

Center of New Technologies
University of Warsaw
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RESEARCH EXPERIENCE

- 2016-**
(Marie Curie fellowship) Trace metal effects on wild great and blue tit oxidative stress and fitness in a gradient of urbanisation.
Center of New Technologies, University of Warsaw (Warsaw, Poland); Marie Skłodowska-Curie cofund grant (Polonez I); In collaboration with Marta Szulkin
- 2015-2016**
(Assistant Lecturer) Effects of habitat characteristics on earthworm dispersal and habitat choice.
Institut d'Ecologie et des Sciences de l'Environnement (IEES), Pierre & Marie Curie University (Paris, France); In collaboration with Jérôme Mathieu
- 2012-2015**
(PhD) Trace metals as a selective pressure on urban birds' physiology and their melanin-based plumage colouration
Institut d'Ecologie et des Sciences de l'Environnement (IEES), Pierre & Marie Curie University (Paris, France); Supervised by Adrien Frantz and Julien Gasparini
- 2012** (4 months)
(master 2) Role of predation on the evolution of aposematism and mimicry-behavioral study on the European Starlings
Institute of Neuroscience (Newcastle, UK); Supervised by Candy Rowe
- 2011** (2 months)
(master 1) Benefits and trade-offs of the viviparous and oviparous mode of reproduction in the Common Lizard
UMR7625 Ecologie & Evolution (Paris, France); Supervised by Josepha Bleu and Sandrine Meylan
- 2009** (1 month)
(elective) Characterize the micro-morphological traits of *Frenelopsis* by scanning electron microscope
UMR5276 Laboratoire de géologie de Lyon Terre, Planète, Environnement (Lyon, France); Supervised by Bernard Gomez

PUBLICATION LIST

- 2017**
- Chatelain M.** and Mathieu J. 2017. How good are epigeic earthworms at dispersing? An investigation to compare epigeic to endogeic and anecic groups. *Soil Biology and Biochemistry*. 111:115–123. 10.1016/j.soilbio.2017.04.004
- Chatelain M.**, Pessato A., Frantz A., Gasparini J. and Leclaire S. 2017. Do trace metals influence visual signals? Effects of trace metals on iridescent and melanic feather colouration in the feral pigeon. *Oikos*. 10.1111/oik.04262
- 2016**
- Chatelain M.**, Gasparini J. and Frantz A. 2016. Do trace metals select for darker birds in urban areas? An experimental exposure to lead and zinc. *Global Change Biology*. 10.1111/gcb.13170
- Chatelain M.**, Gasparini J. and Frantz A. 2016. Trace metals, melanin-based pigmentation and their interaction influence immune parameters in feral pigeons (*Columba livia*). *Ecotoxicology*. 10.1007/s10646-016-1610-5

Chatelain M., Gasparini J., Haussy C. and Frantz A. 2016. Trace metals affect early maternal transfer of immune components in the feral pigeon. *Physiological and Biochemical Zoology*.

Chatelain M., Frantz A., Gasparini J. and Leclaire S. 2016. Experimental exposure to trace metals affects plumage bacterial communities in the feral pigeon. *Journal of Avian Biology*. 10.1111/jav.00857

2014

Chatelain M., Gasparini J., Jacquin L. and Frantz A. 2014. The adaptive function of melanin-based plumage coloration to trace metals. *Biology Letters*. 10(3): 20140164

Leclaire S., Pierret P., **Chatelain M.** and Gasparini J. 2014. Feather bacterial load affects plumage condition, iridescent color, and investment in preening in pigeons. *Behavioral Ecology*. 25(5): 1192-1198

2013

Chatelain M., Halpin C. and Rowe C. 2013. Ambient temperature influences birds' decisions to eat aposematic prey. *Animal Behaviour*. 86(4):733-740

Sum up of the publications

<i>Journal</i>	<i>Year</i>	<i>Author</i>	<i>5-years impact factor</i>
<i>Animal Behaviour</i>	2013	1 ^{ère}	3,423
<i>Behavioral Ecology</i>	2014	3 ^{ème}	3,350
<i>Biology Letters</i>	2014	1 ^{ère}	3,670
<i>Ecotoxicology</i>	2016	1 ^{ère}	2,940
<i>Global Change Biology</i>	2016	1 ^{ère}	8,708
<i>Journal of Avian Biology</i>	2016	1 ^{ère}	2,104
<i>Physiological and Biochemical Zoology</i>	2016	1 ^{ère}	2,480
<i>Oikos</i>	2017	1 ^{ère}	3,586
<i>Soil Biology and Biochemistry</i>	2017	1 ^{ère}	5,041
	9 70 citations	8 in 1 st author	

Reviewer for

Nature Ecology & Evolution; Behavioral Ecology and Sociobiology; Frontiers in zoology; Journal of Toxicology and Risk Assessment; review of a research proposal for the National Research, Development and Innovation Office (NKFIH, Hungary)

DEGREES

2016

Apt to a position of associate professor in population biology and ecology.

2012-2015

PhD in Evolutionary Ecophysiology (awarded with the highest distinction)
Pierre & Marie Curie University (Paris, France)

2010-2012

Master's degree in Ecology, Biodiversity and Evolution (awarded with high honours)
Muséum national d'histoire naturelle (Paris, France)

2007-2010

Bachelor's degree (three-year university degree) in Biology of Organism and Populations (awarded with honours)
Claude-Bernard Lyon I University (Lyon, France)

COMMUNICATIONS

Upcoming

What telomeres can tell about the experienced stress? A special focus on urban populations. [The European Society of Evolutionary Biology Conference, Groningen, The Netherlands](#). Oral presentation.

2017

Could chemical pollution select for darker plumages in cities? Ecotoxicological and evolutionary consequences of metal exposure in the feral pigeon. [Warsaw Seminar in Ecology & Evolution, Center of New Technologies, Warsaw, Poland and Neuchâtel University, Switzerland](#). Oral presentations.

2016

Trace metal effects on great and blue tit oxidative stress and telomere length in a gradient of urbanisation. [International Conference on Understanding Diversity in Telomere dynamics, Edinburgh, UK](#). Oral presentation.

Trace metal effects on wild great tit oxidative stress and fitness in a gradient of urbanisation. [Parids meeting, Montpellier, France](#). Oral presentation.

How may trace metals exert selective pressures on melanin-based colouration? [The European Society of Evolutionary Biology Conference, Lausanne, Switzerland](#). Oral presentation.

2015

Trace metals: ecophysiological responses and their influence on melanin-based plumage colouration polymorphism. [Synthesis seminar of the Dens'Cité programme \(funded by Sorbonne University\), Paris, France](#). Oral presentation.

2014

Does trace metal could explain the higher frequency of darker pigeons in cities? [Petit Pois Dérivé, Orsay, France](#). Oral presentation.

Does melanin-based plumage colouration is adaptive to trace metals polluted environments? [The International Society for Behavioral Ecology Conference, New York, US](#). Poster presentation,

2013

Adaptation to trace metals: an explanation to melanin-based coloration polymorphism in the feral pigeon. [Colloque d'Ecophysiologie Animale \(animal ecophysiology congress\), Lyon, France](#). Oral presentation.

SCOLARSHIPS & AWARDS

2016-2018

POLONEZ I research grant (PRO-2015/19/P/NZ8/02992), provided by the Horizon 2020 Framework Programme Marie Curie Actions COFUND, National Science Centre, Poland.

2015-2016

Research grant, provided by Pierre and Marie Curie University.

2012-2015

PhD grant, provided by the Ministère de l'Education Supérieure et de la Recherche.

2014

ISBE travel grant, provided by the International Society of Behavioural Ecology.

OTHER ACTIVITIES

2015-2016

Assistant lecturer (ATER) in ecology and biostatistics (192h of lectures)
[Pierre & Marie Curie University \(Paris, France\)](#)

Organizer of monthly scientific discussions based on recent published research
("Discussions Autour D'un Article"), [IEES-Paris \(France\)](#)

Organizer of monthly meetings between PhD students ("Déjeuners Des Doctorants"), [IEES-Paris \(France\)](#)

2015

Main organizer of a discussion between PhD students and supervisors about "A thesis : its carrying out and supervising", [IEES-Paris \(France\)](#)

2014-2015

Delegate of PhD students in the Institute of Ecology and Environmental Sciences of Paris, and the Ecology & Evolution department, [IEES-Paris \(France\)](#)

2013-2014

Co-organizer of the inter-teams seminars ("Séminaires Inter-Equipes"), [IEES-Paris \(France\)](#)

SKILLS

Languages

French: mother tongue
English: read, written, spoken
German: studied in secondary school
Polish: level A1 of the CECR

Computing

Pack Office, R, Gimp, Image J, GeneMapper, SpectraSuite

Laboratory skills

Acid mineralization (blood, feathers, eggs, organs)
Trace metals analysis (ICP-MS, Flame-AAS, Oven-AAS, ICP-OES)
Enzyme-linked immunosorbent assay (ELISA)
Colorimetric spectrometric analysis
DNA extractions, PCR and electrophoresis

Field skills

- birds: capture, livestock keeping, morphometric measurements, reproduction monitoring, blood sampling, under-cutaneous injections, behavioural observations.
- lizards: capture, livestock keeping, morphometric measurements, ringing.
- earthworms: capture, livestock keeping, species identification, morphometric measurements behavioural observations.

Training courses

Level I Diploma in Animal Experimentation ([2013; France](#))
Genomes and Transcriptomes: NGS techniques ([2016; The French National Museum of Natural History & CNRS, Paris, France](#))