

Julie Boisard

Postdoctoral researcher



Biologihuset
Sölvegatan 35
223 62 Lund, Sweden



julie.boisard@biol.lu.se



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

Julie Boisard

Postdoctoral researcher

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

Julie Boisard

Postdoctoral researcher

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

Julie Boisard

Postdoctoral researcher

Talks in Scientific Events

- | | |
|----------------------|--|
| November 15-18, 2022 | International Scientific meeting
Julie Boisard , 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
Marine Parasitology Symposium, La Rochelle, France |
| June 23-24, 2022 | National Scientific meeting
Julie Boisard , 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
Journées thématiques de l'AFEM. Les microeucaryotes : le chaînon manquant des études en écologie microbienne. Clermont-Ferrand, France |
| May 10-11, 2022 | International Scientific meeting
Julie Boisard , Evelyne Duvernois-Berthet, Loïc Ponger, Isabelle Florent. <i>Gregarine genomes deciphering extends our knowledge of apicomplexan diversity</i>
Protistology Nordics, Oslo, Norway |
| Feb 2-3, 2021 | International Scientific meeting
Julie Boisard , Evelyne Duvernois-Berthet, Loïc Ponger, Isabelle Florent. <i>Challenges and solutions for studying divergent eukaryotic genomes of non-model and non-cultivable species</i>
ALPHY: Bioinformatics and Evolutionary Genomics, Virtual Meeting |
| Dec 10, 2020 | National Scientific meeting
Julie Boisard , 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>
Bioinformatics Meeting, MNHN, Paris, France |
| Jan 18, 2019 | Doctoral and post-doctoral students Meeting
Julie Boisard . <i>Assemblage de novo de génomes de grégarines</i>
UMR7245 CNRS MNHN MCAM, Paris, France |
| May 15, 2014 | Workshop organization
<i>Individu et société – Parcours du sujet au sein des groupes</i>
Centre Georges Chevrier UMR 7366 CNRS, University of Burgundy, France |
| Oct 16, 2013 | Public Meeting/Debate
<i>La représentation du corps hors-norme dans la photographie moderne et contemporaine</i>
co-hosted with Pierre Ancet MCF UMR 7366 CNRS, University of Burgundy, France |
| May 13, 2013 | Workshop organization
<i>Fonctions du rire en société(s)</i>
Centre Georges Chevrier UMR 7366 CNRS, University of Burgundy, France |

Julie Boisard

Postdoctoral researcher

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	Research Grant	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> - 128 225 SEK
2024	Travel Grant	Heinrich Polls genetiska stipendium Comparative genomics of unicellular eukaryotes: Interactions and sym- bioses - 10 500 SEK
2023	Research Grant	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> - 210 577 SEK
2023	Travel Grant	International Society of Protistologists Holz-Conner Award 2023 for ECOP-ISOP 2023, Vienna, Austria - 1000\$US
2022	Travel Grant	University of Oslo, Norway Travel grant for Protistology Nordics 2022 - 3950 NOK
2018 – 2021	PhD Fellowship	CNRS, France 36 months employment contract - 65 000€
2018 – 2021	PhD Fellowship	ED227, Sorbonne Université-MNHN, France 36 months employment contract - 65 000€ - <i>Declined</i>
2009 – 2010	Master Merit Scholarship	Région Bourgogne, France 9 months scholarship - 6000 €

Awards & Prizes

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

Julie Boisard

Postdoctoral researcher

Teaching

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

Supervision

05-08/2023	Sarah Claire Gaudet, MSc Molecular Biology	Lund University, Sweden
	18S metabarcoding of targeted communities - Applied Work. <i>Co-supervisors: Julie Boisard, Courtney Stairs</i>	
03-04/2023	Allen Williamson, MSc Molecular Biology	Lund University, Sweden
	Environmental isolation of protists and tiny animals - Applied Work. <i>Co-supervisors: Julie Boisard, Sofia Paraskevopoulou</i>	
03-05/2022	Elena Aramendia Cotillas, MSc Student	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	Member	Current
	<i>French Society of Parasitology</i>	
2022	Member	Current
	<i>International Society of Protistology</i>	
2022	Member	Current
	<i>International Society for Evolutionary Protistology</i>	

Peer-reviewing activity

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