29 novembre 2019
10h30 - 13h30
Conférence scientifique en anglais

Institut de botanique
163, rue Auguste Broussonnet
34000 MONTPELLIER

Challenges and opportunities in large-scale conservation

Défis et opportunités de la conservation de la biodiversité à grande échelle

Découvrez le programme et les speakers
sur : **http://bit.ly/Cesab-Pelagic**

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FONDATION POUR LA RECHERCHE SUR LA BIODIVERSITÉ

CESAB
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CESAB
CENTRE DE SYNTHÈSE ET D'ANALYSE SUR LA BIODIVERSITÉ

Centre for the Synthesis and Analysis of Biodiversity

A place and some time for

Large scale biodiversity synthesis

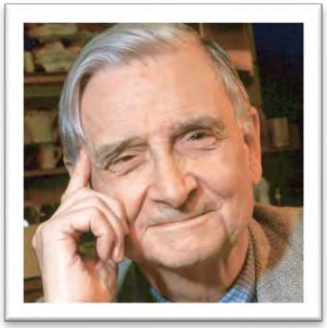
Nicolas Mouquet, CNRS, FRB

Membres Fondateurs de la FRB


BIG
DATA
ALSO
TOOLS
DISK
TARGET
APPLIED
SENSOR
EXAMPLES
SHARED
DEFINITION
CURRENT
MAY
MOVING
WITHIN
RECONSIDER
ZETTABYTES
PRACTITIONERS
CAPTURE
THOUGHT
BUSINESS
INTERNET
SETS
GENOMICS
DISTRIBUTED
DESCRIBING
RADIO-FREQUENCY
COMPLEXITY
MANAGEMENT
TERABYTES
CASE
ABILITY
PETABYTES
INCLUDE
ELAPSED
SYSTEMS
TOLERABLE
FORMS
STORAGE
SIZE
MPP
PARALLEL
SAN
QUALITIES
SINCE
MASSIVELY
GROW
SEARCH
RECORDS
NETWORKS
DATABASES
HUNDREDS
DESKTOP
CAPACITY
NOW
BIOLOGICAL
BURIED
WORLD'S
PROCESSING
UBIQUITOUS
TENS
COMPLEX
ANALYTICS
LARGER
CONTINUES
USE
SET
CONNECTOMICS
ORGANIZATIONS
RELATIONAL
SOCIAL
INDEXING
CITATION
SOLID
TYPES
CURRENTLY
GARTNER
OPPORTUNITIES
WORKING
AMOUNT
EVERY
DIFFICULTY


SIZES in m log scale
10^{9}
10^{8}
10^{7}
10^{6}
10^{5}
10^{4}
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}

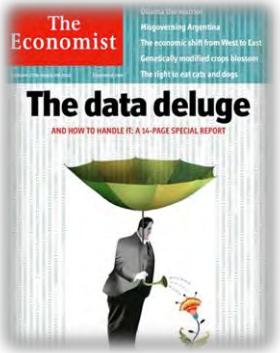
The need for synthesis



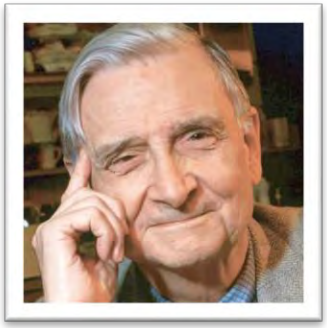
*“ We are **drowning in information** while **starving for wisdom** …*

”

Edward O. Wilson (1998)
Consilience: The Unity of Knowledge



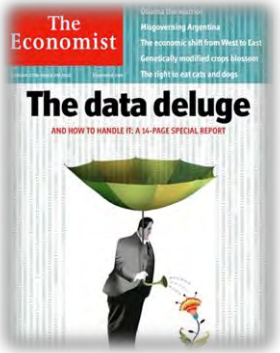
The need for synthesis



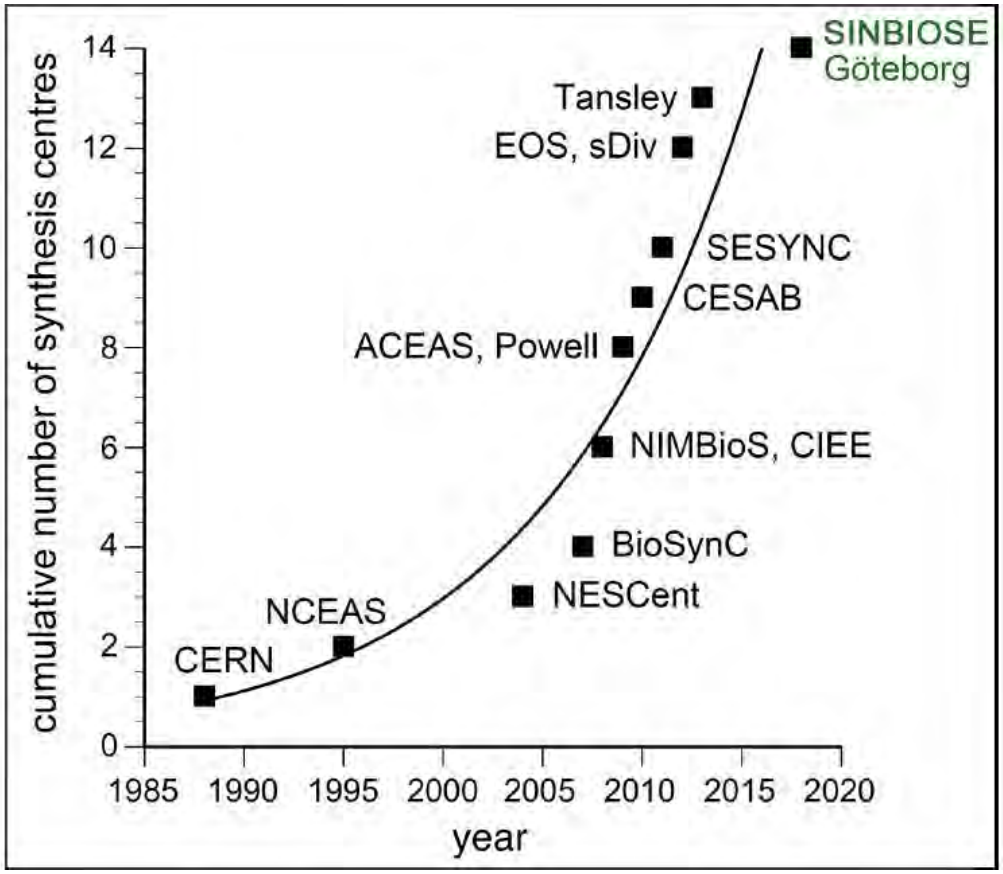
*“ We are **drowning in information** while **starving for wisdom** …*

*The world henceforth will be run by **synthesizers**, people able to put together **the right information at the right time, think critically about it**”*

Edward O. Wilson (1998)
Consilience: The Unity of Knowledge



Ecology and Enviromental Sciences synthesis centers



CESAB : a place

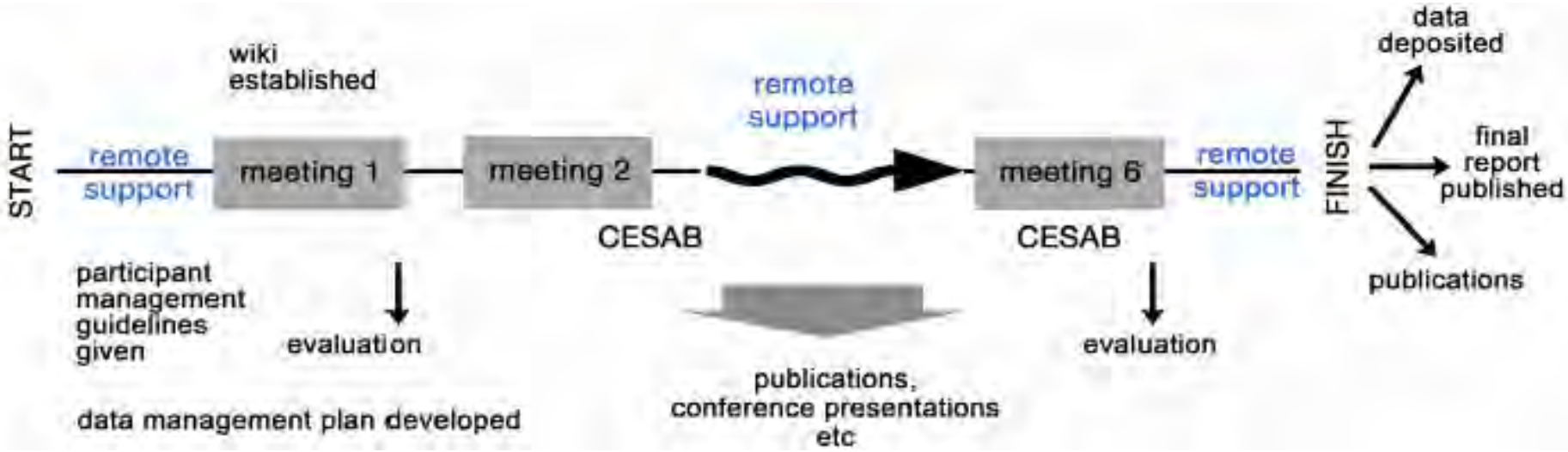
Institut Bouisson Bertrand, 5 rue de l'école de médecine, 34000, Montpellier

CESAB : synthesis groups

International call

10-15 members
2 x 1 week (3 years)
1 postdoc
250 K€

Un Groupe de synthèse



CESAB : ongoing groups

DiveRS : Evolution of breeding systems and plant species diversity.

FORCIS : Foraminifera Response to Climatic Stress.

JUSTCONSERVATION : Justice in biodiversity conservation.

SCORE_REEF : Spatio-temporal variability of coral reefs at the global scale.

PARSEC : Investigation of the socioeconomic impacts of protected areas.

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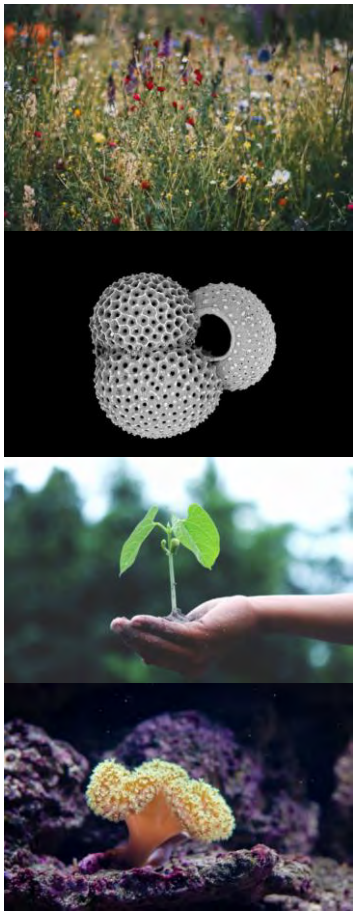

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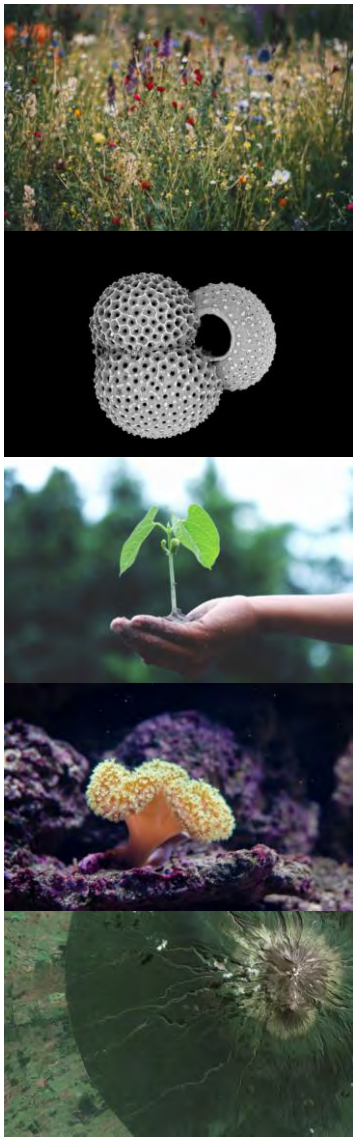

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PELAGIC group : Prioritizing ecologically significant and globally important marine conservation areas for vertebrates. David Mouillot and Tom Letessier

PROJET FINISHED IN 2017 - AFTER EN 2019

PELAGIC

Prioritizing ecologically significant and globally important marine conservation areas for vertebrates: synthesizing the best available knowledge to inform management and policy

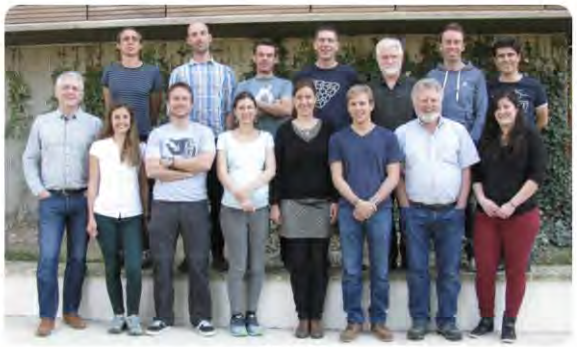
Declines in marine predators intensified globally in the 1950's, as industrial fleets targeted previously inaccessible populations of sharks, tunas, and billfishes. These spatially extensive fisheries continue to expand, while global catches continue to decline.

Given the difficulty of managing these fisheries sustainably, large no-take Marine Protected Areas (MPAs) have been proposed for halting and reversing these declines. These MPAs require knowledge of the critical habitats that maintain these predators and that are relatively immune from the effects of human disturbances. **This crucial knowledge is currently severely limited since based primarily on species geographic distributions obtained through fishery catches that remain biased with untargeted species, unfished areas and deliberate underreporting.**

Here, ***PELAGIC*** planned to overcome this limitation by collecting the most up-to-date and complete information on the biogeography and habitat use of marine mammals, sharks and fishes. **Then PELAGIC experts evaluated the current performance of the global system of MPAs for all vertebrates and proposed some options to optimize the design of future MPAs to insure the long-term persistence of vertebrates in the oceans.**

Pelagic in the media:

- Press Release (in French): Les monts sous-marins éloignés de l'Homme comme derniers refuges des prédateurs marins (August 2019)
- Sciences et Avenir (in French): Les requins fuient l'homme loin dans les océans (August 2019)
- Science Daily (in English): Industrial fishing behing plummeting shark numbers (August 2019)



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MORE INFORMATION

***PELAGIC** brings together specialists in modelling, marine biology and biogeography.*

PIs :

David MOUILLOT – University of Montpellier (France)

Postdoc :

Clara PERON – University of Montpellier (France)

Participants :

Helen BAILEY – University of Maryland (USA); **Michael BODE** – James Cook University (Australia); **Phil BOUCHET** – University of Western Australia (Australia); **Dan COSTA** – University of California (USA); **François GUILHAUMON** – IRD Montpellier (France); **Pat HALPIN** – Duke University Durham (USA); **Kristin KASCHNER** – University of Freiberg (Germany); **Tom LETESSIER** – Zoological Society of London (UK); **Rebecca LEWISON** – San Diego State University (USA); **Jessica MEEUWIG** – University of Western Australia (Australia); **Valeriano PARRAVICINI** – University of Perpignan (France); **Laura POLLOCK** – University of Grenoble-Alpes (France); **Bob PRESSEY** – James Cook University (Australia); **Vincent RIDOUX** – University of la Rochelle (France); **Len THOMAS** – University of St Andrews Scotland (UK); **Wilfried THUILLER** – CNRS Grenoble (France); **Laurent VIGLIOA** – IRD New Caledonia (France); **Rob WILLIAMS** – University of St Andrews Scotland (UK).

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