CESAB

A leading research organization in Europe with international influence

CESAB – Centre for the Synthesis and Analysis of Biodiversity – is a key program of the FRB (Foundation for Research on Biodiversity) and aims to implement innovative work to synthesize and analyze already existing data in the field of biodiversity research.

Researchers can find at CESAB the necessary means and infrastructure to share and enhance existing information, and to conduct analyses that address major scientific challenges in biodiversity research.

Advancing knowledge, developing synthesis research and collaboration, facilitating the links between all scientific disciplines: these are the main assets of CESAB which host a large number of researchers every year from all the continents, during work sessions spread over the project timeline.

FRB
FONDATION POUR LA RECHERCHE SUR LA BIODIVERSITÉ

DEVELOP SYNTHESIS RESEARCH

For many years, teams of researchers have been collecting, producing and analyzing more and more data on biodiversity. The information acquired today provides undeniable and essential knowledge and allows us to better understand the contributions that biodiversity can provide for humanity. And it is possible to go even further: assembled and combined, existing data, ideas and concepts can generate new advances in both pure and applied research.

Together, these existing data can supply new issues and significantly advance our biodiversity knowledge.

Encouraging this type of research activity - which does not produce new primary data but makes better use of existing data often dispersed - is a strong challenge for biodiversity. Allowing recognized French scientists to lead high-level international working groups to carry out this type of activity is a way of reinforcing the visibility of the French community in the field.

MEANS AND INFRASTRUCTURE

French and foreign researchers at CESAB have the means and the infrastructure to carry out analyzes on huge existing datasets. Each group is financed for three years to work on their project, and is accompanied by a postdoctoral fellow for two years.

- **Participants**

CESAB groups are international and led by a researcher from a French research organization. As a result, **CESAB** groups have a rich diversity of perspectives and understanding which is enriching for both the participants and the project results. Since it was developed, more than 300 researchers have come to work at **CESAB**.

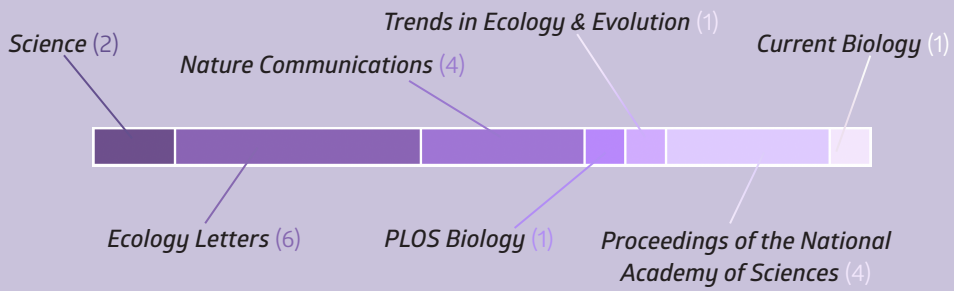
- **Criteria for project selection**

1/ scientific excellence of the working group and project of an innovative nature,
2/ relevance to **CESAB** objectives,
3/ dissemination of knowledge and data from the project,
4/ links with national (and international) initiatives.

High impact publications produced at a sustained paced

→ **More than 100 publications since 2010, including**:
→ **11 in journals with an iCites impact factor greater than 10, 21 greater than 8**.

Example of relevant scientific journals:



Major publications like:

GASPAR group: Mouillot D., Bellwood D.R., Baraloto C., Chave J., Galzin R., Harmelin-Vivien M., Kulbicki M., Lavergne S., Lavorel S., Mouquet N., Timothy Paine C.E., Renaud J., Thuiller W. (2013) Rare Species Support Vulnerable Functions in High-Diversity Ecosystems. *PLOS Biology* 11: e1001569.

DIVGRASS group: Violle C., Reich P.B., Pacala S.W., Enquist B.J., Kattge J. (2014) The emergence and promise of functional biogeography *Proceedings of the National Academy of the Sciences* 111: 13690–13696.

NETSEED group: Labeyrie V., Thomas M., Muthamiad Z.K., Leclerc C. (2016) Seed exchange networks, ethnicity, and sorghum diversity. *Proceedings of the National Academy of the Sciences* 113: 98-103

POST-CESAB

There is also a "post-**CESAB**". Publications resulting from the projects, experience and training given to the groups (for the group researchers as well as for the postdoctoral fellows), networking between researchers and postdoctoral fellows who worked at **CESAB**: these allow participants to continue and develop their project outside the center. Thus, several projects have other lives post-**CESAB**, thanks to funding from the French National Research Agency (ANR), Biodiversa, etc.

An example of a CESAB project: BETSI

The aim of **BETSI**[1] project is to improve scientific knowledge on the links between biodiversity and forest soils functioning. **BETSI** study area stretched from France to Western Europe. Today, thanks to funding from Biodiversa and ANR, the project spread to a wider territory in Europe and also covers boreal, tropical and temperate ecosystems from other continents.

BETSI project is also the subject of a thesis funded by the University of Montpellier Paul-Valéry which studies the functional biogeography of Collembola in European shrubs[2]). From an "applied science" perspective, **BETSI** provides soil biodiversity indicators in agricultural systems and gives diagnosis and advice, in a future-oriented investment project aiming at developing an agro-ecological consulting service.

→ More information: **http://betsi.cesab.org/**

1. Functional, biological and ecological traits of soil invertebrates. Links species / environmental factors. Response of soil organisms to environmental factors and development of bioindicators.
2. Transitory vegetation

CESAB IS MOVING!

Initially located in Aix en Provence, **CESAB** moved in January 2019 to Montpellier. By joining one of the world's most dynamic scientific communities in ecology (the University of Montpellier was ranked world's leading university in Ecology by Shanghai Academic Ranking of World Universities (ARWU) in 2018), this move is an opportunity for **CESAB** to renew its team and to start a fresh development.

CONTACT

Scientific director :
Nicolas Mouquet, CNRS

Deputy director :
Claire Salomon, FRB

Administrator :
Maud Calmet, FRB

FRB-CESAB
Institut Bouisson Bertrand
5, rue de l'école de Médecine
34000 MONTPELLIER - FRANCE

cesab@fondationbiodiversite.fr

www.fondationbiodiversite.fr