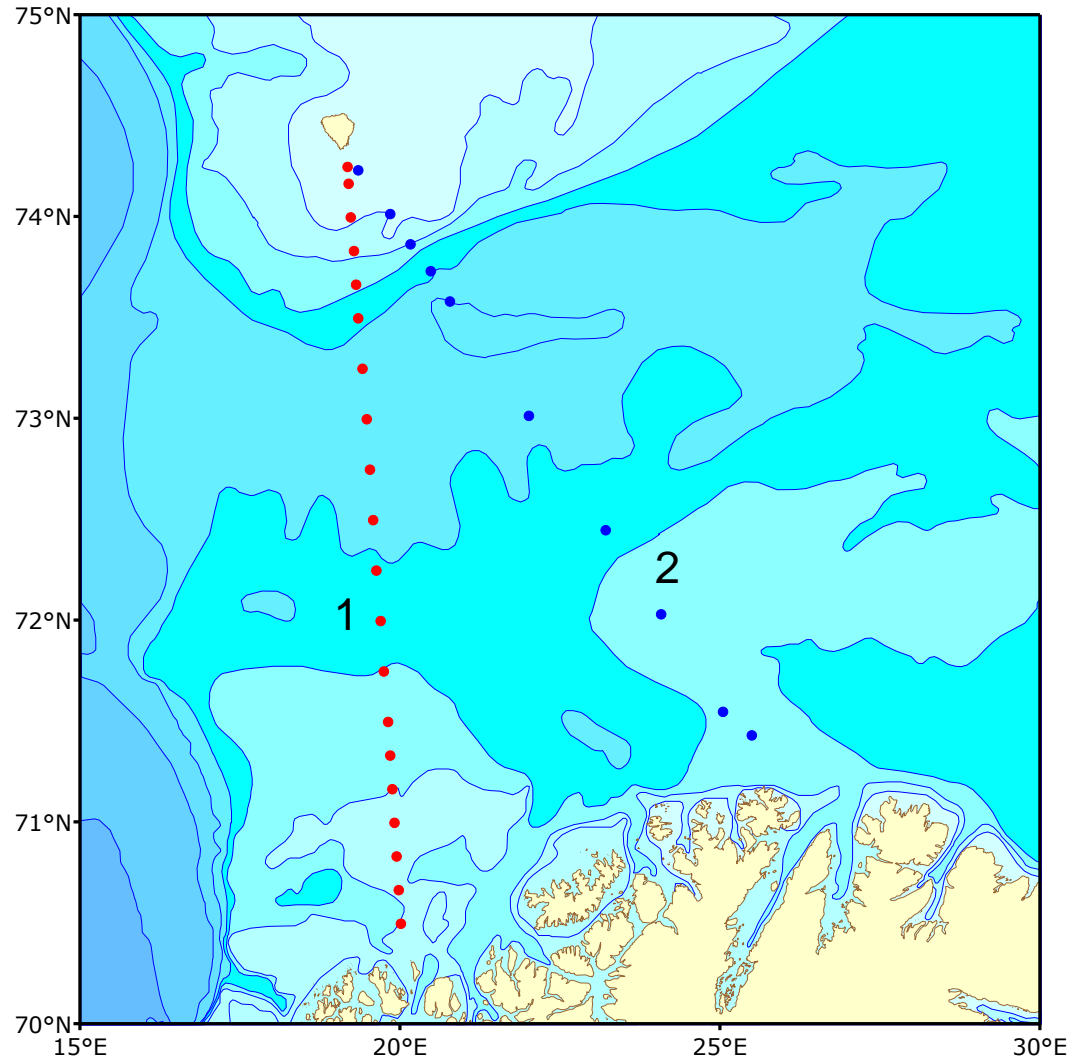


# Study of the spatial variability in thermohaline characteristics and water structure on the standard sections in the western Barents Sea

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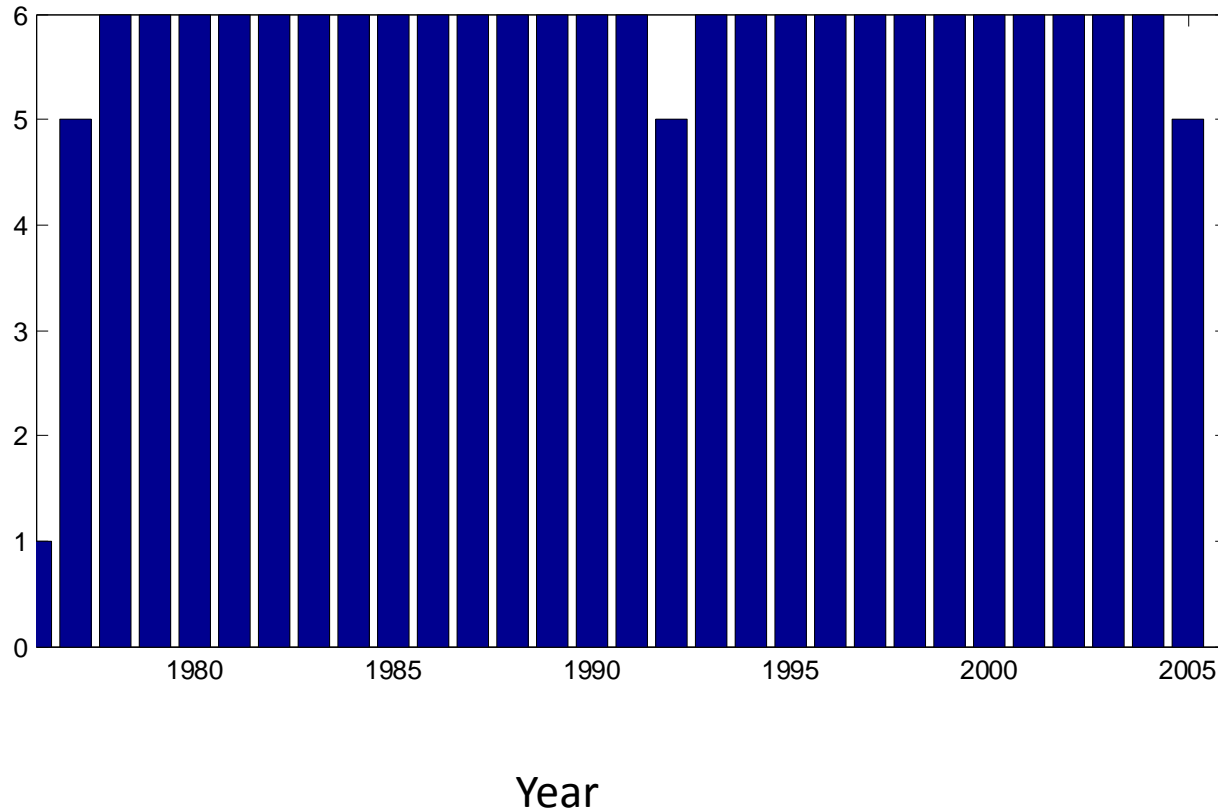
Ivshin V.A., Pedchenko  
A.P., Skagseth O., Ingvaldsen R.

# Fugloya-Bjornoya (red) and North Cape – Bear Island (blue) Sections



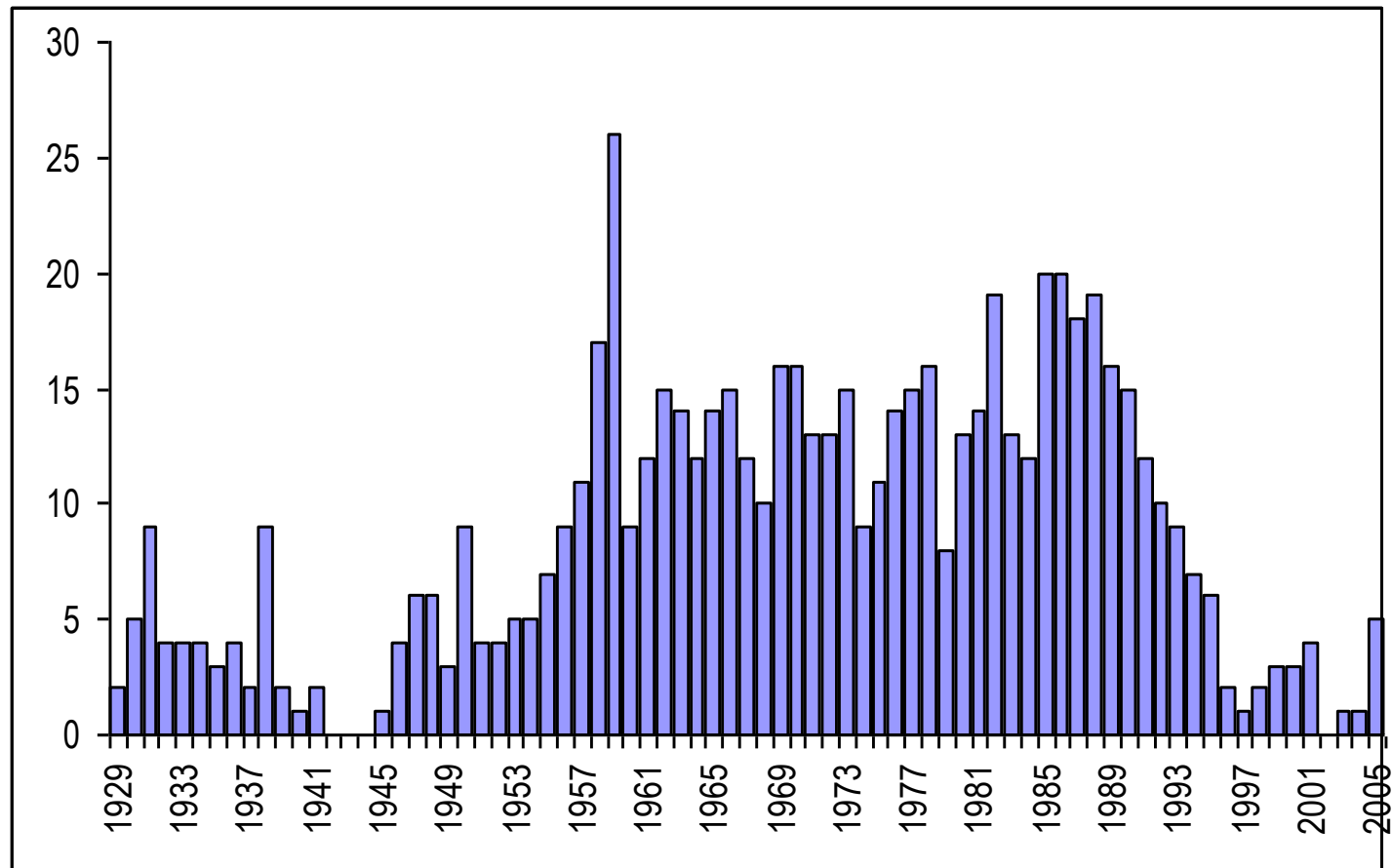
# The number of observations on the Fugløy – Bear Island Section

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IMR data in the Fugløy- Bear Island section about constant since the start in the late 1970'ies.

# The number of observations on the North Cape – Bear Island Section



PINRO data in the North Cape section very extensive to the early 1990'ies, then a decline in observations.



# Method

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Correlation analyses between:

The Fugløya-Bear Island Index series and Measuring points (position, depth) in North Cape section.

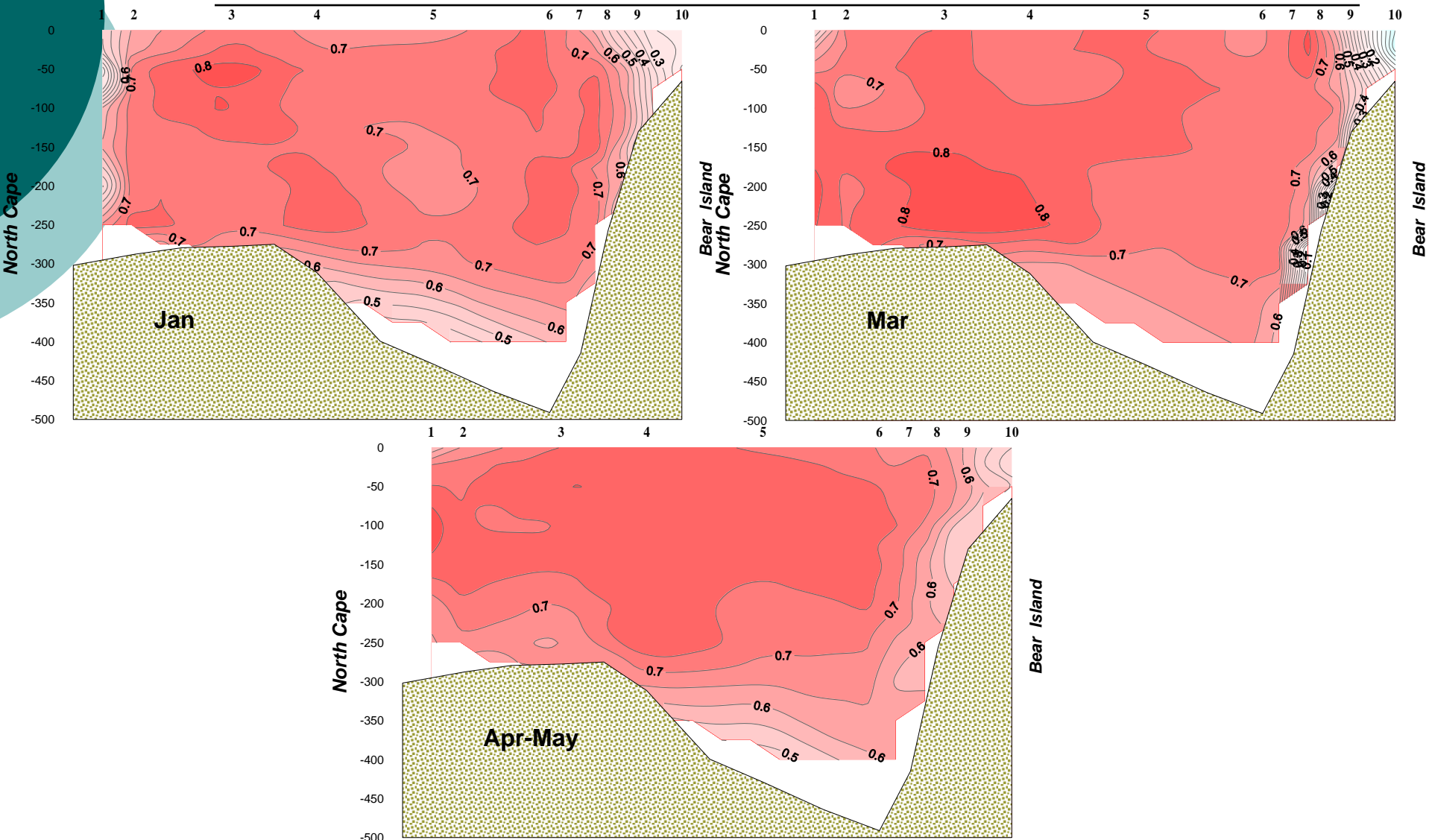
- analyses separately for cold (winter) and warm (summer) data.

## Motivation

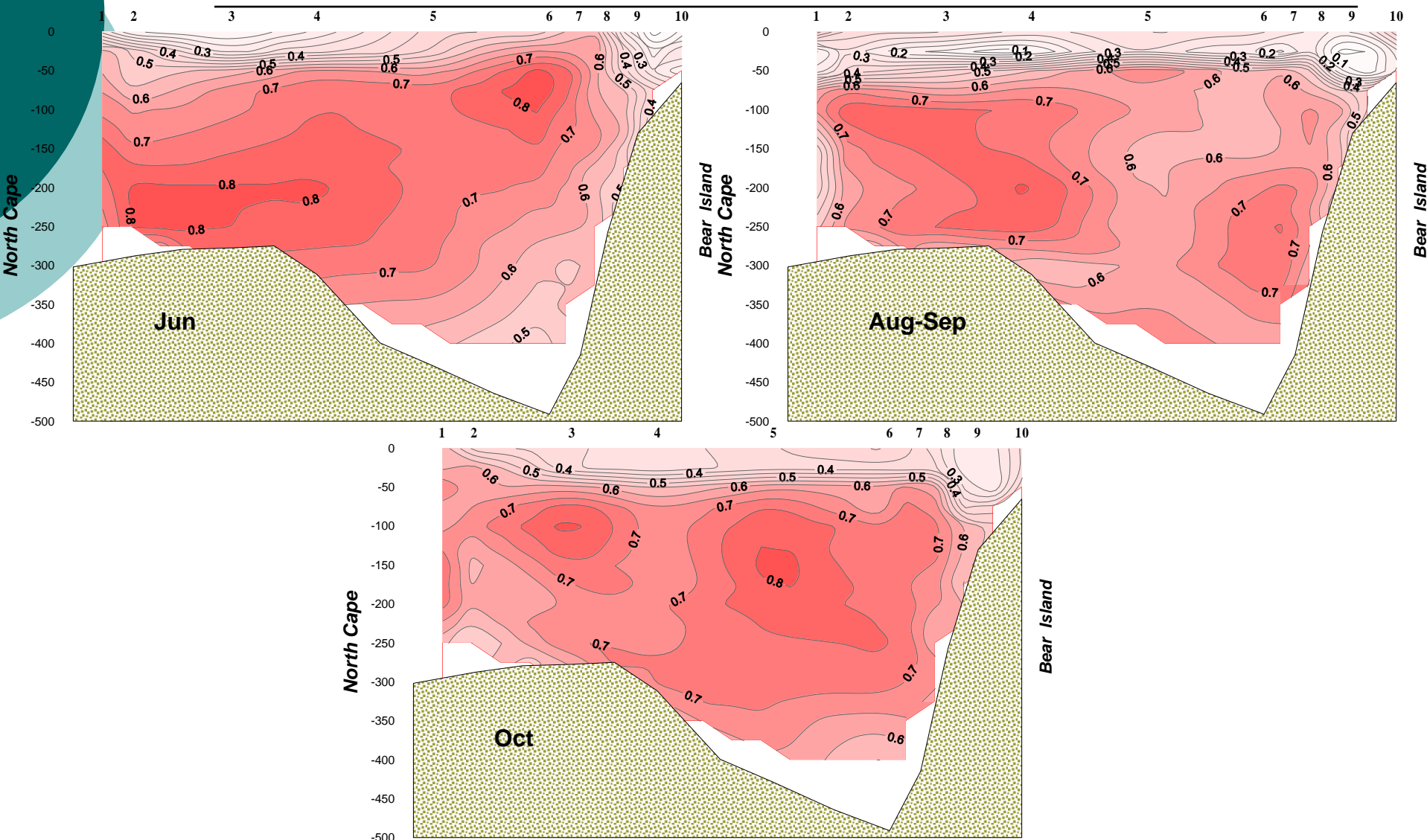
Analyses of inter-relations between these sections to in a best possible manner to:

- fill gaps in the North-Cape section for years of weak/missing data.
- extend the variations in the Fugløya-Bear Island section prior to the period prior to the regular surveys
- improve the understanding of the circulation pattern

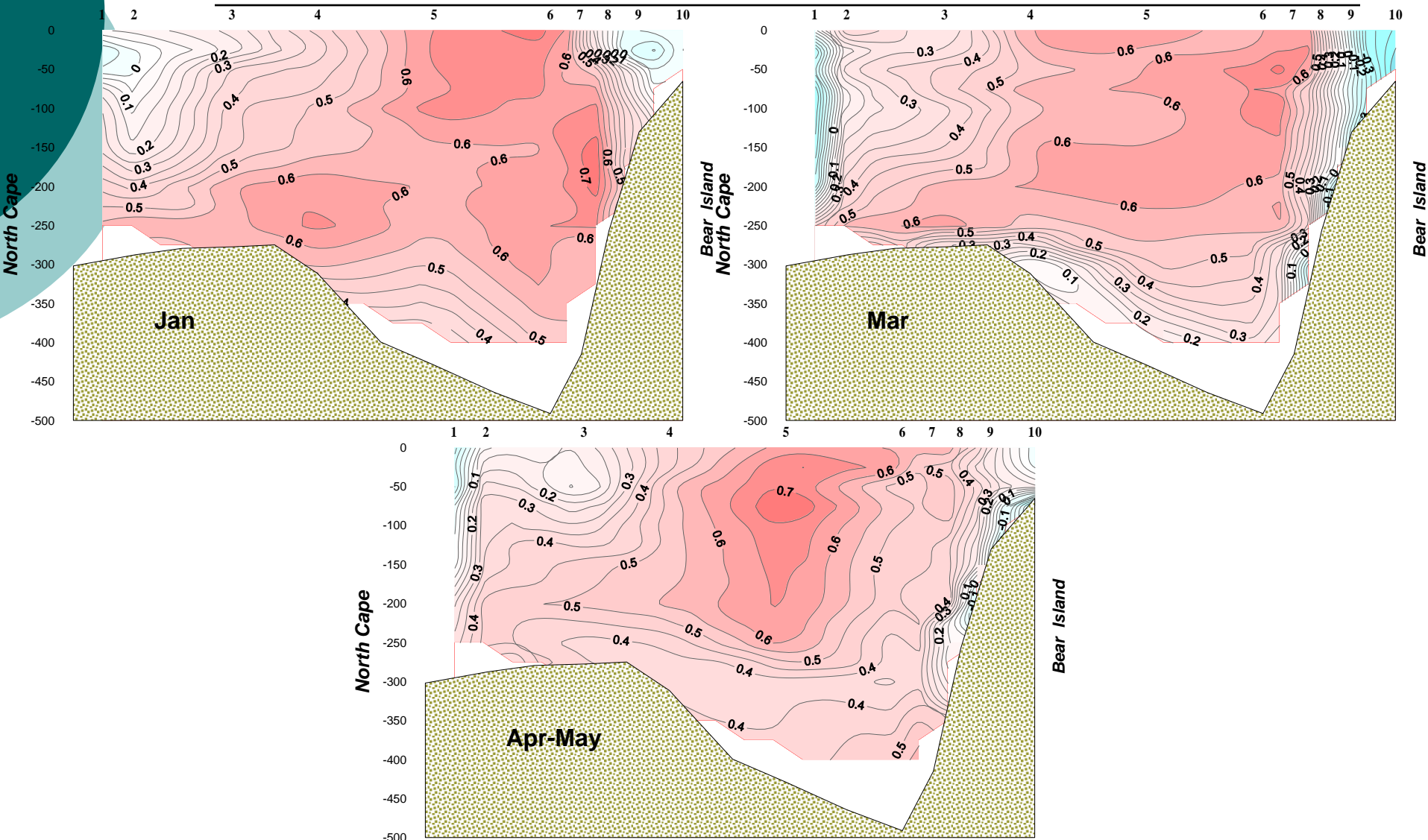
# Correlations between temperatures from the two sections in the cold period



# Correlations between temperatures from the two sections in the warm period

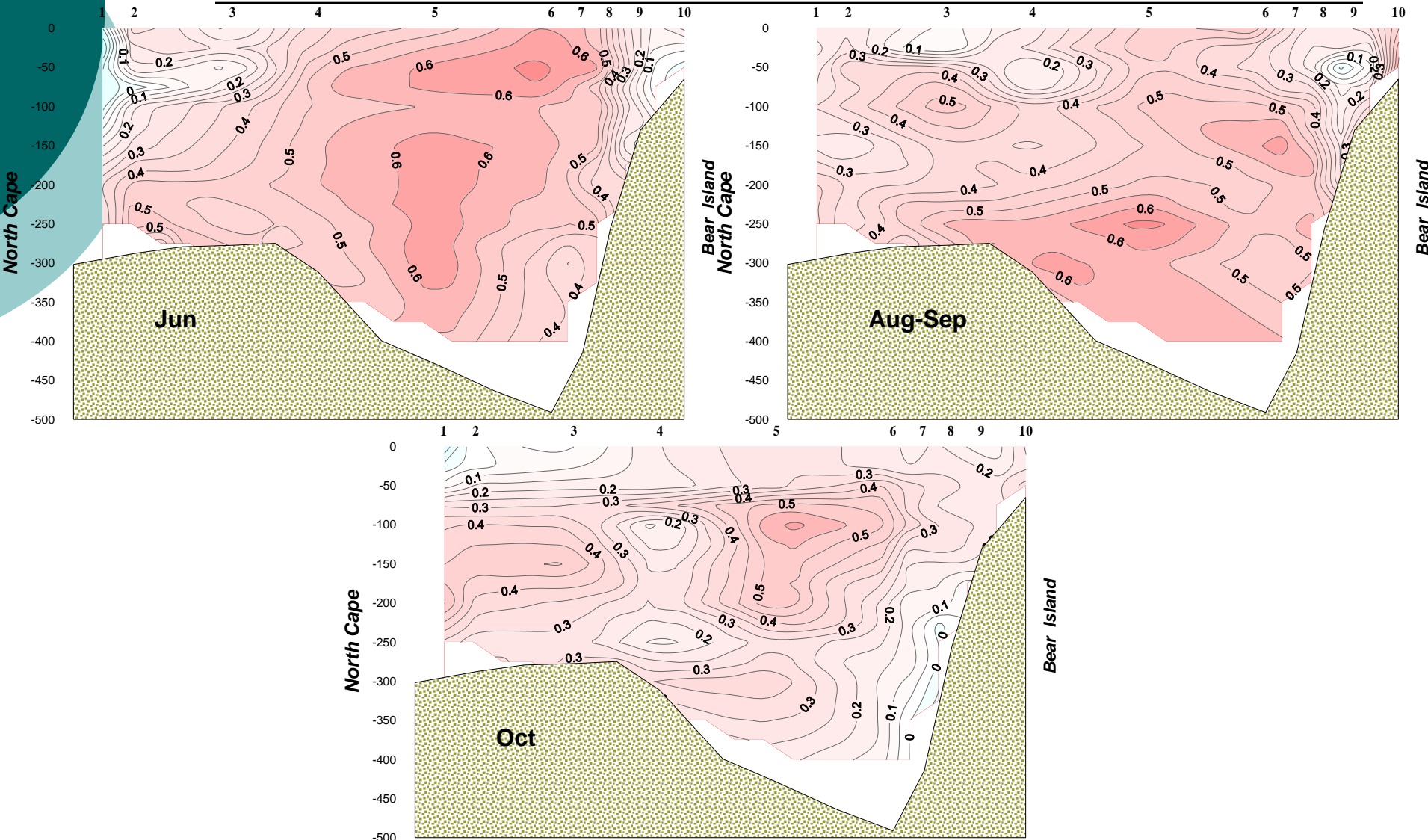


# Correlations between salinities from the two sections in the cold period

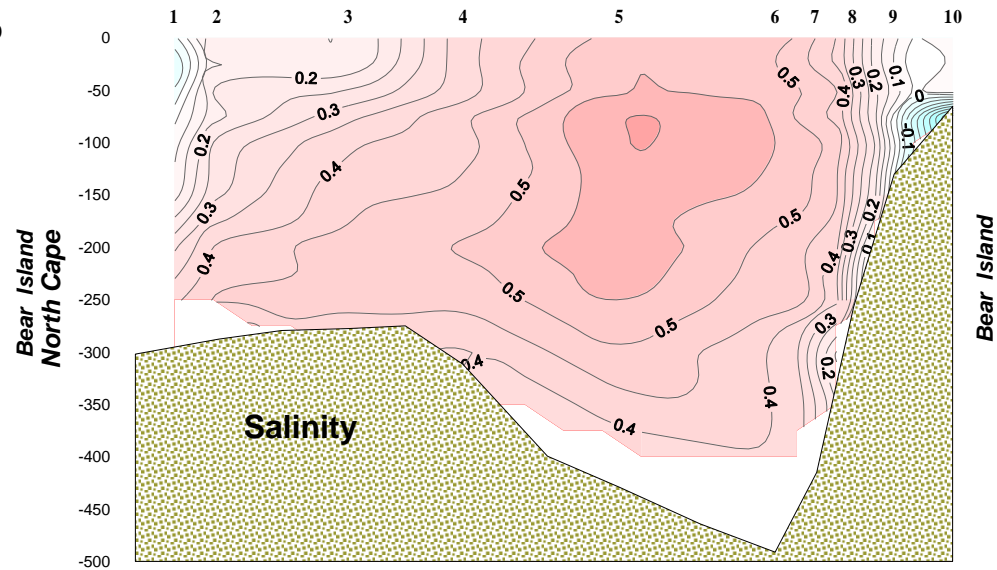
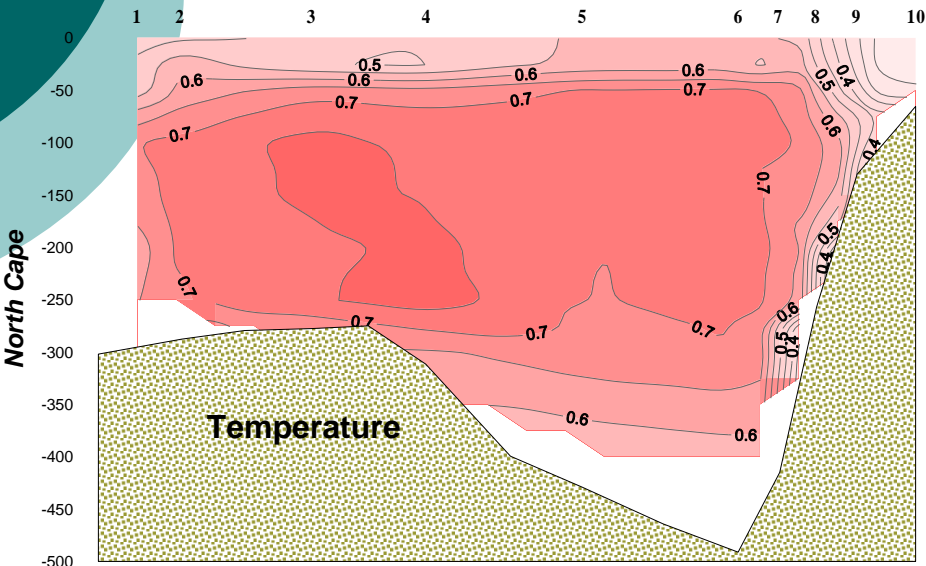




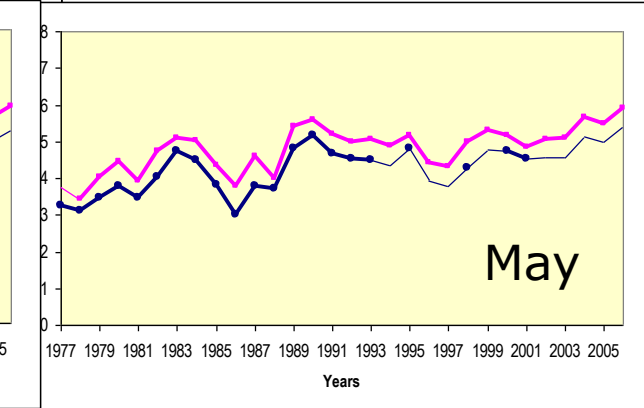
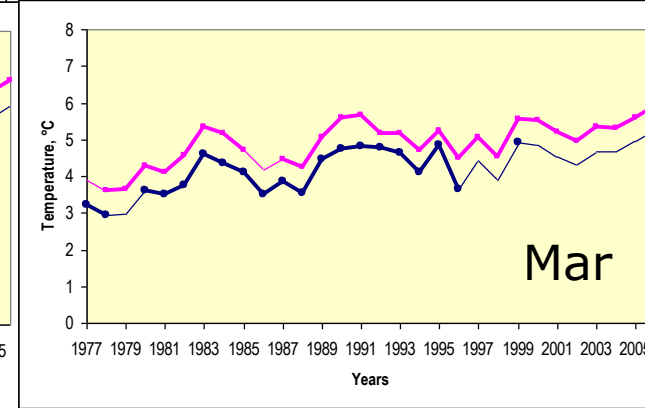
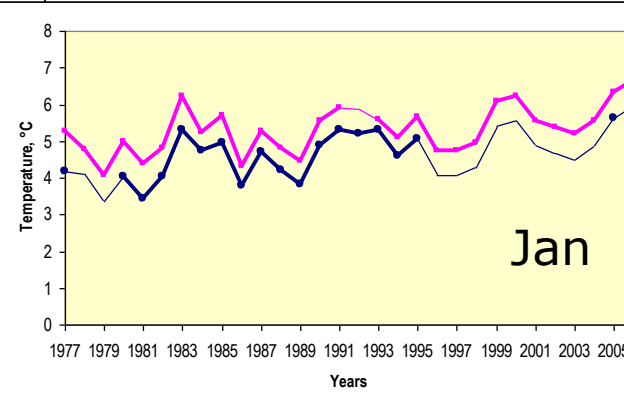
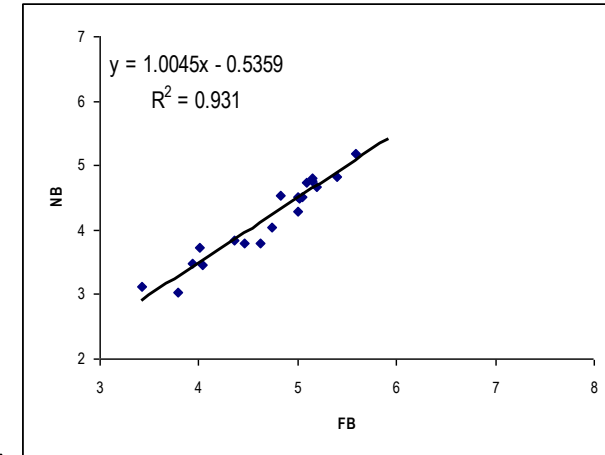
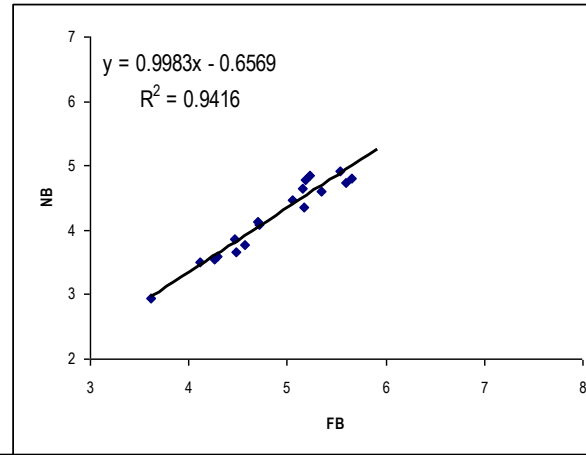
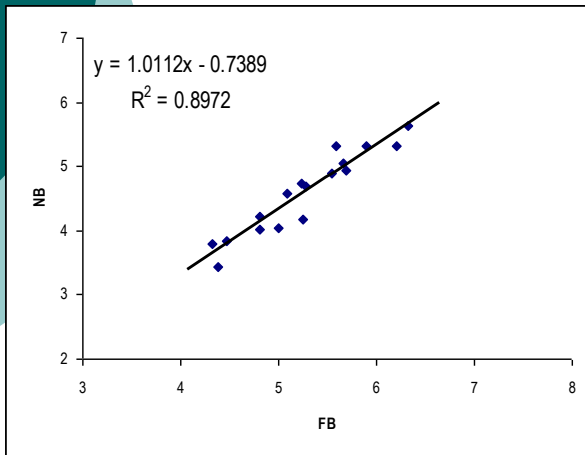
# Correlations between salinities from the two sections in the warm period



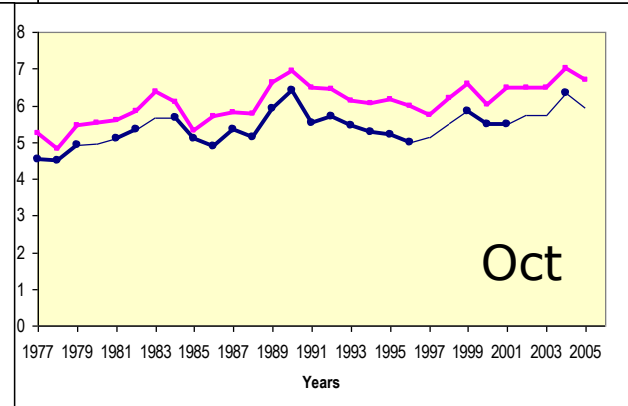
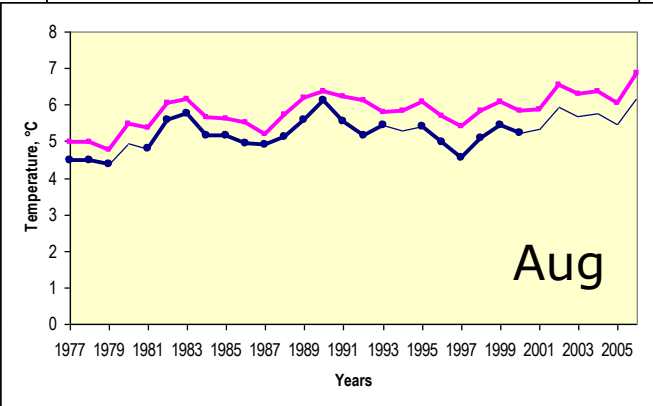
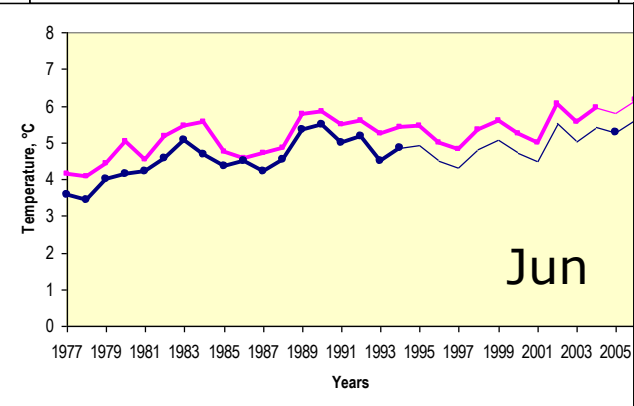
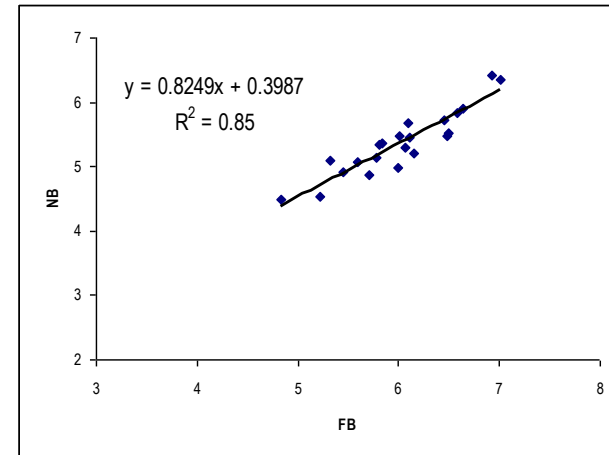
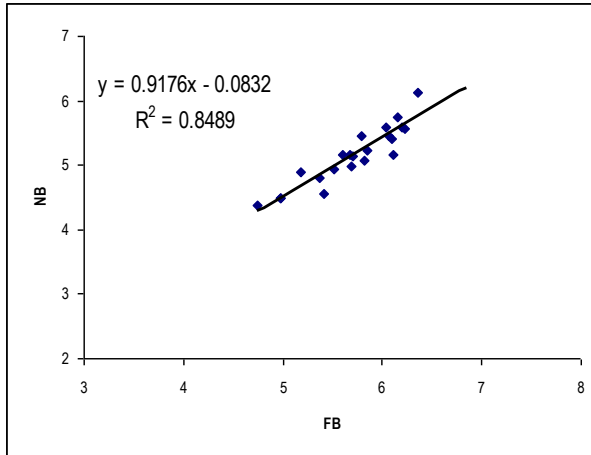
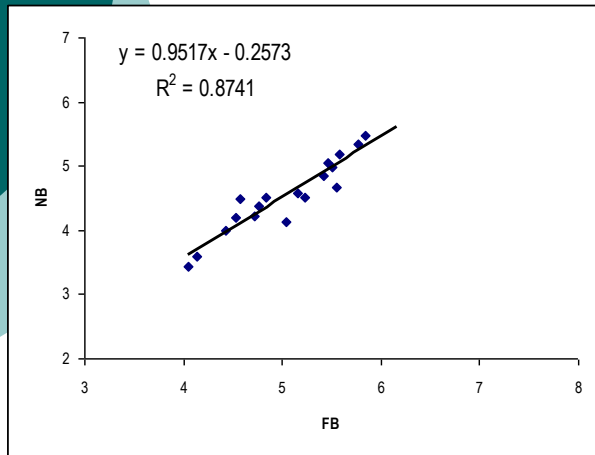
# Total correlations between temperatures and salinities from the two sections



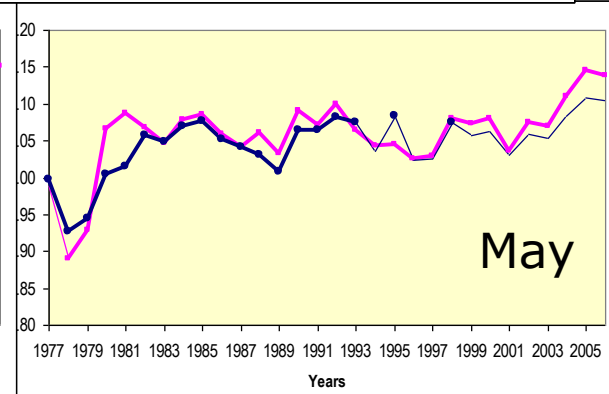
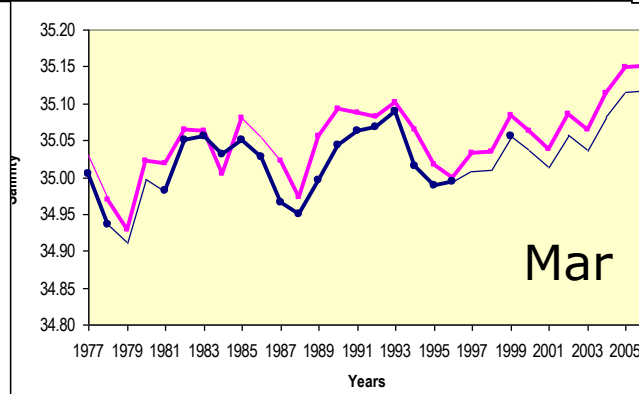
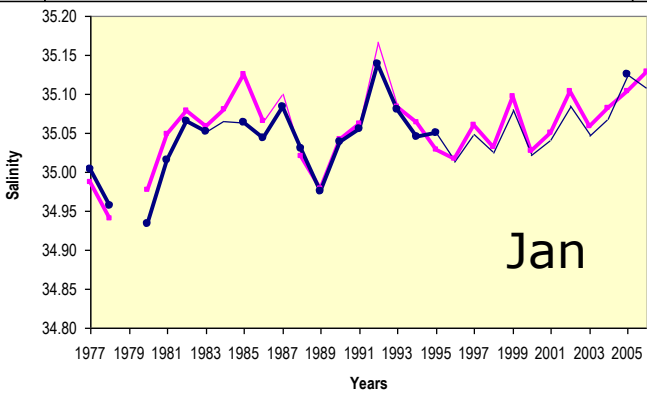
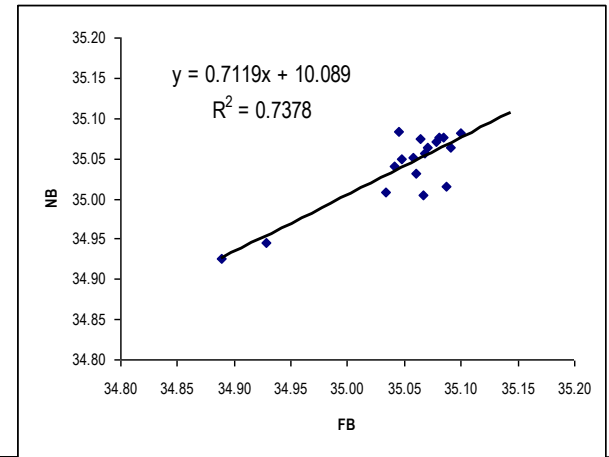
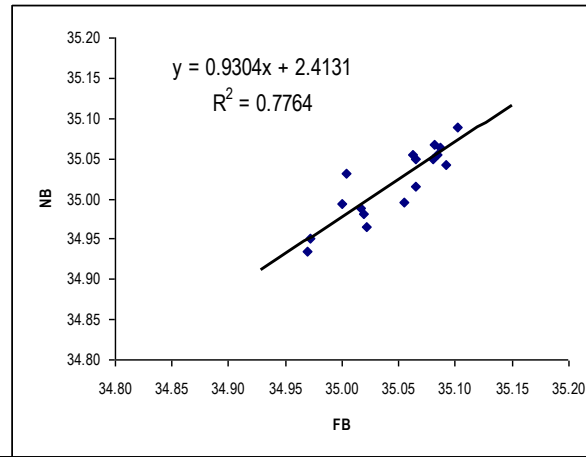
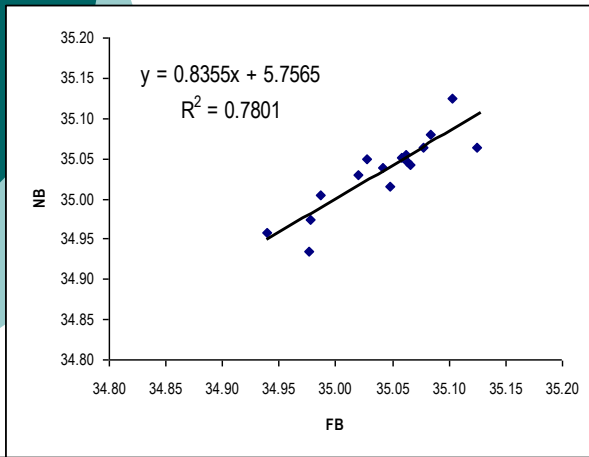
# Relationship between temperatures from the two sections in the cold period



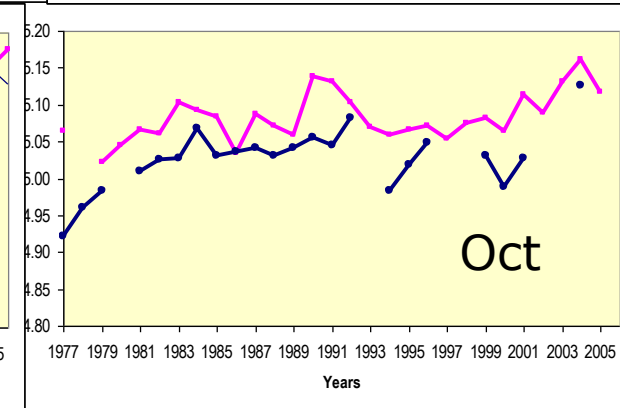
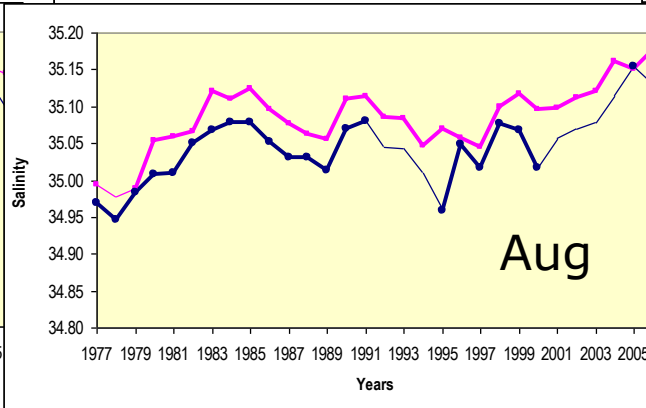
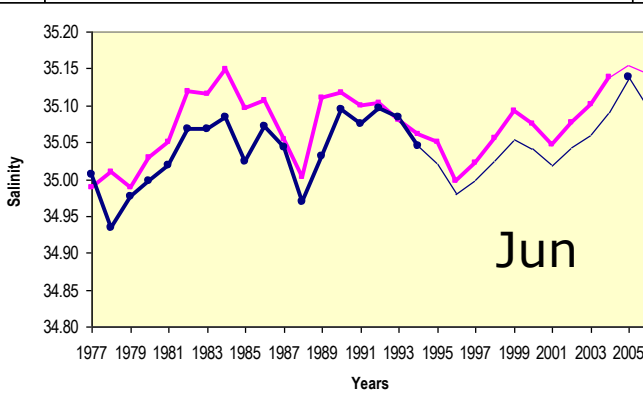
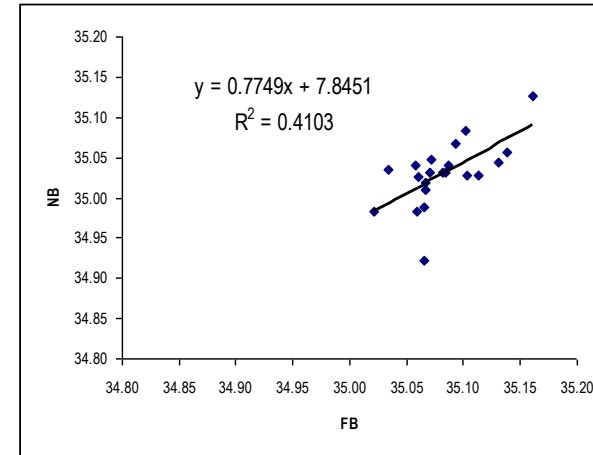
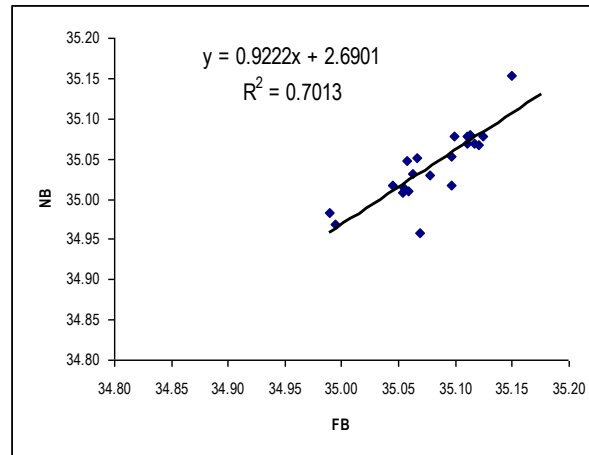
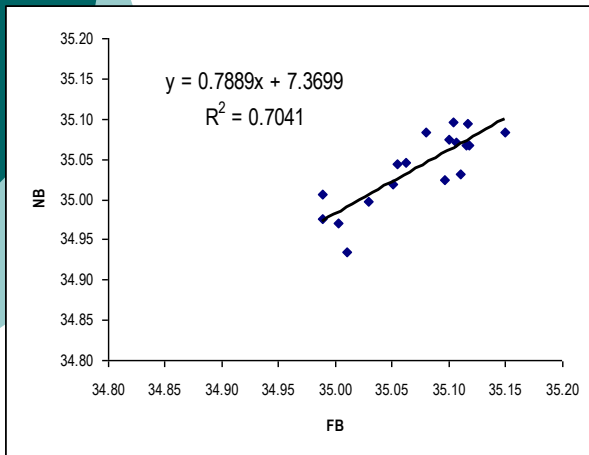
# Relationship between temperatures from the two sections in the warm period



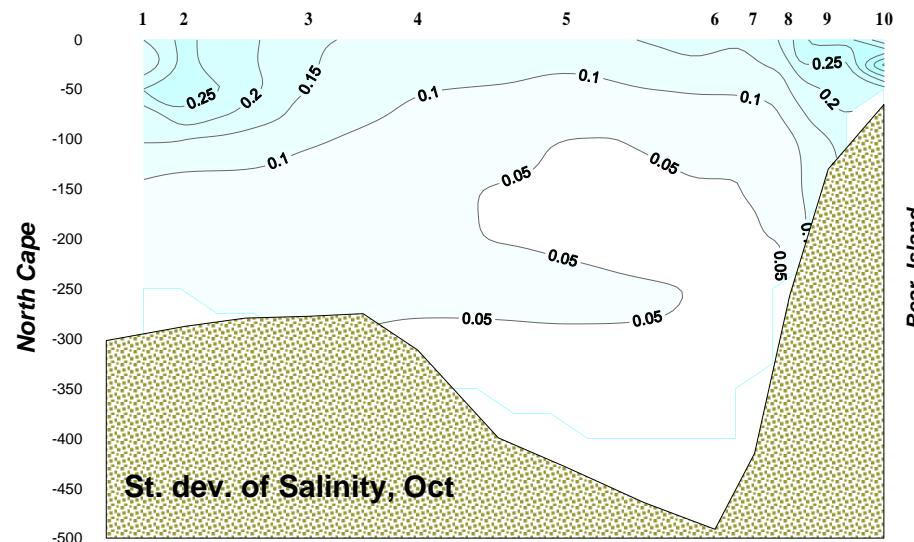
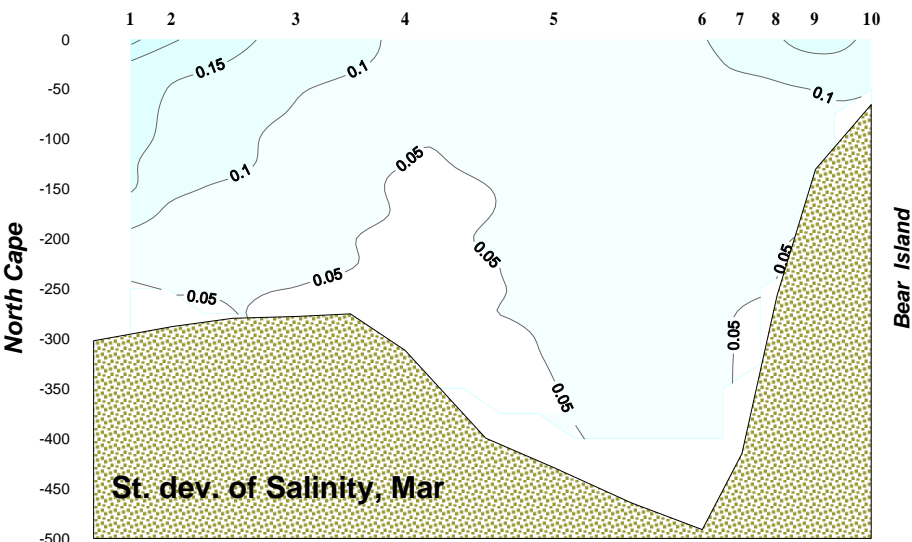
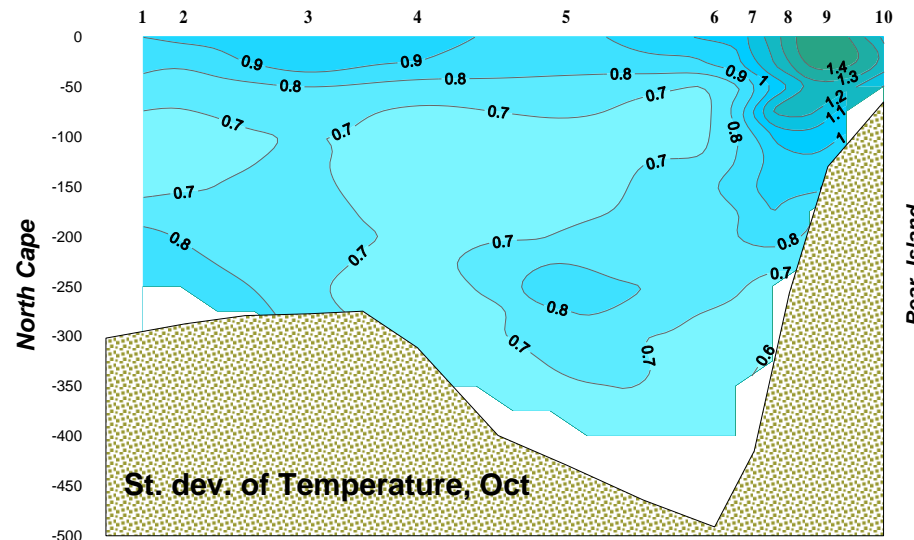
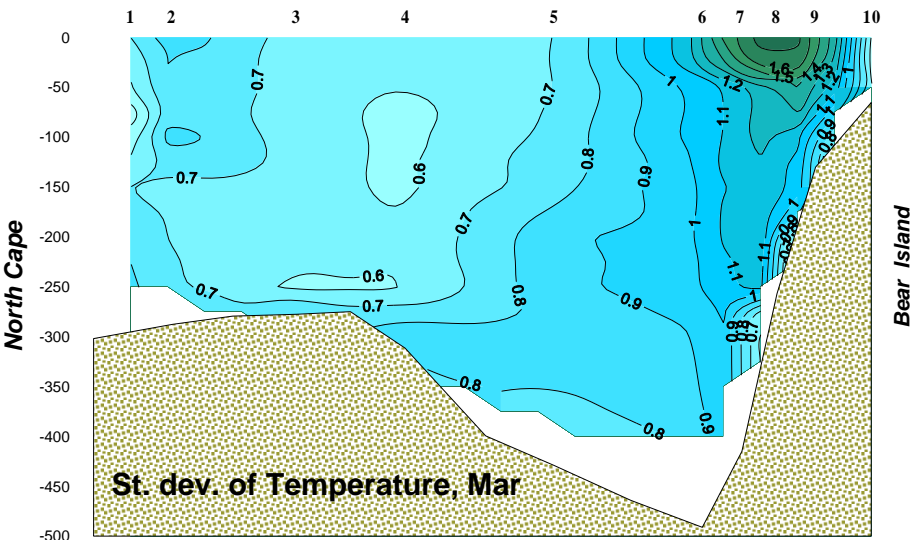
# Relationship between salinities from the two sections in the cold period



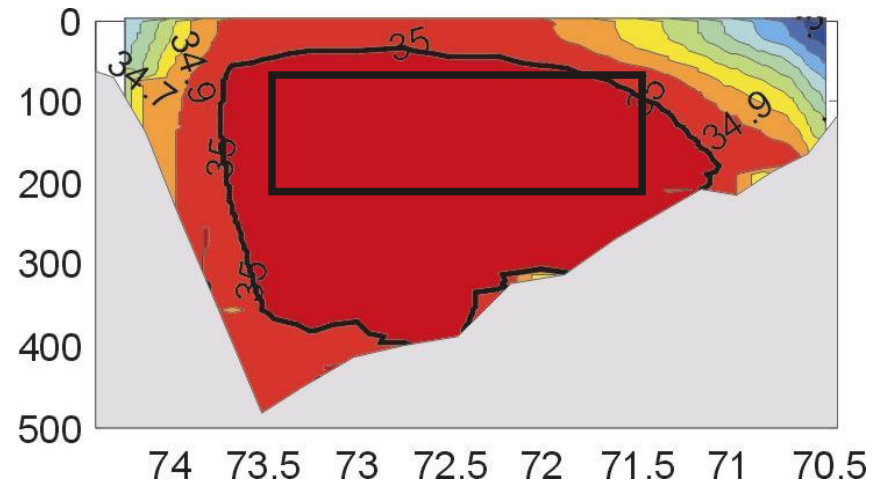
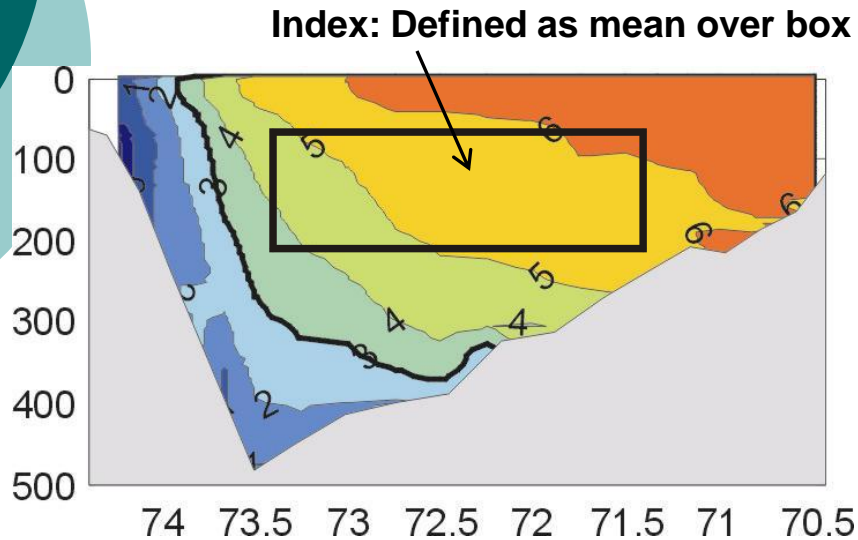
# Relationship between salinities from the two sections in the warm period



# St. deviations of temperatures and salinities in March and October



# Mean temperature and salinity distribution Fugløya-Bear Island



Atlantic Water:  $T > 3^{\circ}\text{C}$  and  $S > 35$



# Index series shown as temperature and salinity anomalies in the Fugløya-Bear Island

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