SEACHANGE

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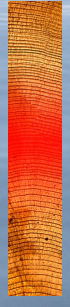
CHALLENGE: evidence for the impact of human activities on marine systems is hidden beneath the sea surface, and obscured by the *shifting baseline*

AIM: to establish the impact of human activities on marine biodiversity and ecosystem functioning *across multiple human cultural transitions spanning the past 6,000 years*

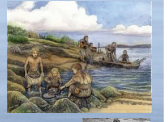
ENVIRONMENTAL TARGETS: Food web complexity, ecosystems and biodiversity



- Zooarchaeology/palaeoecology
- Historical marine ecology
- Bulk and compound-specific stable isotope analysis
- aDNA/eDNA of shell, bone and sediment
- Numerical ecosystem modelling

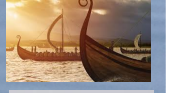
HISTORICAL TARGETS: key cultural transitions

Mesolithic to Neolithic transition in the North Sea (ca. 6,000 cal yr BP)



Impacts of Aboriginal culture and the colonial transition in Australia (past 6,000 years)

Viking settlement (AD 874) and intensification of fishing to present, Iceland



Transition to industrial fishing in the North Sea (~ AD 1000 to 1800)

Onset (AD 1904) and cessation of whaling in Antarctica

ARCHIVE **CHRONOLOGY** **METHODS**

An ERC SYNERGY