



Institut National des Sciences et Technologies de la Mer

Tunisian FerryBox: A new approach to study water masses properties and dynamics in the Western Mediterranean Basin

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8th FerryBox Workshop, Oslo from 17 to 19 October 2017

Outlines

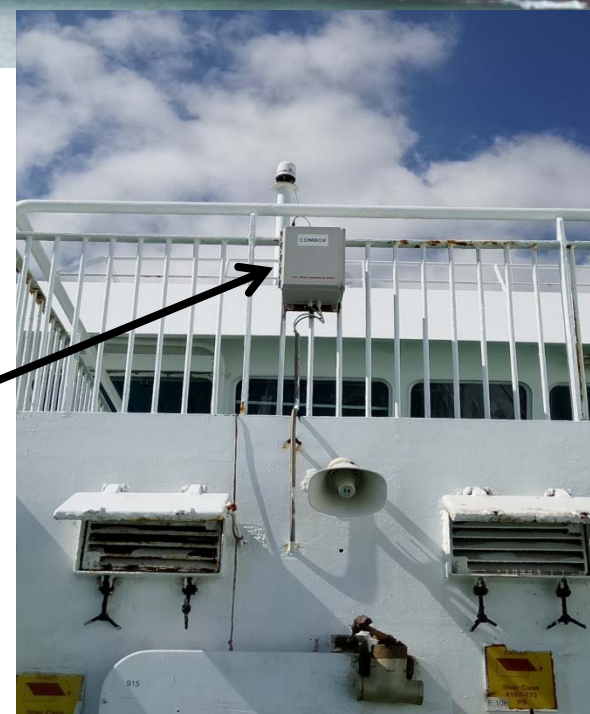
- FerryBox description
- Results from 2016 and 2017
- Problems faced
- Perspectives

FerryBx system on c/f Carthage

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Combox



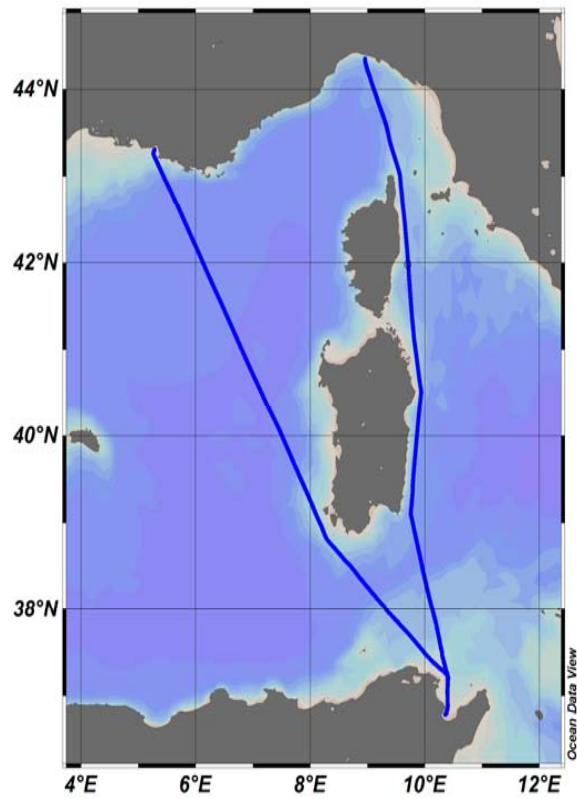
FerryBox on board c/f Carthage

In water at 5m depth,
sampling frequency is evry 1 minutes for most parametre

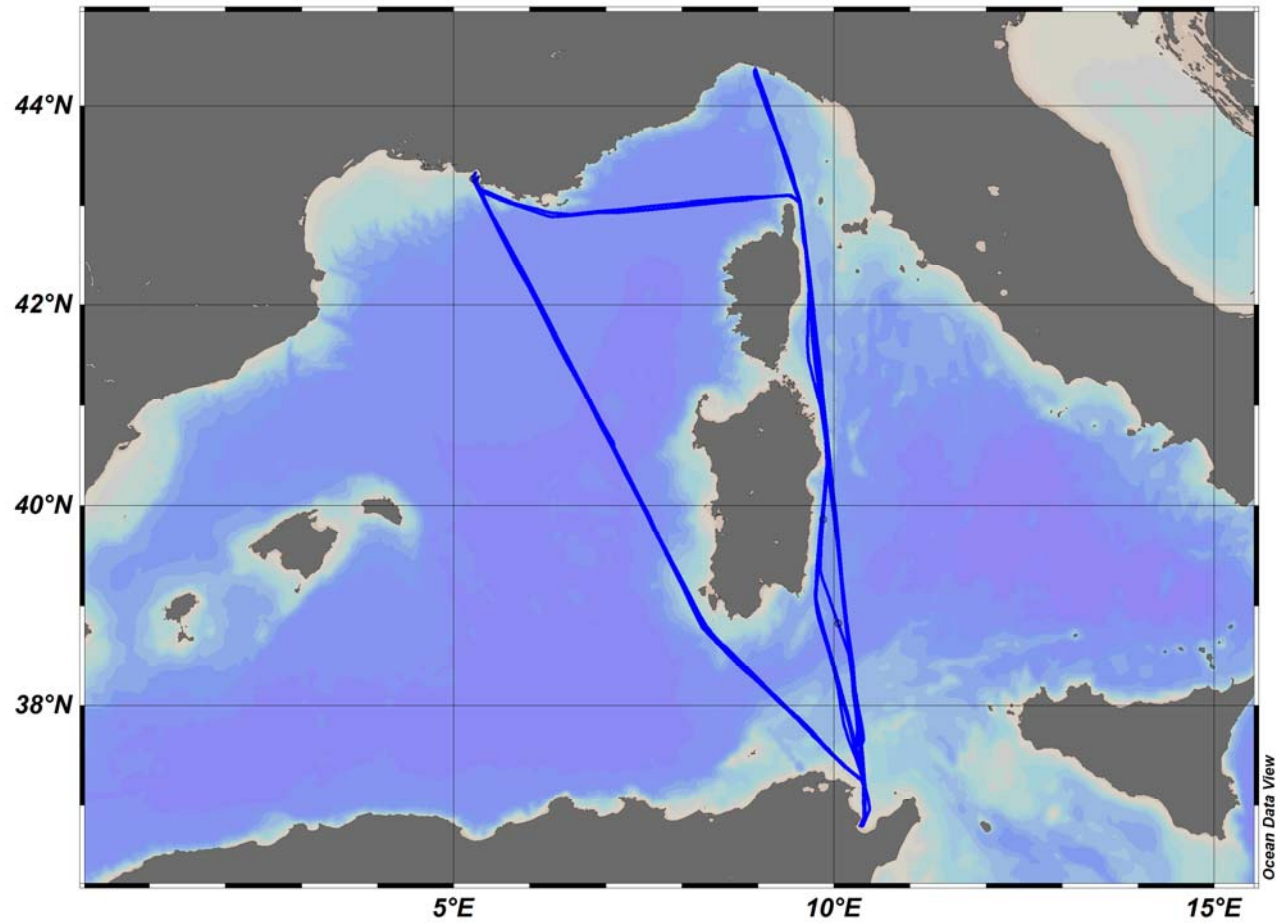
- **Temperature,**
- **Salinity,**
- **Dissolved
oxygen,**
- **Turbidity,**
- **ph**

Routes

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Planned routes

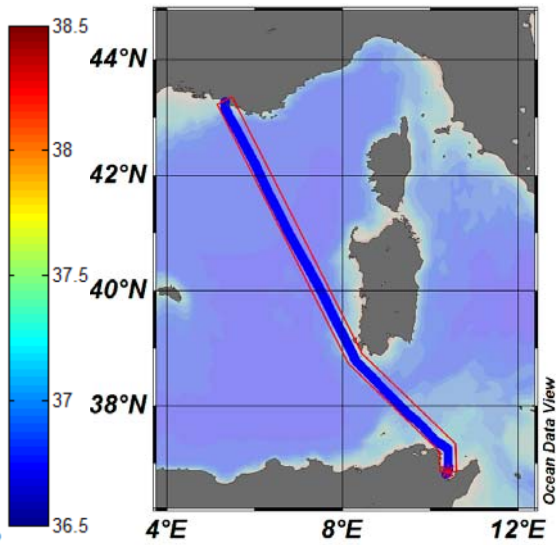
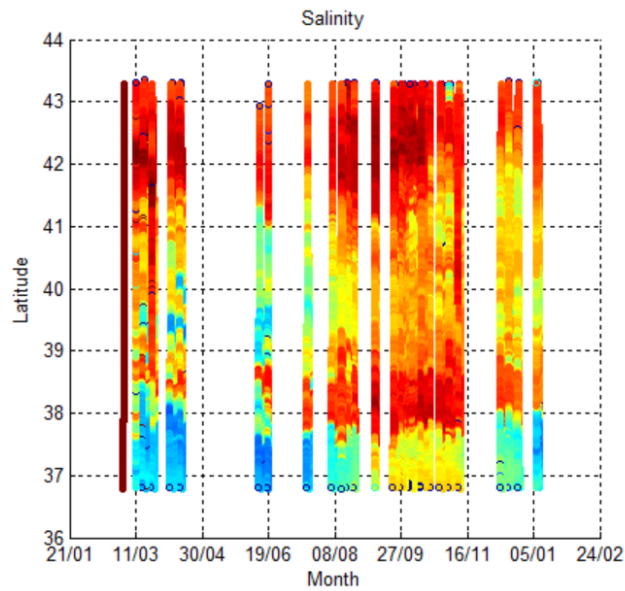


Reality

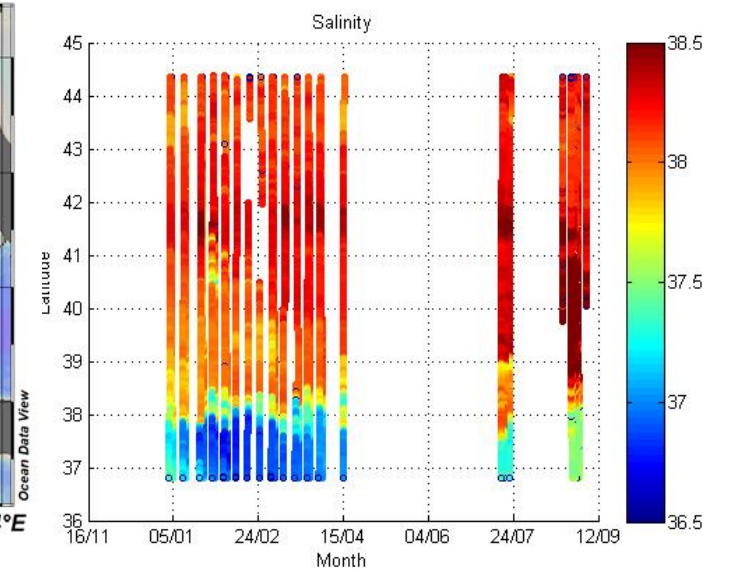
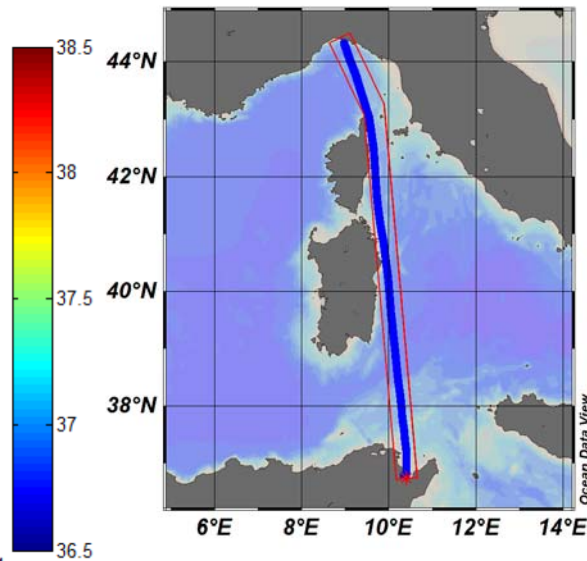
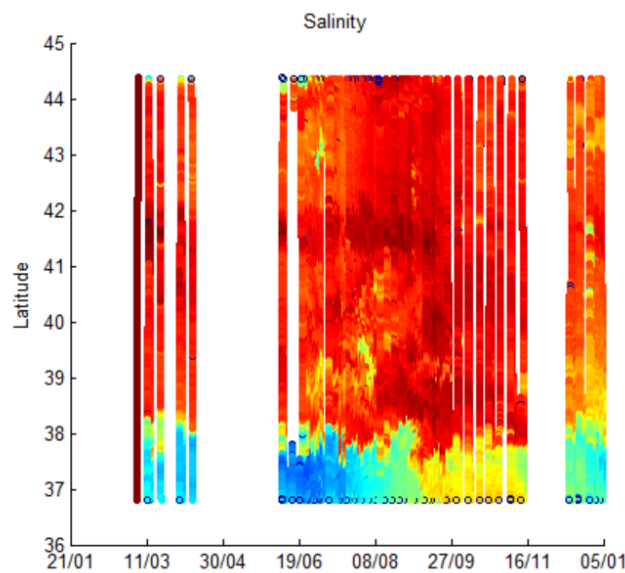
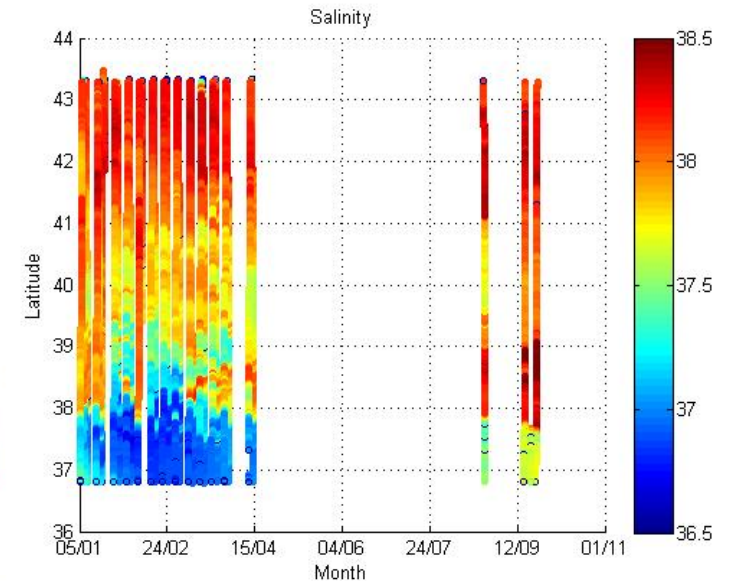
Salinity

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2016



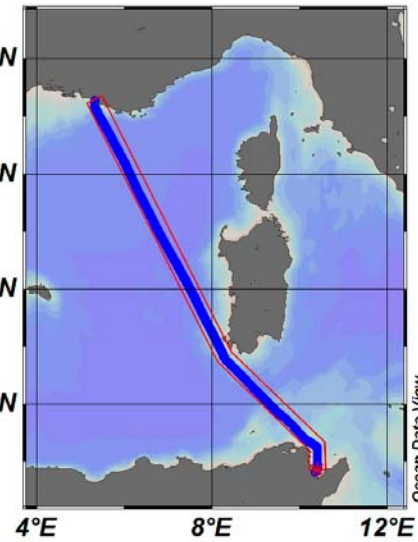
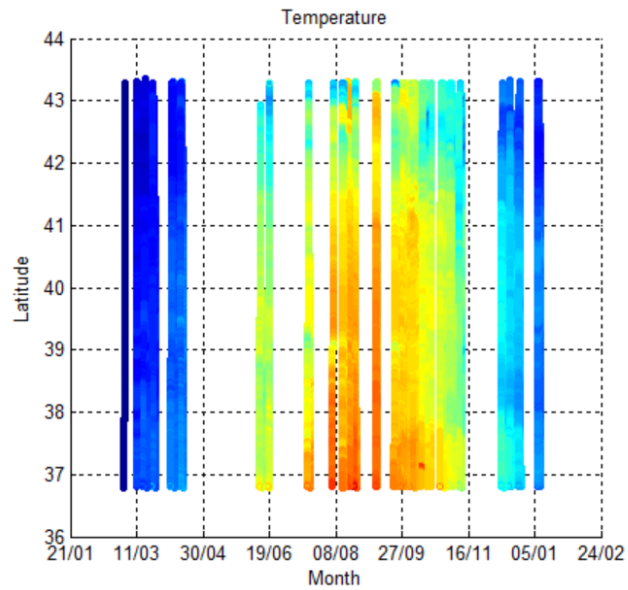
2017



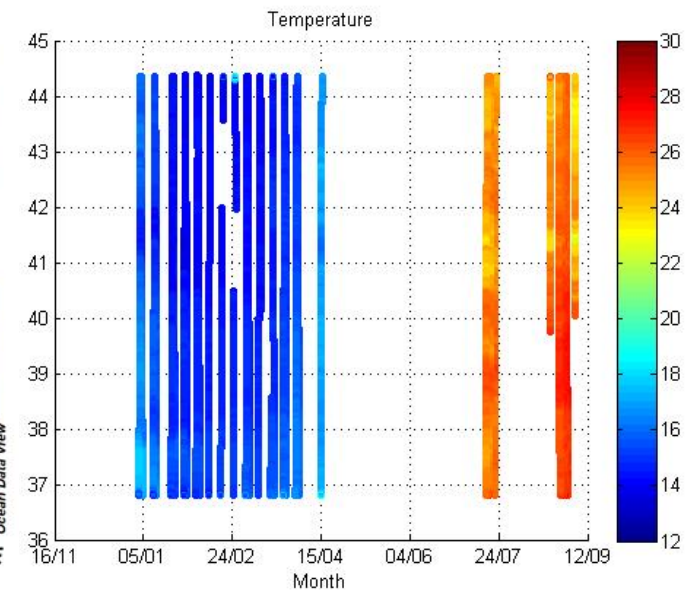
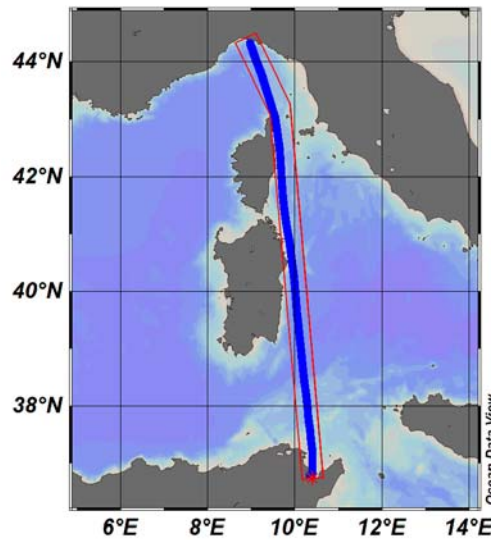
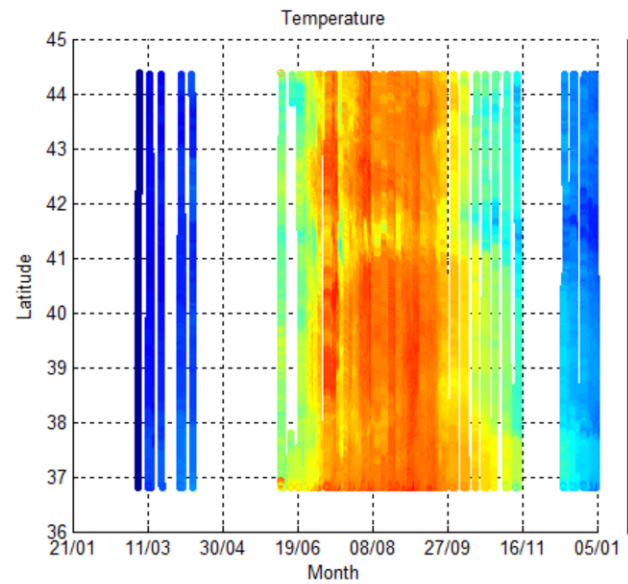
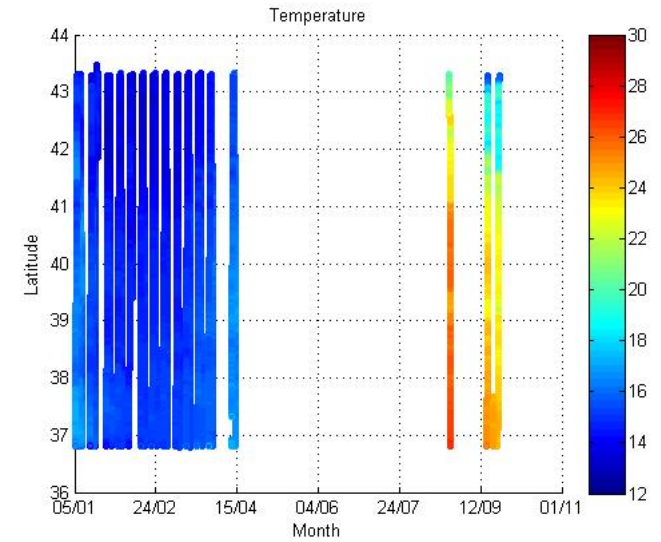
Temperature

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2016



2017

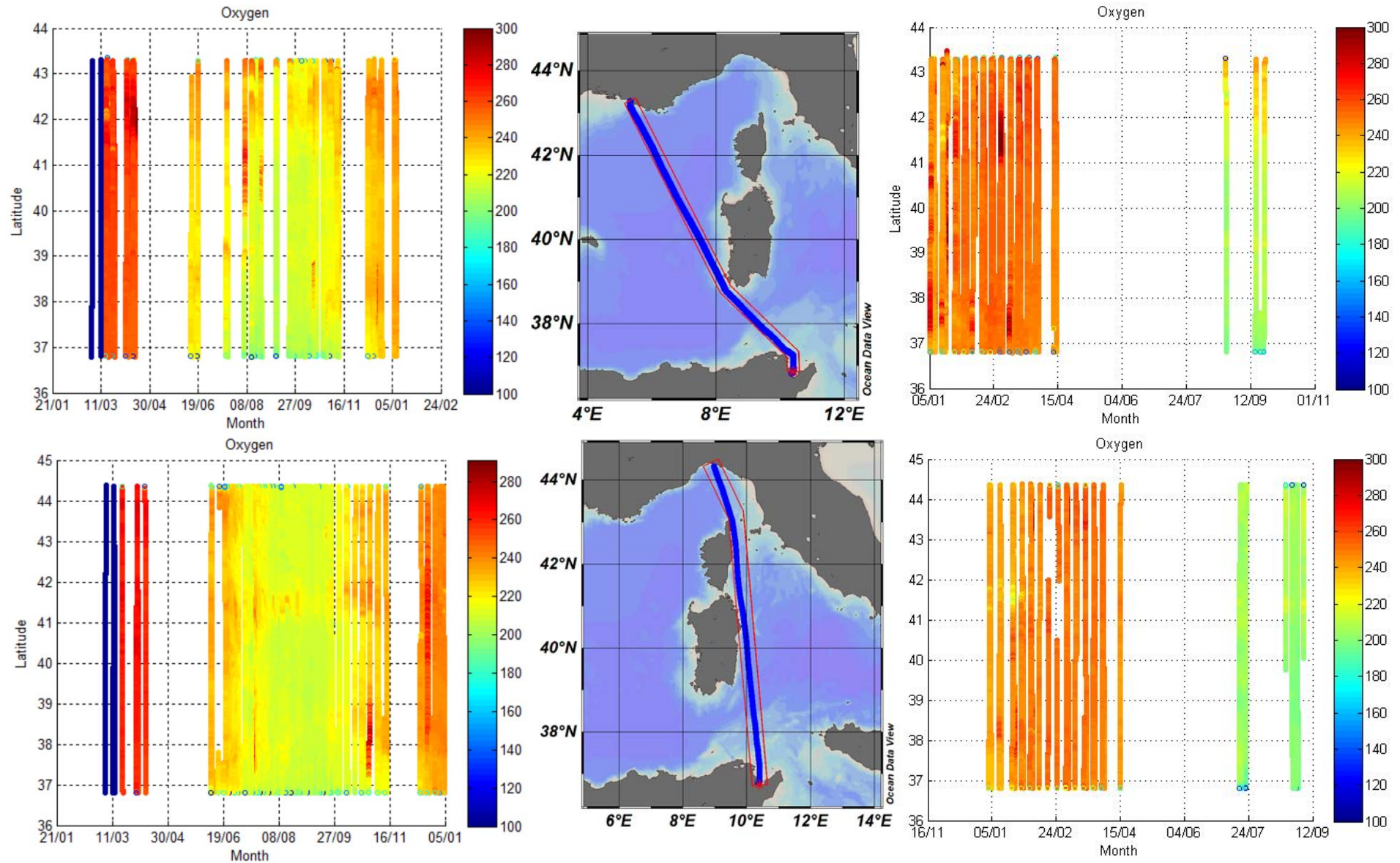


Oxygen saturation

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2016

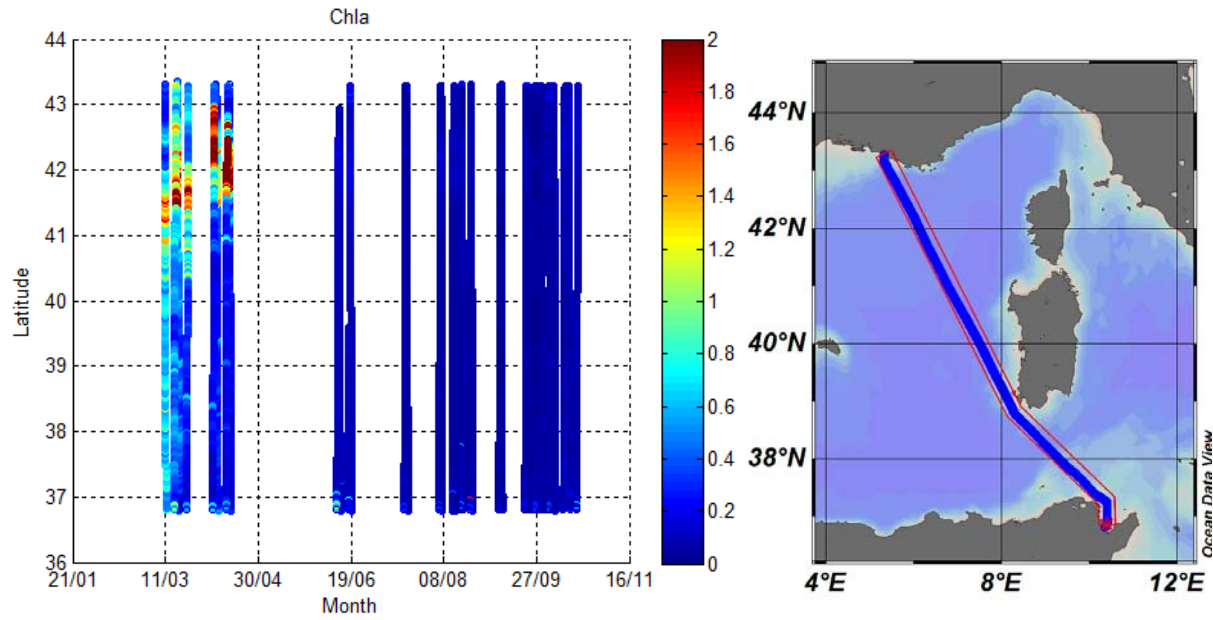
2017



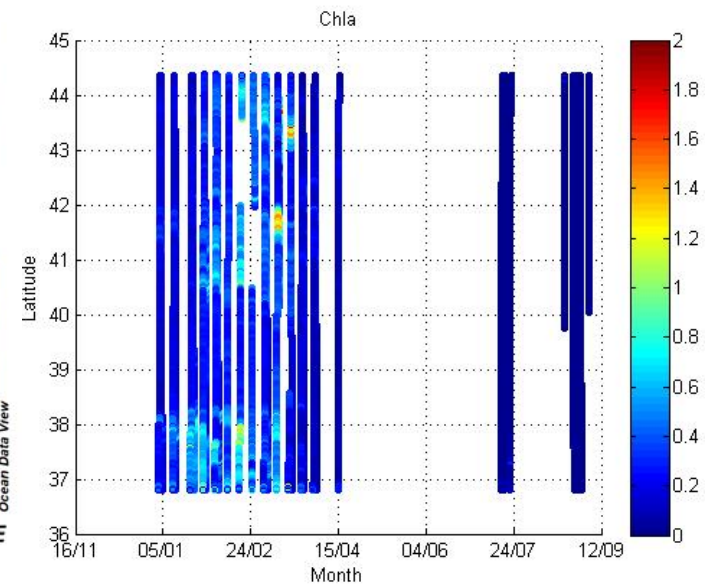
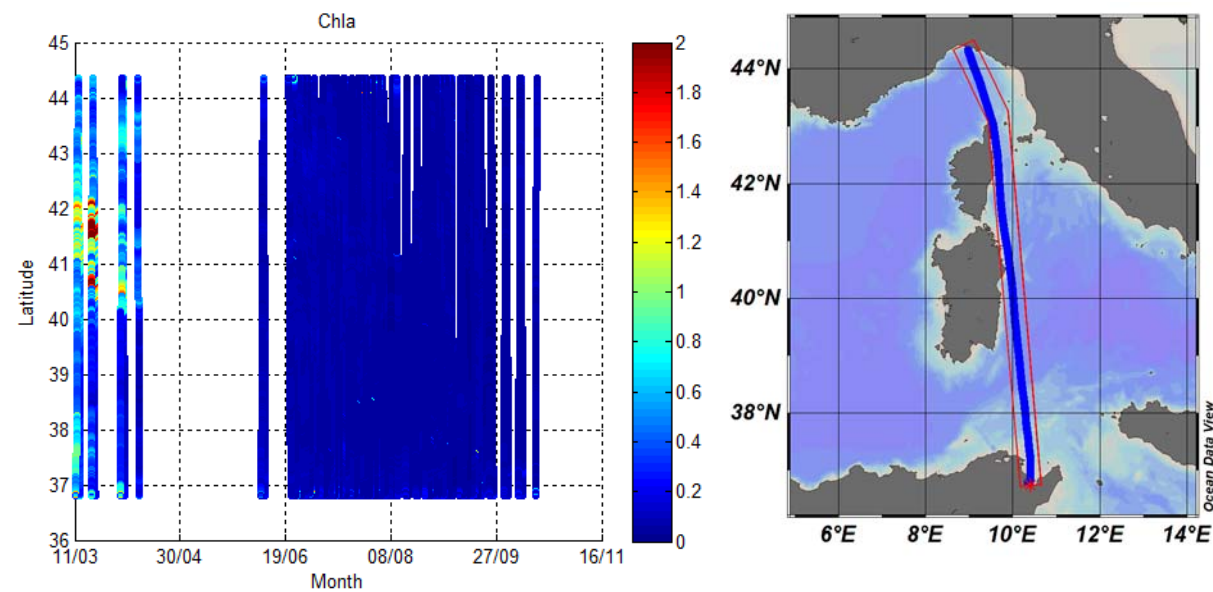
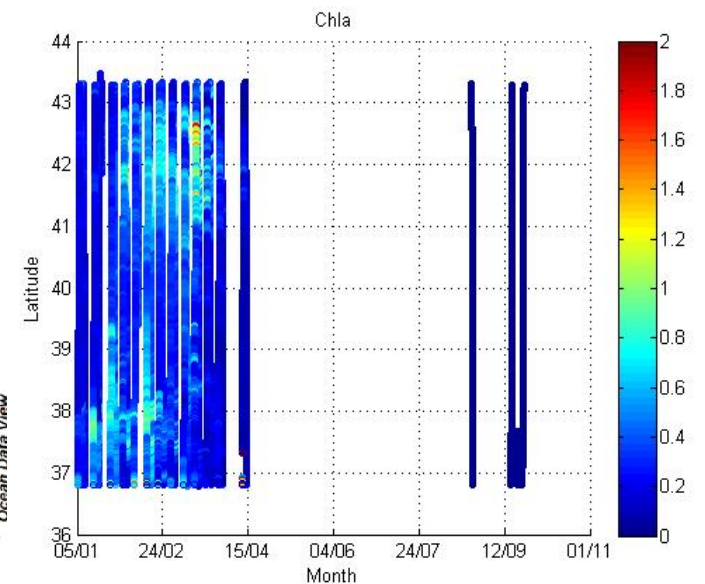
Chlorophyll a

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2016



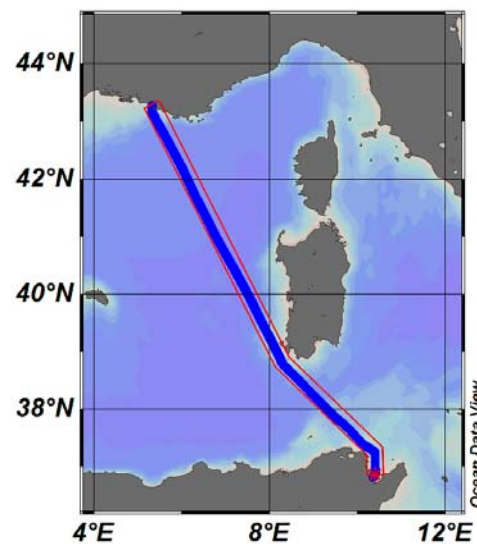
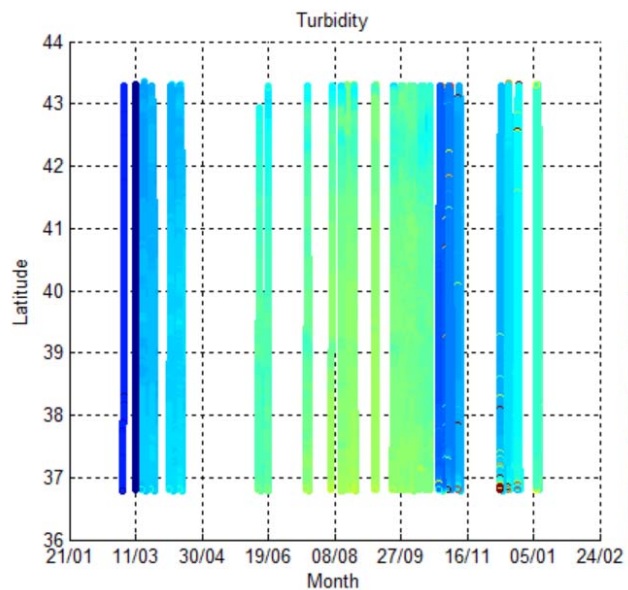
2017



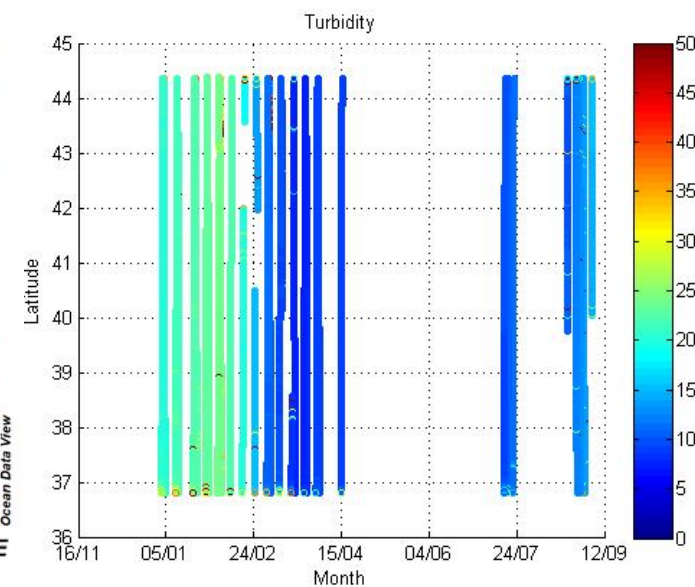
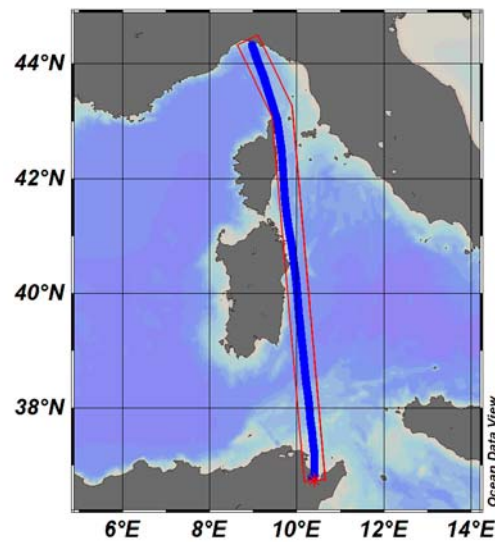
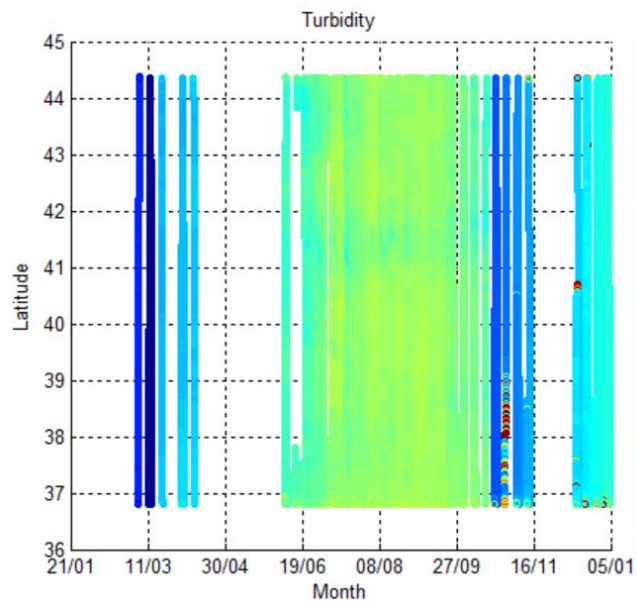
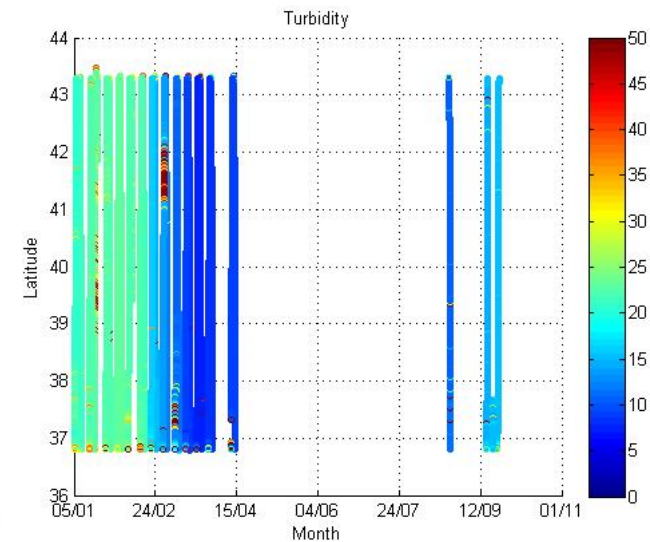
Turbidity

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2016



2017



- **FerryBox recurrent problems**

- communication with the ferrybox
- senseless values of the measured parameters
- presence of the air bubbles in the dububbler
- presence of metallic residues in the system

- **Logistics problems**

- Access on board the ship
- Calibration logistics

- We are involved in the **CLAIM EU H2020** Project
- Organize calibration cruises each **4 month** and **seasonal water sampler** cruises to compare with FerryBox data
- Compare with satellite data and models outputs

Acknowledgements

Thanks to:

Compagnie Tunisienne de Navigation (CTN)

The captains, chief engineers and the crew of CTN

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The staff of the INSTM oceanographic laboratory

The staff of CHROME project (MIO) in Marseilles



Thank you for your attention



La Goulette, Août 2017