

# YANN BOURGEOIS

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github: YannBourgeois ◊ websites: yannbourgeois.github.io, www.methodspopgen.com

## PERSONAL INFORMATION

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<b>Birth date</b>	June 12th 1987 (38 years old)
<b>Web profiles</b>	Scholar and Orcid
<b>Nationality</b>	French
<b>Languages</b>	French (native), English (fluent), German and Romanian (intermediate, B1)
<b>Research Interests</b>	Population genomics, bioinformatics, evolutionary biology, selection, transposable elements, host-parasite interaction, colour polymorphisms
<b>HDR</b>	<i>Habilitation à Diriger des Recherches</i> . French diploma needed for PhD supervision as a main supervisor. Obtained in June 12th 2025

## EDUCATION

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<b>University of Toulouse, France</b>	<i>Sept. 2009 - Aug. 2013</i>
Ph.D. student. Investigating the proximate causes of a color polymorphism in a passerine bird, <i>Zosterops borbonicus</i> . Defense: 23th of July 2013. Supervisor: Christophe Thébaud.	
<b>École Normale Supérieure de Lyon</b>	<i>Sept. 2007 - Aug. 2009</i>
Masters in Biosciences (M1, M2)	
<b>École Normale Supérieure de Lyon</b>	<i>Sept. 2006 - Aug. 2007</i>
Admission by competitive examination to École Normale Supérieure de Lyon, France. Bachelor of Science, major in Molecular and Cell Biology.	

## EMPLOYMENT HISTORY

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<b>Permanent Research Scientist</b>	<i>Since Jan. 2023</i>
Researcher at IRD ( <i>Institut de Recherche pour le Développement</i> ), Montpellier, France. Visiting lecturer at the University of Portsmouth.	
<b>Lecturer in Bioinformatics</b>	<i>Jan. 2020 - Dec. 2022</i>
Permanent lectureship (equivalent to associate professor) at the University of Portsmouth, UK	
<b>Post-doctoral researcher</b>	<i>Sept. 2016 - Dec. 2019</i>
Research associate in Pr. Stéphane Boissinot's group at New York University Abu Dhabi, United Arab Emirates. Evolutionary genomics of vertebrates using whole-genome sequences.	
<b>Post-doctoral researcher</b>	<i>Sept. 2013 - Aug. 2016</i>
Post-doctoral researcher in Pr. Dieter Ebert's group in Basel, Switzerland. Study of the evolutionary dynamics of host-parasite interaction in <i>Daphnia magna</i> .	

## RESEARCH PROJECTS AND GRANTS (MAIN INVESTIGATOR) CA 1,300,000 EUROS

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<b>French National Research Agency (ANR)</b>	<b>370,000 euros</b>	<i>Oct. 2025 - Sept. 2029</i>
Research grant on the project <b>ORIGAMIS</b> : "Origin of bee oRchIds superGenes And Magic traItS". Co-PI with Dr. Joris Bertrand (coordinator), University of Perpignan (370,000 / 740,000 euros).		

<b>Internal grant (IRD)</b>	<b>150,000 euros</b>	<i>Sep. 2025 - Aug. 2028</i>
Research grant on the project: "Transposable elements as actors and witnesses of environmental (mal)adaptation in ( <i>Coffea canephora</i> )". Funding for a PhD project.		
<b>Internal grant (IRD)</b>	<b>12,000 euros</b>	<i>Sep. 2024 - Sep. 2025</i>
Research grant on the project: "Molecular ecology of the argan tree ( <i>Argania spinosa</i> )".		
<b>French National Research Agency (ANR)</b>	<b>426,159 euros</b>	<i>Jan. 2024 - Dec. 2027</i>
Research grant on the project <b>DaTEPalm</b> : "Determining the impact of Transposable Elements in a keystone crop, the date Palm ( <i>Phoenix dactylifera</i> )".		
<b>The Royal Society, UK</b>	<b>£ 19,920</b>	<i>Jan. 2023 - Dec. 2023</i>
Research grant on the project: "Studying transposable elements during domestication of the date palm ( <i>Phoenix dactylifera</i> )"		
<b>NERC Environmental Omics Facility (NEOF, UK)</b>	<b>£ 10,468</b>	<i>Sept. 2022 - Dec. 2022</i>
Research grant on the project: The evolutionary dynamics of transposable elements during domestication of the date palm ( <i>Phoenix dactylifera</i> )"		
<b>University of Paris-Saclay, France</b>	<b>3500 euros</b>	<i>Sept. 2022</i>
Visiting professor grant to visit Dr. Amandine Cornille (CNRS)		
<b>Horizon Europe</b>	<b>190,000 euros</b>	<i>Feb. 2020</i>
Marie Curie Fellowship (Returning Investigator). Project <b>BrachyAdapt</b> : adaptation to the urban environment in <i>Brachypodium distachyon</i> (score of 92.8%). Declined to take a permanent position in Portsmouth.		
<b>University of Toulouse</b>	<b>1500 euros</b>	<i>Apr. 2010</i>
ATUPS program travel grant from Toulouse University. One month in Hopi Hoekstra's laboratory, Harvard, United States.		
<b>French Ministry of Higher Education</b>	<b>ca 50,000 euros</b>	<i>Sept. 2010 - Aug. 2013</i>
PhD grant for three years		
<b>French Ministry of Higher Education</b>	<b>ca 67,000 euros</b>	<i>Sept. 2006 - Aug. 2010</i>
Grant covering Masters studies and first year of PhD.		

## RESEARCH PROJECTS AND GRANTS (PARTNER)

**CA 2,000,000 EUROS**

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<b>French National Research Agency (ANR)</b>	<b>875,000 euros</b>	<i>Oct. 2025 - Dec. 2029</i>
Partner in the project PeachPalm4LIFE. Interdisciplinary project on ethnobotany and genetics of the peach palm, <i>Bactris gasipaes</i> , in the Upper Amazon. Coordinator: Dr. Thomas Couvreur.		
<b>French National Research Agency (ANR)</b>	<b>403,000 euros</b>	<i>Oct. 2025 - Dec. 2029</i>
Partner in the project CREADIV. Theoretical project aiming at modeling the evolutionary dynamics of structural variants, inversions, and Transposable elements under a unified theoretical framework. Coordinator: Dr. Thomas Aubier.		
<b>PlantAlliance/IRD (France)</b>	<b>120,000 euros</b>	<i>Jun. 2024 - Sept. 2028</i>
Partner in the project Savanache, involving multiple private partners, including Syngenta and Florimon-Depre. Project focusing on the development of an advanced pan-genome visualization tool, allowing selection of individuals and projection onto an interchangeable reference. Lead PI: Dr. François Sabot.		
<b>I+D+i, Comunitat Valenciana, Spain</b>	<b>ca 20,000 euros</b>	<i>Sept. 2022 - Sept. 2023</i>
Regional grant on the project: Functional connectivity in vertebrate populations under global change:		

simulation of impacts and mitigation measures. Lead PI: Dr. M. Victoria Jiménez Franco.

#### **BBSRC, UK**

*ca £70,000/student*

*Sept. 2021 - Sept. 2025*

Grants for two funded Ph.D. obtained from the South Coast Doctoral Training Program. I) Selection on transposable elements during independent events of domestication (with Dr. Bousios, Pr. Eyre-Walker, Sussex Uni). II) Phenotypic constraints on crop improvement and the domestication of novel crops (with Pr. Chapman, Southampton, and Pr. Perez-Barrales, Granada, Spain).

#### **French National Research Agency (ANR)**

*ca 444,000 euros*

*Jan. 2022 - Dec. 2025*

Partner in the project PLEASURE, on the Population genomics of transposable elements in fruit trees. Lead PI: Dr. Amandine Cornille, University of Paris-Saclay.

#### **Conseil Régional de La Réunion (France)**

*103,000 euros*

*Sept. 2020 - Aug. 2023*

Co-investigator on a conservation project focusing on the endangered Reunion harrier (*Circus mailardi*). Lead PI: Steve Augiron, SEOR. Role: investigating the mutational load and past history of the species.

#### **COVID-19 Genomics UK Consortium**

*£288,800*

*Apr. 2020 - Sept. 2022*

Co-investigator on a project investigating SARS-CoV2 dynamics in Portsmouth region. Lead PI: Samuel Robson, Portsmouth University.

### **TEACHING AND SUPERVISION**

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#### **PhD supervision in France**

*Since 2023*

Co-supervisor of two PhD students, **Maxime Criado** (10%, Paris Saclay, with A. Cornille) and **Margot Beisseiche** (25%, IRD, with M. Gros-Balthazard and F. Sabot HDR). Main supervisor of **Valentin Grenet** since November 2024

#### **Masters student supervision in France**

*Jan. 2024 - Aug. 2025*

**Valentin Grenet** (Dynamics of transposons in date palm, 100%). **Kilian Dolci** and **Jasmine Ryan** (Dynamics of transposons in *Coffea canephora*, 50%, with V. Poncet HDR).

#### **PhD supervision in the UK**

*From Jan. 2021*

Main supervision of one PhD student, **Thomas Heller** (academic supervisor with Juan Viruel, Kew Gardens). Supervision reallocated to Dr. Steven Dodsworth following departure from Portsmouth University. Co-supervision of **Anastasia Kolesnikova** (with Mark Chapman, University of Southampton).

#### **Undergraduate and Masters student supervision in the UK**

*Jan. 2020 - Dec. 2023*

Supervision of more than 20 Honours projects (third year bachelor students), six Msc students, two MRes student (**Harry Simmonds**, **Daniel Bedford**)

#### **Lectures in the UK**

*Jan. 2020 - Dec. 2022*

Lectures and workshops in Bioinformatics (Master level, module leader), population genetics (module leader), Python and R (undergraduate), and Introduction to Biology (120 hours/year).

#### **Student supervision at NYUAD**

*Sept. 2017 - Aug. 2019*

Supervision of an undergraduate student (Imtiyaz Hariyani): population genomics of transposable elements in a complex of Ethiopian frogs (genus *Ptychadena*). Evaluation of undergraduate research

theses in population genetics.

Supervision of undergraduate students on the population genetics and signatures of balancing selection at immune genes in endemic Ethiopian frogs.

### **Student supervision at the University of Basel**

*Sept. 2014 - June 2015*

Basics in Population Genetics for bachelor students. 20 hours.

Participation to BlockKurse at the University of Basel. Co-supervision of four bachelor students for a short research project (three months).

### **Student supervision at the University of Toulouse**

*Oct. 2009 - Jun. 2012*

Supervision of bachelor students. Co-supervision of an ornithology module.

Animal anatomy and Plant organization practical classes for bachelor students (18 hours).

## **SCIENTIFIC SERVICE**

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### **Post-doctoral supervision and mentorship**

- Co-supervision of **Dr. Qindong Tang** and **Samuel Gornard** with Dr. Ben Warren, French Museum of Natural History (MNHN). Analysis of modern and past diversity of Mascarene birds from museum and subfossil samples.
- Significant contribution to scientific discussions, analyses and writing on the model *Brachypodium distachyon*: **Nikos Minadakis** and **Christophe Stritt** (PhD students at Zurich University). Main supervisor: Dr. Anne Roulin.
- Contribution to scientific writing and interpretation of analyses on colour variation in *Zosterops borbonicus*: **Claire Mould** (PhD student at Toulouse University). Main supervisor: Pr. Christophe Thébaud.
- Contribution to scientific writing, analyses and their interpretation on host-parasite interactions in *Daphnia magna*: **Camille Ameline** (PhD student at Basel University). Main supervisor: Pr. Dieter Ebert.
- Supervision over genomic analyses and related scientific writing in *Testudo graeca*: **Andrea Mira Joves** (Miguel Hernández University at Elche). Main supervisor: Pr. Eva Gracia Martinez.

### **Workshops and conference organization**

- Physalia course on population genomics with Dr. Thibault Leroy (November 2024).
- Co-organizer of Symposium S15 at the ESEB congress, Prague, 2022. Rapid evolution of colour patterns.
- Group leader for the Ecology and Evolution research group at the University of Portsmouth. Organization of regular meetings, social events and research talks (2021-2022).
- Co-organizer of the post-doctoral day in Basel (Sept. 2015), with short talks from post-doctoral researchers in biology.

### **Memberships**

- The Royal Genetics Society
- The Society for Molecular Biology and Evolution
- The Société Française d'Écologie et d'Évolution.

### **Review and editorial activities**

- Associate Editor for the Botanical Journal of the Linnean Society (from 2023).
- Reviewer for The New Phytologist, Nature Communications, Scientific Reports, eLife, Genome Biology, PCI Genomics, Genome Biology and Evolution, Molecular Biology and Evolution, Science Advances,

Ibis, The Auk, PeerJ, Genetica, Molecular Ecology, Molecular Ecology Resources, BMC Evolutionary Biology, Global Change Biology, Biology Letters, Genetics and Molecular Biology.

- Grant Reviewer for the National Science Foundation (USA), the Czech Science Foundation, the Hong Kong Research Grants Council and the US-Israel Binational Science Foundation.

### **Involvement in research consortium**

2020-2022

- Involved in COG-UK, a network aiming at analyzing COVID-19 genome sequences in the United Kingdom.

### **Involvement in committees**

- External jury member (2024) for a position on transposable elements in yam based at CIRAD (French agricultural research and cooperation organization).
- Assessor for PhD. Committees: Laurie Bédouet (University of Franche Comté), Gwenaëlle Vigo (University of Montpellier), Francesca Noyce (University of Portsmouth), Christina Scott (University of Portsmouth), Nikolaos Minadakis (Botanical Institute, University of Zurich), Matthieu Breil (University of Montpellier), James Robbins (University of Portsmouth).
- Examiner for PhD viva : Werner Struss (University of Portsmouth, 2020), Alba Marino (University of Montpellier, 2024).
- Representative of Ph.D. students in Toulouse (2010).

## MISCELLANEOUS

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### **Certifications**

- Animal manipulation certifications: The CITI Basic Course in Laboratory Animal Welfare for Investigators, Staff and Students, Reducing Pain and Distress in Laboratory Mice and Rats, Working with Amphibians in Research Settings (2018).

### **Fieldwork**

- Five months of fieldwork on leatherback turtles in French Guiana (2008).
- Two months of fieldwork on endemic birds in Réunion island (2009-2014).
- Three weeks of fieldwork in Siberia (collection of *Daphnia magna* samples, 2015).
- Three months of fieldwork in Ethiopia (bird and amphibian collection, 2016-2018).

## PEER-REVIEWED PUBLICATIONS

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\* *Co-first author.*

∨ : *Publication of interest.*

∧ : *These publications were carried out as part of the COG-UK consortium, dedicated to the study of the SARS-CoV2 pandemic in the United Kingdom, and do not constitute the core of my research. However, they do demonstrate my involvement in the collection and analysis of phylodynamic data in Portsmouth during the SARS-COV-2 epidemic. The reader can refer to the section on past collaborations and research projects for more information.*

*The names of PhD students whom I contributed to supervise during the writing of a given article are highlighted in orange*

### **2025**

(55) **Olvera-Vazquez, S.G., Chen, X.**, Mesnil, A., Meslin, C., Almeida-Silva, F., Confais, J., **Bourgeois, Y.**, Loughman, C., Alix, K., Francillon, N., Choisine, N., Cauet, S., Simon, J.-C., Buchard, C., Rodde, N., Ogereaux, D., Mottet, C., Degraeve, A., Segura, E., Benoît, B., Jacquin-Joly, E., Marande,

W., Lavenier, D., Legeai, F., Cornille, A. (2025). Comprehensive annotation of olfactory and gustatory receptor genes and transposable elements revealed their evolutionary dynamics in aphids. In press in *Molecular Biology and Evolution*.

(54) Manthey, J., Settlekowski, A., Meheretu, Y., Behrends, G., **Bourgeois, Y.**, Campillo, L., Boissinot, S., Marks, B. (2025). Temporal genomics reveal a century of genomic diversity shifts across a biodiversity hotspot avian assemblage. In press in *Genome Biology and Evolution*.

(53) **Bourgeois, Y.**, Lailvaux, S., Boissinot, S. (2025). Urban life shapes genetic diversity in the green anole, *Anolis carolinensis*. *Molecular Ecology*.

## 2024

(52) **Andrea Mira-Jover, A.**, Graciá, E., Giménez, A., Fritz, U., Rodríguez-Caro, R.C., **Bourgeois, Y.** (2024). Taking advantage of reference-guided assembly in a slowly-evolving lineage: application to *Testudo graeca*. *PloS One*.

(51) **Minadakis, N.**, Kaderli, L., Horvath, R., **Bourgeois, Y.**, Xu, W., Thieme, M., Woods, D. P., Roulin, A. C. (2024). Polygenic architecture of flowering time and its relationship with local environments in the grass *Brachypodium distachyon*. *Genetics*, 227(1).

(50) Horvath, R., **Minadakis, N.**, **Bourgeois, Y.**, Roulin, A. C. (2024). The evolution of transposable elements in *Brachypodium distachyon* is governed by purifying selection, while neutral and adaptive processes play a minor role. *eLife* 12.

(49) **Bourgeois Y.**, Warren B., Augiron S. (2024). The burden of anthropogenic changes and mutation load in a critically endangered harrier from the Reunion biodiversity hotspot, *Circus maillardi*. *Molecular Ecology*, 33(6).

(48) Reifová, R., Ament-Velásquez, S. L., **Bourgeois, Y.**, Coughlan, J., Kulmuni, J., Lipinska, A. P., Okude, G., Stevison, L., Yoshida, K., & Kitano, J. (2023). Mechanisms of Intrinsic Postzygotic Isolation: From Traditional Genic and Chromosomal Views to Genomic and Epigenetic Perspectives. *Cold Spring Harbor Perspectives in Biology*, 15(10), a041607.

## 2023

(47) **Minadakis, N.**, Williams, H., Horvath, R., Caković, D., **Stritt, C.**, Thieme, M., **Bourgeois, Y.**, & Roulin, A. C. (2023). The demographic history of the wild crop relative *Brachypodium distachyon* is shaped by distinct past and present ecological niches. *Peer Community Journal*, 3.

(46) **Mould, M. C.**, Huet, M., Senegas, L., Milá, B., Thébaud, C., **Bourgeois, Y.**, & Chaine, A. S. (2023). Beyond morphs: Inter-individual colour variation despite strong genetic determinism of colour morphs in a wild bird. *Journal of Evolutionary Biology*, 36(1), 82–94.

(45) Gros-Balthazard, M., Battesti, V., Flowers, J. M., Ferrand, S., Breil, M., Ivorra, S., Terral, J.-F., Purugganan, M. D., Wing, R. A., & Mohammed, N., **Bourgeois, Y.** (2023). What lies behind a fruit crop variety name? A case study of the barnī date palm from al-‘Ulā oasis, Saudi Arabia. *Plants, People, Planet*, 5(1), 82–97. ∨

(44) Cotton, S., McHugh, M. P., Dewar, R., Haas, J. G., Templeton, K., Robson, S. C., Connor, T. R., Loman, N. J., Golubchik, T., & Nunez, R. T. M. (2023). Investigation of hospital discharge cases and SARS-CoV-2 introduction into Lothian care homes. *Journal of Hospital Infection*, 135, 28–36. ∧

## 2022

(43) Manthey, J. D., **Bourgeois, Y.**, Meheretu, Y., & Boissinot, S. (2022). Varied diversification patterns and distinct demographic trajectories in Ethiopian montane forest bird (Aves: Passeriformes) populations separated by the Great Rift Valley. *Molecular Ecology*, 31(9), 2664–2678.



(42) Goutte, S., Hariyani, I., Utzinger, K. D., **Bourgeois, Y.**, & Boissinot, S. (2022). Genomic Analyses Reveal Association of ASIP with a Recurrently evolving Adaptive Color Pattern in Frogs. *Molecular Biology and Evolution*, 39(11), msac235. √

(41) Thieme, M., Brêchet, A., **Bourgeois, Y.**, Keller, B., Bucher, E., & Roulin, A. C. (2022). Experimentally heat-induced transposition increases drought tolerance in *Arabidopsis thaliana*. *New Phytologist*, 236(1), 182–194. √

(40) Twohig, K. A., Nyberg, T., Zaidi, A., Thelwall, S., Sinnathamby, M. A., Aliabadi, S., Seaman, S. R., Harris, R. J., Hope, R., & Lopez-Bernal, J. (2022). Hospital admission and emergency care attendance risk for SARS-CoV-2 delta (B. 1.617. 2) compared with alpha (B. 1.1. 7) variants of concern: A cohort study. *The Lancet Infectious Diseases*, 22(1), 35–42. ∧

## 2021

(39) Almojil, D., **Bourgeois, Y.**, Falis, M., Hariyani, I., Wilcox, J., & Boissinot, S. (2021). The structural, functional and evolutionary impact of transposable elements in eukaryotes. *Genes*, 12(6), 918.

(38) **Bourgeois, Y.**, Fields, P. D., Bento, G., & Ebert, D. (2021). Balancing selection for pathogen resistance reveals an intercontinental signature of Red Queen coevolution. *Molecular Biology and Evolution*, 38(11), 4918–4933. √

(37) **Ameline, C.**, **Bourgeois, Y.**, Vögtli, F., Savola, E., Andras, J., Engelstädter, J., & Ebert, D. (2021). A two-locus system with strong epistasis underlies rapid parasite-mediated evolution of host resistance. *Molecular Biology and Evolution*, 38(4), 1512–1528.

(36) **Bourgeois, Y. X.**, & Warren, B. H. (2021). An overview of current population genomics methods for the analysis of whole-genome resequencing data in eukaryotes. *Molecular Ecology*, 30(23), 6036–6071. √

(35) Volz, E., Hill, V., McCrone, J. T., Price, A., Jorgensen, D., O’Toole, Á., Southgate, J., Johnson, R., Jackson, B., & Nascimento, F. F. (2021). Evaluating the effects of SARS-CoV-2 spike mutation D614G on transmissibility and pathogenicity. *Cell*, 184(1), 64–75. e11. ∧

(34) Graham, M. S., Sudre, C. H., May, A., Antonelli, M., Murray, B., Varsavsky, T., Kläser, K., Canas, L. S., Molteni, E., & Modat, M. (2021). Changes in symptomatology, reinfection, and transmissibility associated with the SARS-CoV-2 variant B. 1.1. 7: An ecological study. *The Lancet Public Health*, 6(5), e335–e345. ∧

(33) Elliott, P., Haw, D., Wang, H., Eales, O., Walters, C. E., Ainslie, K. E., Atchison, C., Fronterre, C., Diggle, P. J., & Page, A. J. (2021). Exponential growth, high prevalence of SARS-CoV-2, and vaccine effectiveness associated with the Delta variant. *Science*, 374(6574), eabl9551. ∧

(32) de Silva, T. I., Liu, G., Lindsey, B. B., Dong, D., Moore, S. C., Hsu, N. S., Shah, D., Wellington, D., Mentzer, A. J., & Angyal, A. (2021). The impact of viral mutations on recognition by SARS-CoV-2 specific T cells. *Isience*, 24(11). ∧

(31) Meng, B., Kemp, S. A., Papa, G., Datir, R., Ferreira, I. A., Marelli, S., Harvey, W. T., Lytras, S., Mohamed, A., & Gallo, G. (2021). Recurrent emergence of SARS-CoV-2 spike deletion H69/V70 and its role in the Alpha variant B. 1.1. 7. *Cell Reports*, 35(13). ∧

## 2020

(30) **Bourgeois, Y.**, Ruggiero, R. P., Hariyani, I., & Boissinot, S. (2020). Disentangling the determinants of transposable elements dynamics in vertebrate genomes using empirical evidences and simulations. *PLoS Genetics*, 16(10), e1009082. √

(29) **Bourgeois, Y. X.**, Bertrand, J. A., Delahaie, B., Holota, H., Thébaud, C., & Milá, B. (2020). Differential divergence in autosomes and sex chromosomes is associated with intra-island diversification at a very small spatial scale in a songbird lineage. *Molecular Ecology*, 29(6), 1137–1153. √

(28) COVID, T. (2020). An integrated national scale SARS-CoV-2 genomic surveillance network. *The Lancet. Microbe*, 1(3), e99. ∧

## 2019

(27) Boissinot, S., **Bourgeois, Y.**, Manthey, J. D., & Ruggiero, R. P. (2019). The mobilome of reptiles: Evolution, structure, and function. *Cytogenetic and Genome Research*, 157(1–2), 21–33.

(26) **Bourgeois, Y.**, & Boissinot, S. (2019a). On the population dynamics of junk: A review on the population genomics of transposable elements. *Genes*, 10(6), 419. √

(25) **Bourgeois, Y.**, & Boissinot, S. (2019b). Selection at behavioural, developmental and metabolic genes is associated with the northward expansion of a successful tropical colonizer. *Molecular Ecology*, 28(15), 3523–3543.

(24) **Bourgeois, Y.**, Ruggiero, R. P., Manthey, J. D., & Boissinot, S. (2019). Recent secondary contacts, linked selection, and variable recombination rates shape genomic diversity in the model species *Anolis carolinensis*. *Genome Biology and Evolution*, 11(7), 2009–2022. √

## 2018

(23) **Bourgeois, Y.**, **Stritt, C.**, Walser, J.-C., Gordon, S. P., Vogel, J. P., & Roulin, A. C. (2018b). Genome-wide scans of selection highlight the impact of biotic and abiotic constraints in natural populations of the model grass *Brachypodium distachyon*. *The Plant Journal*, 96(2), 438–451. √

(22) Reyes-Velasco, J., Manthey, J. D., **Bourgeois, Y.**, Freilich, X., & Boissinot, S. (2018). Revisiting the phylogeography, demography and taxonomy of the frog genus *Ptychadena* in the Ethiopian highlands with the use of genome-wide SNP data. *PloS One*, 13(2), e0190440.

(21) Roman, I.\*, **Bourgeois, Y.\***, Reyes-Velasco, J., Jensen, O. P., Waldman, J., & Boissinot, S. (2018). Contrasted patterns of divergence and gene flow among five fish species in a Mongolian rift lake following glaciation. *Biological Journal of the Linnean Society*, 125(1), 115–125.

(20) Toenshoff, E. R., Fields, P. D., **Bourgeois, Y. X.**, & Ebert, D. (2018). The end of a 60-year riddle: Identification and genomic characterization of an iridovirus, the causative agent of white fat cell disease in zooplankton. *G3: Genes, Genomes, Genetics*, 8(4), 1259–1272.

## 2017

(19) Bento, G., Routtu, J., Fields, P. D., **Bourgeois, Y.**, Du Pasquier, L., & Ebert, D. (2017). The genetic basis of resistance and matching-allele interactions of a host-parasite system: The *Daphnia magna*-*Pasteuria ramosa* model. *PLoS Genetics*, 13(2), e1006596. √

(18) **Bourgeois, Y. X.**, Delahaie, B., Gautier, M., Lhuillier, E., Malé, P.-J. G., Bertrand, J. A., Cornuault, J., Wakamatsu, K., Bouchez, O., & Mould, C. (2017). A novel locus on chromosome 1 underlies the evolution of a melanistic plumage polymorphism in a wild songbird. *Royal Society Open Science*, 4(2), 160805. √

(17) **Bourgeois, Y.\***, Roulin, A. C.\*, Müller, K., & Ebert, D. (2017). Parasitism drives host genome evolution: Insights from the *Pasteuria ramosa*-*Daphnia magna* system. *Evolution*, 71(4), 1106–1113.

(16) Delahaie, B., Cornuault, J., Masson, C., Bertrand, J. A., **Bourgeois, Y. X.**, Milá, B., & Thébaud, C. (2017). Narrow hybrid zones in spite of very low population differentiation in neutral markers in an island bird species complex. *Journal of Evolutionary Biology*, 30(12), 2132–2145.



(15) Ruggiero, R. P.\*, **Bourgeois, Y.\***, & Boissinot, S. (2017). LINE insertion polymorphisms are abundant but at low frequencies across populations of *Anolis carolinensis*. *Frontiers in Genetics*, 8, 44.  
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## 2016

(14) Roulin, A. C., **Bourgeois, Y.**, Stiefel, U., Walser, J.-C., & Ebert, D. (2016). A photoreceptor contributes to the natural variation of diapause induction in *Daphnia magna*. *Molecular Biology and Evolution*, 33(12), 3194–3204.

(13) **Bourgeois, Y. X.**, Bertrand, J. A., Delahaie, B., Cornuault, J., Duval, T., Milá, B., & Thébaud, C. (2016a). Candidate gene analysis suggests untapped genetic complexity in melanin-based pigmentation in birds. *Journal of Heredity*, 107(4), 327–335.

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(7) Cornuault, J., Delahaie, B., Bertrand, J. A., **Bourgeois, Y. X.**, Milá, B., Heeb, P., & Thébaud, C. (2015). Morphological and plumage colour variation in the Réunion grey white-eye (Aves: *Zosterops borbonicus*): Assessing the role of selection. *Biological Journal of the Linnean Society*, 114(2), 459–473.

## 2014

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## 2013

(5) **Bourgeois, Y. X.**, Lhuillier, E., Cézard, T., Bertrand, J. A., Delahaie, B., Cornuault, J., Duval, T., Bouchez, O., Milá, B., & Thébaud, C. (2013). Mass production of SNP markers in a nonmodel passerine bird through RAD sequencing and contig mapping to the zebra finch genome. *Molecular Ecology Resources*, 13(5), 899–907. V

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## 2012

- (3) Warren, B. H., Bermingham, E., **Bourgeois, Y.**, Estep, L. K., Prys-Jones, R. P., Strasberg, D., & Thébaud, C. (2012). Hybridization and barriers to gene flow in an island bird radiation. *Evolution*, 66(5), 1490–1505.
- (2) Bertrand, J. A., García-Jiménez, R., **Bourgeois, Y.**, Duval, T., Heeb, P., Thébaud, C., & Milá, B. (2012). Isolation and characterization of twelve polymorphic microsatellite loci for investigating an extreme case of microgeographical variation in an island bird (*Zosterops borbonicus*). *Conservation Genetics Resources*, 4, 323–326.
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## SELECTION OF TALKS AND SEMINARS

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**Bourgeois Y.**, Grenet V., Gros-Balthazard M. (2024). Advances in the study of population dynamics of transposable elements and application to date palm genomics” at the XX International Botanical Congress (IBC 2024).

**Bourgeois Y.** (2023). Population genomics perspective of transposable elements (TEs) dynamics: new methods and lines of research. Congrès National sur les Elements Transposables (CNET). Perpignan, France.

**Bourgeois Y.**, Boissinot S. (2022). Population genomics perspective of transposable elements (TEs) dynamics: new methods and lines of research. Invited seminar at Sussex University (UK).

**Bourgeois Y.**, Boissinot S. (2022). Population genomics perspective of transposable elements (TEs) dynamics: new methods and lines of research. Invited seminar at IDEEV, Paris Saclay (France).

**Bourgeois Y.**, Boissinot S. (2021). A population genomics perspective on transposable elements (TEs) dynamics. Genetrop seminar, IRD Montpellier (France).

**Bourgeois Y.**, Boissinot S. (2020). A population genomics perspective on transposable elements (TEs) dynamics. Invited seminar at the University of Durham (UK).

**Bourgeois Y.**, Boissinot S. (2018). Population genomics of a successful colonizer: linking molecular approaches to ecology in a squamate. Speciation meeting, IST Austria, Vienna.

**Bourgeois Y.**, Stephane Boissinot. (2018). Population genomics of the green anole reveals evolutionary forces shaping diversity in a reptile. NYU Abu Dhabi Research Conference, United Arab Emirates.

**Bourgeois Y.**, Fields P., Bento G., Roulin A., McTaggart S., Little T., Obbard D., Ebert D. (2015). Increased diversity at a locus involved in resistance to parasitism in *Daphnia magna*. ESEB 2015, Lausanne.

Bento G., Routtu J., **Bourgeois Y.**, Ebert D. (2015). Genetics of natural variation of *Daphnia magna* resistance to a bacterial pathogen. ESEB 2015, Lausanne.

Ebert D., Routtu J., Bento G., **Bourgeois Y.** (2014). Mapping of a parasite resistant locus in the *Daphnia magna* genome. EMBO Conference on the Mighty *Daphnia*: Past, Present and Future. Birmingham.

**Bourgeois Y.X.C.**, SNPs characterization by RAD-sequencing for studying color polymorphism in an island bird (2013). Journée d’échanges et de retours sur les développements technologiques de la plateforme génomique de Toulouse. Presentation at the Toulouse genomic platform.

## SELECTION OF POSTERS

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- Bourgeois Y.X.C.**, Boissinot S. (2019). Population genomics of transposable elements in the green anole. SMBE Manchester
- Bourgeois Y.X.C.**, Boissinot S., Manthey J., Ruggiero R., Reyes-Velasco J. (2018). Population genomics of green anole (*Anolis carolinensis*) reveals evolutionary forces shaping diversity in a reptile. Evolution Joint Congress Montpellier
- Bourgeois Y.X.C.**, Fields P., Bento G., Ebert D. (2017). Widespread balancing selection at a resistance locus in the water flea *Daphnia magna*. ESEB Groningen
- Milà B., **Bourgeois Y.**, Bertrand J., Cornuault J., Delahaie B., Thébaud C. (2015). Divergent selection and reduced dispersal drive phenotypic diversification at a very small spatial scale in an island bird. ESEB 2015, Lausanne.
- Bento G., Routtu J., **Bourgeois Y.X.C.**, Hall M., Kaberer N., Ebert D. (2014). Host - pathogen coevolution in the *Daphnia magna* - *Pasteuria ramosa* system. EMBO Conference on the Mighty Daphnia: Past, Present and Future. Birmingham.
- Milà B, **Bourgeois Y.X.C.**, Bertrand J.A.M., Delahaie B. Thébaud C (2013). Inter- and intra-island speciation in a tropical passerine bird: inference from genetic, genomic and ecomorphological data. 4th Meeting of the Spanish Society for Evolutionary Biology (SESBE) - Barcelone, Spain.
- Bourgeois Y.X.C.**, Milà B., Thébaud C. (2013). RADseq phylogenomics reveal the recent diversification history of a polymorphic songbird (*Zosterops borbonicus*) on the island of Reunion. II Iberian Congress of Biological Systematics, Barcelona, Spain.
- Bourgeois Y.X.C.**, ., Bertrand J., Duval T., Warren B.H., Milà B., Thébaud C. (2012). Genetic mechanisms driving to melanic polymorphism in an island bird. Evolution Congress, Ottawa, Canada.
- Bertrand J.A.M., Bourgeois Y.X.C., Duval T., García-Jiménez R., Cornuault J., Milà B., Thébaud C. (2012). Selection-constrained dispersal drives fine-scale genetic differentiation in an island bird (*Zosterops borbonicus*). Evolution Congress, Ottawa, Canada.