

## Bluefin tuna harvest strategy development. Progress to date

### Reasons for switching to MSE

**Ana Gordo**

[gordoa@ceab.csic.es](mailto:gordoa@ceab.csic.es)

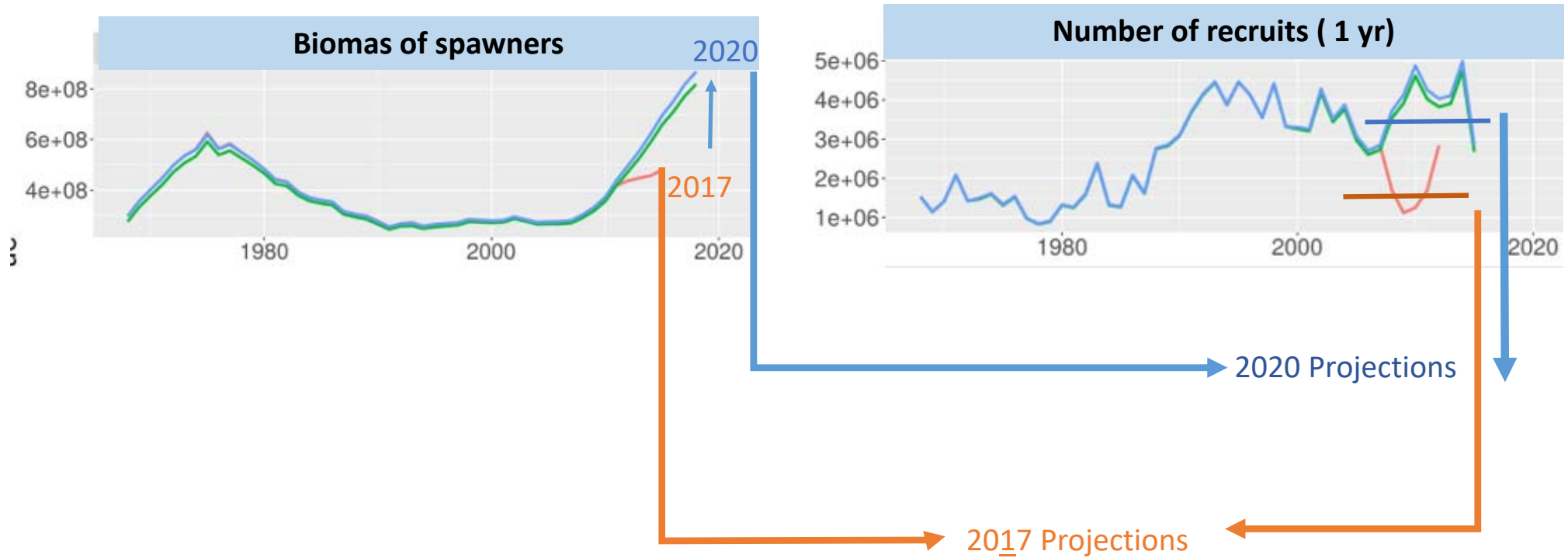
Spanish National Research Council (CSIC)

Centro de Estudios Avanzados de Blanes (CEAB)



# Instability of EBFT Assessment

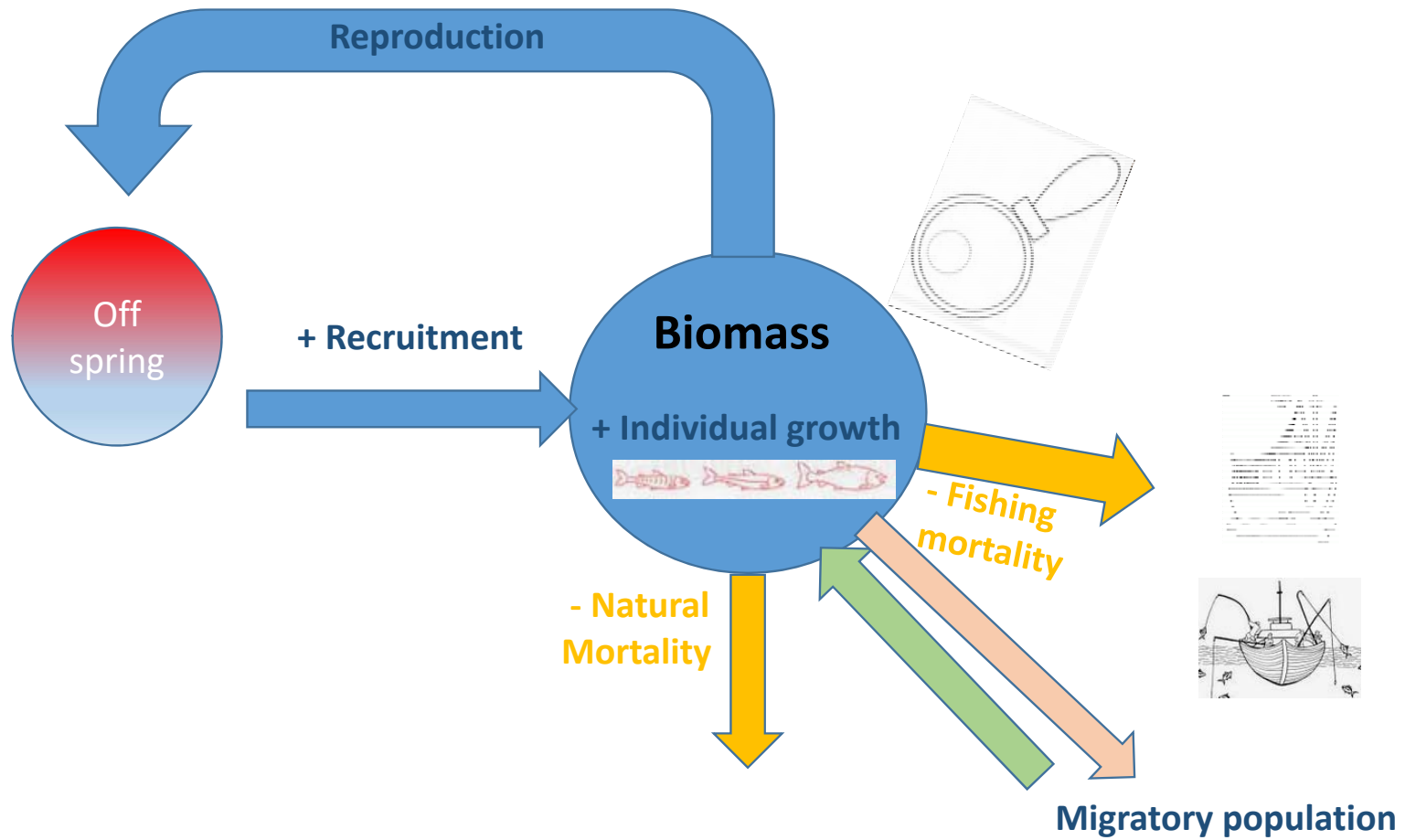
2020 vs 2017 assessment as an example





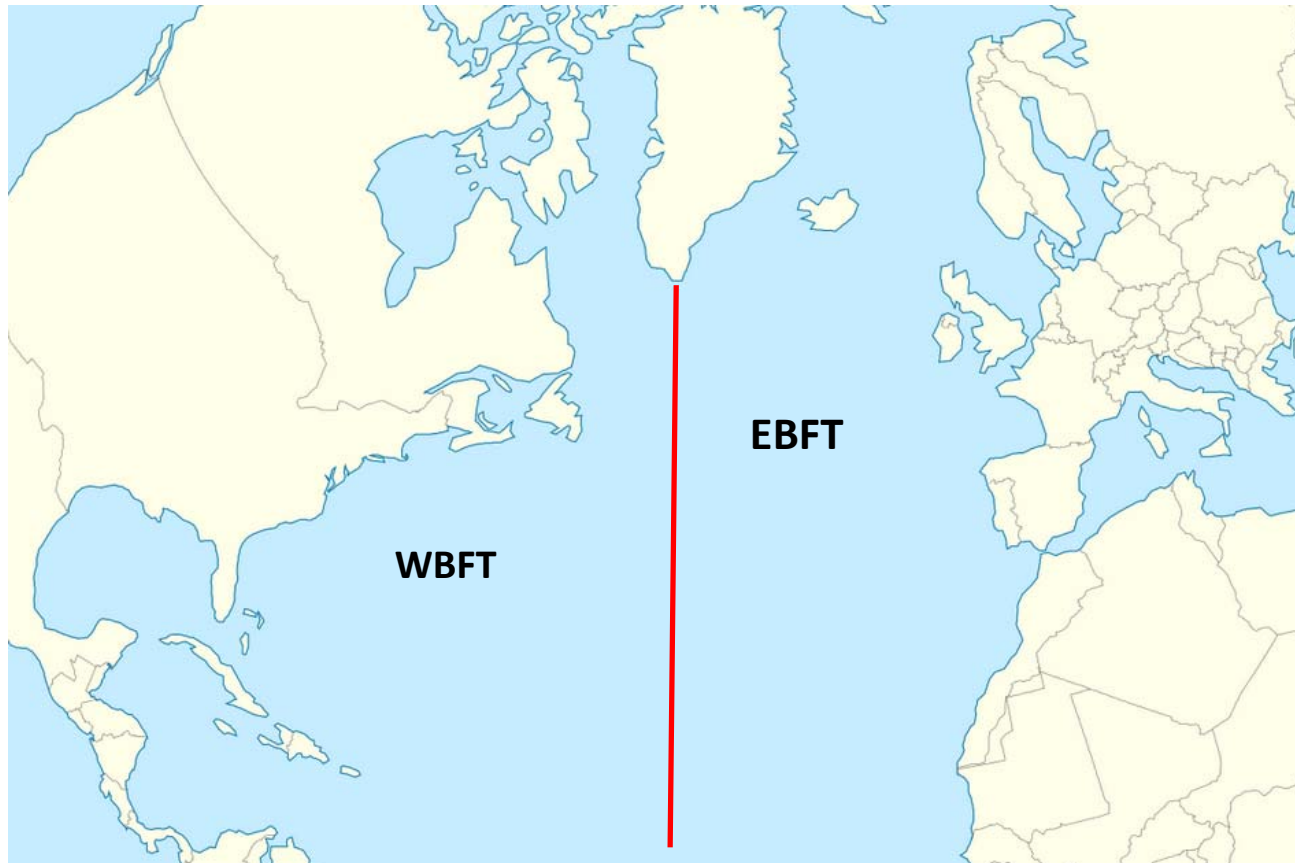
## Flow in a population dynamic

## The flow in an exploited population





**North Atlantic BFT population is managed in two areas separated at 45° W**

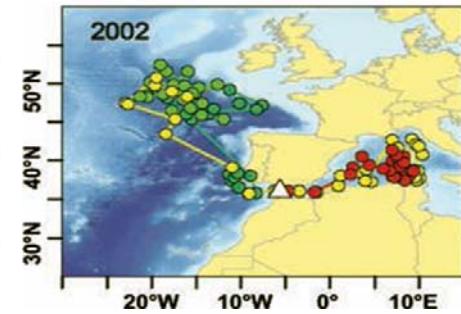
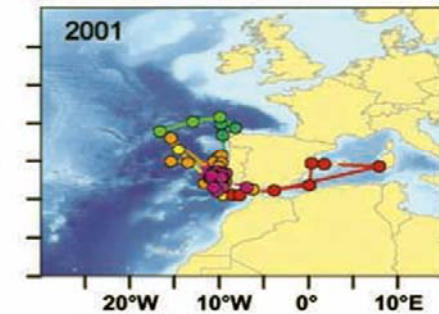
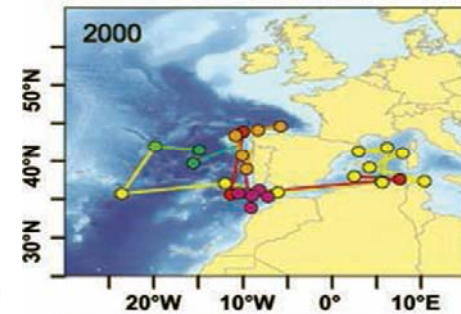
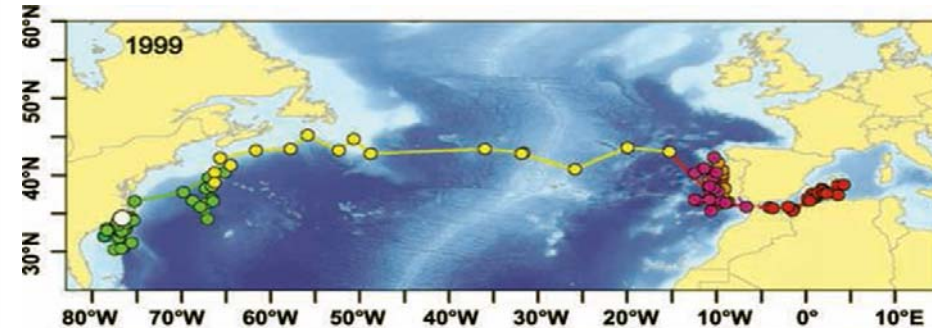
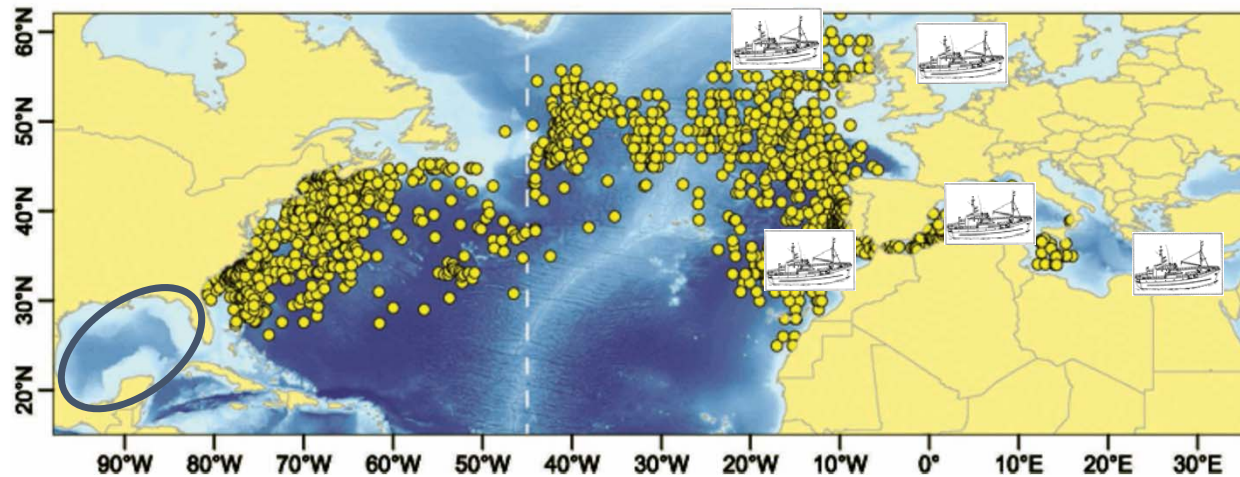
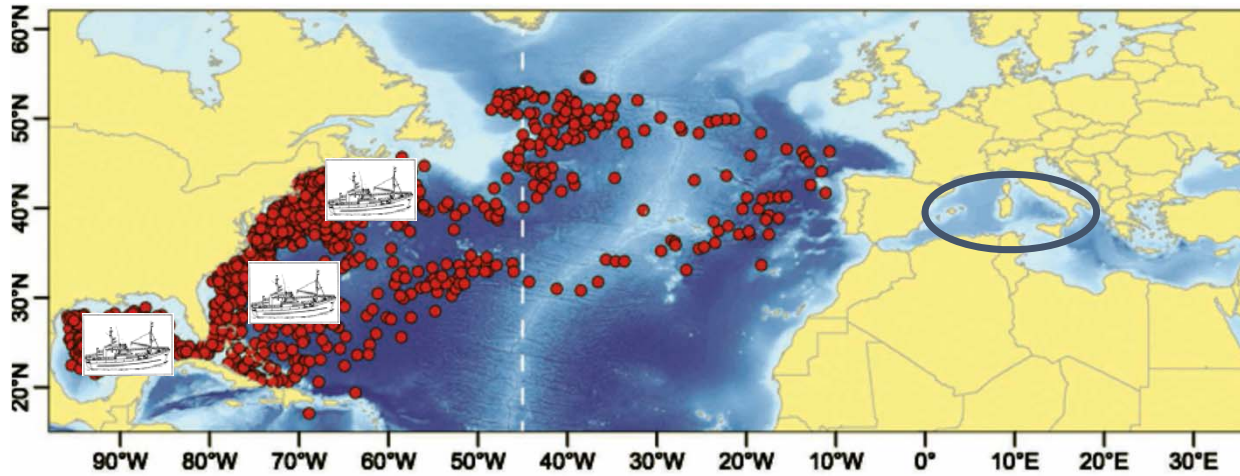




# Two different populations with different spawning areas and common feeding grounds

Diversity of fleets harvesting on both populations

Complex migratory behavior

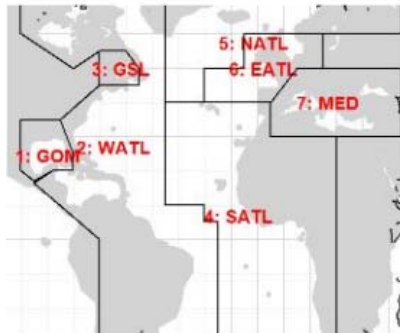




# Modelling Complexity of ABFT populations

## Model movement

☐ 7 areas

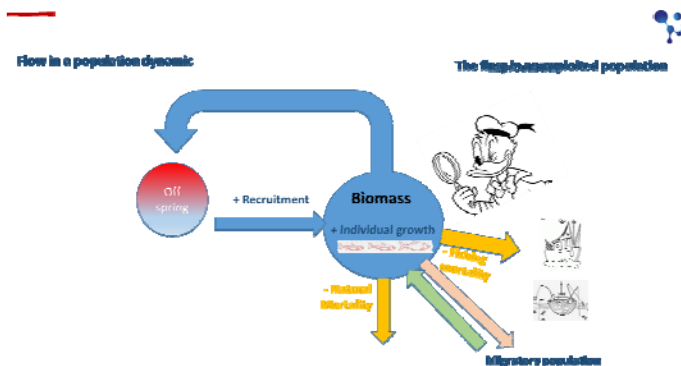


☐ 4 Quarters

☐ 3 Age classes

## Stocks and Fisheries dynamics

- A wide range of plausible scenarios (OMs)
- Each scenario represents a combination of values assigned to axis of uncertainty (e.g. natural mortality, recruitment, ...etc.)
- OMs final grid is used to test the performance the Candidate Management Procedures (CMPs)







Thanks