

Personal Details

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Date and place of birth : 6th of October 1992, Paris 20e (France)

Doctorate : September 9th, 2019 - Sorbonne Université

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Google-scholar : <https://scholar.google.fr/citations?user=0cFzWAQAAAAJ&hl=fr&oi=ao>

Academic Positions

Max Planck Institute, University of Konstanz - Max Planck Institute of Animal Behavior, Radolfzell (Germany)

Humboldt Research Fellow

01/09/2020 - actual

Foraging in a highly constrained thermal landscape in the vulturine guineafowl with Damien Farine.

La Rochelle Université, La Rochelle (France) - CEBC, Villiers-en-Bois (France)

Lecturer

01/09/2019 - 31/08/2020

Space use and foraging behaviors adjustments as a function of pollutants in seagulls in collaboration with Olivier Chastel and Frédéric Angelier.

Education

Sorbonne Université, Paris (France)

PhD in Ecology

01/09/2016 - 31/08/2019

Thesis : Patterns and optimization of thermo-hydroregulation behaviors in a heterogeneous landscape

Supervisors : Jean-François Le Galliard, Jean Clobert, Sandrine Meylan

École Normale Supérieure & Université Pierre et Marie Curie, Paris (France)

2nd year Master in Ecology, Biodiversity, Evolution

01/09/2015 - 31/08/2016

Thesis : Behavioral responses to pre-natal and post-natal environmental water availability in a live-bearing lizard

Supervisors : Jean-François Le Galliard, Andréaz Dupoué

Swedish University of Agricultural Sciences (SLU), Umeå (Sweden)

Master thesis in Ecology

01/09/2014 - 31/01/2015

Thesis : The repulsive shrub : impact of an invasive shrub on habitat selection by African large herbivores

Supervisors : Joris Cromsigt, Mariska te Beest

École Normale Supérieure & Université Pierre et Marie Curie, Paris (France)

1st year Master in Ecology, Biodiversity, Evolution

01/09/2013 - 31/08/2014

Thesis : Central-Place foraging away from a resource more critical than food : water holes and gradient of selection.

Supervisors : Philip McLoughlin, Emmanuelle Richard

École Normale Supérieure & Université Pierre et Marie Curie, Paris (France)

Bachelor in Life Sciences

01/09/2012 - 31/08/2013

Thesis : Intraspecific competition in a top predator in a freshwater environment and trophic consequences.

Supervisors : Eric Edeline

École Normale Supérieure, Paris (France)

Diploma with a major in Biology

01/09/2012 - 31/08/2016

Public servant status for 4 years including undergraduate and master studies as well as a year of full-time research.

Lycée Saint-Louis, Paris (France)

Classe Préparatoire aux Grandes Écoles (CPGE)

01/09/2012 - 31/08/2016

Preparing for the competitive examination to enter École Normale Supérieure.

Publications

in press **David Rozen-Rechels**, Alexis Rutschmann, Andréaz Dupoué, Pauline Blaimont, Victor Chauveau, Donald B. Miles, Michael Guillon, Murielle Richard, Arnaud Badiane, Sandrine Meylan, Jean Clobert, and Jean-François Le Galliard. *Interaction of hydric and thermal conditions drives geographic variation in thermoregulation in a*

- widespread lizard*. Ecological Monographs. doi : 10.1002/ecm.1440. **1 citation**.
- in press Jean-François Le Galliard, **David Rozen-Rechels**, Anjélica Lecomte, Clémence Demay, Andréaz Dupoué, and Sandrine Meylan. *Low humidity and restricted water availability constrain thermoregulation in a dry-skinned ectotherm*. Plos ONE.
- 2020 **David Rozen-Rechels**, Hugo Valls-Fox, Cheryl Mabika, Simon Chamaillé-Jammes. *Temperature as a potential constraint on the timing and duration of African elephant foraging trips*. Journal of Mammalogy, 101 :1670–1679. doi : 10.1093/jmammal/gyaa129
- 2020 **David Rozen-Rechels**, Pauline Farigoule, Simon Agostini, Arnaud Badiane, Sandrine Meylan, and Jean-François Le Galliard. *Short-term change in water availability influences thermoregulation behaviours in a dry-skinned ectotherm*. Journal of Animal Ecology, 89 :2099–2110. doi : 10.1111/1365-2656.132790 **1 citation**
- 2020 Alexis Rutschmann, **David Rozen-Rechels**, Andréaz Dupoué, Pauline Blaimont, Pierre de Villmereuil, Donald B. Miles, Murielle Richard, Jean Clobert. *Climate dependent heating and cooling efficiency in the Common lizard*. Ecology and Evolution. doi : 10.1002/ece3.6241 **2 citations**
- 2020 **David Rozen-Rechels**, Arnaud Badiane, Simon Agostini, Sandrine Meylan, and Jean-François Le Galliard. *Water restriction induces behavioral fight strategies but impairs thermoregulation in a dry-skinned ectotherm*. Oikos, 129 :572–584. doi : 10.1111/oik.06910 **4 citations**
- 2020 **David Rozen-Rechels**, Andréaz Dupoué, Sandrine Meylan, Kenza Qitout, Beatriz Decencièrre, Simon Agostini, and Jean-François Le Galliard. *Acclimation to water restriction implies different paces for behavioral and physiological responses in a lizard*. Physiological and Biochemical Zoology, 93 :160–174. doi : 10.1086/707409 **4 citations**
- 2020 Andréaz Dupoué, Frédéric Angelier, Cécile Ribout, Sandrine Meylan, **David Rozen-Rechels**, Beatriz Decencièrre, Simon Agostini, Jean-François Le Galliard. *Chronic water restriction triggers sex-specific oxidative stress and telomere shortening in lizards*. Biology Letters, 16 :20190889. doi : 10.1098/rsbl.2019.0889 **2 citations**
- 2020 Andréaz Dupoué, Pauline Blaimont, **David Rozen-Rechels**, Murielle Richard, Sandrine Meylan, Jean Clobert, Donald B. Miles, Rémi Martin, Beatriz Decencièrre, Simon Agostini, Jean-François Le Galliard. *Water availability and temperature induce changes in oxidative status during pregnancy in a viviparous lizard*. Functional Ecology, 34 :475–485. doi : 10.1111/1365-2435.13481 **8 citations**
- 2019 **David Rozen-Rechels**, Andréaz Dupoué, Olivier Lourdais, Simon Chamaillé-Jammes, Sandrine Meylan, Jean Clobert, and Jean-François Le Galliard. *When water meets temperature : ecological and evolutionary implications of thermo-hydroregulation in ectotherms*. Ecology and Evolution, 9 :10029–10043. doi : 10.1002/ece3.5440 **26 citations**
- 2019 Andréaz Dupoué, Olivier Lourdais, Sandrine Meylan, François Brischoux, Frédéric Angelier, **David Rozen-Rechels**, Yoan Marcangeli, Beatriz Decencièrre, Simon Agostini, Jean-François Le Galliard. *Some like it dry : water restriction overrides heterogametic sex determination in two reptiles*. Ecology and Evolution, 9 :6524–6533. doi : 10.1002/ece3.5229 **8 citations**
- 2018 **David Rozen-Rechels**, Andréaz Dupoué, Sandrine Meylan, Beatriz Decencièrre, Sophie Guingois and Jean-François Le Galliard. *Water restriction in viviparous lizards causes transgenerational effects on behavioral anxiety and immediate effects on exploration behavior*. Behavioral Ecology and Sociobiology, 72 :1–14. doi : 10.1007/s00265-018-2443-4 **9 citations**
- 2017 **David Rozen-Rechels**, Mariska Te Beest, L. Alexander Dew, Elizabeth Le Roux, Dave D. Druce and Joris P. M. G. Cromsigt. *Contrasting impacts of an alien invasive shrub on mammalian savanna herbivores revealed on a landscape scale*. Diversity and Distribution, 23 :656–666. doi : 10.1111/ddi.12547 **8 citations**
- 2017 L. Alexander Dew, **David Rozen-Rechels**, Elizabeth Le Roux, Joris P. M. G. Cromsigt, and Mariska Te Beest. *Evaluating the efficacy of invasive plant control in response to ecological factors*. South African Journal of Botany, 109 :203–213. doi : 10.1016/j.sajb.2016.12.007 **12 citations**
- 2017 Michiel P. Veldhuis, **David Rozen-Rechels**, Elizabeth Le Roux, Joris P. M. G. Cromsigt, Matty P. Berg, and Han Olff. *Determinants of patchiness of woody vegetation in an African savanna*. Journal of Vegetation Science, 28 :93–104. doi : 10.1111/jvs.12461 **11 citations**
- 2016 **David Rozen-Rechels**, Stéphane Peigné, Damien Germain, and Sandrine Ladevèze. *Intraspecific morphological variation of the middle ear in the European badger, Meles meles (Carnivora : Mustelidae)*. Biological Journal of the Linnean Society, 119(1) :106–116. doi : 10.1111/bij.12800 **5 citations**

2015 **David Rozen-Rechels**, Floris M. van Beest, Emmanuelle Richard, Antonio Uzal, Sarah A. Medill, and Philip D. McLoughlin. *Density-dependent, central-place foraging in a grazing herbivore : competition and tradeoffs in time allocation near water*. *Oikos*, 124(9) :1142–1150. doi : 10.1111/oik.02207 **36 citations**

Citation number was extracted from Google Scholar on February 26th, 2021.

Manuscripts submitted

- sub Danai Papageorgiou, **David Rozen-Rechels**, Brendah Nyaguthii, Damien Farine. *Seasonality impacts collective movements in a wild group-living bird*. In revision for *Movement Ecology*.
- sub Alexis Rutschmann, Andréaz Dupoué, Donald B. Miles, Rodrigo Megía-Palma, Clémence Lauden, Murielle Richard, Arnaud Badiane, **David Rozen-Rechels**, Mathieu Brevet, Pauline Blaimont, Sandrine Meylan, Jean Clobert, and Jean-François Le Galliard. *Intense nocturnal warming alters growth strategies, coloration, and parasite load in a diurnal lizard*. Revised for *Journal of Animal Ecology*.

Conferences

- 2019 4e Colloque d'ÉcoPhysiologie Animale (CEPA), Rennes, France. Talk : Water restriction induces behavioral fight strategies but impairs thermoregulation in a dry-skinned ectotherm.
- 2019 Association for the Study of Animal Behaviour (ASAB) Summer Conference, Konstanz, Germany. Talk : When water meets temperature : behavioral thermo-hydroregulation in a terrestrial ectotherm. **Funded 417£by the ASAB**
- 2019 Youth Natural History Scientists' Meeting (YNHM), Paris, France. Talk in Evolutionary Ecology session : Plastic responses to water restriction implies different tempos for behavioral and physiological traits in a wide-ranging lizard.
- 2018 International Society of Behavioural Ecology Conference (ISBE), Minneapolis, Minnesota, USA. Talk in Behavioural Plasticity session : Water restriction in viviparous lizards causes transgenerational effects on behavioral anxiety and immediate effects on exploration behavior. **Funded 1100US\$ by the ISBE**
- 2018 Scientific Meeting of iEES-Paris, talk.
- 2017 Youth Natural History Scientists' Meeting (YNHM), Paris, France. Poster in Evolutionary Ecology session : Behavioral responses to pre-natal and post-natal environmental water availability in a live-bearing lizard. **Award of Best Poster in Evolutionary Ecology)**
- 2016 Scientific Meeting of iEES-Paris, talk.
- 2016 Youth Natural History Scientists' Meeting (YNHM), Paris, France. Poster in Systematics, Evolution and Comparative Anatomy session : Intraspecific morphological variation of the middle ear in the European badger, *Meles meles* (Carnivora : Mustelidae).

Pre-doctoral graduate research experience

- iEES Paris, Université Pierre et Marie Curie, Paris (France)** **01/02/2016 - 31/08/2016**
Behavioral responses to pre-natal and post-natal environmental water availability in a live-bearing lizard
Skills : Lizard capture, handling, breeding. Animal behavior experimentation. Spatial analyses in R. GLMMs.
- CR2P, Museum National d'Histoire Naturelle, Paris (France)** **01/02/2015 - 31/07/2015**
Intraspecific morphological variation of the middle ear in the European badger
Skills : 3D anatomical modeling and measurements, multivariate analyses, anatomy, systematics.
- IWFV, Swedish University of Agricultural Sciences, Umeå (Sweden)** **01/09/2014 - 31/01/2015**
Impact of an invasive shrub on habitat selection by African large herbivores
Skills : Transects data sampling, savanna ecosystems, large herbivores faeces recognition, resource selection functions, GLMMs.
- McLoughlin lab, University of Saskatchewan, Saskatoon (SK, Canada)** **01/02/2014 - 31/06/2014**
Central-Place foraging away from a resource more critical than food : water holes and gradient of selection
Skills : Optimal foraging, large dataset analyses, aerial surveys, resource selection functions, GLMMs, multivariate analyses.
- BIOEMCO, Université Pierre et Marie Curie, Paris (France)** **01/06/2013 - 31/07/2013**
Cannibalist, size-structure in a fish population and trophic cascade in aquatic environments
Skills : Experimental set-up in fresh-water ecology, identification of zooplankton, GLMMs, GAMMs.

Teaching and Supervision

- Teaching**.....
- 2020-2021** Course in Behavioral Ecology : Optimal Foraging Theory (last year of master program in Ecology, Biodiversity and Evolution in Sorbonne Université)
- 2020** Course in Ecology : Sampling and experiments (**In charge**, bachelor La Rochelle Université)
- 2020** Courses in Methodology : scientific talks (**In charge**, bachelor La Rochelle Université)
- 2020** Courses in Plant Biology : laboratory protocols (bachelor La Rochelle Université)
- 2020** Courses in Physiology : osmolarity in animals and plants (bachelor La Rochelle Université)
- 2019-2020** Course in Behavioral Ecology : Animal communication and sexual selection (master preparing for teacher examinations La Rochelle Université)

- 2019** Courses in Embryology : lectures, observations and manipulations in the laboratory (**In charge**, bachelor La Rochelle Université)
- 2019** Courses in General Biology : lectures introducing biology and ecology to first year undergraduate students (**In charge**, bachelor La Rochelle Université)
- 2019** Courses in Plant Biology : lectures and practice on morphology, anatomy, and physiology in Angiosperms (bachelor La Rochelle Université)
- 2019** Assistance in practice courses in Behavioral Ecology (master Sorbonne Université)
- 2017 - 2019** Courses in Ecology : discussion based on documents (bachelor Sorbonne Université)
- 2017 - 2019** Courses in Ecology : evolutive and ecological role of viruses (bachelor Sorbonne Université)
- 2017 - 2018** Practice courses in Ecology : experimental procedures in natural conditions (bachelor Sorbonne Université)
- 2017** Assistance in statistics courses in Evolutionary Ecology (PhD and Postdoc École Normale Supérieure)
- 2016 - 2018** Practice courses in Ecology : experimental procedures on the common lizard (bachelor École Normale Supérieure)
- 2016 - 2017** Courses in Ecology : bases (bachelor Sorbonne Université)
- 2015 - 2016** Weekly oral examinations in Biology (CPGE Lycée Saint-Louis)

Full supervision.....

- 2020 Bachelor student : Seagulls foraging site fidelity linked with pollutants contamination
- 2020 Bachelor student : Thermoregulation behavior of wall lizards
- 2018 Bachelor student : Habitat heterogeneity and thermoregulation
- 2018 Master/Engineer student : Water-driven decision rules of activity patterns
- 2018 Master student : Effects of a maternal water-restriction on juveniles thermal preferences
- 2017 5 students (master and bachelor) : Variations of thermoregulation strategies along a geographic gradient in common lizards **Leader of a 2 month research field mission in Massif Central, France**
- 2017 Master student : Effects of water restriction on the behavioral budget of common lizards
- 11 other students have been also co-supervised in collaborations with colleagues.*

Professional service

Reviewing.....

- Journals : Animal Behavior, Journal of Herpetology, Academia Brasileira de Ciências, Ethology Ecology and Evolution.

Local organisation, Outreach events.....

- 2018** Representative of the PhD students in the Evolutionary Ecology department in the Institute of Ecology and Environmental Sciences, Paris.
- 2017 & 2018** Organisation of the "Methods in Natural Sciences" session in the Youth Natural History Museum International Conference (YNHM) : review, keynote invitation, jury composition.
- 2017** Participation to "La Fête de la Science" : National outreach event in France.
- 2017** Co-founder and organiser of the Meeting Days of Youth Researchers from the Institute of Ecology and Environmental Sciences, Paris.

Membership.....

- Association for the Study of Animal Behavior (ASAB)
- International Society of Behavioral Ecology (ISBE)
- Société Française d'Écologie et d'Évolution (SFE2)

Accreditations and data collections responsibilities

Accreditations.....

- Level 1 Animal Experimentation accreditation, specialization on wild fauna. Obtained in 2018 following a two weeks course with examination accredited by the Ministère de l'Agriculture, following directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 on the protection of animals used for scientific purposes
- French driving licence

Data collection responsibilities.....

- **November 2020 to February 2021** : Vulturine guineafowl behavior data collection and environment sampling (set-up of a operative temperature landscape sampling).
- **May to July, 2016 to 2018** : Common lizard data collection and organization of experimental set-ups in CEREEP-Ecotron Ile-De-France. Collaborations with other scientists (PhD students and permanent researchers) and monitoring of students. **In charge of 2 experimental set-ups (laboratory and semi-natural in 2018).**
- **June - July, 2016/2017** : Common lizard data collection as part of the long-term study of natural populations in Massif Central, France. Collaborations with other scientists (PhD students and permanent researchers) and monitoring of students. **In charge in 2017**
- **October - November 2014** : Large herbivores and invasive plant data collection in Hluhluwe-iMfolozi National Park, KwaZulu-Natal, South Africa. Collaborations with other scientists (PhD students and permanent researchers).