Multidisciplinary and holistic research challenges to assess and sustainably manage fishery resources at multiple ecosystem complexity.

The University of Bologna research activities in fishery sciences aim to provide scientific and political/economic data, and issues to the whole fisheries value chain by transdisciplinary research skills on multiple-scale sea ecosystem complexity. Research issues on coastal and small-medium scale fisheries of the semi-enclosed seas as Adriatic and Mediterranean Seas to oceanic off-shore global stocks and populations are addressed.
Research at the University of Bologna covers a wide range of issues:

- Stock and species assessment of fishery resources, fishing impacts on marine ecosystems
- Fish quality, nutritional profiling of fish products, sensorial evaluation, freshness evaluation, effects of rearing methods and feed on fish quality, metabolic fingerprinting of fish
- Fishery genetics, fishery genomics, fish and fish products traceability, population genetics and genomics, conservation genetics
- Small-scale fishery maritime clusters and development of coastal communities, fishery products market and value chain organization in small-scale and coastal, Fishery management plan and property rights
- Fish parasitology, with specific expertise in biology and epidemiology of zoonotic helminths in fish populations

HIGHLIGHTS
The University of Bologna has been funded at European level over the years through different programs:

- **Fisheries And Fishery Resources projects:** MEDITS - International Bottom Trawl Survey in the Mediterranean. EU JRC Tender MEDBLUESGEN - Mediterranean blue shark genetics: population genetic study on Mediterranean blue shark for stock identification and conservation. EU Tender STOCKMED; EU ICCAT GBYP.

- **Fish and fish product quality and traceability projects:** FP7 FISHPOPTTRACE - Fish Population Structure and Traceability. EU Tender AQUAGEN - Genetic Assignment of Farmed Cod and Sole for Traceability, Biosafety and Environmental Impact Assessment.

International PhD programmes:
**FishMed-PHD** on Innovative technologies and sustainable use of Mediterranean Sea fishery and biological resources. **MARES** - EMJD Programme on Marine Ecosystem Health & Conservation.

Research centres and laboratories, equipments and infrastructures

The **Department of Biological, Geological and Environmental Sciences (BIGEA)** in its Fano location on the Adriatic Sea is equipped with 3.500 sq.m. space for marine biology and fisheries, laboratories; 30-meters equipped scientific fishing boat; 100ha sea area for experimental activities (i.e. assessing demersal and pelagic fishery resources including the m/n Andrea oceanographic trawler used for oceanographic and fishery surveys).

**Inter-Departmental Centre for Research in Environmental Sciences (CIRSA), in Ravenna Campus:** expertise in marine fishery and economic sciences to assess ecosystem impacts, vulnerability and sustainability; to achieve environmental and sustainability certification. Innovative skills in fishery management, biological system modelling at regional level, identification of state indicators, environmental certification and innovative tools to improve sustainable management of fishery, socio-economic value, traceability and quality of fish products.