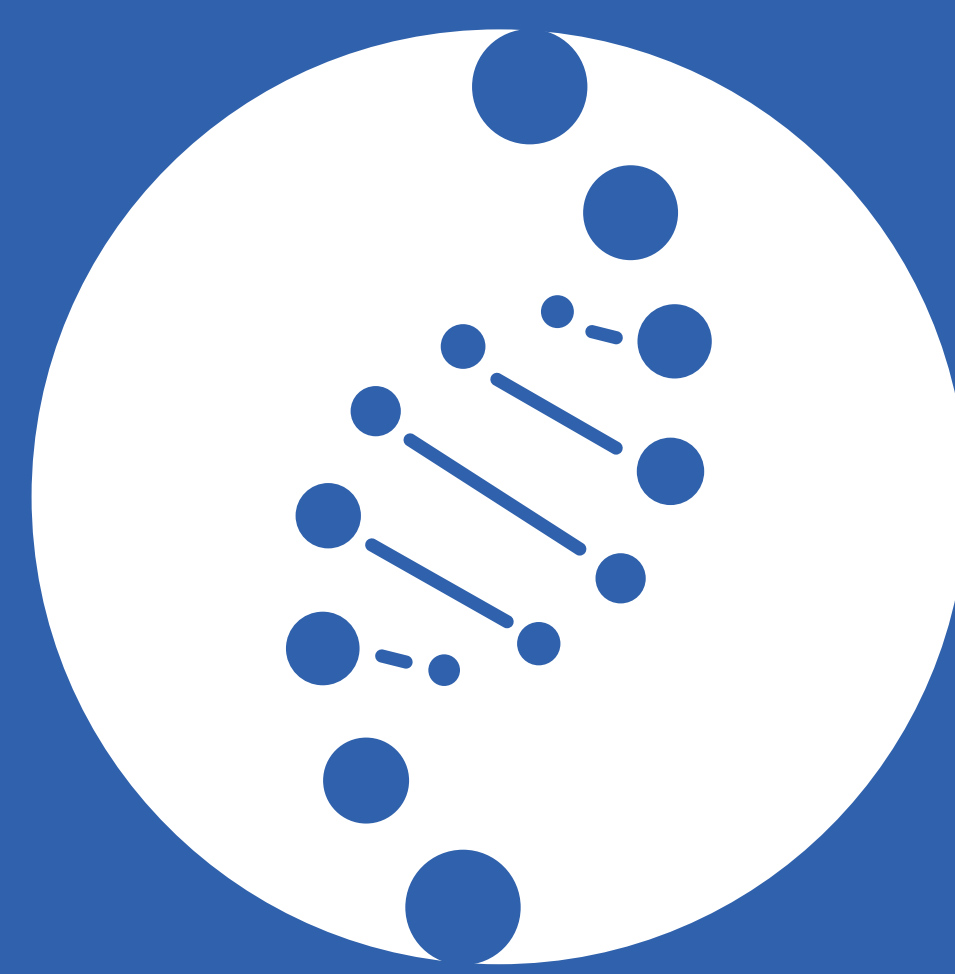


# First Results from a Long-term Genomic Observatory

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## EMO BON

EUROPEAN  
MARINE OMICS  
BIODIVERSITY  
OBSERVATION  
NETWORK

Monitors biodiversity using **eDNA**-based techniques  
for **global ocean observation**

Shared **Standard  
Operating  
Procedures**

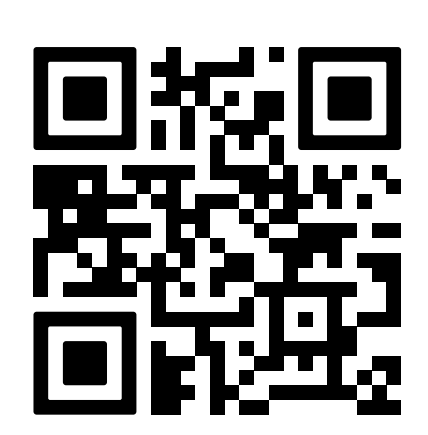
Open access  
to **FAIR** and **rich  
(meta)data**

Centralised  
**data  
management**

Habitat	Sample type	Collected samples	Sequenced samples	Data size (Gb)
Water column	Microorganisms (0.2 & 3 um fractions)	1 192	774	~5 450
Soft substrates	Microorganisms	488	144	~913
	Meiobenthos	156	43	~43
	Macrobenthos	136	44	~31
Hard substrates	Sessile & motile organisms	504	381	~312
Total		2 476	1 386	~6 749

EMO BON in numbers since its launch (June 21)

Explore  
EMO BON:



### 19

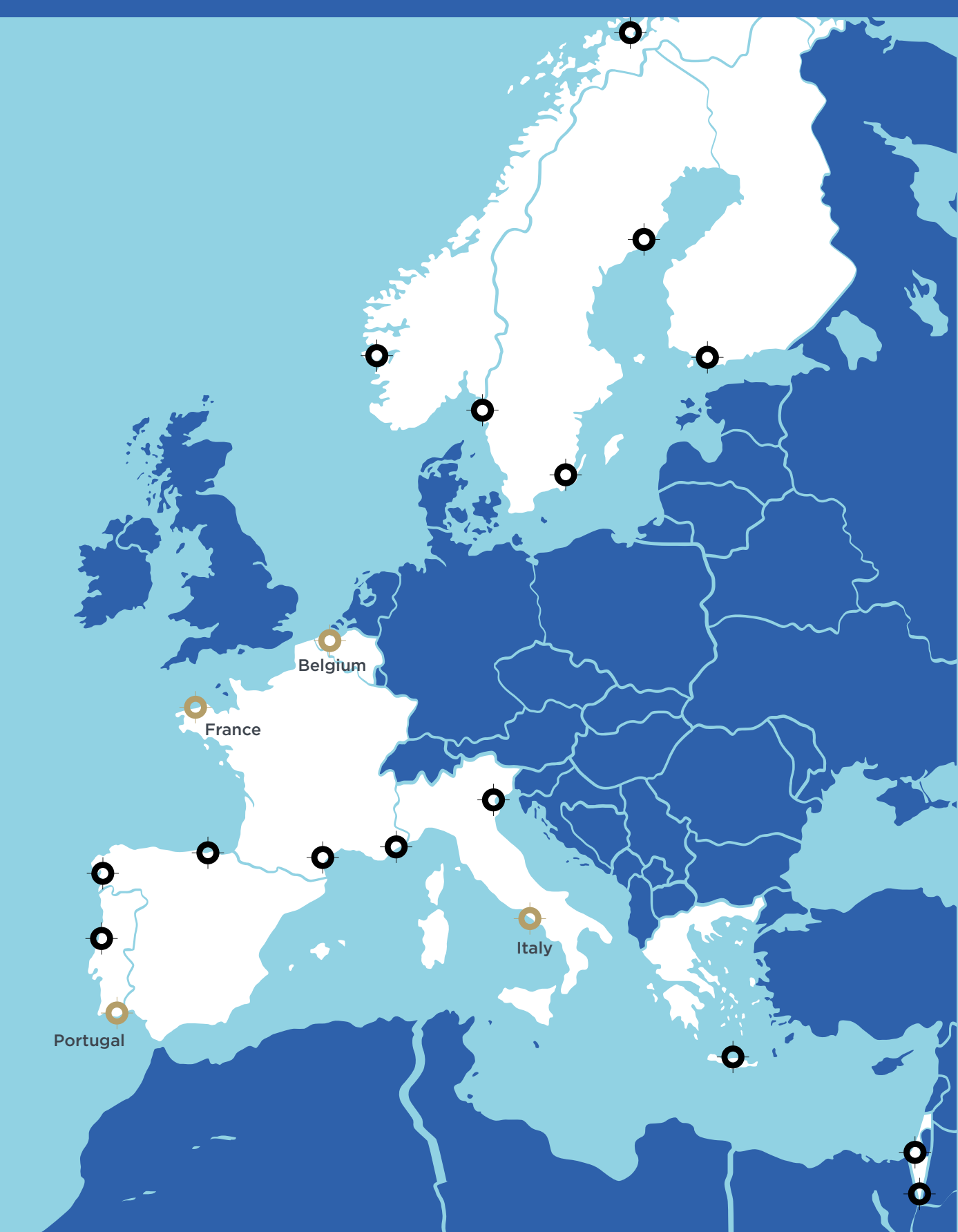
marine sites  
from the Arctic  
to the Red Sea

### 4

marine sites  
studied

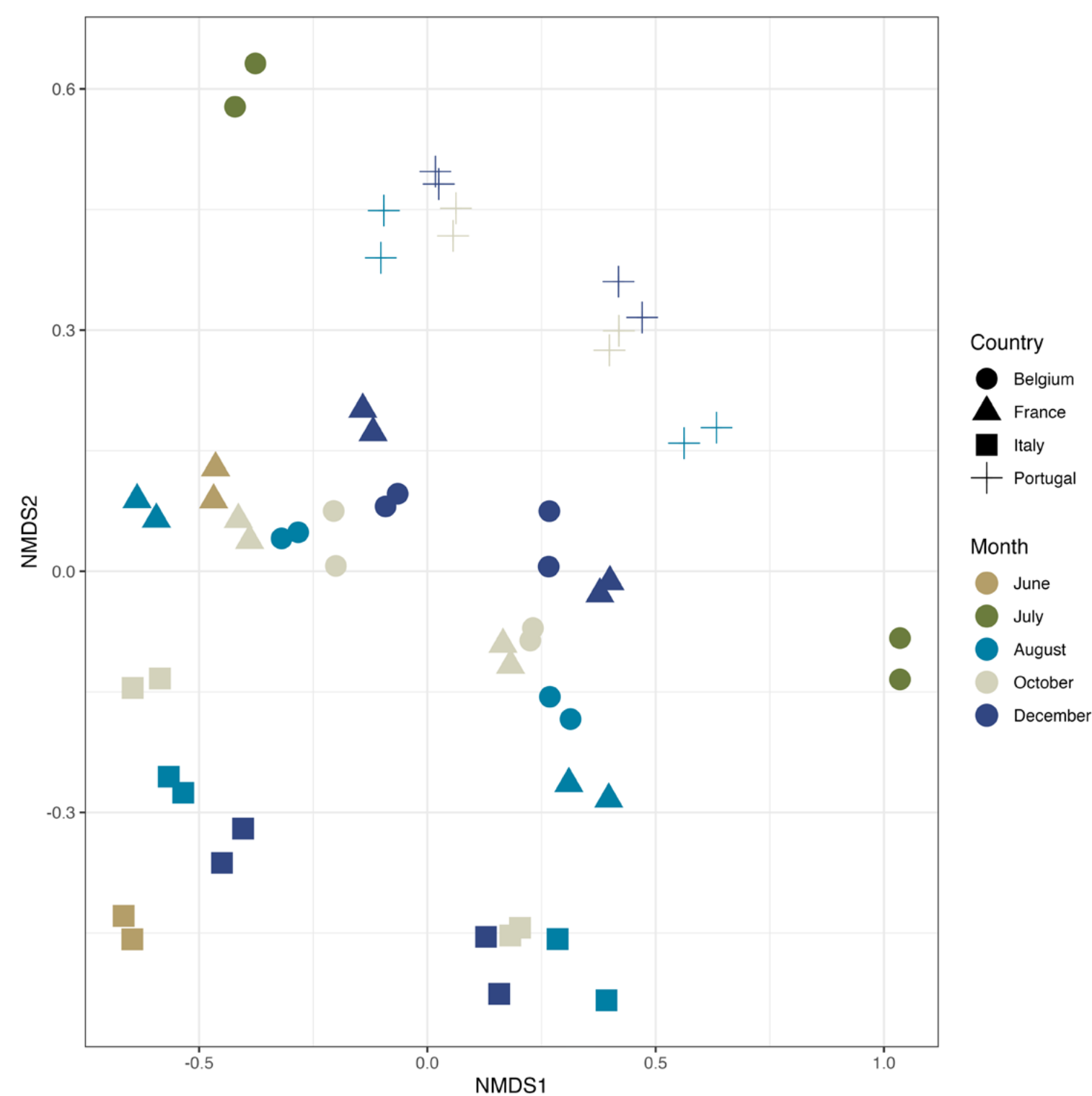
### 10

participating  
countries



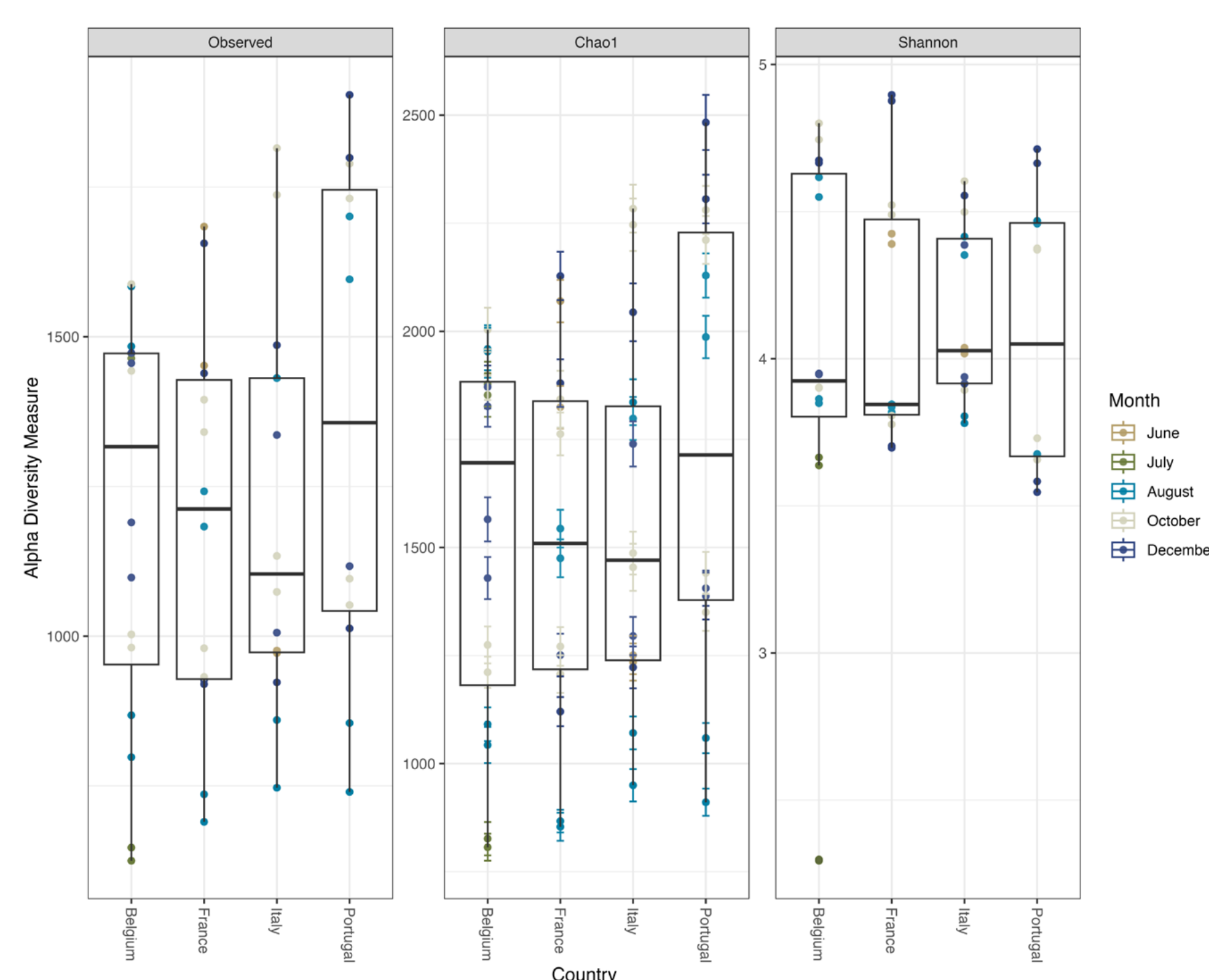
## How different **water communities** are across European seas?

### Spatiotemporal differentiation



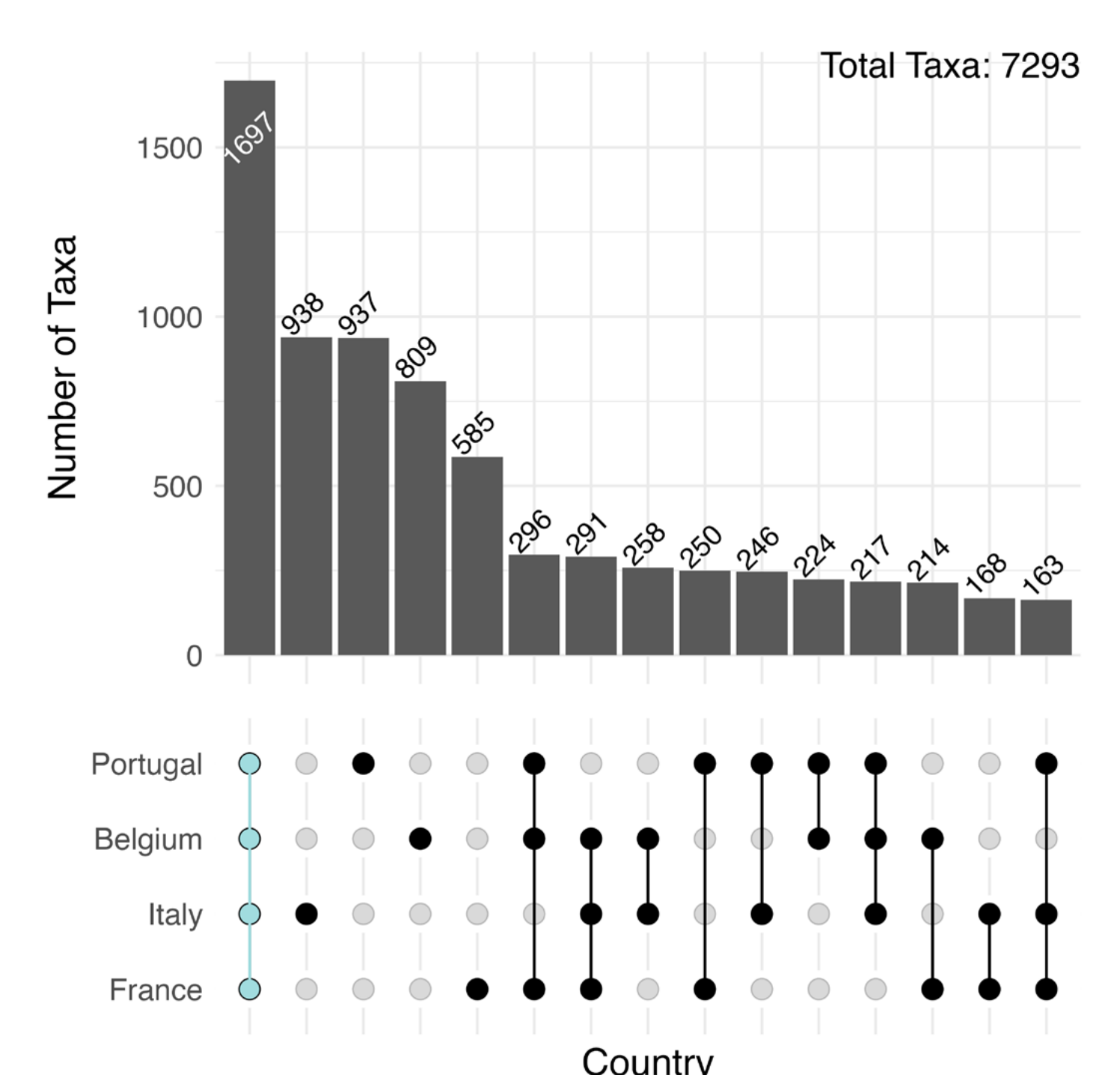
Water samples show temporal and spatial differentiation

### Richness



Richness is generally higher in Portugal and lower in Italy

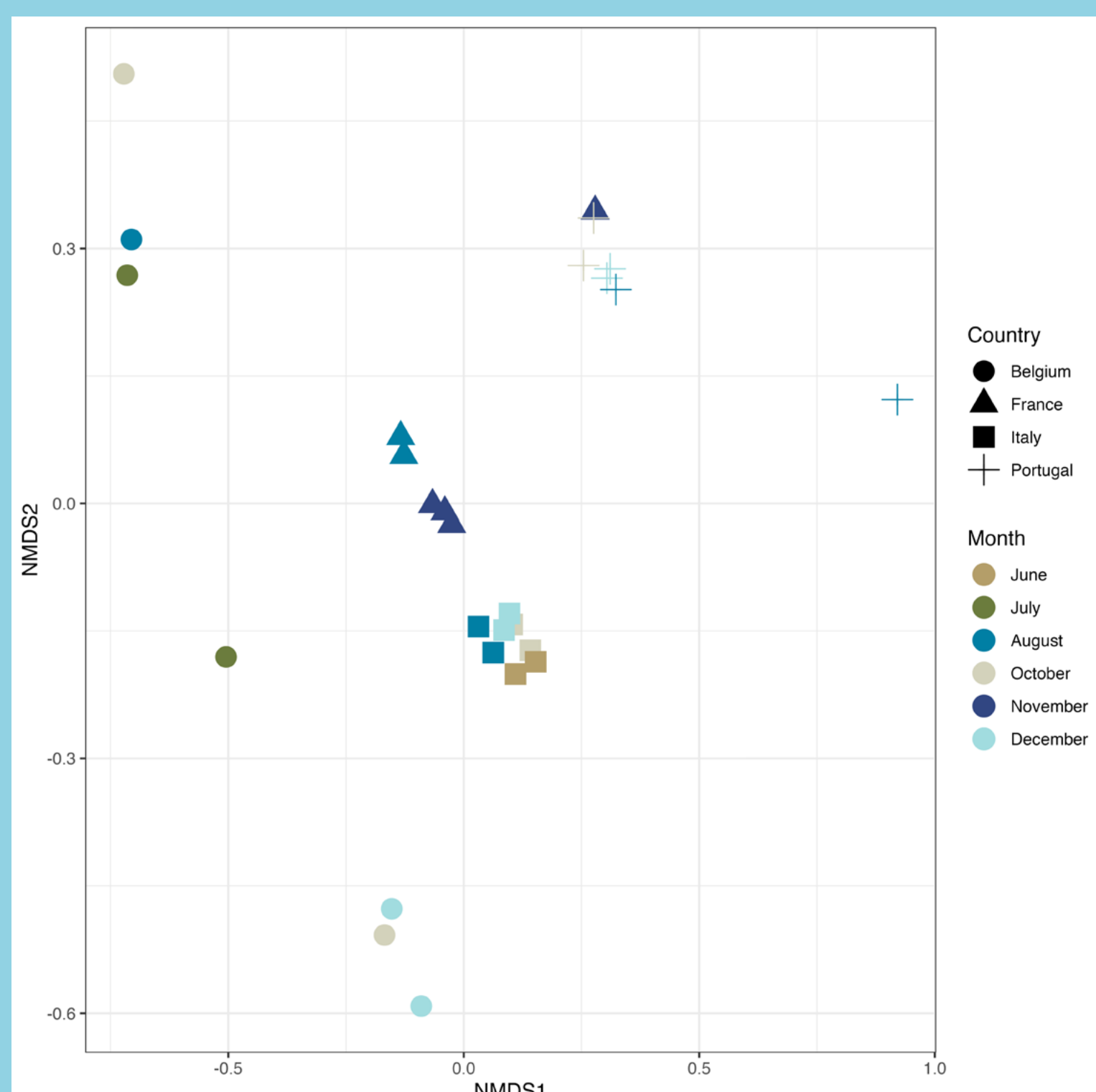
### Communities diversity



About 23% of organisms are shared across all observatories  
Also, each observatory hosts a unique local community

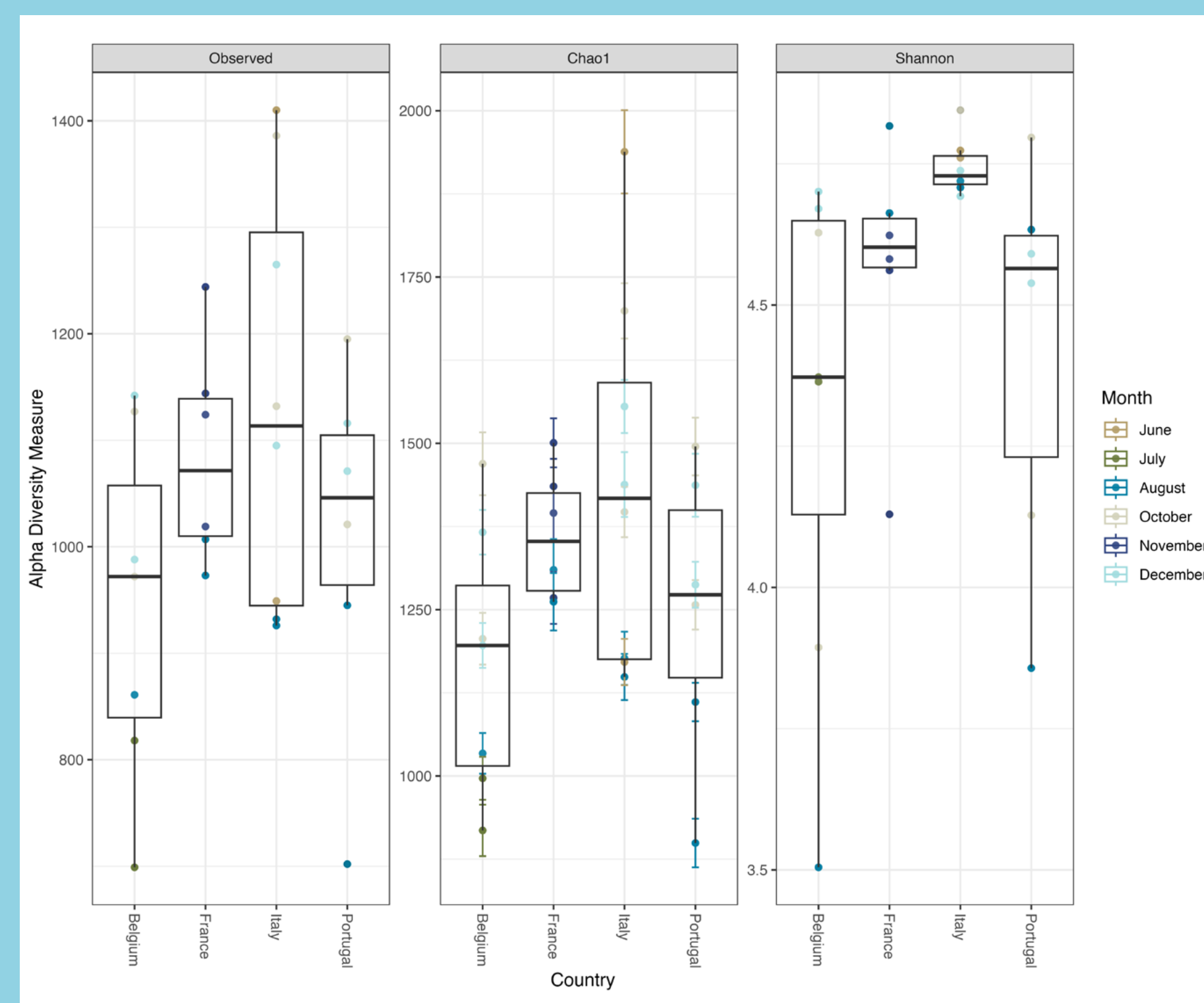
## Do **sediment communities** follow the same pattern?

### Spatiotemporal differentiation



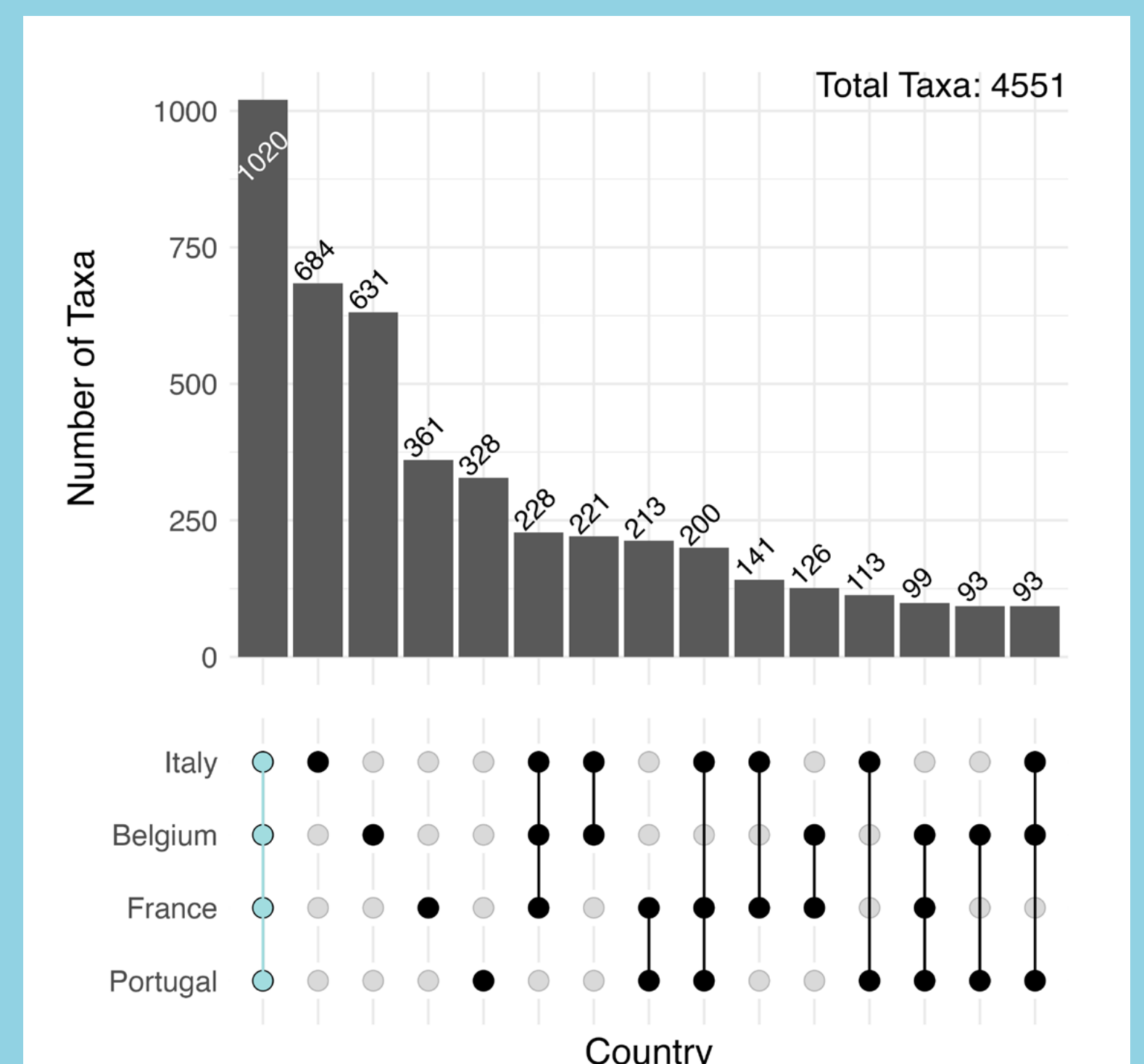
Sediment samples are strongly clustered by observatory

### Richness



Samples from Belgium and Italy are more variable across time

### Communities diversity



Italy and Belgium have the highest number of unique organisms