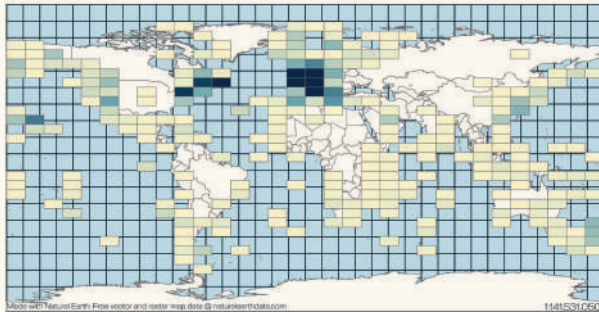


## GLOBAL ATLAS

The 4-OCEANS Atlas brings together all the information and data gathered on the project. Using different types of support – video, graphics, drawings, literature, scientific articles, story maps – this is a digital open-access tool that provides resources and knowledge in a way that can reach everyone.



This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement N° [951649]).

Imagens da capa: Public Domain

## SCIENTIFIC ESSAY



## THE FISH REVOLUTION



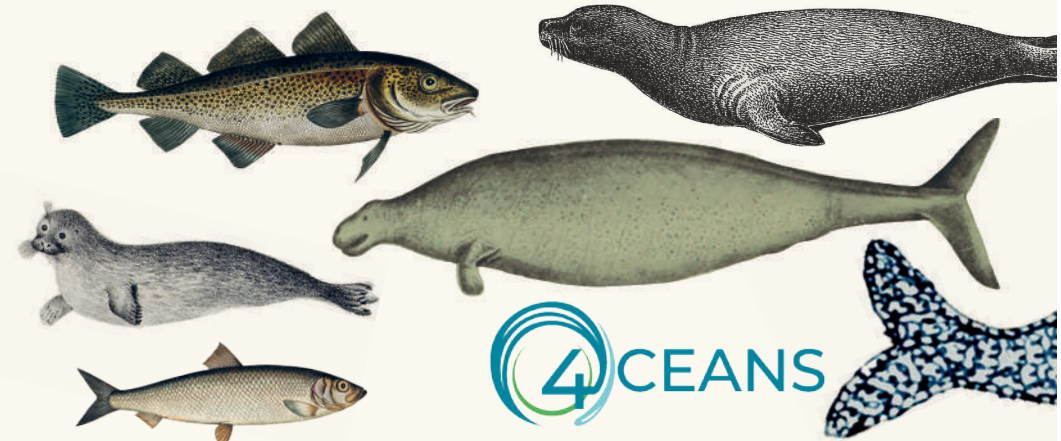
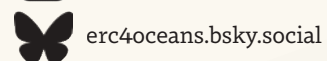
## WHALES IN FAULT LINES



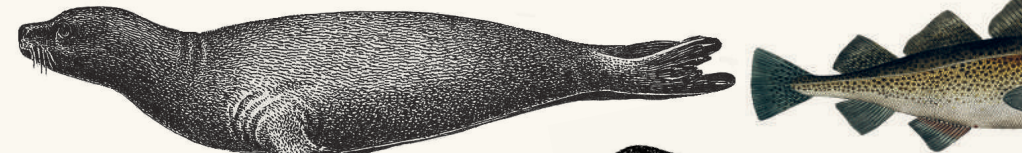
## 4-OCEANS VIRTUAL REFERENCE COLLECTION



## OCEANITIES



HUMAN HISTORY OF MARINE LIFE



The exploitation of marine resources has shaped global history. Humans have always been driven by a desire to consume specific foods, and the pursuit of marine resources has propelled human exploration and settlement across the globe. The oceans have had an influence on human history and, vice versa, humans have had an impact on marine ecosystems and populations. However, specific details of the extent of these relationships are still understudied. Together, we are discovering how these dynamic interactions occurred, what were its drivers and relevant impacts. Our ultimate goal is to conduct the first ever globalised evaluation of the role of marine resources for societies through two millennia. Funded by the European Research Council, the project runs from 2021 to 2027, with multiple open-access outputs that inform society, and also bring new knowledge to the academic debate and to policy-makers dealing with the future of our common oceans and heritage.

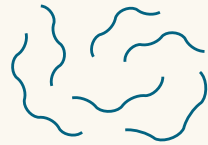


© Whale Fishing (Cosmographie Universelle of Thevet in folio Paris 1574)

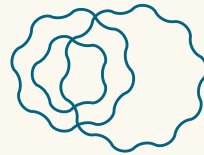
### 3 RESEARCH QUESTIONS



1. When and where was marine exploitation of major significance to human society?



2. How did socio-economic, cultural, and environmental forces enable and constrain marine exploitation?



3. What were the consequences of marine exploitation for societal development and the oceans?

### WHAT ARE WE DOING?

4-OCEANS marks a definitive methodological step change in the integration of humanities and natural sciences, through a transdisciplinary background of the principal investigators and synergistic interaction of their expertise and all team members. Environmental history, zooarchaeology, historical ecology and climatology, and natural history studies are central to the investigation. Robust historical data unlocks avenues for future social, economic, cultural, biological, ecological and conservation research and policy. It also enhances global ocean literacy by increased understanding of the role of ocean life in human history.



The project is led by four principal investigators:

→ **JAMES H. BARRETT** (NTNU: historical archaeology, historical ecology and zooarchaeology)

→ **CRISTINA BRITO** (NOVA University Lisbon: history of science and environmental humanities)

→ **POUL HOLM** (cPI, Trinity College Dublin: marine environmental history and digital environmental humanities)

→ **FRANCIS LUDLOW** (Trinity College Dublin: geography and climate history)