

REPORT ON THE RESEARCH UNIT:

Centre for Ecology and Sciences of
COnservation (CESCO)

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:

Muséum national d'Histoire naturelle

Centre National de la Recherche Scientifique -
CNRS

Université Pierre et Marie Curie

ÉVALUATION CAMPAIGN 2017-2018

GROUP D



In the name of Hcéres¹:

Michel Cosnard, President

In the name of the expert committee²:

Martin Hermy, Chairman of the committee

Under the decree No.2014-1365 dated 14 November 2014,

¹ The president of Hcéres "countersigns the evaluation reports set up by the expert committees and signed by their chairman." (Article 8, paragraph 5);

² The evaluation reports "are signed by the chairman of the expert committee". (Article 11, paragraph 2).

This report is the sole result of the unit's evaluation by the expert committee, the composition of which is specified below. The assessments contained herein are the expression of an independent and collegial reviewing by the committee.

UNIT PRESENTATION

Unit name:	Centre for Ecology and Sciences of COnservation
Unit acronym:	CESCO
Requested label:	UMR
Application type:	Renewal
Current number:	UMR 7204
Head of the unit (2017-2018):	Mr Romain JULLIARD
Project leader (2019-2023):	Mr Romain JULLIARD
Number of teams:	Past: 2; Project: 5

COMMITTEE MEMBERS

Chair:	Mr Martin HERMY, Catholic University of Leuven, Belgium
Experts:	Mr François BOUSQUET, CIRAD Montpellier (supporting personal) Ms Camille MAZE, CNRS, Brest Ms Vanina PASQUALINI, Université de Corse Pasquale Paoli (representative of CNU) Mr Fabrice VAVRE, CNRS, Lyon (representative of CoNRS)
HCERES scientific officer:	Mr Christopher CARCAILLET
Representatives of supervising institutions and bodies:	Mr Julien GASPARI, UPMC Ms Martine HOSSAERT, CNRS Mr Jean-Denis VIGNE, MNHN

INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

CESCO (Centre d'Écologie et des Sciences de la Conservation) was created in 2002 by Denis Couvet assembling around him researchers from the MNHN, the CNRS and the UPMC developing research on biodiversity conservation issues. This project was anchored in the conviction that conservation of biodiversity deserved a proper research unit rather than being scattered here and there through individual, often short-term projects. Right from the beginning, CESCO (first known as CERSP for "Conservation des Espèces, Restauration et Suivi des Populations") included the "Centre de Recherche sur la Biologie des Populations d'Oiseau" (CRBPO), the national ringing scheme, to be considered the ancestor of modern citizen science. From this starting point, CESCO grew steadily, together with the development of its citizen science platform Vigie-Nature, into a research unit studying a diversity of themes.

In January 2014 two teams were created: "Bases Ecologiques de la Conservation" (BEC) and Socio-ecosystem research (SES). A stable growth rate of staff and an original and ambitious research model, integrating science and society stimulated further growth and triggered a further reorganization.

In autumn 2016 a reorganization scheme of CESCO was adopted based on a bottom-up approach. This resulted in the project 2019-2023 in a new structure including five research teams, with two relatively large, ecological teams (CORPO and CoMaC) and 3 smaller, more interdisciplinary teams. The former 2 can be seen as their 'ecological roots' while the other 3 as more experimental, with the aim of demonstrating their usefulness in the next 5 years. So from 2018 onwards CESCO will be structured in five research teams: CORPO, Conservation and Restoration of Populations; CoMaC, Community Ecology, Macroecology and Conservation; URB, Ecology, Planning and Biodiversity in Urban Areas; TEEN, "Transition écologique et Expériences de Nature", and PAC-Biodiv, "Politiques publiques", "Action Collective et Biodiversité" all structured around two citizen science platforms (CRBPO – VIGIE-NATURE).

Most people working at CESCO are hosted in two buildings located ca. 50 m apart next to the "Jardin des Plantes" (MNHN campus). The CRBPO (partly) moved to the MNHN site at Brunoy (Essonne) in 2015 (about 25 km from central Paris) while two researchers and one engineer recently moved to the MNHN Marine Station at Concarneau (western Brittany) with the aim of developing research based on marine citizen science.

MANAGEMENT TEAM

The director of CESCO is Mr Romain JULLIARD.

HCERES NOMENCLATURE

SVE1 Agronomy, plant biology, Ecology, Environment, Evolution.

SHS3 Territory, environment and society.

SCIENTIFIC DOMAIN

CESCO integrates research from citizens to scientists within the field of biodiversity and conservation.

The research of CESCO is built on several convictions: (i) biodiversity under crisis requires dedicated research (conservation sciences) and not just fundamental ecology; (ii) interdisciplinary approaches are a major source of innovation; (iii) conservation should be concerned with both the preservation of biodiversity from the negative effects of rapid human development and the preservation of societies from the deleterious effects of changes in biodiversity. CESCO therefore has a strong interdisciplinary mission integrating social sciences (political sciences, conservation psychology, management sciences) with ecology to build conservation science and it wants to offer students this double scientific culture. It has a long experience in developing citizen science (CS) projects integrated with research.

CESCO's research addresses three major issues: (1) measuring biodiversity to describe its changes; (2) understanding the mechanisms responsible for these changes to forecast the consequences of our societal choices; and (3) supporting wanted societal changes, from the individual to the institutional level. The main field of study is metropolitan France, in accordance with the mandate of the Museum to document the state of biodiversity at this scale.

UNIT WORKFORCE

Unit workforce	Number 30/06/2017	Number 01/01/2019
Permanent staff		
Full professors and similar positions	8	8
Assistant professors and similar positions	11	10
Full time research directors (Directeurs de recherche) and similar positions	2	1
Full time research associates (Chargés de recherche) and similar positions	3	4
Other scientists ("Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.")	0	0
High school teachers	0	0
Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)	9	9
TOTAL permanent staff	33	32
Non-permanent staff		
Non-permanent professors and associate professors, including emeritus	1	
Non-permanent full time scientists, including emeritus, post-docs	8	
Non-permanent supporting personnel	20	
PhD Students	39	
TOTAL non-permanent staff	68	
TOTAL unit	101	

GLOBAL ASSESSMENT OF THE UNIT

CESCO is at the leading front of citizen science in France, and plays a critical role in organizing, managing and motivating both amateurs and the general public. One would almost forget that CESCO equally has a great expertise in producing biodiversity metrics and related mathematical tools with implications in evolutionary and ecology. CESCO plays an essential role in a new emerging research expertise, i.e. conservation psychology. Through its citizen science and the conservation psychology projects CESCO clearly contributes to the education of specific social groups, such as farmers and children, but also to the general public. Between 2012 and 2017 CESCO had an outstanding international productivity, and substantial amount of this was co-signed with at least one researcher from foreign institutions, pointing to a considerable involvement of CESCO researchers in research networks in- and out-side France.

CESCO's organization has gone through major changes since 2012 starting with 2 research teams and further reorganisation of the unit for the future period into 5 teams. CESCO with its unique feature of hosting two national citizen science platforms, CRBPO and Vigie-Nature, is excellently positioned to integrate more classical ecological approaches with social sciences. The combination of conservation-oriented research, transdisciplinarity and citizen science platforms clearly contributed to the success. In CESCO, there is a high pressure on permanent staff in attracting research funds and new projects, such as 65MO (Programme d'investissements avenir PIA "*Diffusion de la culture scientifique, technique et industrielle et pour l'égalité des chances*") that CESCO leads, as it demands a lot of flexibility of the unit members. Despite the success of Vigie-Nature it still is not completely secured. Bringing together researchers of very different expertise in an integrated transdisciplinary project also remains a fragile 'architecture' which obviously asks for a continued, structural attention and action. There is a strong demand for it, but traditionally institutions are functioning on a more disciplinary logic: researchers are trained, evaluated and recruited within a discipline.

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