

Research evaluation

## FINAL RESUME ON THE RESEARCH UNIT Ethos - Ethologie animale et humaine

## UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES: Université de Rennes 1 Université de Caen Normandie - UNICAEN Centre national de la recherche scientifique - CNRS

## **EVALUATION CAMPAIGN 2020-2021** GROUP B

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In the name of Hcéres<sup>1</sup>:

Mr Thierry Coulhon, President

In the name of the experts committee<sup>2</sup>:

Ms Marta Manser, Chairman of the committee

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

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

<sup>2</sup> The evaluation reports "are signed by the chairman of the experts committee". (Article 11, paragraph 2).



Tables in this document were filled with certified data submitted by the supervising body on behalf of the unit.

## **UNIT PRESENTATION**

Unit name: Ethologie humaine et animale Unit acronym: EthoS Current label and N°: 6552 ID RNSR: 201722268K Application type: Renewal Head of the unit (2020-2021): Mr Alban Lemasson Project leader (2021-2025): Mr Alban Lemasson Number of teams and/or themes: 3

## **EXPERTS COMMITTEE MEMBERS**

Chair:	Ms Marta Manser, University of Zurich, Suisse
Experts:	Mr Vincent Bels, Museum National d'Histoire Naturelle - MNHN, Paris
	Mr Martin Giurfa, Université Toulouse 3 - Paul Sabatier - UPS
	Ms Julie Gullstrand, CNRS Rousset
	Ms Marta Manser, University of Zurich, Suisse
	Mr Nicolas Mathevon Université Jean Monnet, Saint Etienne
	Mr Jean-Christophe Sandoz, CNRS, Gif-sur-Yvette

# **HCÉRES REPRESENTATIVE**

Ms Céline Souchay

### **REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES**

Mr David Alis (Rennes University) Mr Eric Leroy du Cardonnoy (Normandie University) Mr Bernard Poulain (CNRS)



# INTRODUCTION

### HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The EthoS research unit has been at the international forefront of studying animal (since the 50's) and human (since the 70's) behaviour with a substantial increase in size and research directions over the years. Created by Mr Gaston Richard in 1955, the research unit with approximately ten members, was housed in Rennes city center. In the 60's, the laboratory moved to Rennes 1 University campus (Beaulieu), and in 1967 some staff members moved to the field 'Station Biologique de Paimpont', about 50 km west of Rennes, for housing non-human primates. Field studies were expanded, in particular to Africa. In the 90's, the CNRS ATIP research team added field - and laboratory-based research on cognition and neuro-ethology. In 2017, a new research team based at Caen Normandy University Campus and at the "Centre de Recherche en Environnement Côtier" at Luc-Sur-Mer (a field Marine station of Caen Normandy University), about 200 km North-East of Rennes, was integrated to EthoS. During the present contract, Ethos was organized under a four-team frame (DEEP, PEGASE, COCORESO and NECC) will be reorganized in a three-team unit (Deep, CIRCE, NECC).

#### RESEARCH ECOSYSTEM

EthoS continued to have a substantial impact to the structuring and support of ethology in France. The unit also positioned the field of ethology at the interface between different disciplines interested in behaviour as, for instance, neurobiology, psychology, psychiatry, physiology, sociology, ethnology, ecology, genetics and linguistics. For this, many national collaborations have been established (INRA: four institutions; Universities: fourteen; other research centers: four) as well as international collaborations (Europe: sixteen countries; Africa and Middle East: eight; America: five; Asia: three; Oceania: one). These include long-term collaborations with ethologists and researchers from other disciplines involving co-supervisions of Master and PhD students as well as co-responses to calls for bilateral actions (e.g., PRC, EcoSud, PHC, PICS). In particular to mention is the establishment of a LIA – "Laboratoire International Associé" (International Associated Laboratory) funded by CNRS that EthoS piloted from 2015 to 2019, where all Brittany research teams in collaboration with researchers from various Universities in South Africa, studied the relative impacts of social systems, phylogeny and life conditions on the evolution of vocal communication of several of this country's emblematic bird and mammal species. These actions led to the validation of an International Research Project (IRP) project (2020-2024) by the CNRS along these same lines.

Regionally, the 2008 created GIS – "Groupement d'Intérêt Scientifique" (regional scientific multidisciplinary network) "Cerveau, Comportement, Société" (Brain, Behaviour, Society) continued the collaboration of the research on animal and human behaviour of twenty various teams in North-West France (Rennes, Brest, Angers and Nantes). EthoS scientific achievements benefited from the convergence of many, rarely associated, research fields in biology and medicine, human sciences and physics. Long-term collaborations have notably been established with University Hospitals for the study of newborns and children. In 2015, EthoS joined a second regional multidisciplinary network GIS. "Alimentation, Nutrition, Métabolisme, Santé" (Diet, Nutrition, Metabolism, Health), piloted by Mr Bruno CLEMENT (INSERM UMR 991). Ten research teams from various fields are involved in this research program. Their local dynamism is also attested by their success in obtaining two CPER funding ("Contract Plan Etat Region" - State Region Project Agreement) grants (one in Brittany and one in Normandy), as well as six university/CNRS incentive actions ("Scientific challenge grants").

### HCÉRES NOMENCLATURE AND THEMATICS OF THE UNIT

#### SVE4 Neurosciences

EthoS is guided by its "ethology" disciplinary identity. The aim is to understand animal and human behaviour, i.e., organism-environment relationships based on comparative and integrative approaches. Investigations conform to an integrative approach, addressing the ontogeny, causality, function and evolution of behaviour. The focus is on how and why social relationships, communication abilities and cognitive processes in particular change and interact during individual development and species evolution.

#### MANAGEMENT TEAM

Unit head: Mr Albon LEMASSON Unit deputy head: Ms Sophie LUMINEAU



#### UNIT WORKFORCE

#### Ethologie humaine et animale

Active staff		Number 01/01/2022
Full professors and similar positions		5
Assistant professors and similar positions		9
Full time research directors (Directeurs de recherche) and similar positions		1
Full time research associates (Chargés de recherche) and similar positions	3	3
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)	13	13
Permanent staff	31	31
Non-permanent professors and associate professors, including emeritus		
Non-permanent full time scientists, including emeritus, post-docs (except PhD students)		
PhD Students		
Non-permanent supporting personnel		
Non-permanent staff	0	
Total	31	31

### **GLOBAL ASSESSMENT OF THE UNIT**

The main scientific research is ethology and the development of the nervous system with some work on brain function in a wide range of species from invertebrates (spiders, cephalopods) and birds, terrestrial and marine mammals, as well as non-human primates and humans. The unit in this way with its investigation of a broad spectrum of scientific topics and also a large variety of different species, covering basic and applied research, represents internationally a unique institution. EthoS, with the focus on ethological research, centers around the understanding of animal and human behaviour, asking questions at the proximate and ultimate level. In particular, all the projects investigate the role of social relationships, the changes in communication and cognitive processes during individual development and species evolution.

Each of the four teams (current contract, i.e, DEEP, PEGASE, COCORESO, NECC) has a different focus, but complements each other very well. This is seen in a qualitative and quantitative high scientific output of peer-reviewed publications, book chapters and also conference contributions in form of oral or poster presentations. EthoS has increased in the number of publications appearing in ISI-listed peer-reviewed journals in comparison to the previous period (5 % increase). It has also successfully published in high-ranking journals such as *Nature Communications, Current Biology, Animal Behaviour* and *Proceedings of the Royal Society.* However, publications in higher impact factor journals such as *Nature or Science* are still missing. The many international collaborations resulting often in high quality publications are evidenced for the substantial involvement of EthoS in the field of Ethology.

The unit has a long-standing international reputation in ethology, and has established an impressive scientific network around the world. It continues to be coherent and well organized. The whole unit has a high level of international visibility due to being well connected with other groups nationally and internationally.



The strong visibility at national and international level of EthoS is particularly significant for the CIRCE Team (merge of the PEGASE and COCORESO Teams from the previous contract).

This is highlighted by the senior membership at the Institut Universitaire de France (IUF) of one of its members, the strong long lasting and numerous international collaborations among which the one with South Africa universities structured in an International associated laboratory and further reconducted through an International Research Project (IRP) project (2020-2024), as well as the strong and fruitful interactions with a wide range of French and international non-academic partners.

The unit has been highly successful in fund raising, particular at the national level (ANR), and also of grants from local foundations and charities (ARC). Furthermore, they have succeeded to recruit many international grants from outside Europe, and few within Europe.

The recruitment of international students and in particular postdoctoral fellows should be a clear target in the future. There is a good balance of basic and applied research and evidence of innovation in both aspects. The outreach to the public via popular publications and other media publishing the research results in popular publications and other media outputs is impressive.

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