

# The Copernicus Climate Change Service for Global Biodiversity

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and project partners: Royal Zoological Society of Antwerp; Bioversity International; Arcadis; Baltic Environmental Forum-Latvia; Baltic Environmental Forum-Estonia; Danish Technical University



**Pressure by climate change**

**Proper management of biodiversity needed**

**Lack of accessible climate information**

**SECTORAL INFORMATION SYSTEM (SIS) BIODIVERSITY**

→ Operational indicators

- To assess climate impact
- To support adaptation & reduce biodiversity loss

## Service development with user input from biodiversity community

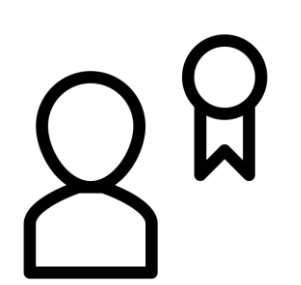
### User input & feedback



**Local workshops**

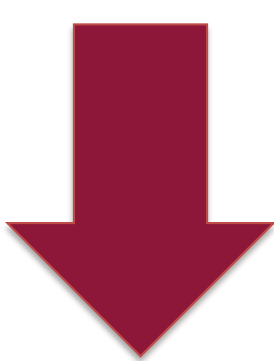


**Bilateral interviews**



**Consultation of expert bodies**

Input/feedback from **100+ stakeholders**

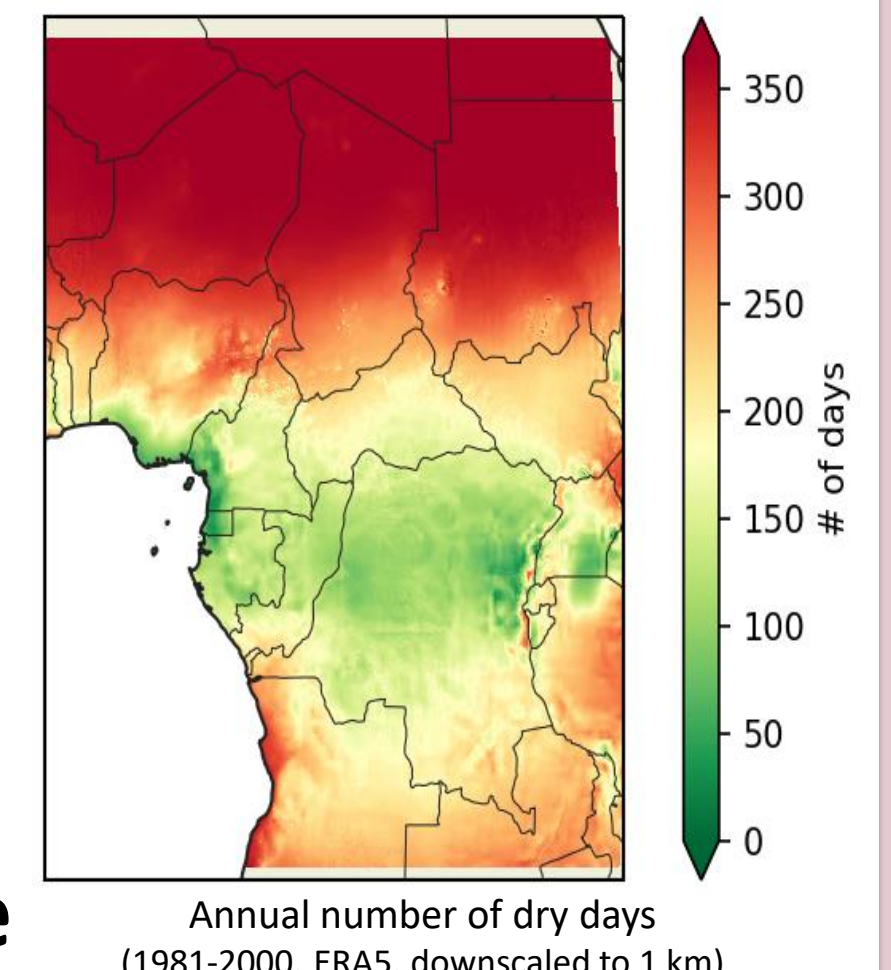
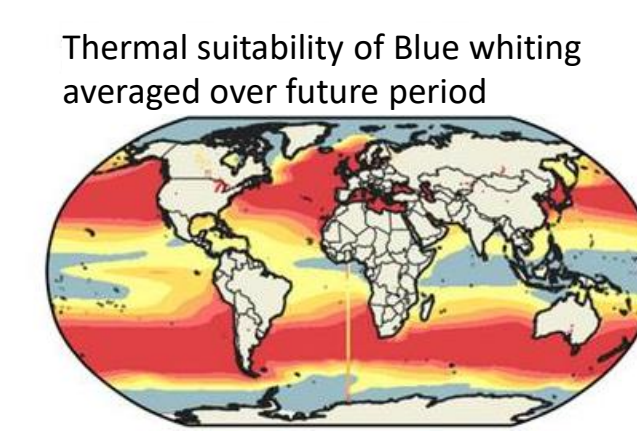
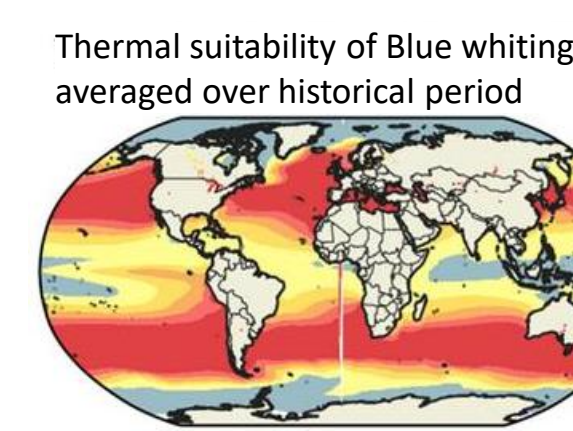


**User requirement analysis**

### Flexible & universal service (complete by autumn 2020)

Merging universal requirements and specific demo use cases

- Large set of relevant **bio-climatic indicators** for past and future (e.g. drought spell duration, thermal seasonality,...)
- Climate **suitability maps** for different species
- Six practical **use cases** elaborated for demonstration



Data characteristics:

- Derived from **ERA5** and **CMIP5** datasets available in **Copernicus Climate Data Store**
- Global** coverage with options for regional selection
- Downscaled to 1km **resolution** for selected regions
- Future data: **ensampled** and **bias-corrected**
- Flexibility** by indicator selection

## Six use cases demonstrate the service value

Multidisciplinary collaboration: project partners share expertise on relevant case-specific bio-climatic indicators



Seal reproduction & habitat use on ice in the Baltic sea



Tropical forest bio-diversity under climate change in Central Africa



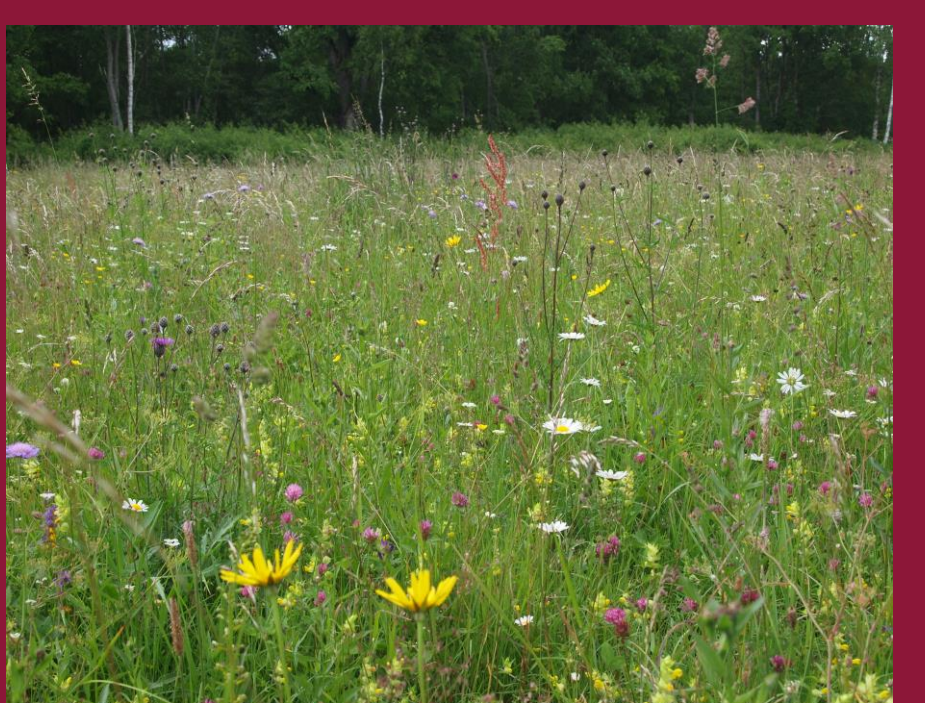
Climate resilience of semi-natural field edges



Pelagic fish distribution in the North Atlantic Ocean



Golden-headed lion tamarin habitat in Brazil



Resilience of grass-land in northern Europe

→ demonstration and inspiration for diverse end-users

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