Presented by Norman Morrison on behalf of the EnvO Consortium

Slide Acknowledgments: Pier Luigi Buttigieg

EnvO is a community ontology for the concise, controlled description of environments.

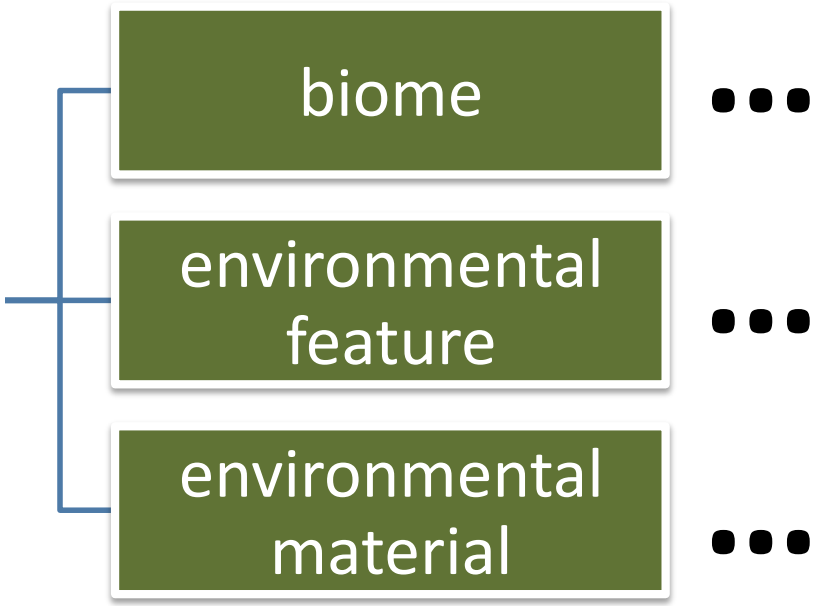
Kinds of questions EnvO aims to address:

Who or what was there?

What were they up to?

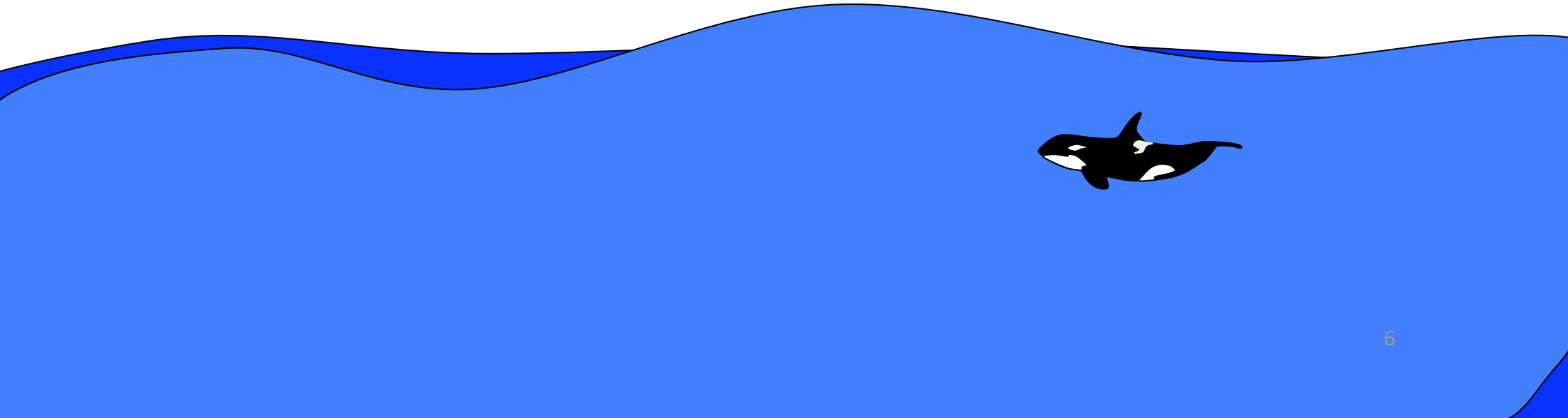
What was it like?

Ecologists, Biodiversity Scientists, Earth Scientists, etc understand a lot more from a term such as *Boreal Forest* than a set of geographic coordinates.


biome
environmental feature
environmental material

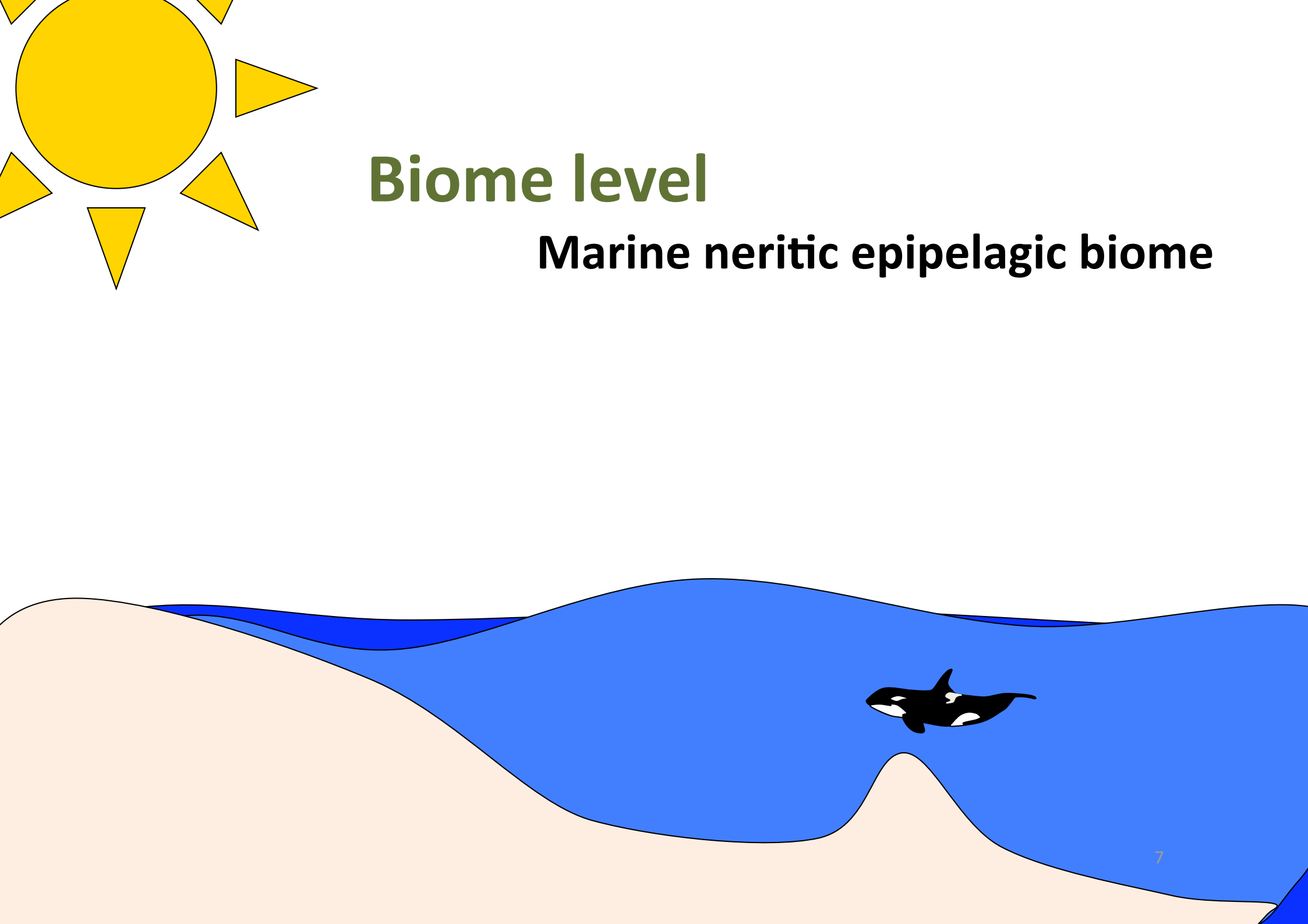
Biome level

Marine epipelagic biome



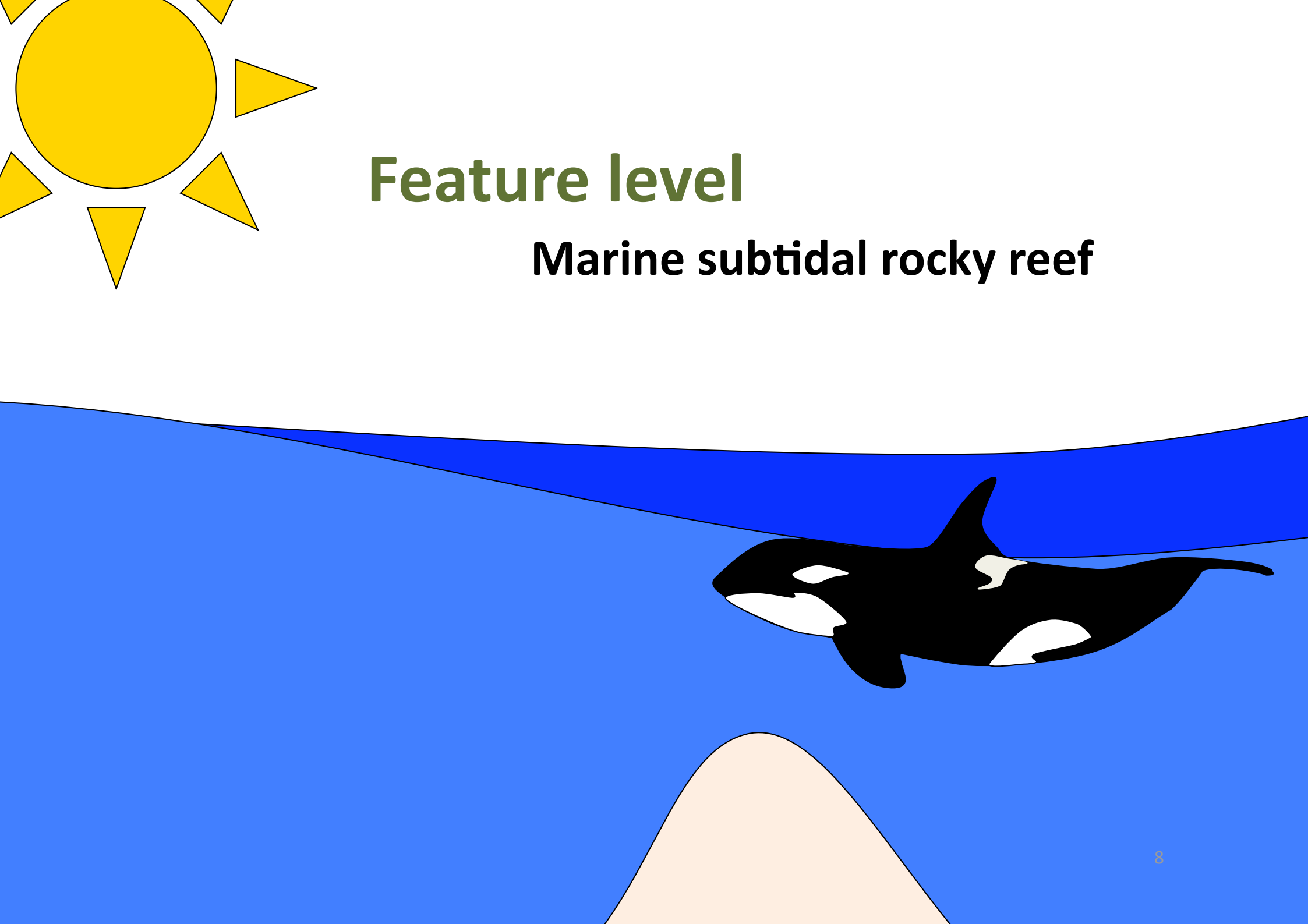
Biome level

Marine neritic epipelagic biome



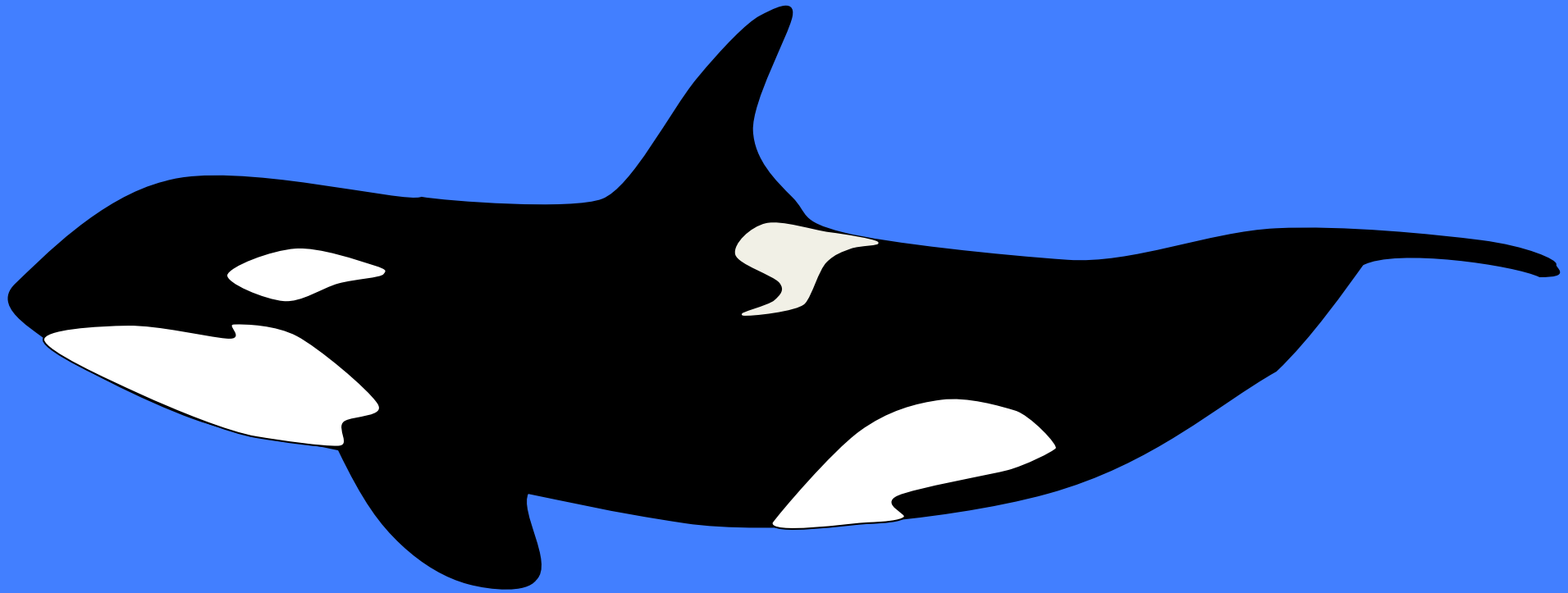
Feature level

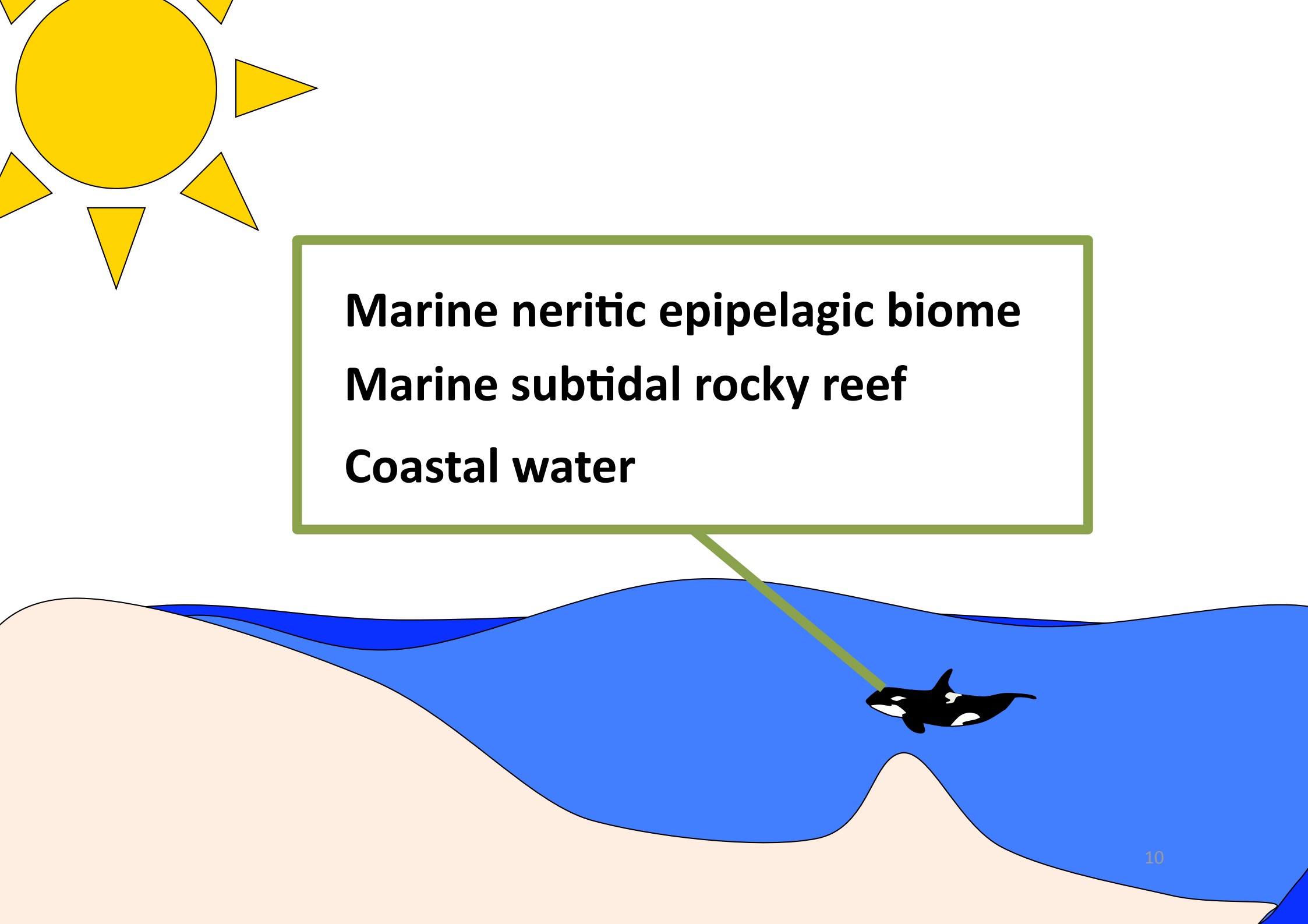
Marine subtidal rocky reef



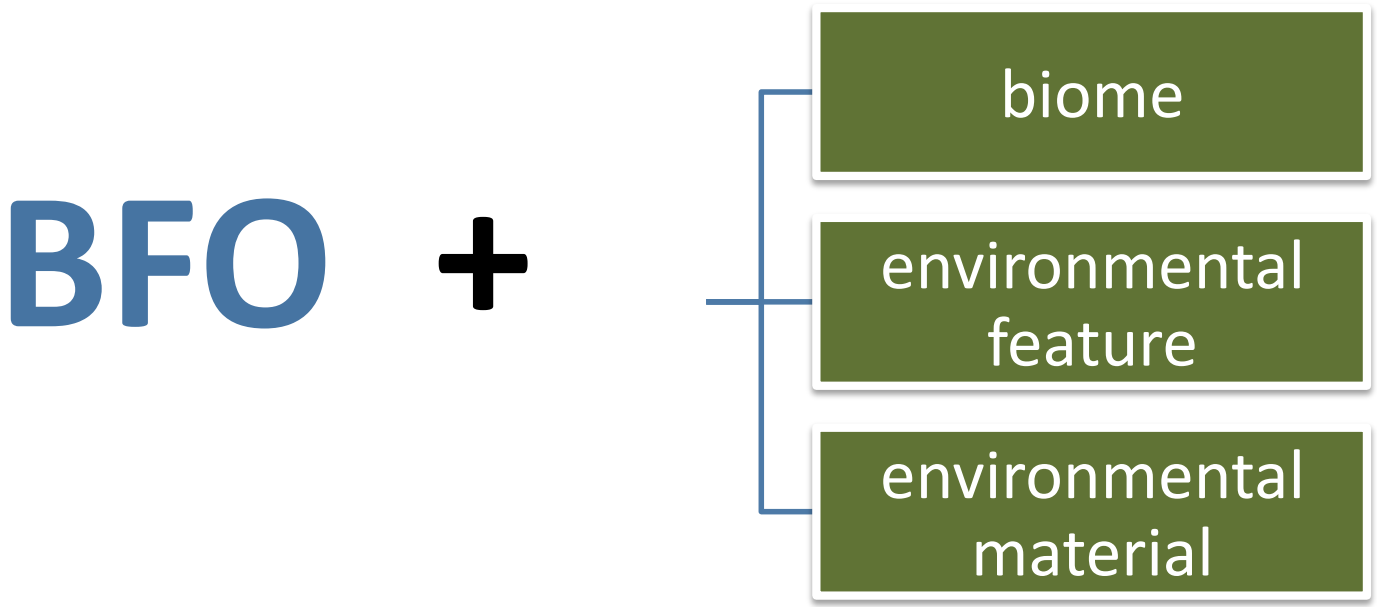
Material level

Coastal water




Marine neritic epipelagic biome
Marine subtidal rocky reef
Coastal water

Alignments to the Basic Formal Ontology (BFO)



BFO (+ Environments)

<table>
<tr><td rowspan="2">RELATION TO TIME

GRANULARITY</td><td colspan="3">CONTINUANT</td><td>OCCURRENT</td></tr>
<tr><td colspan="2">INDEPENDENT</td><td>DEPENDENT</td><td></td></tr>
<tr><td>ORGAN AND ORGANISM</td><td>Organism (NCBI Taxonomy)</td><td>Anatomical Entity (FMA, CARO)</td><td rowspan="4">environments</td><td>Organ Function (FMP, CPRO)</td><td rowspan="2">Phenotypic Quality (PaTO)</td><td rowspan="3">Biological Process (GO)</td></tr>
<tr><td>CELL AND CELLULAR COMPONENT</td><td>Cell (CL)</td><td>Cellular Component (FMA, GO)</td><td>Cellular Function (GO)</td></tr>
<tr><td>MOLECULE</td><td colspan="2">Molecule (ChEBI, SO, RnaO, PrO)</td><td colspan="2">Molecular Function (GO)</td><td>Molecular Process (GO)</td></tr>
</table>

http://www.environmentontology.org

Navigation

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- Browse EnvO
- EnvO Adopters
- Downloads
- Participate
- Links
- Contact

Welcome to the Environment Ontology!

EnvO is a community ontology for the concise, controlled description of environments.

Please use the navigation bar on the left to browse through the site where you will find information about the project, the team, how to use EnvO, and how to participate.

If you're hunting for a term, please visit the Browse page. If you would like to download and work with EnvO, you'll find the necessary files in the Downloads section.

Questions and comments are always welcome! Don't hesitate to contact us!

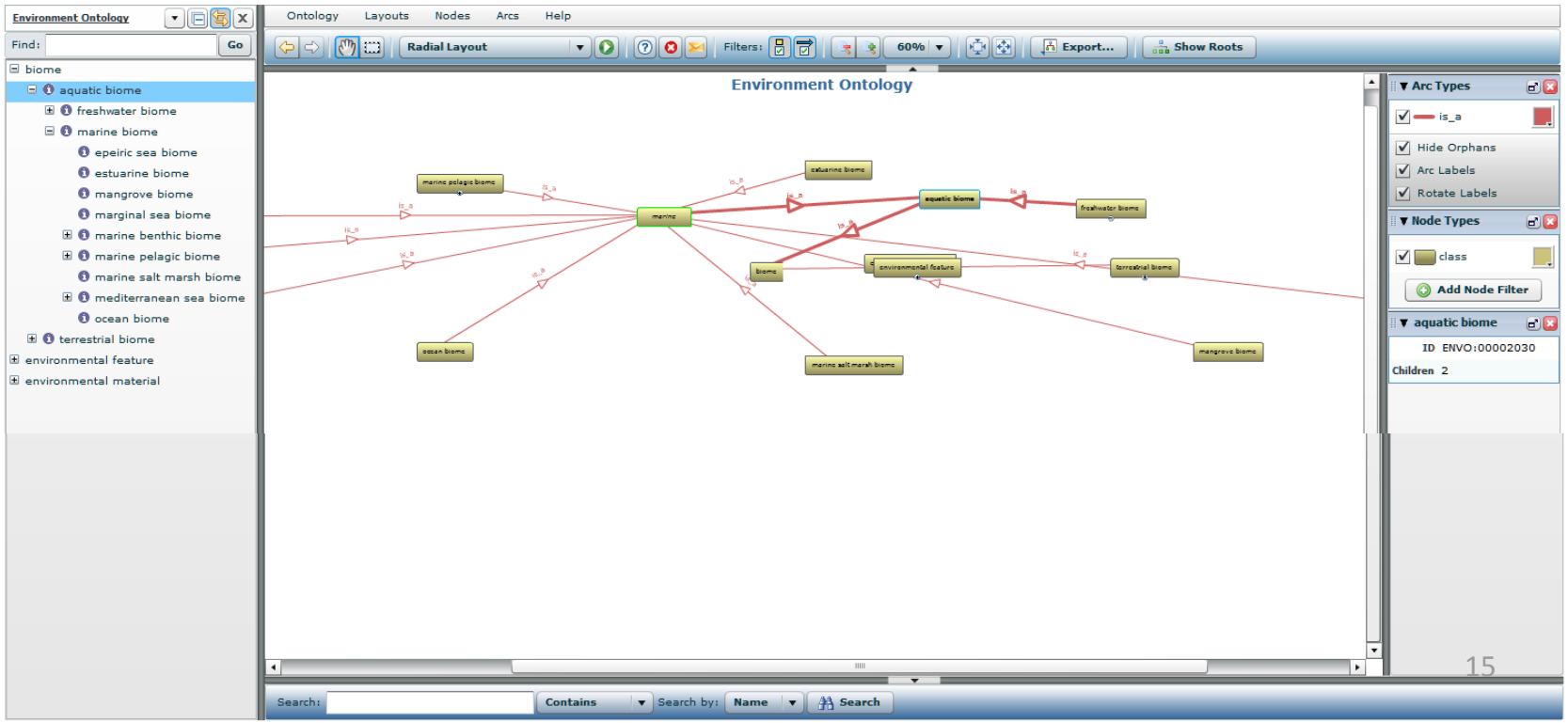
Browse EnvO

Below, you may use BioPortal's visualisation widget to browse through the latest version of EnvO. Please maximise your browser window for better viewing!

- **Looking for a particular environment?** Please use the search box on the top left or bottom of the widget.
- **Browse through the ontology** using the **expandable tree** on the left of the page or by interacting with the graph.
- To view a term **definition**, hover over the term in the tree or graph. You may have to click on the term and wait briefly for the definition to load.

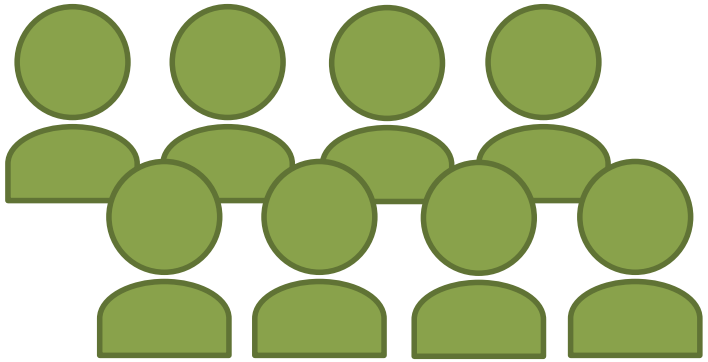
BioPortal's citation:

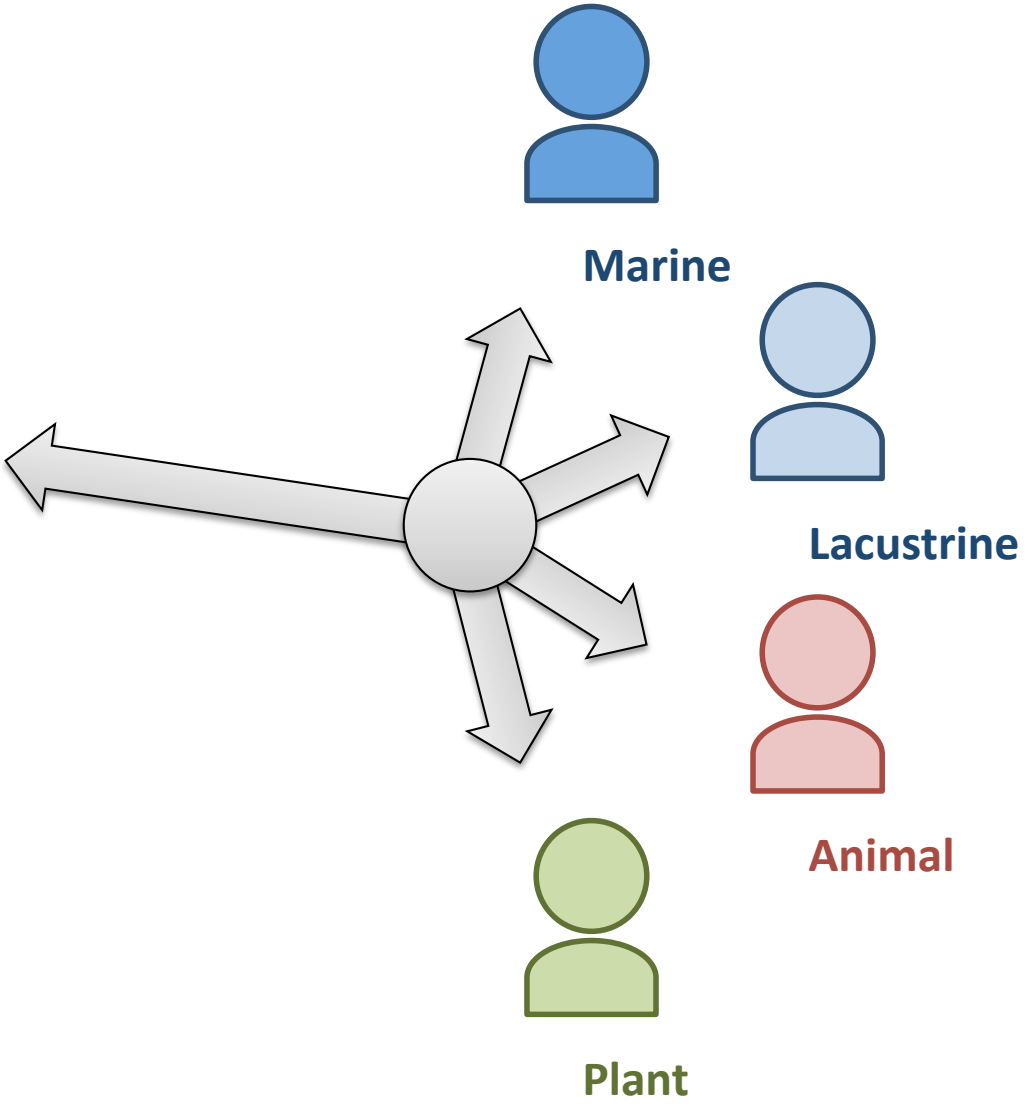
Noy NF, Shah NH, Whetzel PL, Dai B, Dorf M, Griffith N, Jonquet C, Rubin DL, Storey MA, Chute CG, Musen MA. (2009). BioPortal: ontologies and integrated data resources at the click of a mouse. *Nucleic Acids Res.* **1**:37(Web Server issue):W170-3. PubMed. DOI.



Governance and maintenance

Editorial team





Community

- Background
  - Started in 2007 at ISMB in Vienna
  - 4 Official Workshops
- Editorial Team
  - Developed by **The Environment Ontology Consortium**
    - Michael Ashburner - University of Cambridge, UK.
    - Dawn Field - NERC Centre for Ecology and Hydrology, UK.
    - Suzanna Lewis - Lawrence Berkeley Laboratories, US.
    - Lynn Schriml - University of Maryland, US.
    - Barry Smith - University at Buffalo, US.
    - Pier Luigi Buttigieg – Alfred Wegener Institute for Polar and Marine Research, Germany.
    - Norman Morrison – The University of Manchester, UK

Users

- For a full list see:
  - http://www.environmentontology.org/users
- EnvO is recommended by the Minimum Information about Any Sequence Specification (MIxS)
- The advanced search of the (meta)proteome database PRIDE has the option to search by ENVO term
  - See http://www.ebi.ac.uk/pride/

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- Neil Cathness — Oxford e-Research Centre
- Andrew Cossins — School of Biological Sciences, University of Liverpool
- Peter Dawyndt — StrainInfo Bioportal / Ghent University
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- John Goodwin — Ordnance Survey
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- Jun Zhao — Image Bioinformatics Research Group, Oxford University
- Lynn Schriml — University of Maryland School of Medicine
- Bart van Brabant — StrainInfo Bioportal / Ghent University
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