

**STOCK ASSESSMENT AND THE INFLUENCE OF ENVIRONMENTAL PARAMETERS ON THE DISTRIBUTION OF MACKEREL SCAD (*DECAPTERUS MACARELLUS*) IN CABO VERDE WATERS**

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# OBJECTIVES

Assess if the fluctuation and recent decline on mackerel scad catch in Cape Verdeans waters is caused by the harvesting or by changes in environmental parameters.

- Construct total and spatial CPUE time series;
- Assess possible impact of chlorophyll-a and sea surface temperature on the mackerel scad abundance;
- Estimate stock size and fishing mortality based CPUE and length frequency distribution

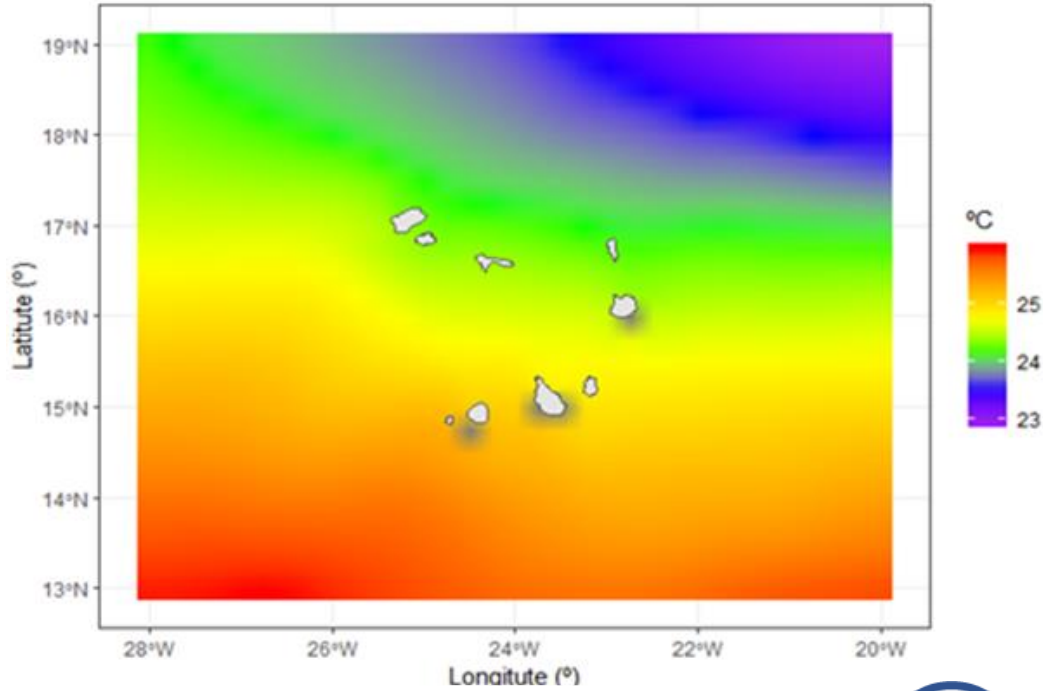
# METHODOLOGY

## Data source

1. Landing and effort data collected by INDP statistical division from 1989-2015;
2. Reconstructed historical catch data from SeaAroundUs (1950-2014)
3. Biological data from 2004 – 2018 (Length, maturity, weight);
4. Environmental parameters, satellite observation Chla and SST.



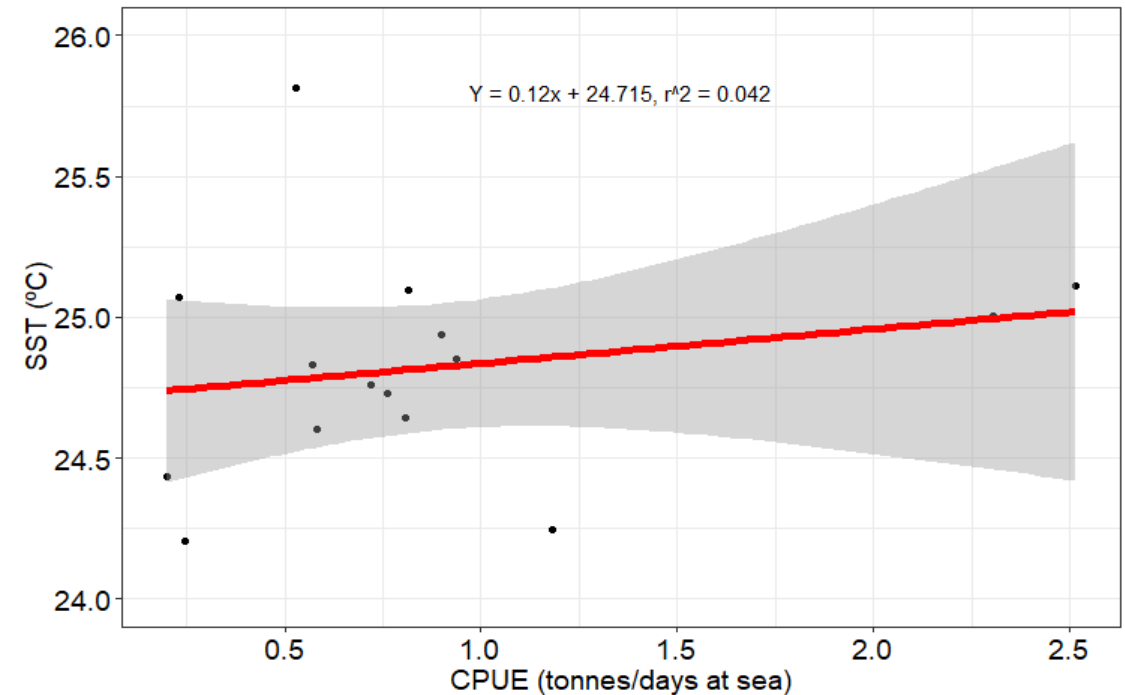
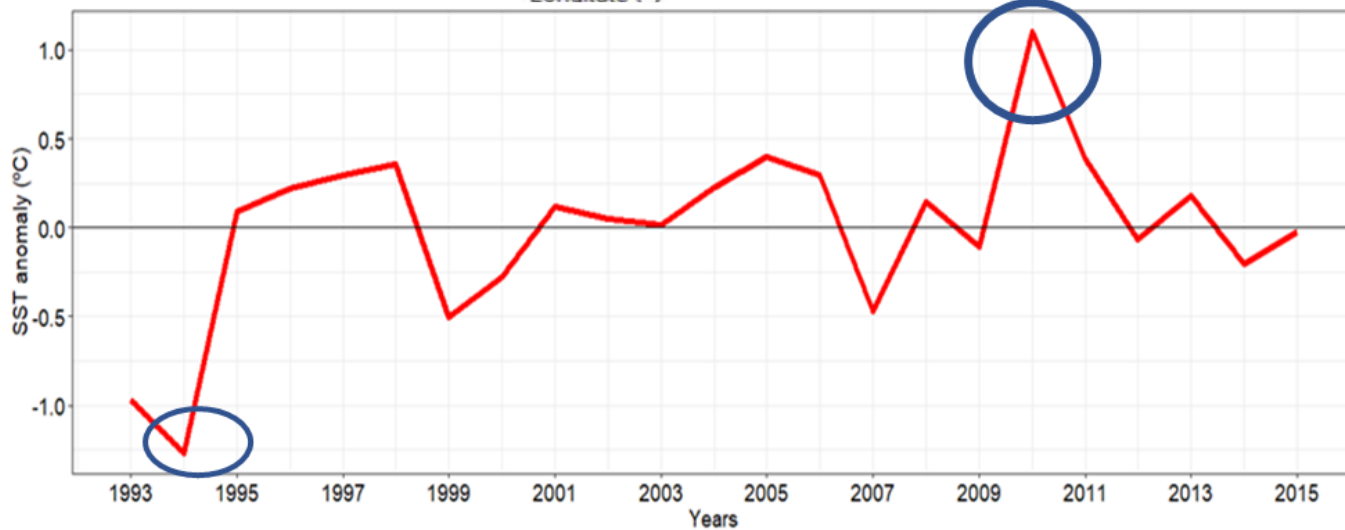
# First Results



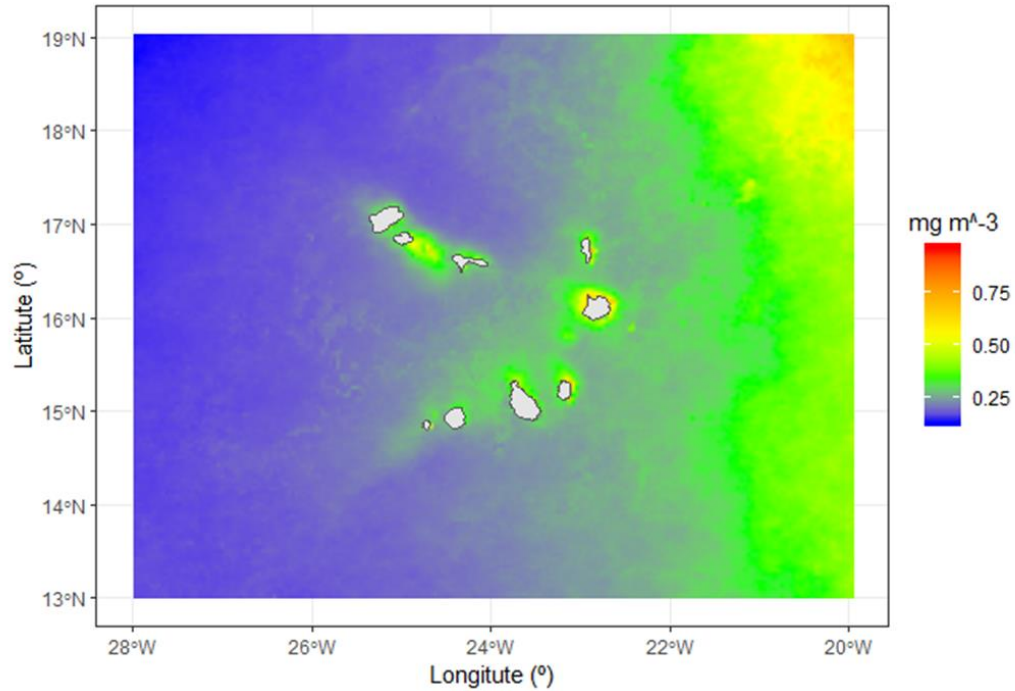
Average SST 24.7 °C

SST and CPUE showed low relationship

$$R^2 = 0.042$$



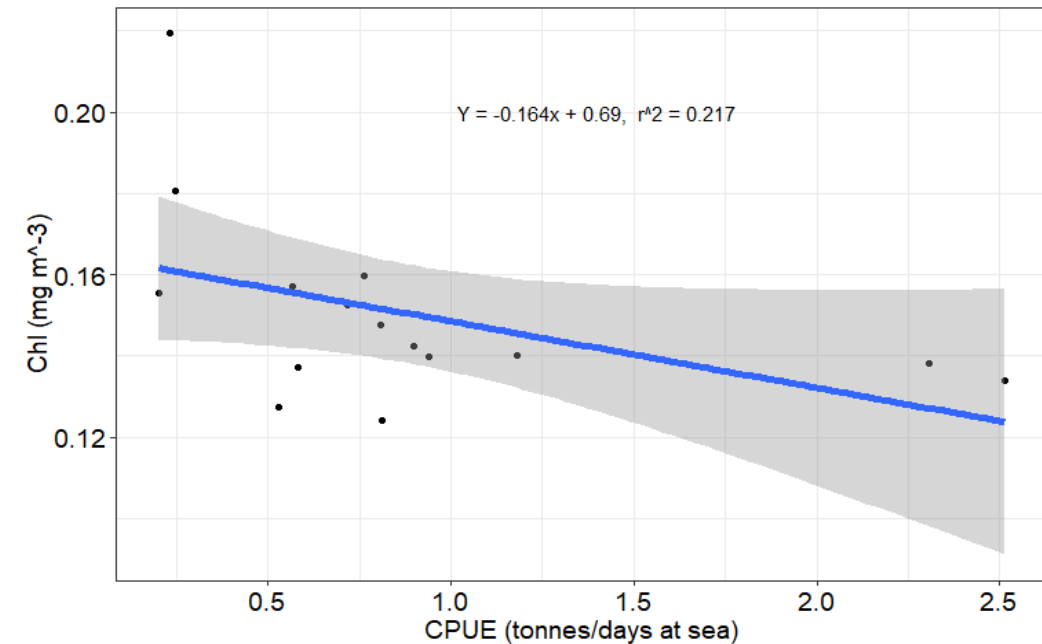
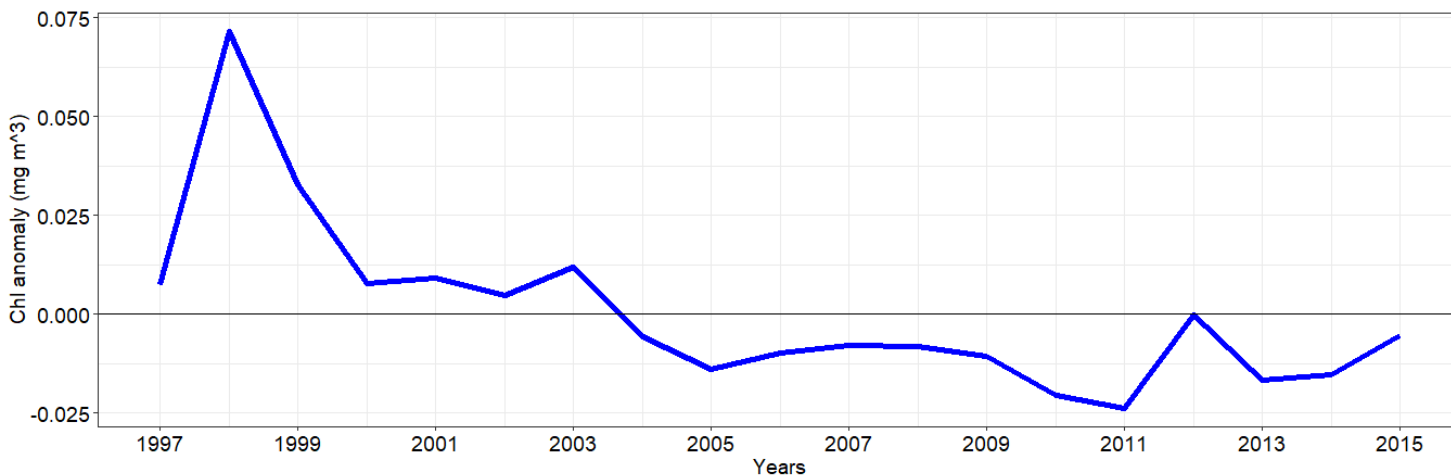
# First Results



Average chl a 0.14 mg m<sup>-3</sup>

Chl a and CPUE showed low relationship

$R^2 = 0.217$



**Thanks you for  
your attention**

