# CHALLENGES AND LESSONS LEARNED FROM THE RESCUE OF HISTORICAL DATA TO ASSESS BIODIVERSITY SHIFTS ON ROCKY SHORES ALONG THE ATLANTIC COAST OF EUROPE

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CONTEXT AND OBJECTIVE

- **Coastal** ecosystems face growing impacts of **climate change** ⟶ reshaping their **biodiversity**.

- The **rocky intertidal** communities from the **Northeastern Atlantic** are located within a biogeographical transition zone: a mosaic of **cold-** and **warm**-adapted species, driven by regional climatic factors like upwelling.
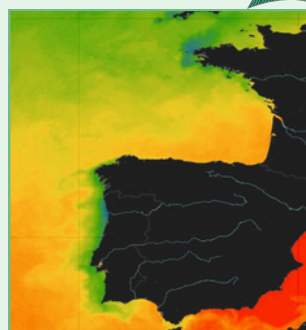
Odyssea SST for 1 Sep 2023

Objective

Establish a properly curated historical baseline

Digitising, curating and standardising data of **intertidal** biodiversity collected by Édouard **Fischer-Piette** in the **1950s** along the Atlantic coast of Europe

METHODS AND CHALLENGES

Access to research papers

- On online repositories or libraries, but a few could not be located.

Data harmonization

1. **Uncertain** geographical **distribution** of species;
2. Outdated or **uncertain taxonomy**;
3. **Difficulties** in translating from french or from **subjective descriptions**;
4. **Lack of metadata** on the sampling **locations**;
5. **Absence** of a standardised **abundance scale**.

Presence of *Codium difforme* in the Atlantic coast by Fischer-Piette (1963)

vs. current **absence** in the Atlantic coast (based on WoRMS)

No way to validate the species documented and the similar species *Lithophyllum byssoides* has a similar distribution

RESULTS SO FAR

Published

Historical biogeographic assessment of intertidal cirriped species along the Iberian coast and north of Morocco by Fischer-Piette

In preparation

- **Two datasets** of the conspicuous algae, invertebrate and lichen species Fischer-Piette looked for along the coast of:

  - France - 115 stations and 89 species;

  - Northern Spain and Portugal - 107 stations and 70 species;

- **Collection** of a **new biodiversity** dataset by **revisiting** the same sites 70 years later (~80 species at 50 sites)