AD2M - Adaptation et diversité en milieu marin

Rapport Hcéres

Research evaluation

REPORT ON THE RESEARCH UNIT:

Adaptation et Diversité en Milieu Marin (AD2M)

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:

Université Pierre et Marie Curie

Centre National de la Recherche Scientifique - CNRS

EVALUATION CAMPAIGN 2017-2018

GROUP D

In the name of Hcéres[1]:

Michel Cosnard, President

In the name of the expert committee[2]:

Debashish Bhattacharya, 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:	Adaptation et Diversité en Milieu Marin
Unit acronym:	AD2M
Requested label:	UMR
Application type:	Renewal
Current number:	UMR 7144
Head of the unit (2017-2018):	Mr François LALLIER
Project leader (2019-2023):	Mr Fabrice NOT
Number of teams:	3

COMMITTEE MEMBERS

Chair:	Mr Debashish BHATTACHARYA, Rutgers University, United States
Experts:	Mr Dominique DE VIENNE, Université de Paris-Sud
	Mr Arthur GROSSMAN, Carnegie Institute Stanford, United States
	Ms Véronique MARTIN JEZEQUEL, Université de Nantes (representative of CoNRS)
	Mr Guillaume MITTA, Université de Perpignan via Domitia (representative of CNU)
	Mr Xavier NESME, Inra de Lyon (supporting personnel)
	Mr Klaus-Ulrich VALENTIN, Alfred-Wegener-Institut Bremerhaven, Germany
HCERES scientific officer:	
	Mr Steven BALL
Representatives of supervising institutions and bodies:	
	Ms Martine HOSSAERT, Centre national de la recherche scientifique
	Mr Stéphane REGNIER, Université Pierre et Marie Curie

INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

Founded in 1872, since 2001, the Station Biologique de Roscoff (SBR) has been organized as a "Fédération de Recherche" (FR 2424) with supports services, research facilities, and several Research Units. The SBR is located in Brittany (Bretagne), France and is jointly run by the National Centre for Scientific Research (CNRS) and the Pierre and Marie Curie University (UPMC, Paris). The research unit being reviewed here belongs to the Station Biologique de Roscoff, "Adaptation et Diversité en Milieu Marin" (AD2M, UMR 7144) was founded in 2005 and has been twice renewed, in 2009, and in 2013.

Currently, AD2M is comprised of 82 members including 46 permanent members (16 CNRS researchers, 14 professors, 16 engineers and technicians) and 37 temporary members (24 PhD candidates, 10 postdoctoral fellows, 3 engineers).

MANAGEMENT TEAM

Present unit head: Mr François LALLIER

Present deputy head: Ms Frédérique VIARD

Future unit head: Mr Fabrice NOT

Deputy head: Mr D DAVOULT,

HCERES NOMENCLATURE

SVE1_2 ; ST3_1.

SCIENTIFIC DOMAIN

AD2M is involved in a wide variety of basic research topics. These include descriptive, functional and evolutionary ecology, as applied to marine biota and their ecosystems. The previous seven areas of focus have now been consolidated to three for the next funding period. These are ECOMAP, DYDIV, and EDYCO. These groups investigate the functioning of coastal ecosystems facing environmental disturbances, promote the establishment and relevance of integrated coastal time series and observatories, and study the diversity and function of symbioses in natural ecosystems. Specific areas of focus include: study of the structure and dynamics of planktonic communities, analysis of the diversity and functioning of coastal benthic ecosystems, and extent and nature of intraspecific diversity. AD2M has expertise in ocean monitoring using sampling and deployment of in situ sensors (former CHIM team), the nature of coastal benthic communities in terms of diversity and functioning (primary and secondary production, food webs) using both *in situ* and lab-based methods (former EFEB team), dispersal in the marine environment including analysis of human-mediated long distance dispersal (former Divco team), adaptation of invertebrates to the extreme, deep sea environment such as deep-sea hydrothermal vents, cold seeps, and polar environments (Arctic and Antarctic) (former ABICE team), study of marine algal diversity, distribution, and temporal dynamics using genetic and genomic methods (former DIPO team), the role of cyanobacteria in global biogeochemical cycles using genetic, genomic, and physiology based approaches (former MaPP team), and analysis of the biodiversity and ecological biodiversification of protists using phylogenomic and systems biology approaches (former EPEP team).

UNIT WORKFORCE

Unit workforce	Number 30/06/2017	Number 01/01/2019
Permanent staff		
Full professors and similar positions	3	3

Assistant professors and similar positions	10	11
Full time research directors (Directeurs de recherche) and similar positions	8	8
Full time research associates (Chargés de recherche) and similar positions	8	8
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)	15	17
TOTAL permanent staff	**44**	**47**
Non-permanent staff		
Non-permanent professors and associate professors, including emeritus	1	
Non-permanent full time scientists, including emeritus, post-docs	10	
Non-permanent supporting personnel	3	
PhD Students	24	
TOTAL non-permanent staff	**38**	
TOTAL unit	**82**	

GLOBAL ASSESSMENT OF THE UNIT

AD2M is a highly successful research unit that wishes to maintain its focus areas of research in the next 5 years although the most important development is that teams will now be reorganized into the following three: EDYCO - ecogeochemistry and dynamics of coastal ecosystems; DYDIV - dynamics of marine diversity; and ECOMAP - ecology of marine plankton. Over the last period AD2M has published over 420 publications, including not only the best journals in their speciality but also the highest impact multidisciplinary journals such as Nature, Science and PNAS.

AD2M, in particular ECOMAP is an extraordinarily successful group and world leaders in the fields of marine biology, oceanography, and the application of modern genetic and genomic methods to studying marine biodiversity. In the next 5 years one of the focus areas will be to integrate the different data streams to enable effective monitoring of coastal ecosystems, which is one of the main missions of the Roscoff Marine Station. AD2M will also focus on creating a more collaborative work environment at Roscoff using strategies such as incentive funding of research projects and students and new workshops and poster sessions.

AD2M has been well funded by federal, provincial, and private agencies and numerous students have defended their theses. AD2M members have also contributed to teaching, Specifically, the TARA Oceans project has been an immense success and led to many public outreach products.

Very few weaknesses were identified in AD2M. However there was concern that some AD2M units pursue too many different research projects on different marine species, which makes it difficult for them to focus more deeply into functional questions with the most promising models.

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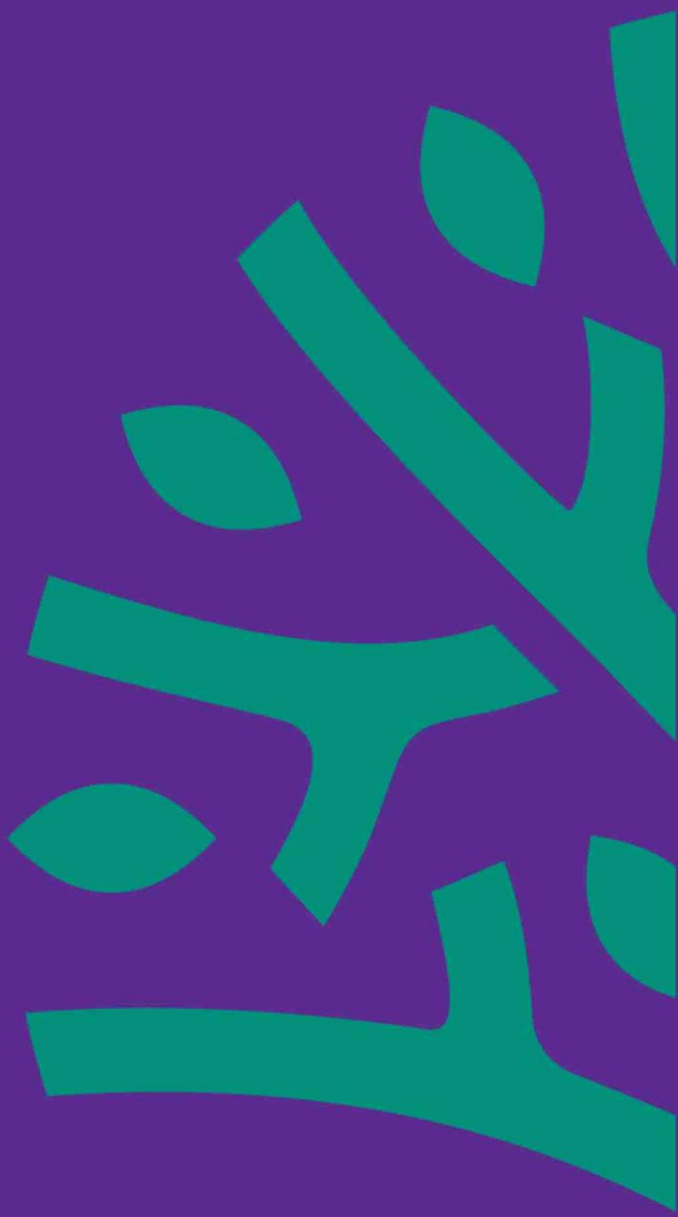

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