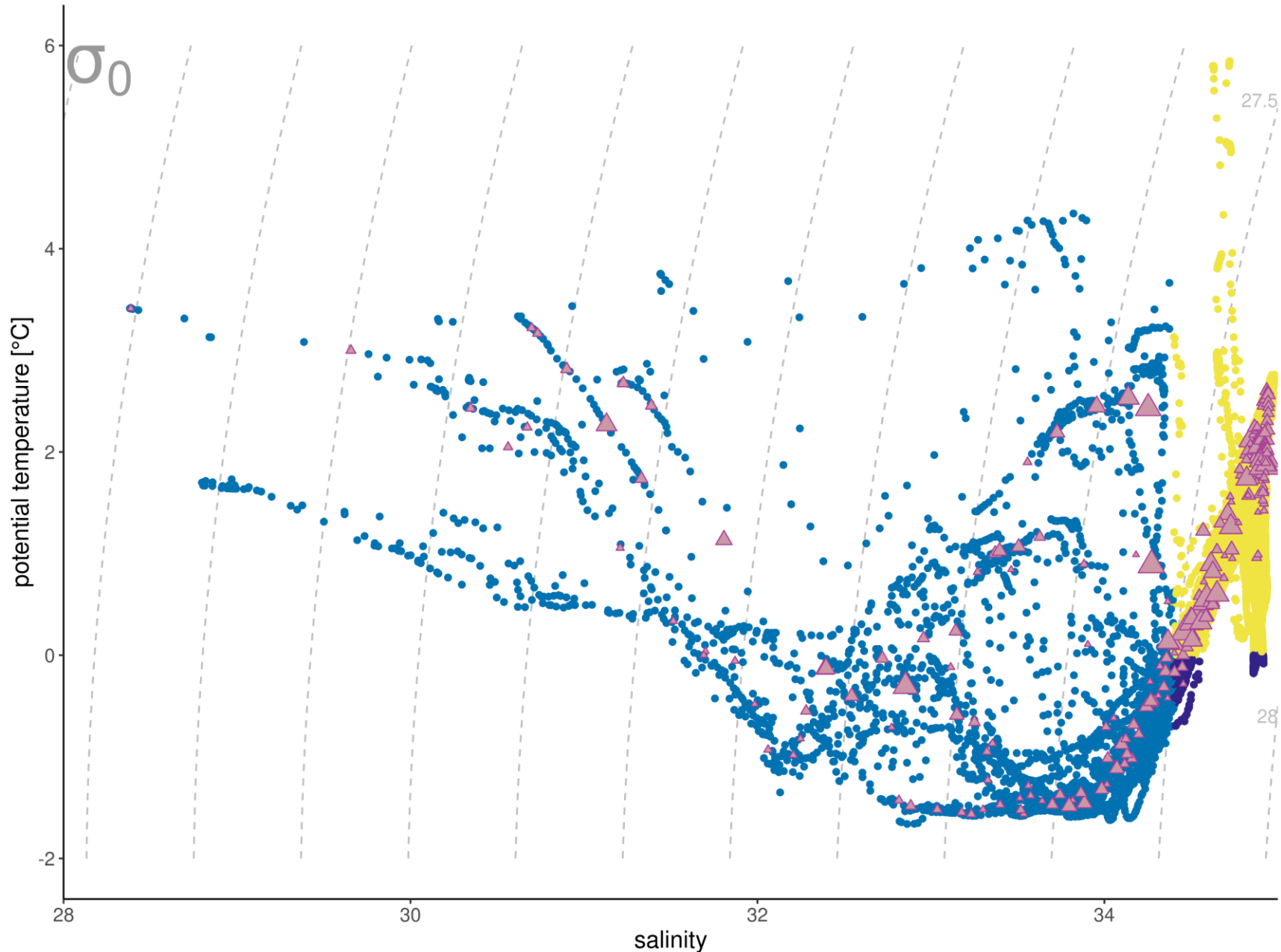
2020

2021

2022

Temperature-Salinity diagram

Latitude 70



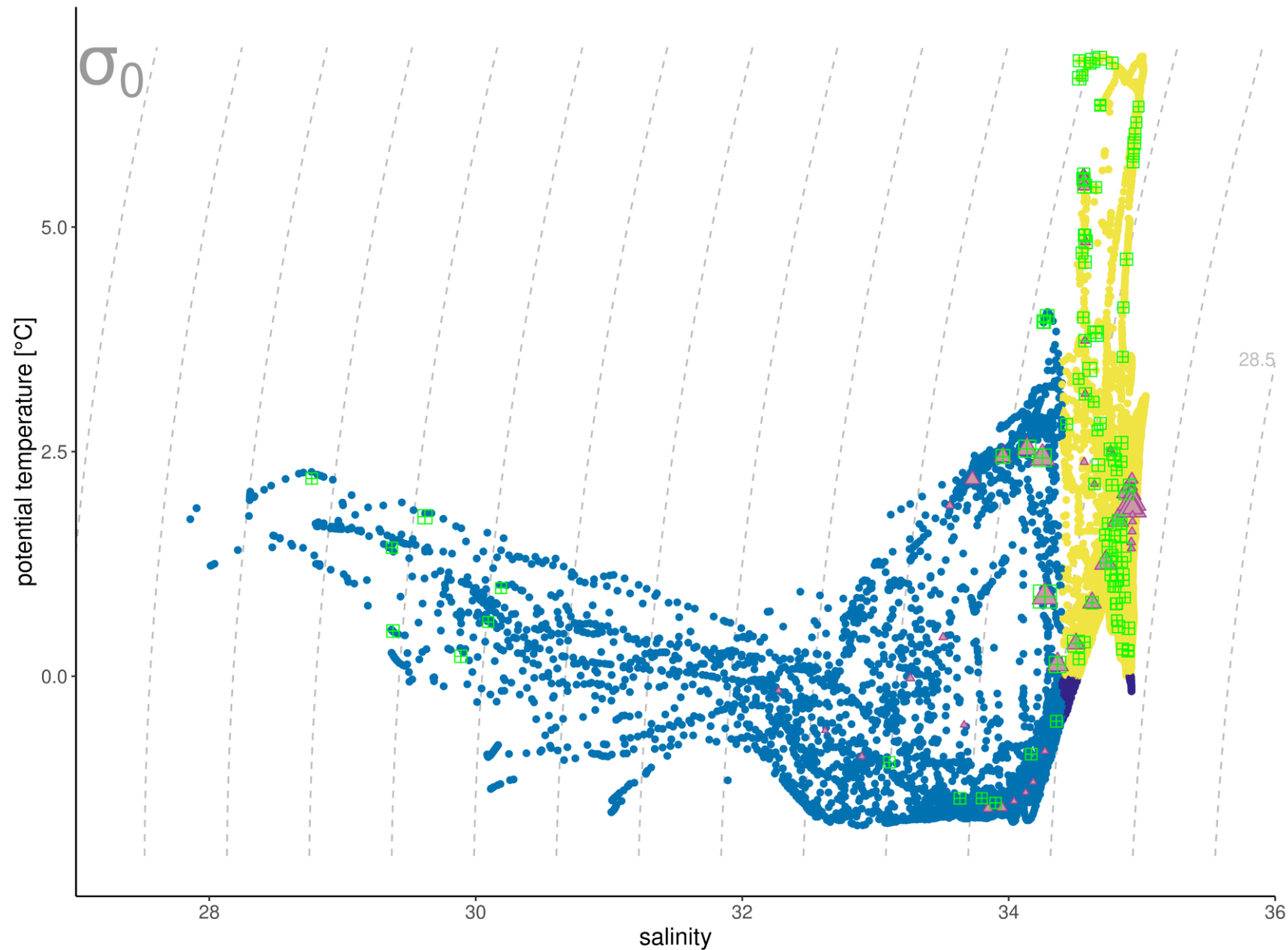
AW: Atlantic-origin water which is warmer with a higher salinity.

PSW: Polar surface water which has a cold and a warm component.

PIW: Polar Intermediate Water with a low temperature and high salinity

capelin acoustic values (nasc)

Year 2019 – whole survey area



AW: Atlantic-origin water which is warmer with a higher salinity.

PSW: Polar surface water which has a cold and a warm component.

PIW: Polar Intermediate Water with a low temperature and high salinity

Water Mass

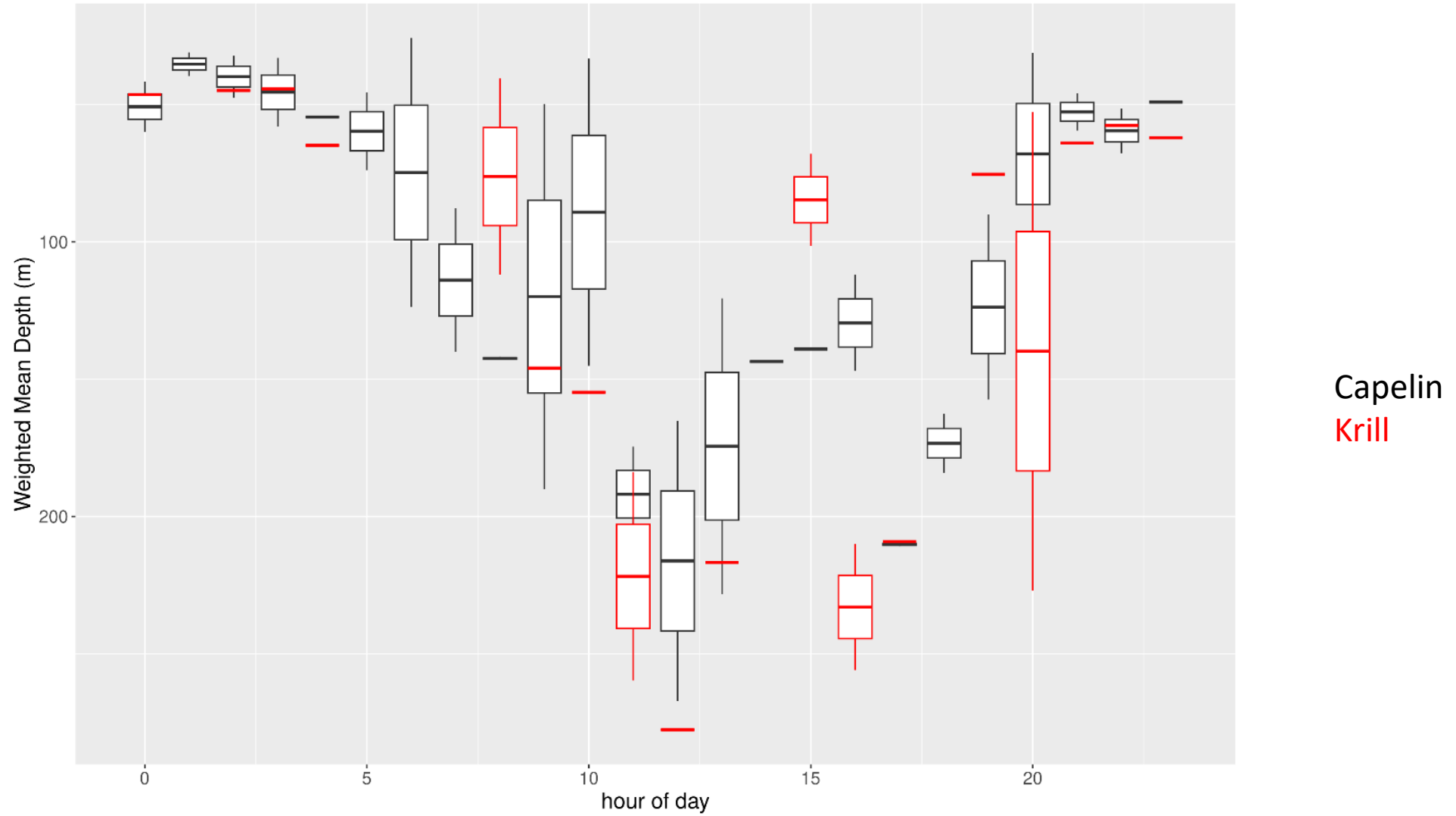
- AW
- PIW
- PSW

nasc

- 50
- 100
- 150

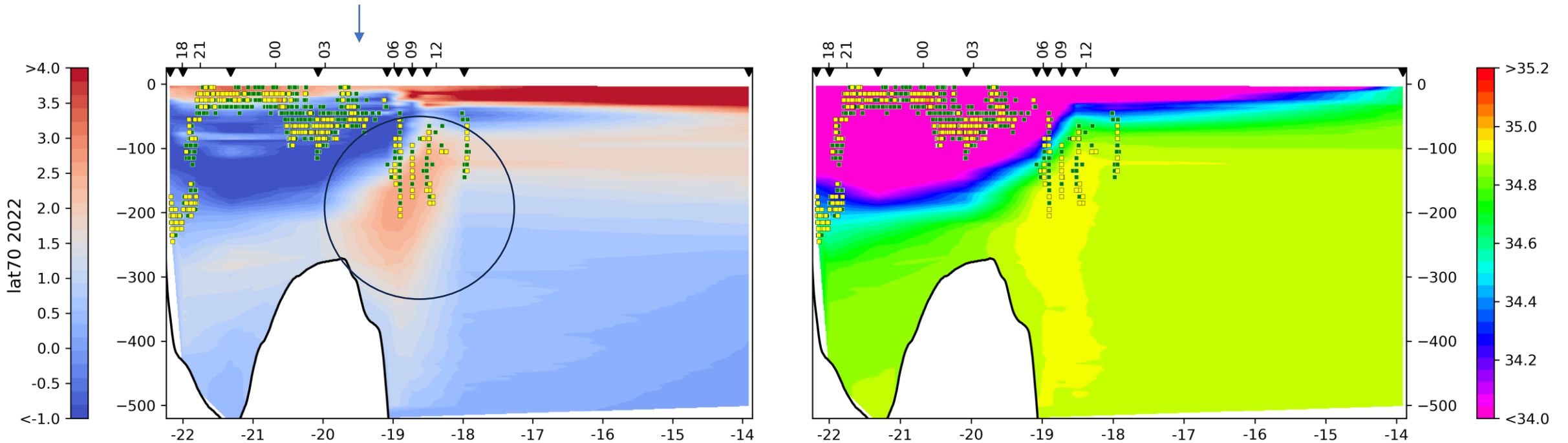
- Capelin
- Krill

Diurnal vertical migration of capelin and krill



Vertical profile features

Hour of day: Daylight hours: 0800 – 21:00



Latitude 70, Sep 2022

Conclusion

- Capelin moves across water masses; Innate diurnal vertical migration behaviour
- Closely follow the prey; ample food in the area
- Other factors such as predator avoidance could also be at play
- Descriptive analysis
- Further statistical analysis is needed
- Spatial links between predator-prey and environment to gain a valuable ecosystem perspective.

Thank you