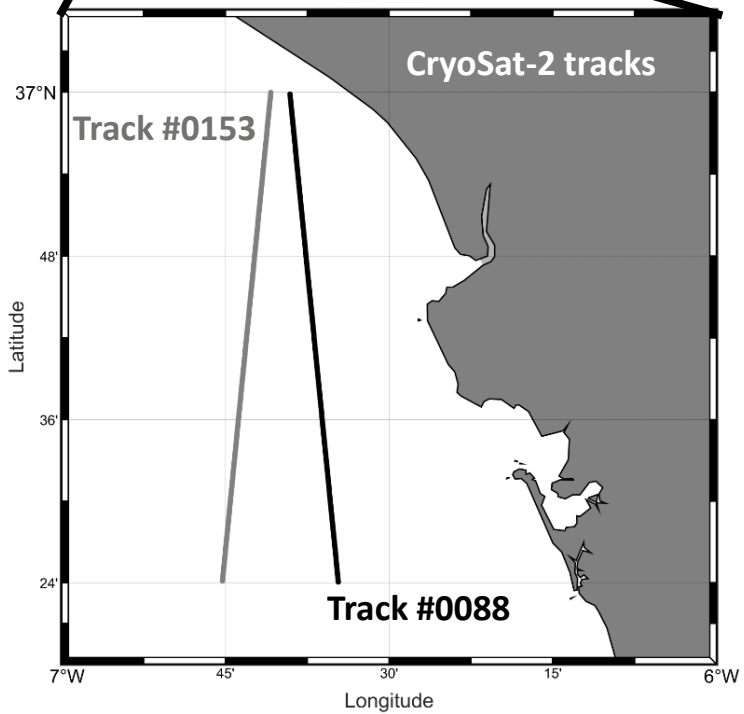
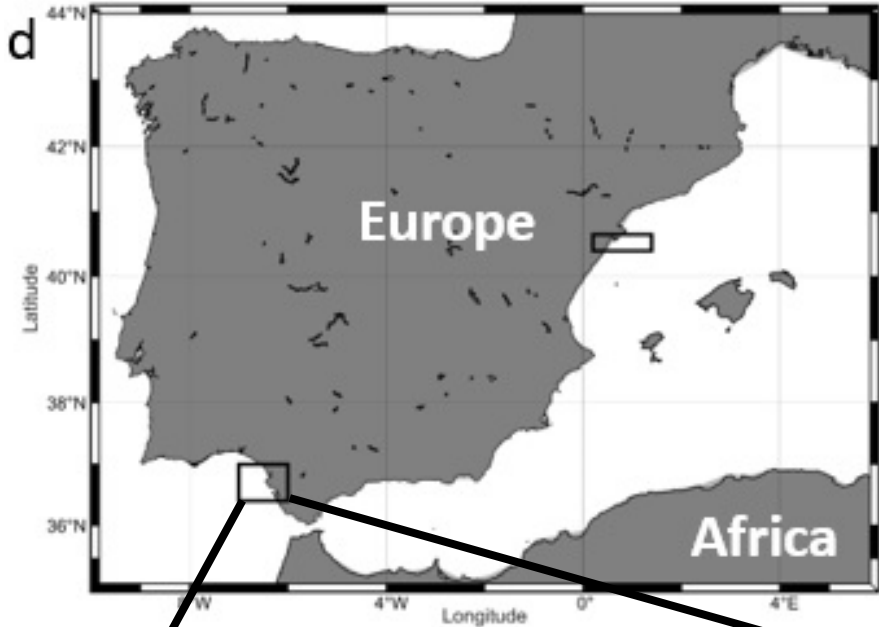
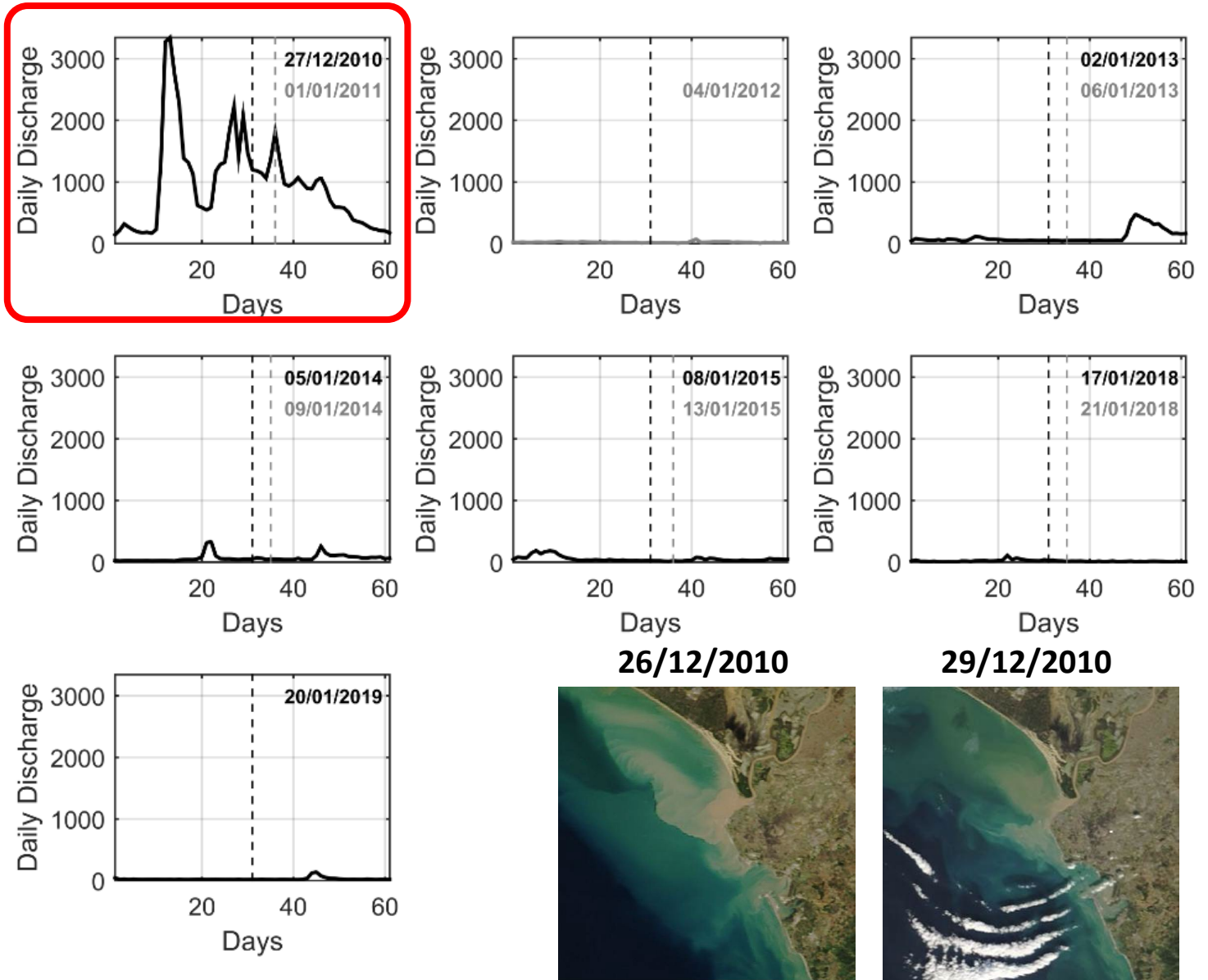


# Lenses of freshwater in the estuary mouth of the Guadalquivir River (southwestern Spain) observed with CryoSat-2 data



### Daily discharge (m<sup>3</sup>/s) (Guadalquivir River)



**26/12/2010**

**29/12/2010**

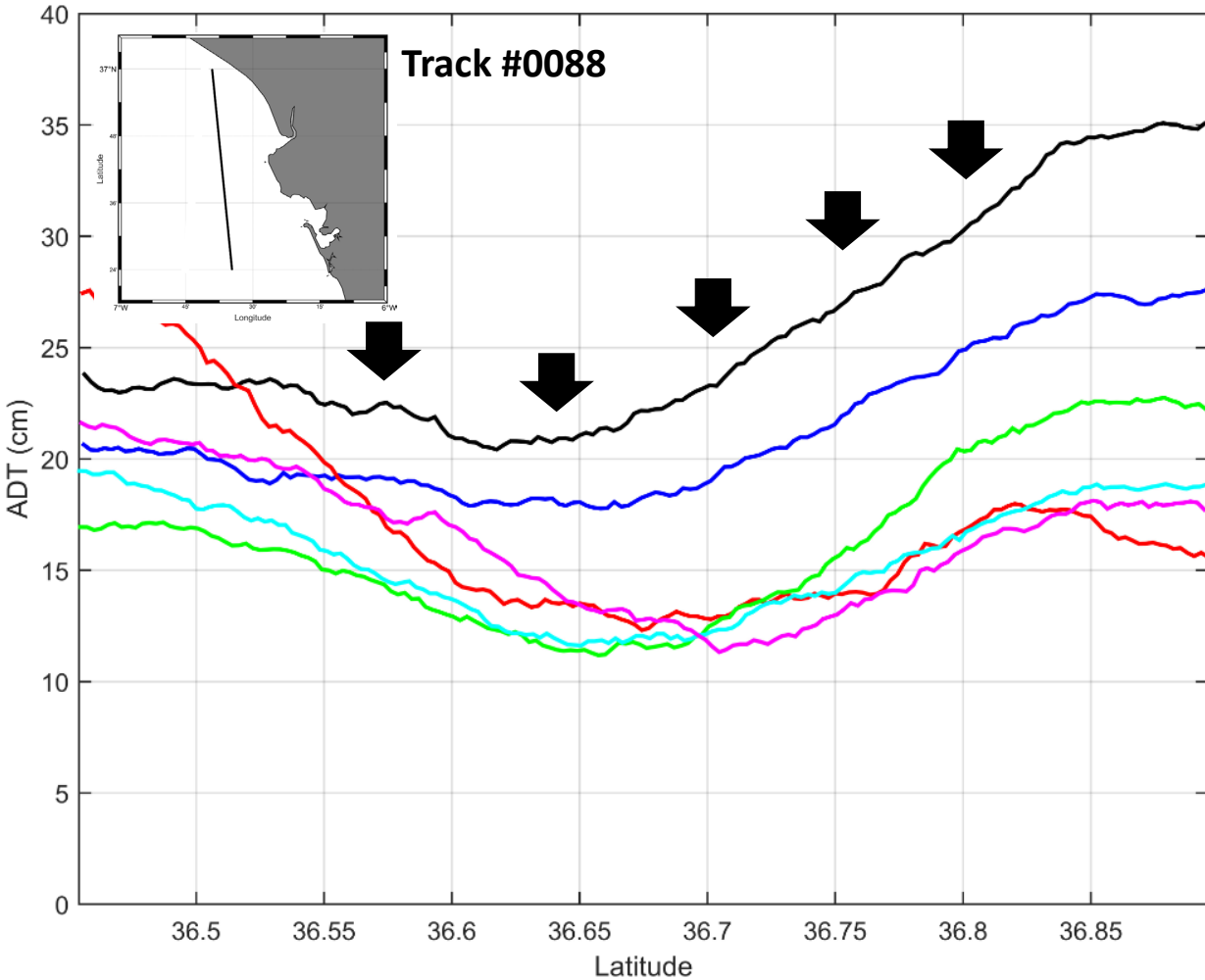


**RGB-MODIS optical images**

# The challenge: Can we observe the lenses of freshwater using altimetry?

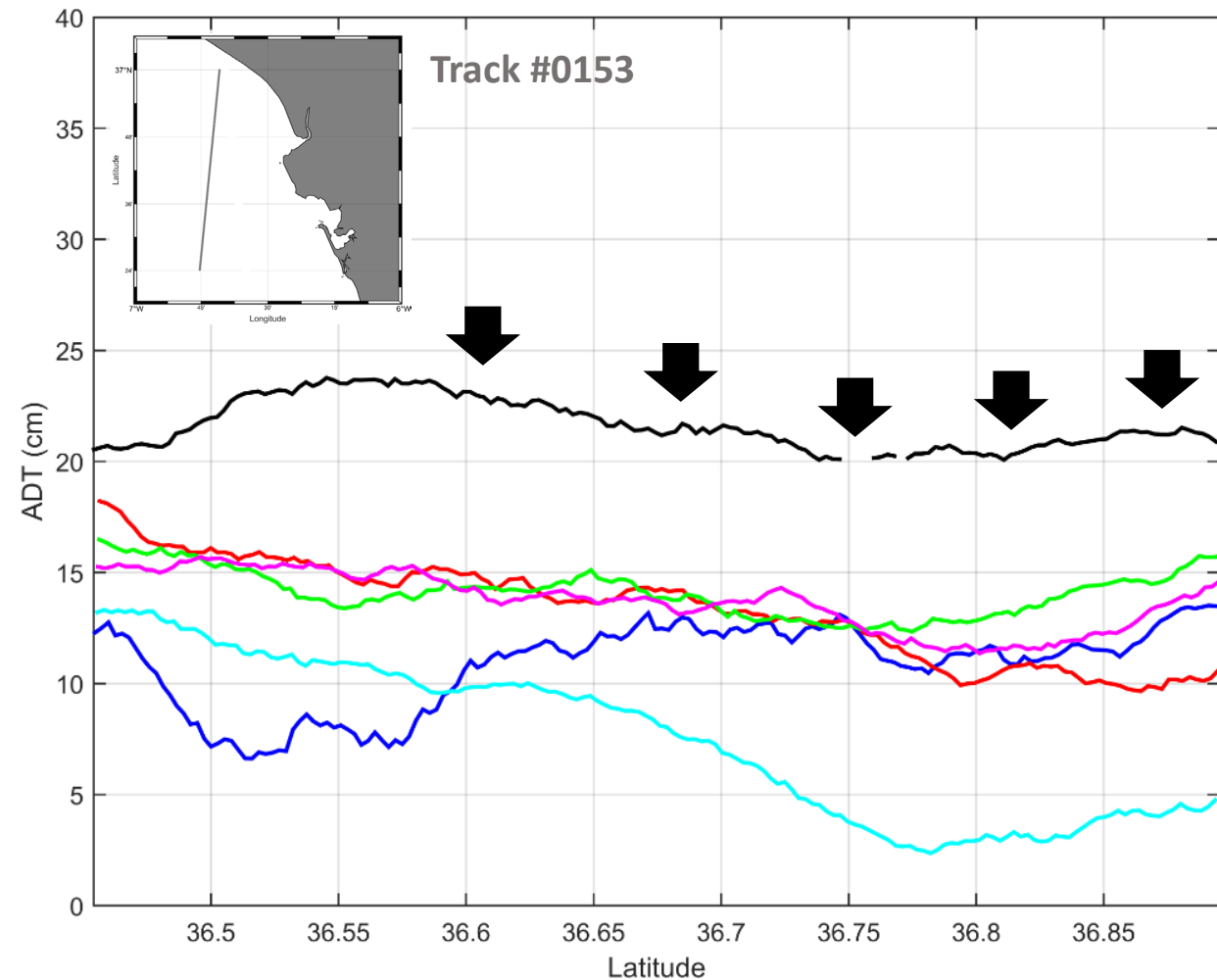
➡ 27/12/2010 02/01/2013 05/01/2014  
08/01/2015 17/01/2018 20/01/2019

a



➡ 01/01/2011 06/01/2013 09/01/2014  
13/01/2015 21/01/2018 25/01/2019

b



## Benefits of using altimeter data:

To validate hydrodynamical models

To assimilate the data to these models

Better knowledge of transitions zones and their hydrodynamics

