

CESAB CENTRE FOR THE SYNTHESIS AND ANALYSIS OF RIODIVERSITY

FREE2

Towards a change of paradigm in biological conservation: from species to functions, from individuals to ecosystems, from local to global scales

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FREE2 aims at questioning the foundations of conservation biology on the basis of functional criteria. Previous work from FREE1 have paved the way for promising perspectives related to new indicators on on functional scarcity.

FREE2 will develop:

- A synthesis of the publications that have looked at organisms and populations through the lens of functional criteria. This will lay down perspectives for conservation biology.
- A **meta-analysis** on the relationship between biodiversity and function of ecosystems under a taxonomic angle. This work will help to understand the role of functionally distinct species in the regulation of ecosystem functions, their multi-functionality and more broadly ecosystem services.
- A **temporal series analysis** on biodiversity among diverse taxonomic groups to better understand the way that functionnally distinct species are maintained or lost when faced with various environmental and anthropic pressures.
- A R package intended to ease the analysis of functional diversity patterns at different spatial and organisational scales. This package will be both flexible and user friendly to ensure it can be used by researchers as well as decision-makers.

On the whole, these tasks aim at **laying out the foundations** of a new discipline centred on biodiversity and ecosystem conservation under a functional angle.

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CESAB (CEntre for the Synthesis and Analysis of Biodiversity) is FRB's flagship program and an internationally renowned research center whose objective is to implement innovative work to synthesize and analyze existing data sets in biodiversity research.





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