

# Julie Boisard

Postdoctoral researcher



Biologihuset  
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julieboisard.github.io

## Expertise



Microeukaryotes  
Protistology  
Parasitology  
Syntrophic interactions



Genome evolution  
Evolutionary biology  
Phylogenomics  
Comparative Genomics

## Skills



**Bioinformatics**  
NGS Data Analysis  
Long read sequencing  
(Meta)Genomics  
Genome Annotation



**Programming**  
Bash/linux  
Python/R  
Snakemake  
Conda, HPC



**Wet lab**  
Protist culturing  
Environmental samples  
DNA extraction  
NGS Library prep



**Teaching**  
DNA sequencing  
Gene prediction  
Gene annotation  
Python programming  
Bash & Unix  
Msc students supervision

## Languages

- **French** Native
- **English** Fluent
- **Swedish** Elementary

## Academic positions

Feb 2022 –  
Jan 2026

### Crafoord Stiftelsen / ERC postdoctoral fellow

Lund University, Sweden

*Exploring anaerobic microbial eukaryotes diversity*  
*Breviate: Prokaryotes syntrophic interactions*  
Eukaryotic-Prokaryotic mesocosms culturing  
Protist isolation from environmental samples  
Eukaryotic-Prokaryotic genomics  
Metagenomics of Eukaryotic-Prokaryotic mesocosms  
Environmental short and long-read metabarcoding

Member of Courtney Stairs' laboratory  
(Associate senior lecturer, Biology Department)

## Academic education

2018 – 2021

### CNRS PhD fellow

CNRS fellowship, France

*ED227 MNHN-SU Natural and human sciences: Evolution and Ecology*  
Specialty: **Biology of organisms, Parasitology and Genomics**

UMR7245 CNRS MNHN MCAM & UMR7196 CNRS MNHN INSERM U1154 STRING  
*Characterization of gregarine genomes and their deduced proteomes to understand the diversification of apicomplexans and their adaptation to parasitic lifestyle*  
Supervisors: Isabelle Florent Pr MNHN & Loïc Ponger MCF MNHN

2021

### Certificate

Massachusetts Institute of Technology: MIT OpenCourseWare

*MITx - 6.00.1x: Introduction to Computer Science and Programming Using Python*

2016 – 2018

### Research Master

MNHN, Sorbonne Université, France

Systematics, Evolutionary biology, Paleontology

### Master's Thesis

UMR MCAM 7245 CNRS MNHN

*Porospora gigantea, a model for genomic study of the Apicomplexan adaptation to parasitic lifestyle*  
Supervisor: Isabelle Florent, Pr MNHN

2008 – 2010

### Research Master

Université de Bourgogne, France

Humanities and Social Sciences in Modern and Contemporary Worlds -  
Mention Art History

2005 – 2008

### Bachelor's degree

Université de Bourgogne, France

Art History and Archaeology

2002 – 2004

### Associate's degree

Université de Bourgogne, France

Psychology

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## Publications in peer-reviewed journals

- 2023      **Boisard, J., and Florent, I.**  
*Porospora gigantea*  
Trends in Parasitology 39, 886–887. doi:10.1016/j.pt.2023.05.013.
- 2022      **Boisard J., Duvernois-Berthet E., Duval L., Schrével J., Guillou L., Labat A., Le Panse S., Prensier G., Ponger L. and Florent I.**  
*Marine gregarine genomes reveal the breadth of apicomplexan diversity with a partially conserved glideosome machinery.*  
BMC Genomics. 23, 485. doi:10.1186/s12864-022-08700-8.
- 2021      **Florent I., Chapuis M-P., Labat A., Boisard J., Leménager N., Michel B. & Desportes-Livage L.**  
*Integrative taxonomy confirms that Gregarina garnhami and G. acridiorum (Apicomplexa, Gregarinidae), parasites of Schistocerca gregaria and Locusta migratoria (Insecta, Orthoptera), are distinct species*  
Parasite, 28, 12. doi:10.1051/parasite/2021009
- 2020      **Boisard J. & Florent I.**  
*Why the –omic future of Apicomplexa should include gregarines*  
Biol. Cell, 112: 173–185. doi:10.1111/boc.202000006

## Commissioned investigation

- In review      **Dupraz C., Sjöberg S., Boisard J., Stairs C., Sjöberg V., Visscher PT., Karlsson A., Yao H. & Allard B.**  
*2023/24-Estonia – Analysis of material deposited near a fracture on the MS Estonia shipwreck*  
Meddelanden från Stockholms universitets institution för geologiska vetenskaper No 388

## Book chapters

- In review      **Boisard J. and Florent I.**  
*Extra or Intracellular lifestyles, in review*  
Parasite-Host Interactions: Concepts for host manipulation and parasite survival, eds. Ramakrishnan, C., Tritten, L., Eichenberger, R., Springer

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## Invited talks in Scientific Events

Oct 1, 2024

### International Scientific meeting

**Julie Boisard**, Evelyne Duvernois-Berthet, Loïc Ponger and Isabelle Florent\*, *Adaptive and functional biodiversity of Apicomplexa, the contribution of -omic data on gregarines*. \* = speaker

Comparative genomics of unicellular eukaryotes: Interactions and symbioses, Sant Feliu de Guixols, Spain

Dec 13, 2022

### National Scientific meeting

**Julie Boisard**. *La biodiversité taxonomique et fonctionnelle des Apicomplexa, au prisme de leurs données moléculaires et génomiques, L'exemple des grégaires*

Webinar of the French Society of Parasitology, France

Sep 8, 2022

### International Scientific meeting

**Julie Boisard**, Evelyne Duvernois-Berthet, Linda Duval, Joseph Schrével, Laure Guillou, Amandine Labat, Sophie Le Panse, Gérard Prensier, Loïc Ponger and Isabelle Florent\*, *Deciphering the genome of the marine gregarine Porospora gigantea: challenges and insights into the breath of apicomplexan diversity and their adaptive capacities*. \* = speaker

Conférences Jacques Monod, Roscoff, France

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## Talks in Scientific Events

- |                         |  |
|-------------------------|--|
| November<br>15-18, 2022 | <b>International Scientific meeting</b><br><b>Julie Boisard</b> , Evelyne Duvernois-Berthet, Laure Guillou, Loïc Ponger, Isabelle Florent*. <i>First genome deciphering of a marine gregarine species: insights into the breath of apicomplexan parasites diversity.</i> * = speaker<br>Marine Parasitology Symposium, La Rochelle, France   |
| June 23-24,<br>2022     | <b>National Scientific meeting</b><br><b>Julie Boisard</b> , Evelyne Duvernois-Berthet, Linda Duval, Joseph Schrével, Laure Guillou, Amandine Labat, Sophie Le Panse, Gérard Prensier, Loïc Ponger, Isabelle Florent*. <i>Le décryptage des génomes de Porospora cf. gigantea, une grégarine marine, révèle l'ampleur de la diversité des Apicomplexa et un glidéosome partiellement conservé.</i> * = speaker<br>Journées thématiques de l'AFEM. Les microeucaryotes : le chaînon manquant des études en écologie microbienne. Clermont-Ferrand, France |
| May 10-11,<br>2022      | <b>International Scientific meeting</b><br><b>Julie Boisard</b> , Evelyne Duvernois-Berthet, Loïc Ponger, Isabelle Florent. <i>Gregarine genomes deciphering extends our knowledge of apicomplexan diversity</i><br>Protistology Nordics, Oslo, Norway   |
| Feb 2-3, 2021           | <b>International Scientific meeting</b><br><b>Julie Boisard</b> , Evelyne Duvernois-Berthet, Loïc Ponger, Isabelle Florent. <i>Challenges and solutions for studying divergent eukaryotic genomes of non-model and non-cultivable species</i><br>ALPHY: Bioinformatics and Evolutionary Genomics, Virtual Meeting  |
| Dec 10, 2020            | <b>National Scientific meeting</b><br><b>Julie Boisard</b> , Evelyne Duvernois-Berthet, Loïc Ponger, Isabelle Florent. <i>Characterization of the genome and proteome of gregarines as models to understand the Apicomplexan diversification and adaptation to parasitic lifestyle</i><br>Bioinformatics Meeting, MNHN, Paris, France  |
| Jan 18, 2019            | <b>Doctoral and post-doctoral students Meeting</b><br><b>Julie Boisard</b> . <i>Assemblage de novo de génomes de grégarines</i><br>UMR7245 CNRS MNHN MCAM, Paris, France   |
| May 15, 2014            | <b>Workshop organization</b><br><i>Individu et société – Parcours du sujet au sein des groupes</i><br>Centre Georges Chevrier UMR 7366 CNRS, University of Burgundy, France  |
| Oct 16, 2013            | <b>Public Meeting/Debate</b><br><i>La représentation du corps hors-norme dans la photographie moderne et contemporaine</i><br>co-hosted with Pierre Ancet MCF UMR 7366 CNRS, University of Burgundy, France  |
| May 13, 2013            | <b>Workshop organization</b><br><i>Fonctions du rire en société(s)</i><br>Centre Georges Chevrier UMR 7366 CNRS, University of Burgundy, France  |

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## Posters

- Sep 30- Oct 5, 2024 **International Scientific meeting**  
*Julie Boisard*, Karla Aguilera Campos, Viktor Törnblom, Elena Aramendia Cotillas, Courtney Stairs. *Breviate genomics: A gateway to Obazoan Evolution*  
CGUE 2024, Sant Feliu de Guixols, Spain
- July 9-14, 2023 **International Scientific meeting**  
*Julie Boisard\**, Karla Aguilera Campos\*, Charlotte Hopf, Elena Aramendia Cotillas, Jon Jerlström-Hultqvist, Courtney Stairs. *Protist:bacteria metabolic associations might be pervasive in the Breviatae*. \* = co-first  
ECOP-ISOP 2023, Vienna, Austria
- March 8-11, 2023 **International Scientific meeting**  
Karla Iveth Aguilera Campos\*, *Julie Boisard\**, Anna Charlotte Hopf, Elena Aramendia Cotillas, Courtney Stairs. *Predicting metabolic interactions of Arcobacter species with breviate protists*. \* = co-first  
EMBO|EMBL Symposium, The cellular mechanics of symbiosis, EMBL Heidelberg, Germany
- Jan 19-20, 2023 **International Scientific meeting**  
*Julie Boisard\**, Karla Iveth Aguilera Campos\*, Charlotte Hopf, Elena Aramendia Cotillas, Zhenzhen Yi, Shelby K. Williams, Yana Eglit, Alastair Simpson, Andrew J. Roger, Courtney Stairs. *Metagenomic investigation of diverse Arcobacter:breviate co-cultures suggest metabolic interactions are pervasive in Breviatea*. \* = co-first  
ISEP23, Virtual Meeting
- May 10-11, 2022 **International Scientific meeting**  
Karla Iveth Aguilera Campos, Elena Aramendia Cotillas, *Julie Boisard*, Zhenzhen Yi, Shelby K. Williams, Yana Eglit, Alastair Simpson, Andrew J. Roger, Courtney Stairs. *Syntrophic interactions with Arcobacter species are pervasive in breviate protists*  
Protistology Nordics, Oslo, Norway
- May 10-11, 2022 **International Scientific meeting**  
Mara Vizitiu, *Julie Boisard*, Courtney Stairs. *The Gene They Keep on Giving: lateral gene transfer from protists could enable freshwater sponges to adapt to hypoxia*  
Protistology Nordics, Oslo, Norway

## Other publications in peer-reviewed journals or books in Humanities

- 2015 **Boisard J.**  
*188 contes à régler, Sternberg/Topor. Le désenchantement à l'échelle interplanétaire*  
Dupont V., Tillier B. (dir), Art et désenchantement : le cafard après la fête, PUD, Dijon
- 2012 **Boisard J.**  
*Jeff Wall : "faux" réels ?*  
Sociétés & Représentations, Paris, Les Publications de la Sorbonne
- 2012 **Boisard J.**  
*Révoltes polonaises, résistances culturelles*  
Sciences Humaines Combinées, n° 9 : Résistance(s), révolte(s) et révolution(s)

## Funding history

2024	<b>Research Grant</b>	The Royal Physiographic Society of Lund Endowments for the Natural Sciences, Medicine & Technology: Biology <i>Protists -omics: Diving into Protists diversity through Long-Reads Metabarcoding, Metagenomics and Whole Genome Sequencing</i> - 128225 kr
2024	<b>Travel Grant</b>	Heinrich Polls genetiska stipendium Comparative genomics of unicellular eukaryotes: Interactions and sym- bioses - 10500 kr
2023	<b>Research Grant</b>	The Royal Physiographic Society of Lund Endowments for the Natural Sciences, Medicine & Technology: Biology <i>Upgrading microbial genomics: integrating long-read sequencing for en- hanced taxonomic and metagenomic information</i> - 210577 kr
2023	<b>Travel Grant</b>	International Society of Protistologists Holz-Conner Award 2023 for ECOP-ISOP 2023, Vienna, Austria - 1000\$US
2022	<b>Travel Grant</b>	University of Oslo, Norway Travel grant for Protistology Nordics 2022 - 3950 NOK
2018 – 2021	<b>PhD Fellowship</b>	CNRS, France 36 months employment contract - 65 000€
2018 – 2021	<b>PhD Fellowship</b>	ED227, Sorbonne Université-MNHN, France 36 months employment contract - 65 000€ - <i>Declined</i>
2009 – 2010	<b>Master Merit Scholarship</b>	Région Bourgogne, France 9 months scholarship - 6000 €

## Awards & Prizes

2024	<b>Poster Prize</b>	CGUE conference, Spain Breviate genomics, A Gateway to Obazoan Evolution
2023	<b>Tom Cavalier-Smith Prize</b>	International Society for Evolutionary Protistology For early career researcher in Protistology
2022	<b>PhD Thesis Prize</b>	Société française de Parasitologie, France Best PhD Thesis in Parasitology - 1500 €

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## Teaching

2023 –	<b>Main teacher</b>	Lund University, Sweden
	DNA Sequencing Informatics, 1-week Msc Bioinformatics course	
2022 –	<b>Course leader</b>	Lund University, Sweden
	Python programming and bioinformatics, 1-week PhD course	
2018 – 2021	<b>Teaching assistant</b>	Sorbonne Université, France
	Design and implementation of e-learning courses for master's students and secondary school biology teachers, 192hTD	
2011 – 2013	<b>Teaching assistant</b>	Université de Bourgogne, France
	History of contemporary art, undergraduate level, 80hTD	
2011 – 2013	<b>Lecturer</b>	Université de Bourgogne, France
	History of contemporary art, adult courses, 40hTD	

## Supervision

05-08/2023	<b>Sarah Claire Gaudet, MSc Molecular Biology</b>	Lund University, Sweden
	18S metabarcoding of targeted communities - Applied Work. <i>Co-supervisors: Julie Boisard, Courtney Stairs</i>	
03-04/2023	<b>Allen Williamson, MSc Molecular Biology</b>	Lund University, Sweden
	Environmental isolation of protists and tiny animals - Applied Work. <i>Co-supervisors: Julie Boisard, Sofia Paraskevopoulou</i>	
03-05/2022	<b>Elena Aramendia Cotillas, MSc Student</b>	Lund University, Sweden
	Metatranscriptomic and metagenomic binning to explore host:symbiont co-evolution in mutualistic symbioses. <i>Co-supervisors: Courtney Stairs, Julie Boisard</i>	

## Memberships of scientific societies

2023	<b>Member</b>	Current
	<i>French Society of Parasitology</i>	
2022	<b>Member</b>	Current
	<i>International Society of Protistology</i>	
2022	<b>Member</b>	Current
	<i>International Society for Evolutionary Protistology</i>	

## Peer-reviewing activity

2022	<b>Reviewer</b>	Current
	<i>International Journal for Parasitology</i>	
2023	<b>Reviewer</b>	Current
	<i>PeerJ</i>	