



Long term variations in the thermohaline properties in the Mediterranean and Black Seas as derived from Argo data (Preliminary results)

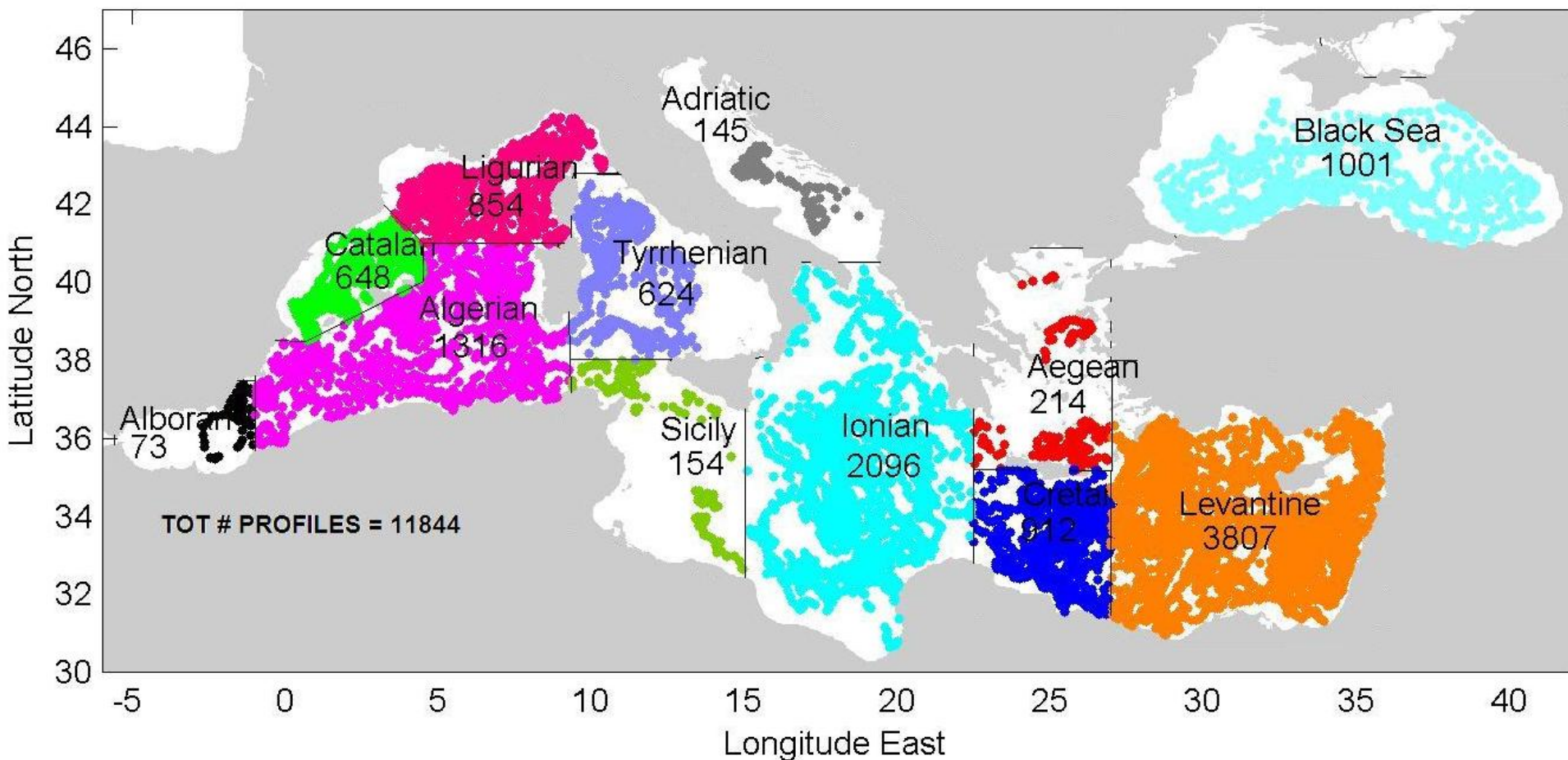
Pierre-Marie Poulain and Giulio Notarstefano (OGS, Italy)

Emil Stanev (Univ. Sofia, Bulgaria;
Helmholtz-Zentrum Geesthacht
Germany)



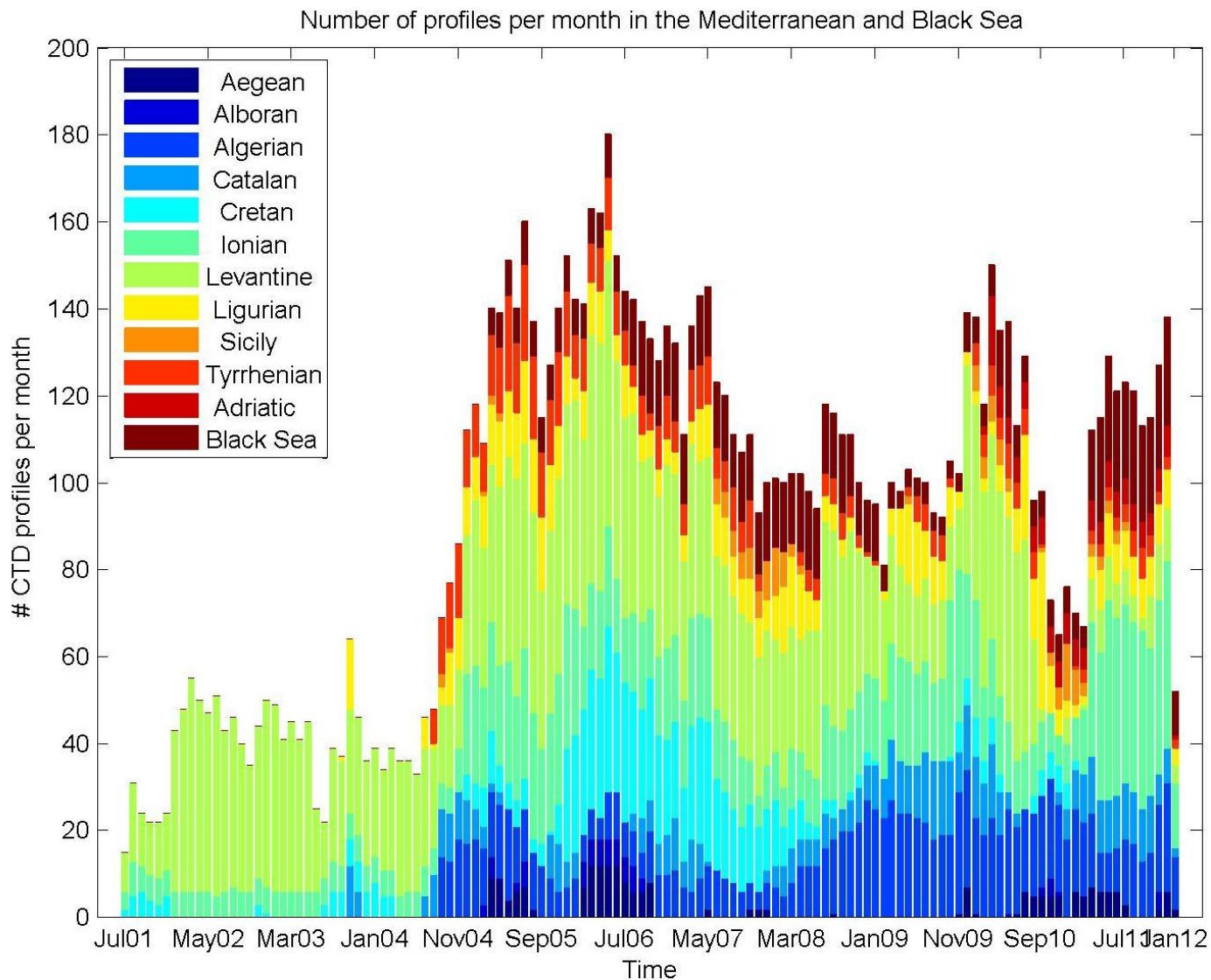
CTD float profiles distribution in the Med and Black Sea between 2001 and 2011

Number of CTD profiles in the Mediterranean and Black Sea





Monthly float profiles distribution in the Med and Black Sea between 2000 and 2011

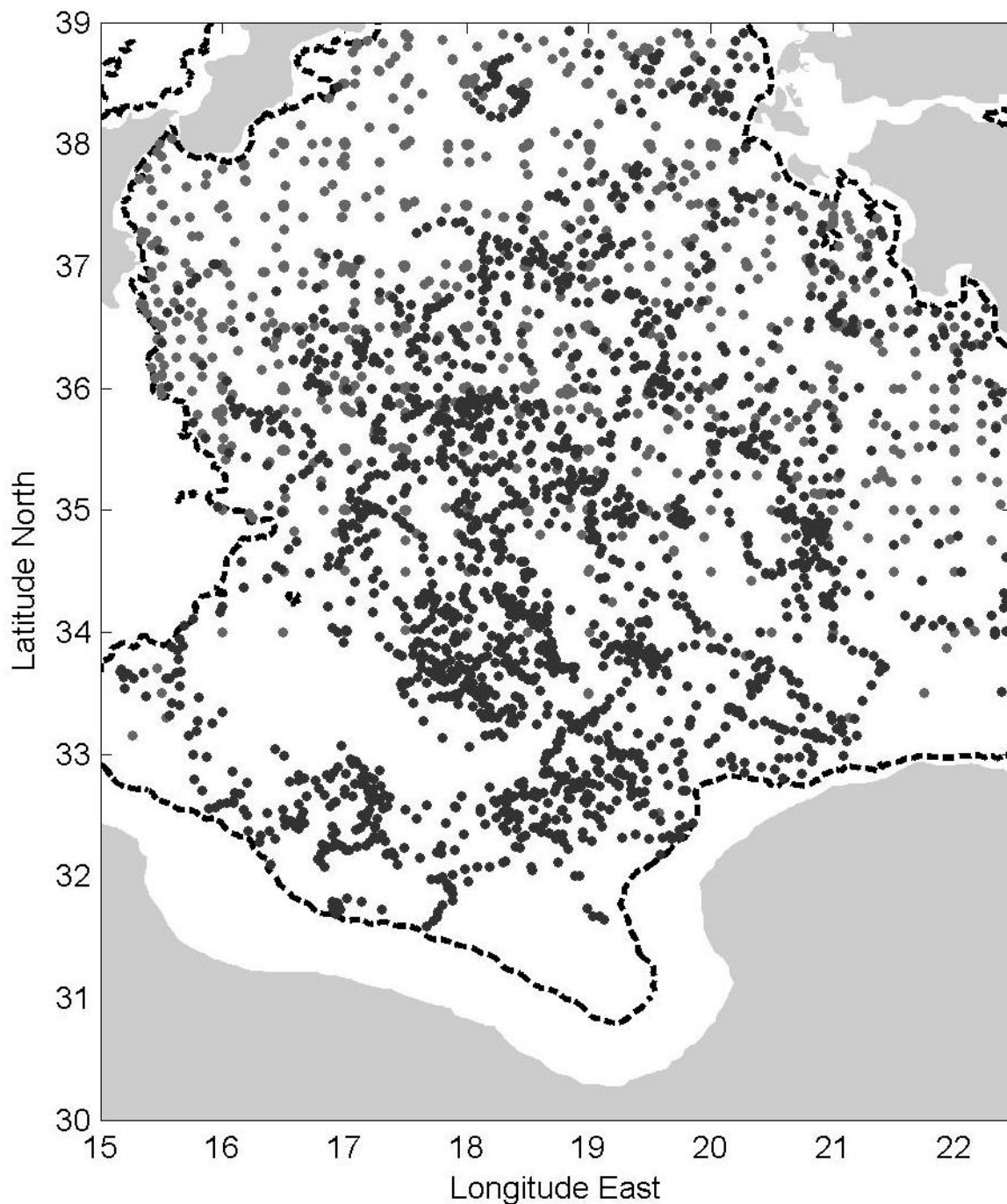




Deep Ionian Sea (1985-2011)

Ship-based CTD
(gray, mainly 1985-1999)

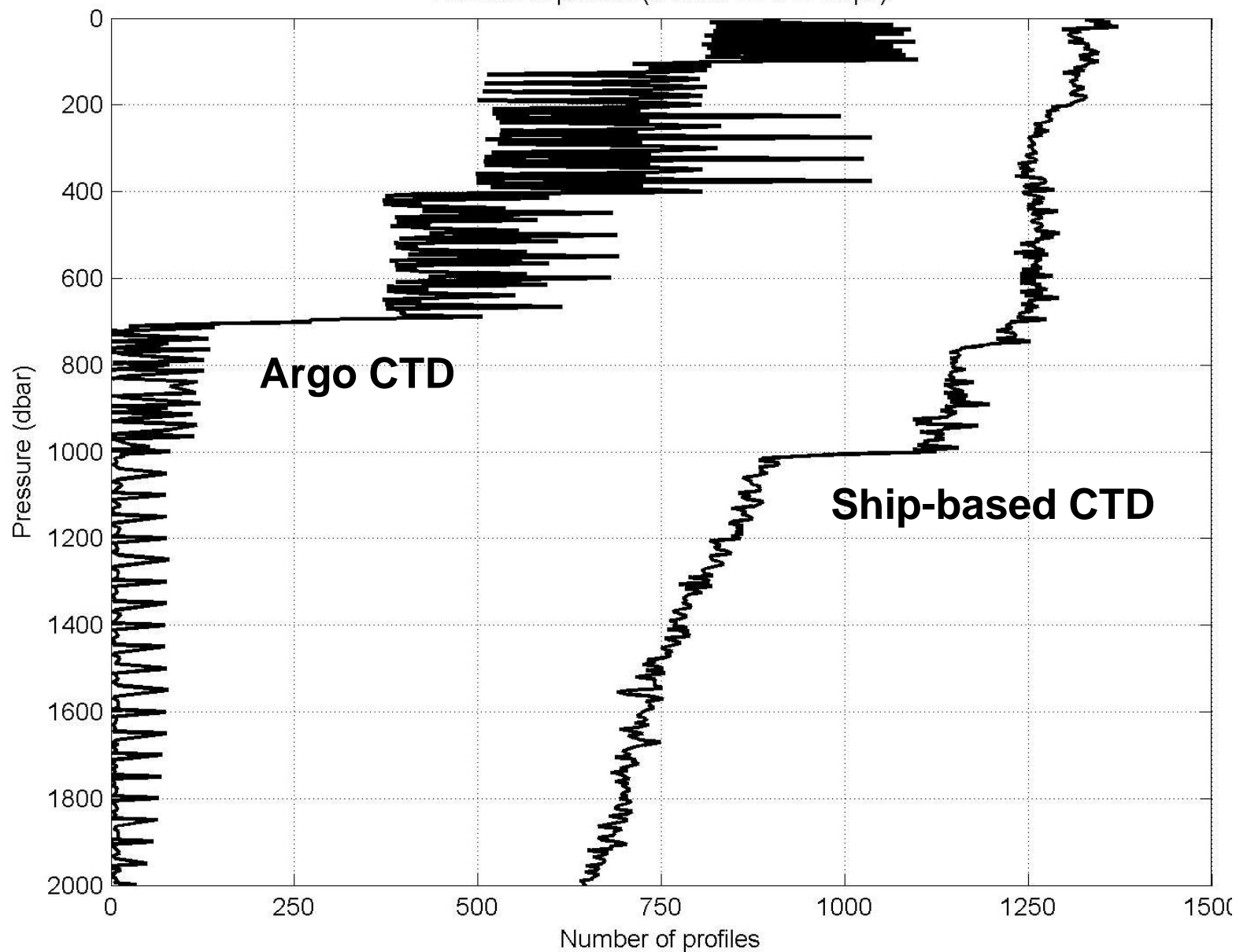
Argo CTD
(black, 2001-2011)





Deep Ionian Sea (1985-2011)

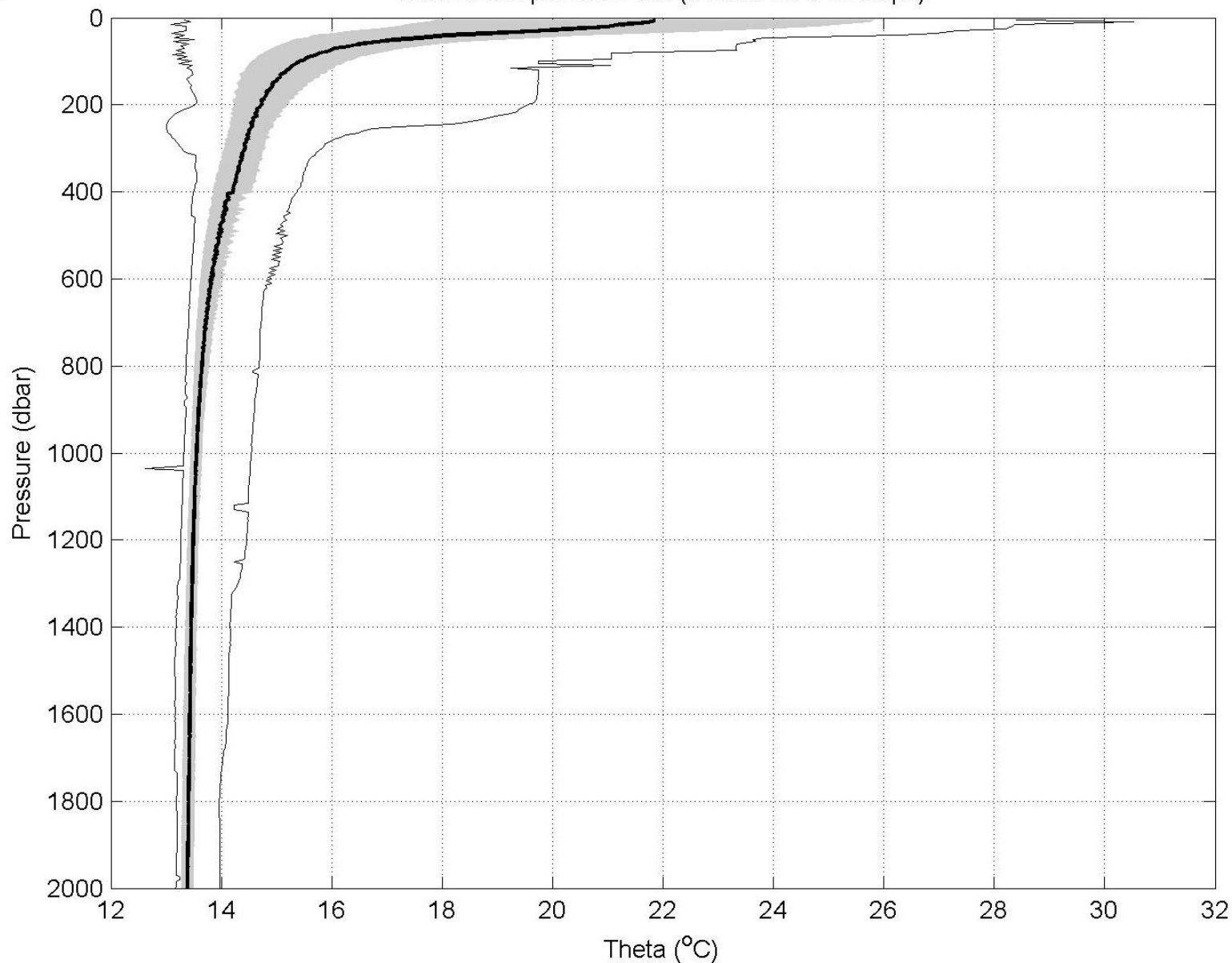
Number of profiles (0-2000 m: 5 m steps)





Deep Ionian Sea (1985-2011)

Mean theta profile ± 1 std (0-2000 m: 5 m steps)

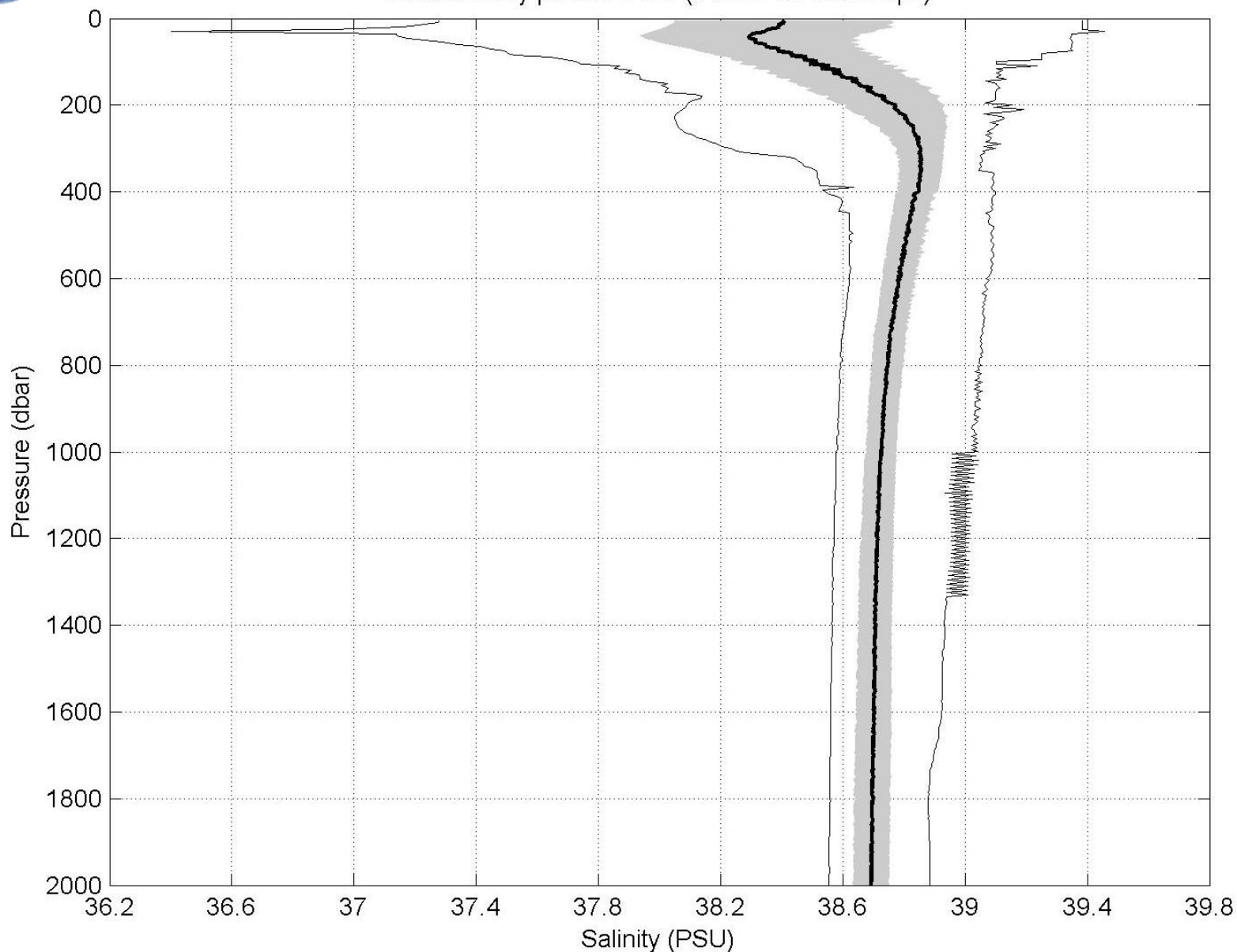


AST-13, Paris 20-22 March 2012



Deep Ionian Sea (1985-2011)

Mean salinity profile ± 1 std (0-2000 m: 5 m steps)

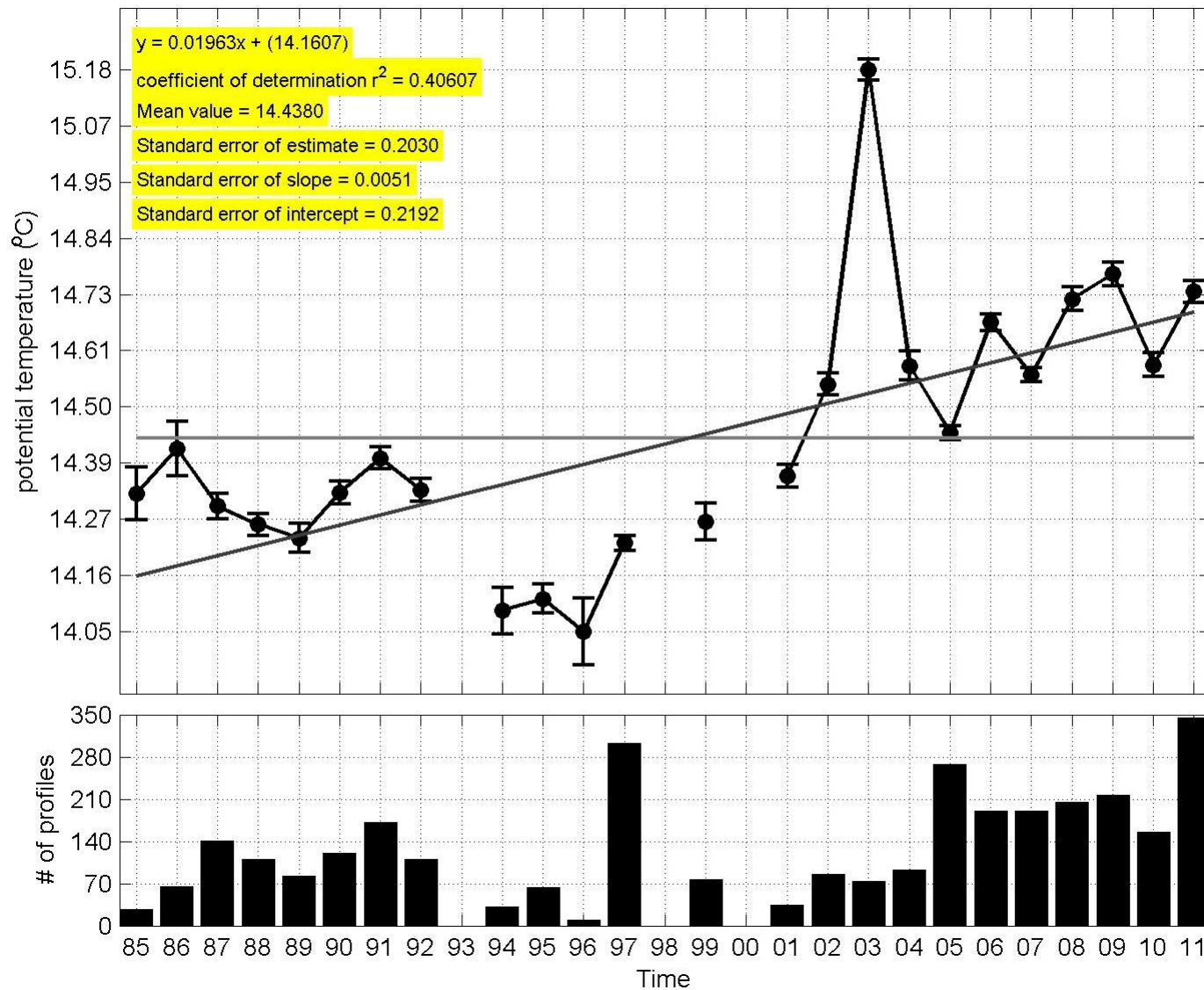


AST-13, Paris 20-22 March 2012



Deep Ionian Sea (1985-2011)

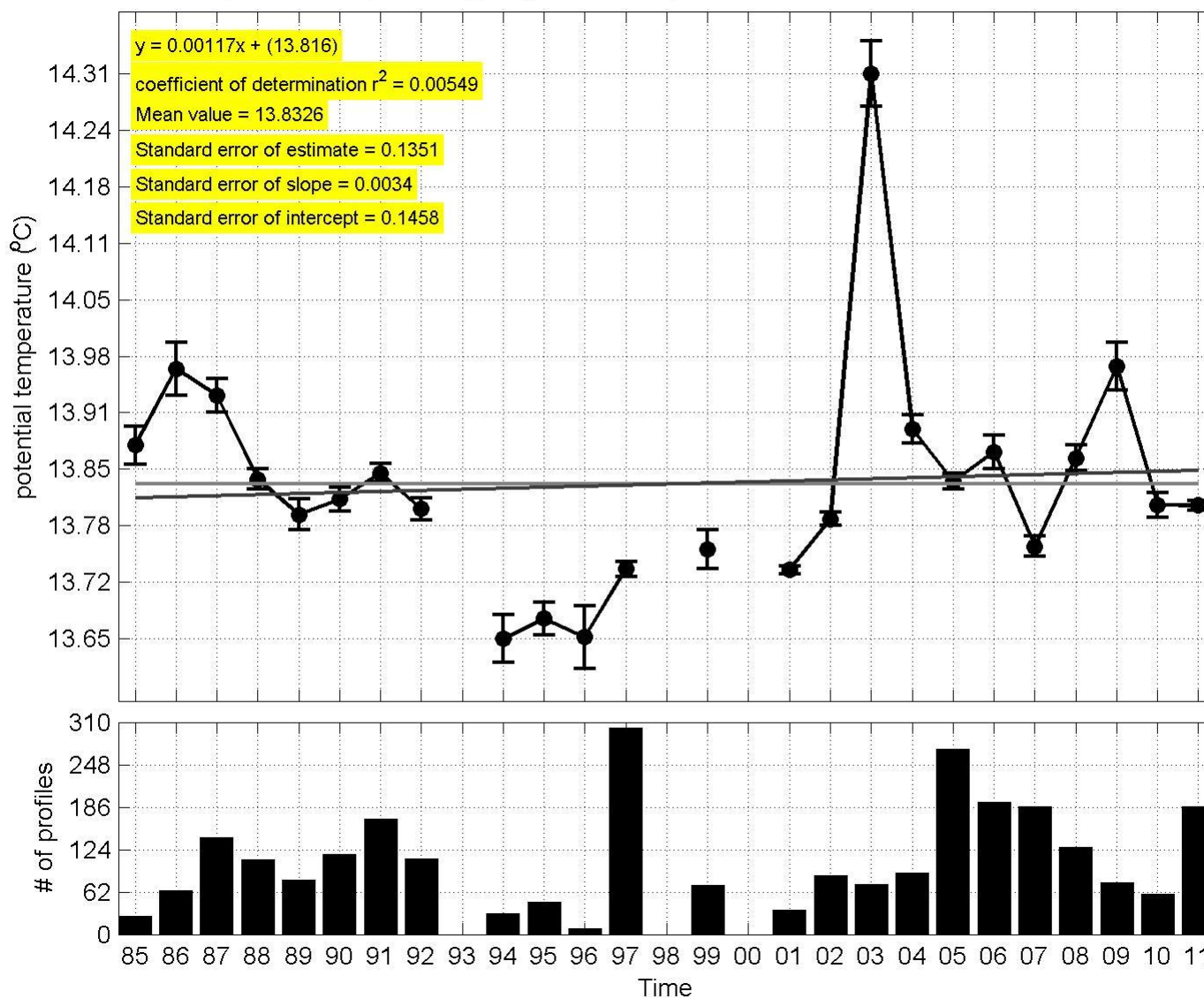
Mean potential temperature (yearly: 1985-2011) near 300 m in the area 30-39 °N 15-22.5 °E





Deep Ionian Sea (1985-2011)

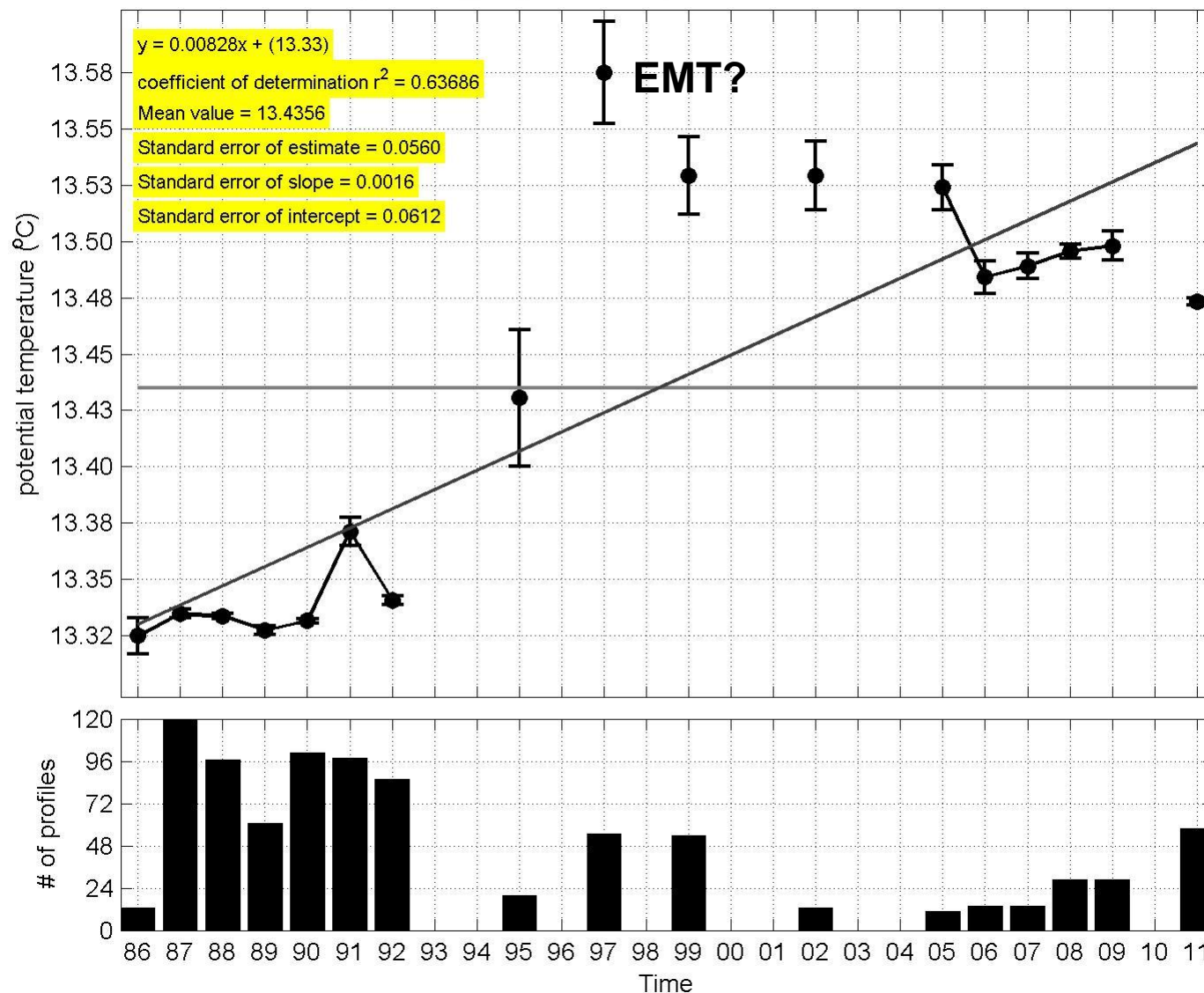
Mean potential temperature (yearly: 1985-2011) near 600 m in the area 30-39 °N 15-22.5 °E





Deep Ionian Sea (1985-2011)

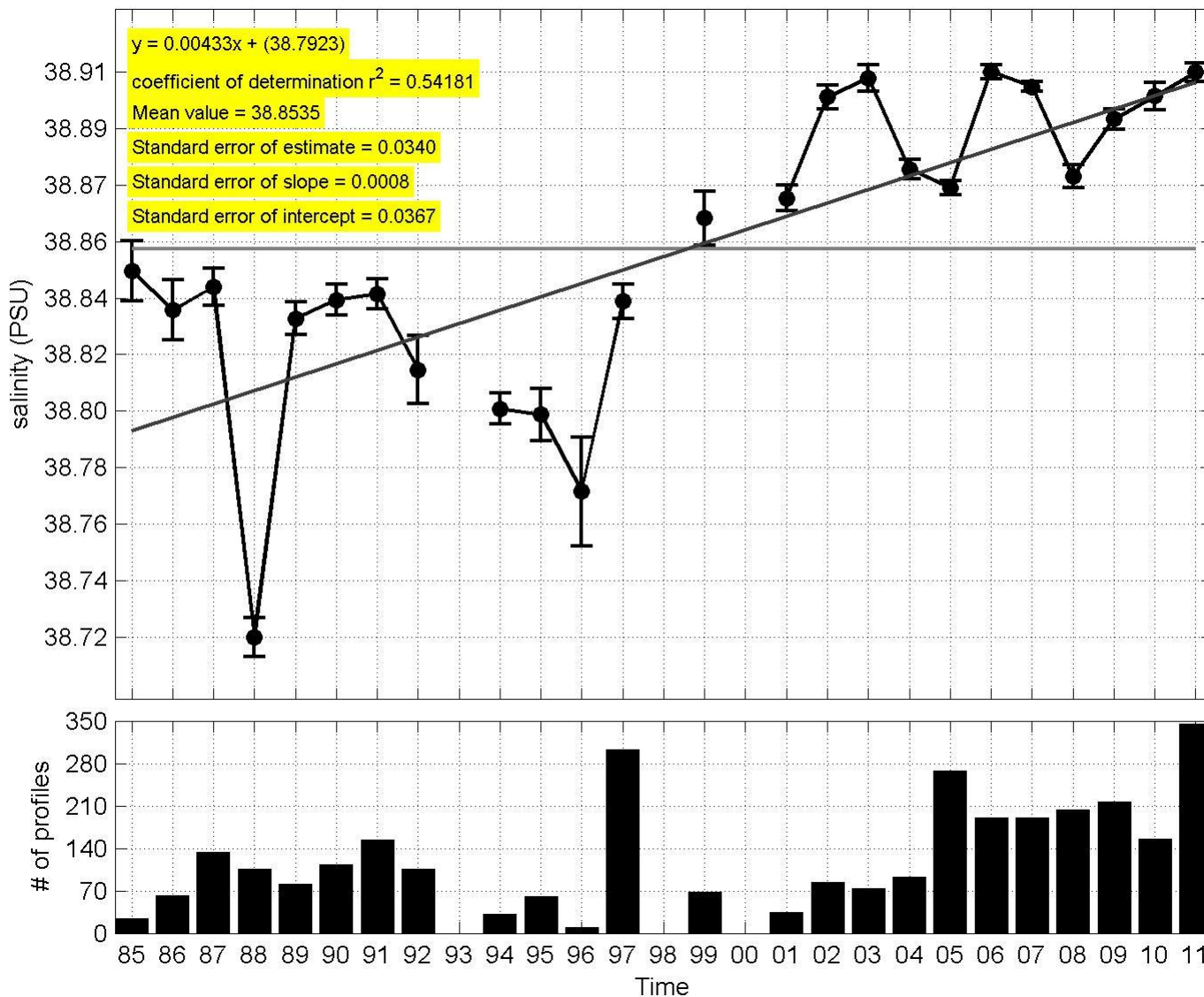
Mean potential temperature (yearly: 1986-2011) near 2000 m in the area 30-39 °N 15-22.5 °E





Deep Ionian Sea (1985-2011)

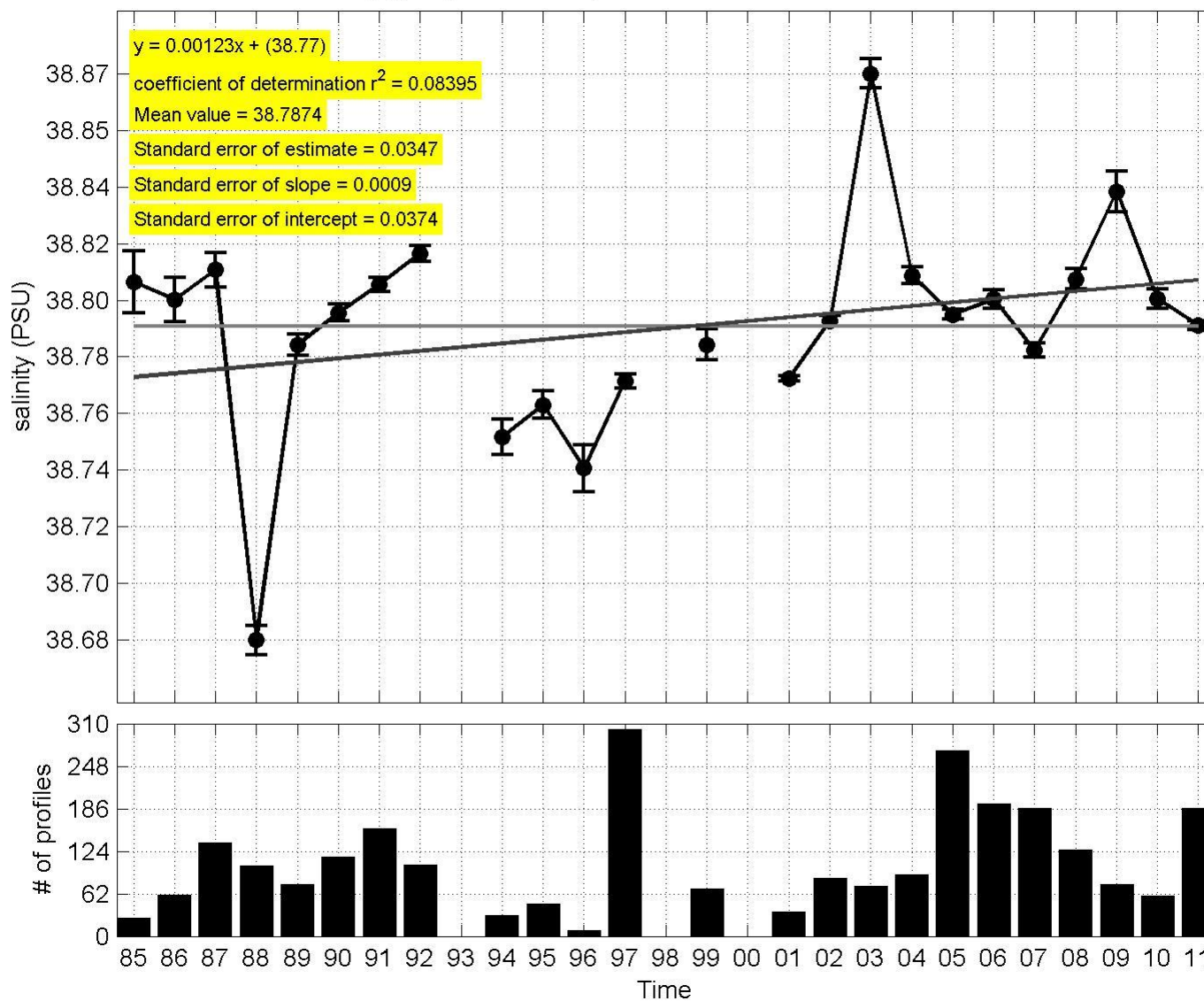
Mean salinity (yearly: 1985-2011) near 300 m in the area 30-39 °N 15-22.5 °E





Deep Ionian Sea (1985-2011)

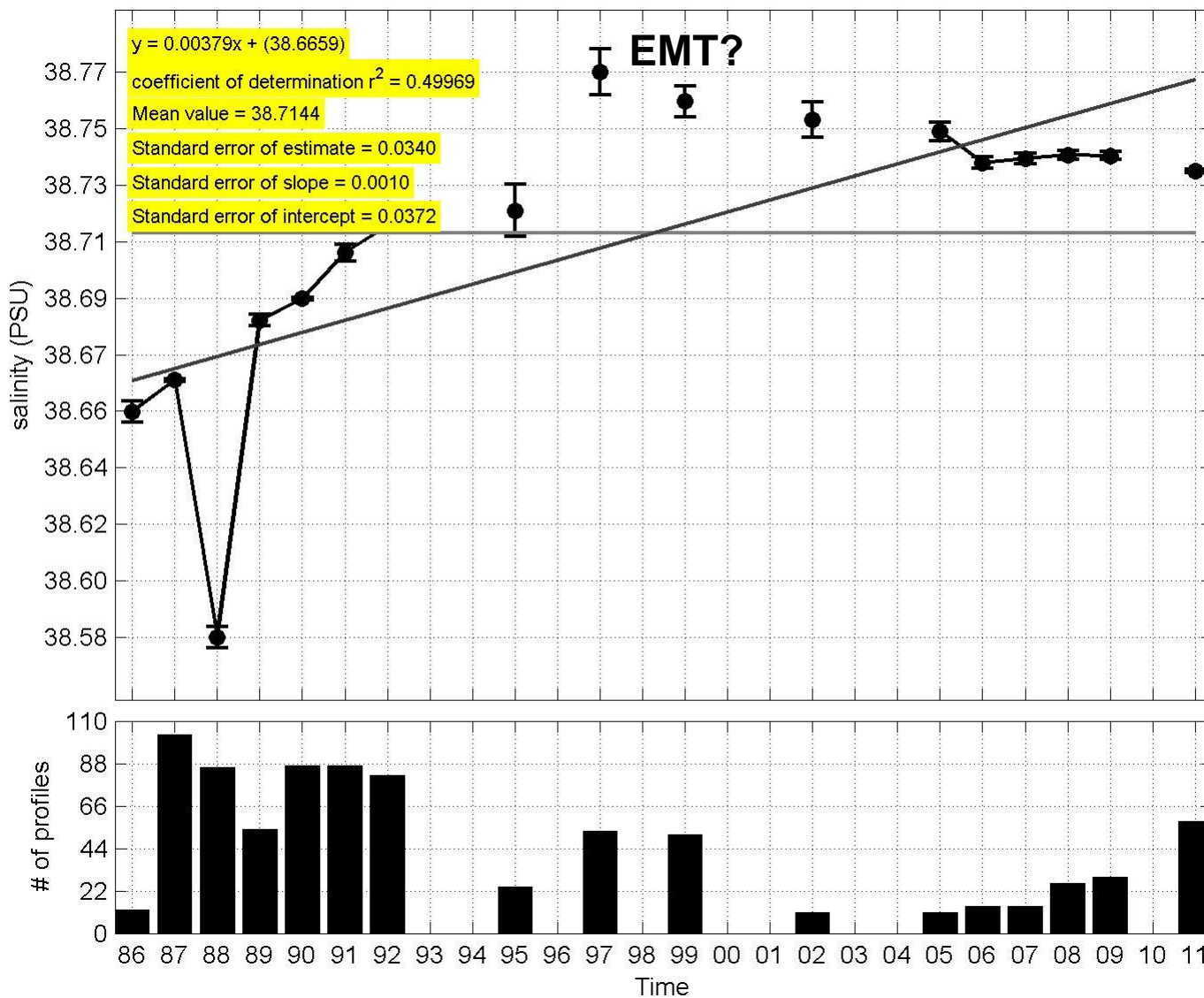
Mean salinity (yearly: 1985-2011) near 600 m in the area 30-39 °N 15-22.5 °E





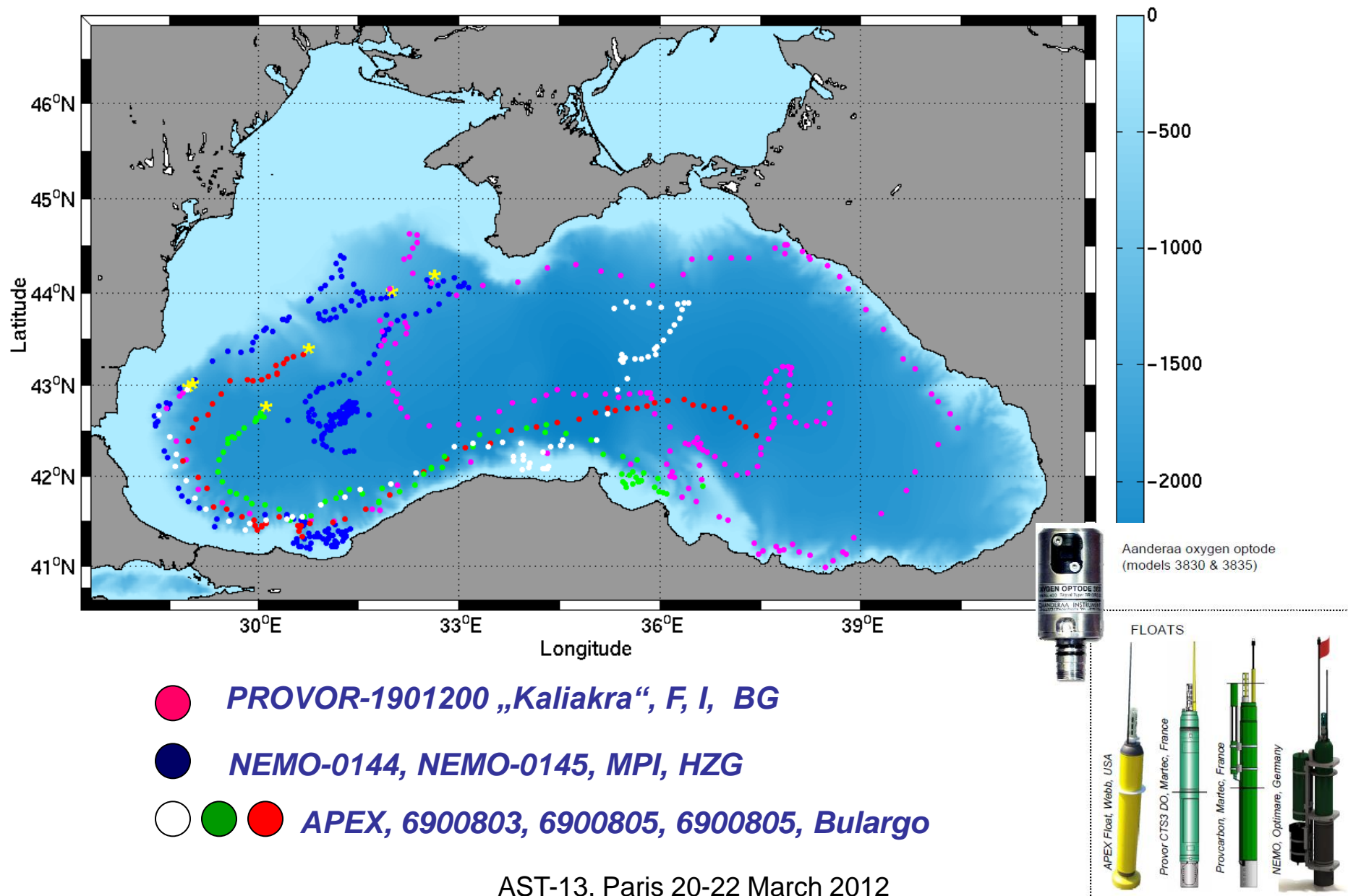
Deep Ionian Sea (1985-2011)

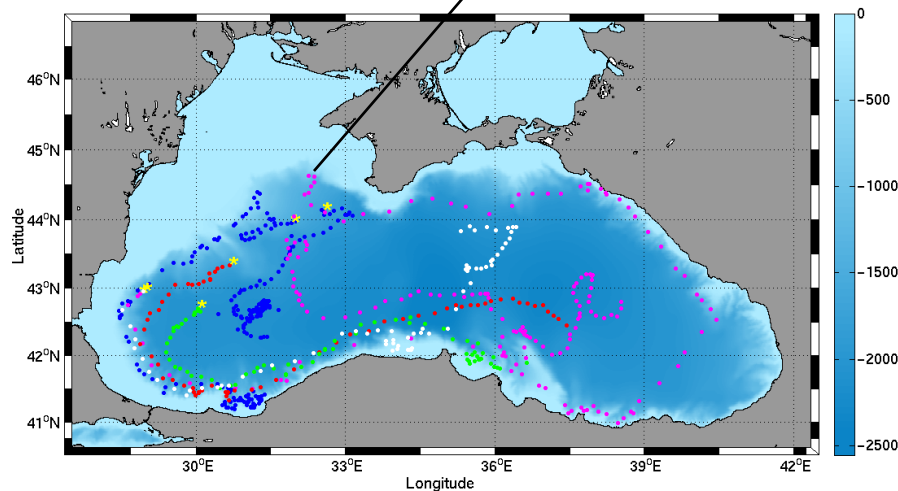
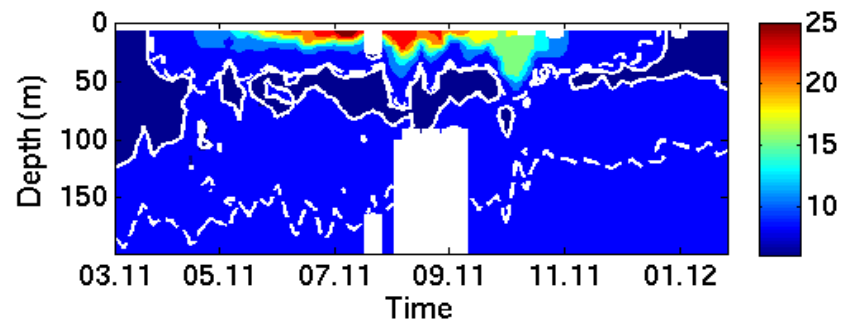
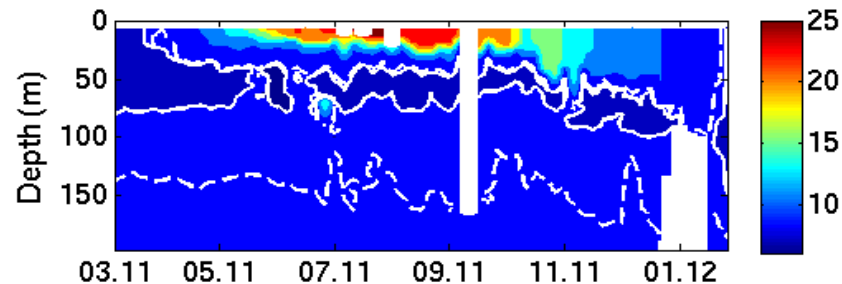
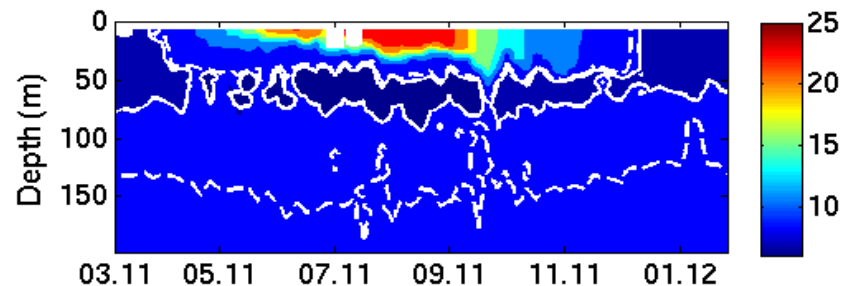
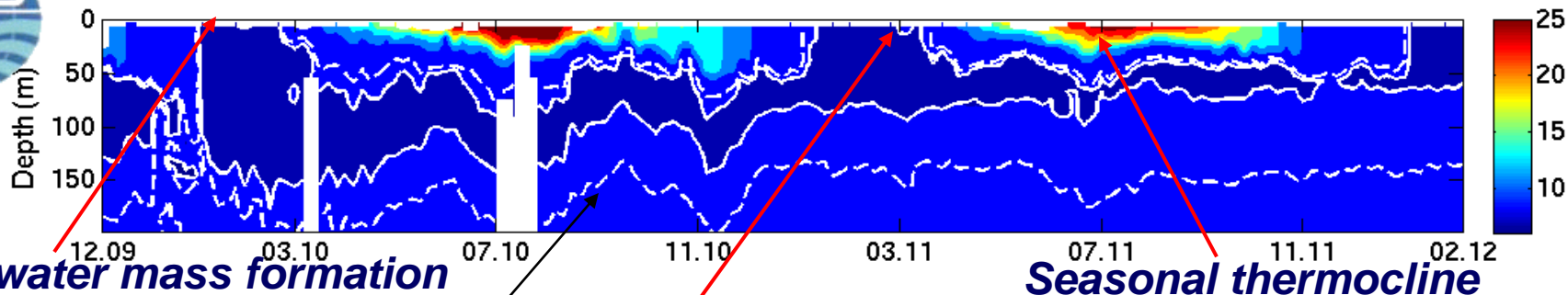
Mean salinity (yearly: 1986-2011) near 2000 m in the area 30-39 °N 15-22.5 °E





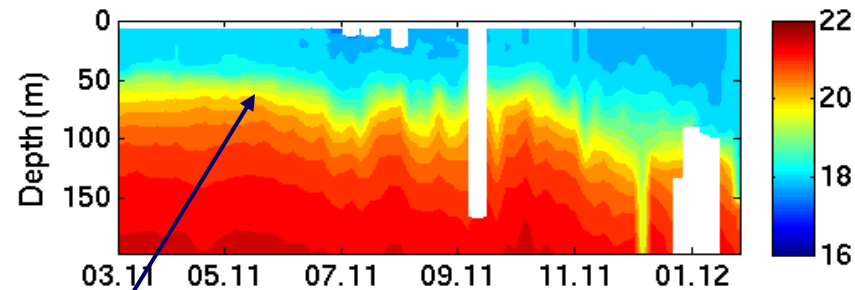
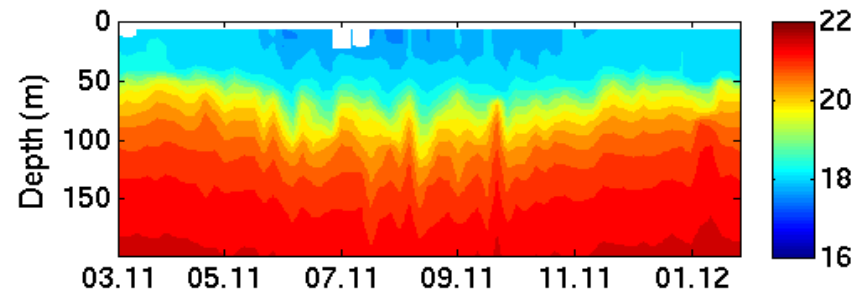
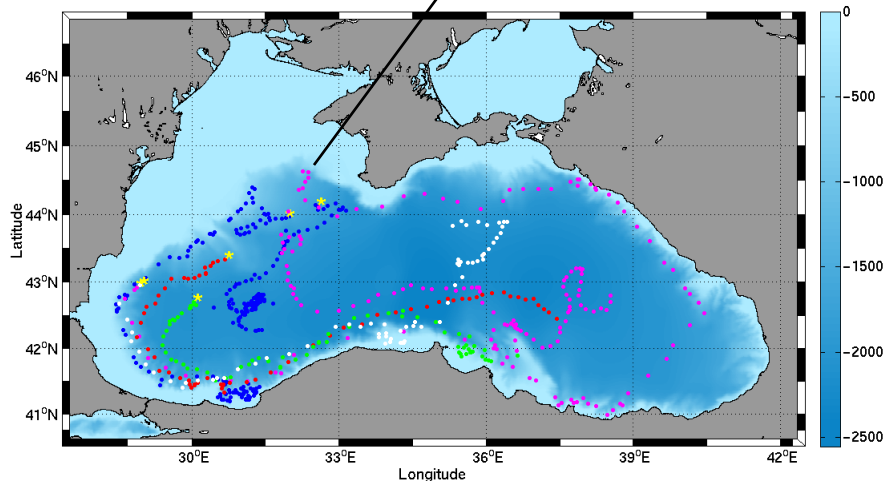
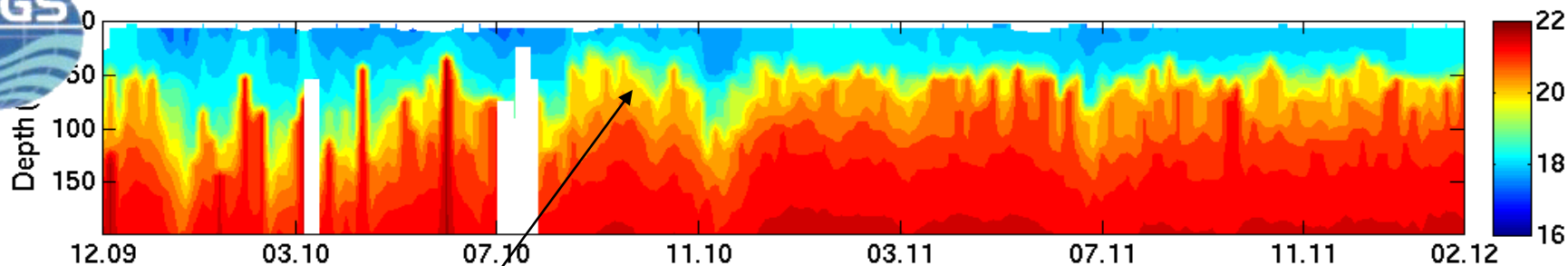
Black Sea (Dec 2009 - Feb 2012)



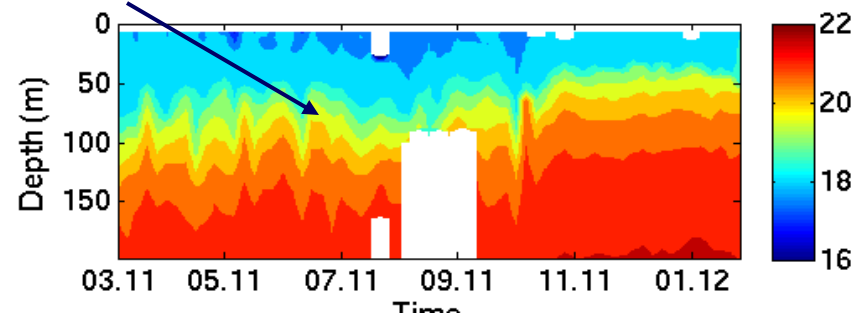


Eurocargo Float Temperature

AST-13, Paris 20-22 March 2012



halocline



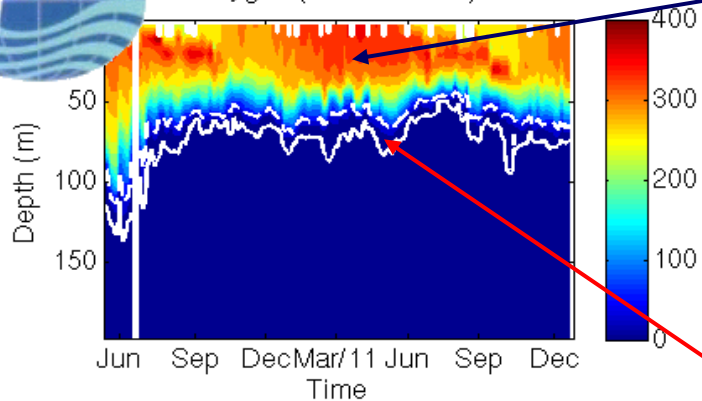
Euroargo Float Salinity

AST-13, Paris 20-22 March 2012



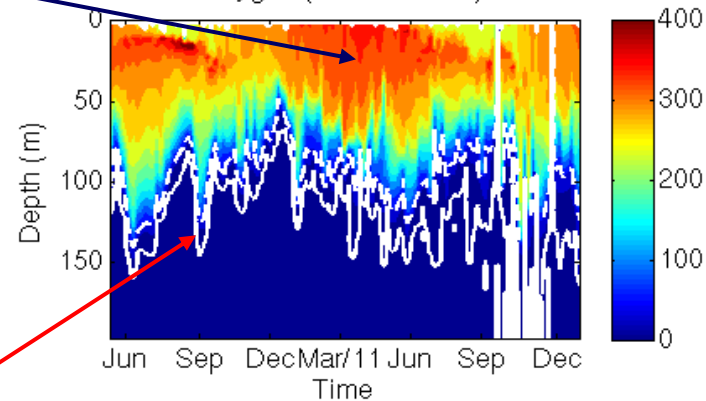
Oxygen maximum

Oxygen (NEMO-0144)



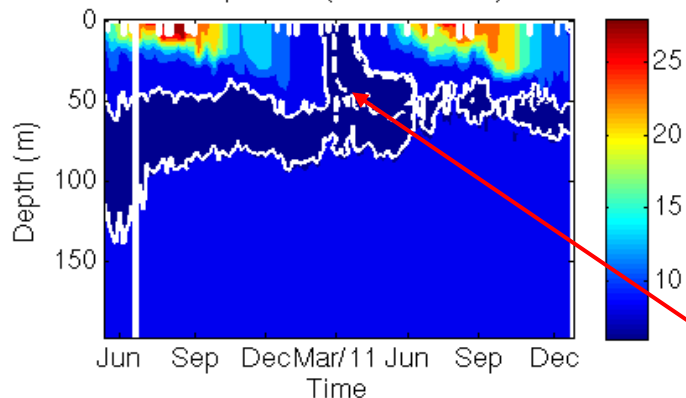
b

Oxygen (NEMO-0145)



c

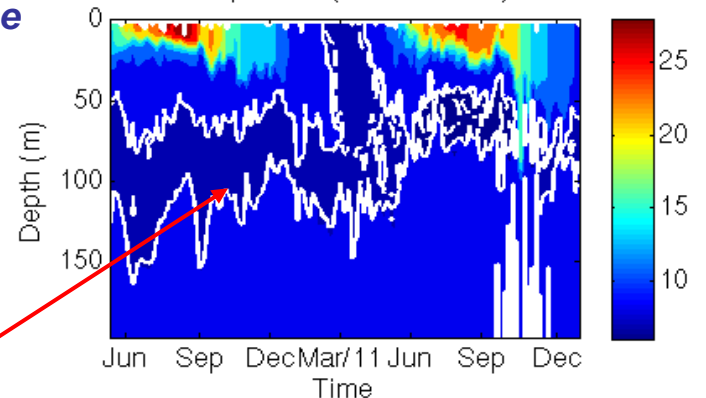
Temperature(NEMO-0144)



Suboxic zone

d

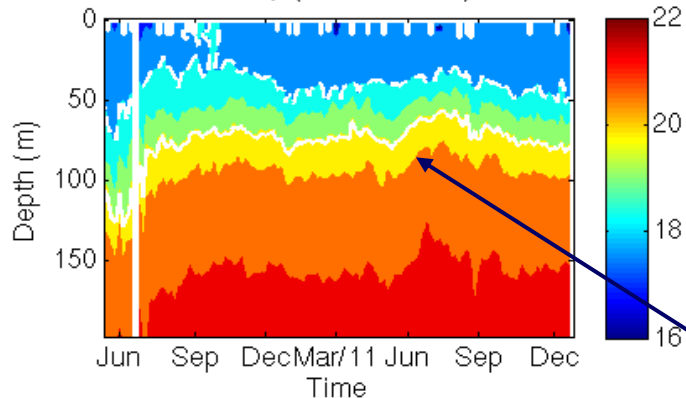
Temperature(NEMO-0145)



CIL

e

Salinity (NEMO-0144)



halocline

f

Salinity (NEMO-0145)

