

CV

Jacinta D Kong

Last updated 03 June 2022

Research and teaching appointments

- Teaching and Research Fellow
Department of Zoology, School of Natural Sciences.
Trinity College Dublin, Dublin, Ireland
5.2019 – Present
 - Research Assistant
Intraspecific variation in mechanistic species distribution modelling,
The University of Melbourne, Australia
5.2018 – 12.2018
 - Comparative Animal Physiology tutor (Second Year undergraduate)
School of BioSciences, the University of Melbourne, Australia
2017– 2018
 - Ecology in Changing Environments tutor (Third Year undergraduate)
School of BioSciences, the University of Melbourne, Australia
2016– 2018
 - Comparative Animal Physiology residential tutor,
University College, the University of Melbourne, Australia
2017– 2018
 - First Year Chemistry residential tutor
St John's College, the University of Queensland Australia
8.2014 – 10.2014
 - First Year Biology tutor (Science Learning Centre tutor),
the Faculty of Science, the University of Queensland, Australia
2012
 - Peer Assisted Study Session leader: first year statistics
The Peer Assisted Study Session office and the School of Mathematics and Physics, the University of
Queensland Australia
8.2012 – 10.2012
 - Peer Assisted Study Session leader: first year ecology
The Peer Assisted Study Session office, the University of Queensland Australia
2011 – 2012
 - Volunteer laboratory technician. Animal husbandry.
White Evolutionary Physiology Laboratory, the University of Queensland
3.2012 – 10.2012
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Qualifications

Doctor of Philosophy (Science)

The University of Melbourne, Australia

Title: Predicting ectotherm life cycles under a variable climate: Physiological diversity of matchstick grasshopper eggs and their ecological and evolutionary implications

Repository access: <http://hdl.handle.net/11343/225704>

1.2015 – completed 14 Aug 2019, conferred 5.10.2020

Bachelor of Science (Honours Class I, University Medal)

The University of Queensland, Australia

Title: The effect of temperature on the relationship between metabolic rate and mass: Tests of the Metabolic Theory of Ecology

Conferred 6.12.2013

Bachelor of Science

The University of Queensland, Australia

Conferred 17.12.2012

Refereed journal articles

- Kearney MR, Jasper ME, White VL, Aitkenhead IJ, Blacket MJ, **Kong JD**, Chown SL, Hoffmann AA. (2022) Parthenogenesis without costs in a grasshopper with hybrid origins. *Science*. 376: 1110 – 1114 DOI: [10.1126/science.abm1072](https://doi.org/10.1126/science.abm1072). Altmetric score: 78
- Schwanz LE, Gunderson A, Iglesias-Carrasco M, Johnson MA, **Kong JD**, Riley J, Wu NC. (2022) Best practices for building and curating databases for comparative analyses. *Journal for Experimental Biology*. 225: jeb243295. DOI: [10.1242/jeb.243295](https://doi.org/10.1242/jeb.243295). Altmetric score: 4
- **Kong JD**, Hoffmann AA, Kearney MR. (2019) Linking thermal adaptation and life-history theory explains latitudinal patterns of voltinism. *Philosophical Transactions of the Royal Society B: Biological Sciences*. 374(1778). DOI: [10.1098/rstb.2018.0547](https://doi.org/10.1098/rstb.2018.0547). Altmetric score: 7
- Kearney MR, Deutscher J, **Kong JD**, Hoffmann AA. (2018) Summer egg diapause in a matchstick grasshopper synchronises the life cycle and buffers thermal extremes. *Integrative Zoology*. 13(4): 437–449. DOI: [10.1111/1749-4877.12314](https://doi.org/10.1111/1749-4877.12314)
- Maino JL, **Kong JD**, Hoffmann AA, Barton MG, Kearney MR. (2016) Mechanistic models for predicting insect responses to climate change. *Current Opinion in Insect Science*. 17: 81 – 86. DOI: [10.1016/j.cois.2016.07.006](https://doi.org/10.1016/j.cois.2016.07.006)
- **Kong JD**, Axford JK, Hoffmann AA, Kearney MR. (2016) Novel applications of thermocyclers for phenotyping invertebrate thermal responses. *Methods in Ecology and Evolution*. 7(10): 1201 – 1208. 2016. DOI: [10.1111/2041-210X.12589](https://doi.org/10.1111/2041-210X.12589)

Research highlights

[ORCID](#)

[Google scholar](#)

H-index: 4 (GS)

Total citations: 76

- High attention paper in Science in the top 5% of all research outputs scored by Altmetric: 7 News outlets, 1 blog, 28 tweeters
- Ecology/evolution studies in some of the best journals in their respective disciplines, including Methods in Ecology and Evolution and Philosophical Transactions of the Royal Society B
- Methods in Ecology and Evolution video explaining the use of thermocyclers as efficient incubators [see 1 above]. Altmetric score: 21
- Influential paper on the use of mechanistic species distribution modelling for predicting ectotherm responses to climate change in Current Opinion in Insect Science [see above]. Altmetric score: 6

I have peer reviewed for:

- Global Change Biology
- Entomologia Experimentalis et Applicata
- Methods in Ecology and Evolution
- Nature Ecology and Evolution
- Ecological Entomology
- The Canadian Entomologist
- Environmental Entomology
- Journal of Fish Biology
- Current Zoology
- Scientific Reports
- Conservation Physiology
- American Naturalist
- Functional Ecology

Research grants or awards

TOTAL: \$13 750 AUD :australia:

- **\$2 500 AUD.** 6.2018 Holsworth Wildlife Research Endowment
Equity Trustees Charitable Foundation & the Ecological Society of Australia
- **\$300 AUD.** 12.2018 2nd runner up student presentation
Australian and New Zealand Society for Comparative Physiology and Biochemistry, Australia
- **\$500 AUD.** 8.2018 Student Travel Grant
Australian Entomological Society, Australia
- **\$1 500 AUD.** 2018 Science Abroad Travelling Scholarship
Faculty of Science, the University of Melbourne, Australia
- **\$950 AUD.** 2018 FH Drummond Travel Award
School of BioSciences, the University of Melbourne, Australia
- **\$1 500 AUD.** 2018 School of BioSciences Travelling Scholarship
School of BioSciences, the University of Melbourne, Australia
- **\$6 000 AUD.** 6.2018 Holsworth Wildlife Research Endowment
Equity Trustees Charitable Foundation
- **\$500 AUD.** 6.2018 Three Minute Thesis (3MT) People's Choice Winner
The University of Queensland Undergraduate Research Conference

Other Awards and Scholarships

- **\$13 541 AUD.** 2018 Research Training Program Scholarship, Australian Government
 - **\$26 682 AUD.** 2017 Research Training Program Scholarship, Australian Government
 - **\$200 AUD.** 2017 Runners-up in the Sustainability Prize photo competition, Graduate Student Association, the University of Melbourne
 - **\$26 288 AUD.** 2016 Australian Postgraduate Award, Australian Government
 - **\$25 849 AUD.** 2015 Australian Postgraduate Award, Australian Government
 - 2014 University Medal 2013, the University of Queensland, Australia
 - 2010 – 2013 Dean’s Commendation for Academic Excellence (formerly Dean’s Commendation for High Achievement), the Faculty of Science, the University of Queensland, Australia
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Teaching contributions and course development

Trinity College Dublin implements a 4 year degree program with 2 years of general subjects (e.g. biological sciences stream, ~250 students) and 2 years towards a specific major (e.g. zoology, ~ 35 students). Total of 60 credits per year. Degree consists of mandatory core subjects and electives.

2021 & 2022

- Lecturer & course development: Statistics and computation for biologists (BYU22S01). 2nd year undergraduate core subject, 5 credits. Trinity College Dublin. Developed course lectures and practical material, implemented novel R packages for interactive teaching within the R environment (learnr package). Hybrid delivery: remote and in-person lectures & remote and in-person practicals.
- Lecturer & course development: Animal Diversity I (ZOU330003). 3rd year undergraduate, core zoology major subject, 5 credits. Trinity College Dublin. Developed course lectures and practical material. Module co-coordinator. Hybrid delivery: remote lectures & in-person practicals.
- Lecturer & course development: Animal Diversity II (ZOU330004). 3rd year undergraduate, core zoology major subject, 5 credits. Trinity College Dublin. Developed course lectures and practical material. Hybrid delivery: remote lectures & in-person practicals.

2020

- Lecturer & course development: Statistics and computation for biologists (BYU22S01). 2nd year undergraduate. Trinity College Dublin. Developed course lectures and practical material, implemented reproducible workflow for online exams. Adapted for remote delivery. Module co-ordinator.
- Lecturer & course development: Animal Diversity I (ZOU330003). 3rd year undergraduate. Trinity College Dublin. Developed course lectures and practical material. Module co-coordinator. Adapted for remote delivery.
- Lecturer & course development: Animal Diversity II (ZOU330004). 3rd year undergraduate. Trinity College Dublin. Developed course lectures and practical material. Adapted for remote delivery.

2019

- Lecturer & course development: Statistics and computation for biologists (BYU22S01). 2nd year undergraduate. Trinity College Dublin. Developed course lectures and practical material, implemented reproducible workflow for online exams.
- Lecturer & course development: Animal Diversity I (ZOU330003). 3rd year undergraduate. Trinity College Dublin. Developed course lectures and practical material. Acting module co-coordinator.

- Lecturer & course development: Animal Diversity II (ZOU330004). 3rd year undergraduate. Trinity College Dublin. Developed course lectures and practical material.

2017

- Guest lecturer: 2nd year Comparative Animal Physiology, University of Melbourne
- Course development: 2nd year Biostatistics, University of Melbourne. Evaluated course context and provided feedback.

2016

- Guest lecturer: 2nd year Comparative Animal Physiology, University of Melbourne

Conference presentations and invited talks

2021

- Energetic turnover explains the inflexibility of upper thermal tolerances in ectotherms. Irish Ecological Association Meeting, University College Cork, Ireland (online)
- Ectotherm heat limits track biological rates. British Ecological Society Macroecology Special Interest Group meeting (online)
- Thermal adaptation and plasticity of egg development generates latitudinal patterns in insect life cycles under seasonal climates. Society for Experimental Biology Annual Meeting (online)

2019

- Detangling the complex problem of climate adaptation of insects living in a seasonal world. Victorian Biodiversity Conference, University of Melbourne, VIC, Australia
- Local adaptation of thermal responses generates voltinism patterns of matchstick grasshoppers, *Warramaba* (Orthoptera: Morabidae), along a latitudinal gradient. British Ecological Society Annual Meeting, Belfast, N. Ireland, UK

2018

- Selection against overwintering shapes thermal performance curves for development. Australian and New Zealand Society for Comparative Physiology and Biochemistry Conference, Monash University, VIC, Australia
- Environmental and developmental drivers at the egg stage generate divergent life cycles in wingless arid zone grasshoppers (Orthoptera: *Warramaba*). Australian Entomological Society Conference, Alice Springs, N.T., Australia
- The egg stage drives life cycle adaptation to climate in the widely distributed matchstick grasshoppers (*Vandiemenella* and *Warramaba*, Orthoptera: Morabidae). ‘The height, breadth and depth of physiological diversity: variation across latitudinal, altitudinal and depth gradients’ Animal Biology Satellite Meeting, Florence, Italy, Society for Experimental Biology
- Microclimate-driven mechanistic models to examine clinal adaptation at the egg stage in a parthenogenetic grasshopper. Society for Experimental Biology Annual Conference, Florence, Italy

2017

- Does variation in egg developmental responses to temperature generate divergent life-cycles in a genus of flightless grasshoppers (*Warramaba* spp.)? School of BioSciences Postgraduate Symposium, the University of Melbourne, Parkville, Australia
- Egg development drives life cycles in *Warramaba* spp. grasshoppers. Australian and New Zealand Society for Comparative Physiology and Biochemistry Conference, Daintree Rainforest Observatory, QLD, Australia
- Mechanistic models for understanding and predicting insect responses to climate change. Australian Entomological Society Conference, Terrigal, N.S.W., Australia

2016

- Predicting insect egg development under variable climates. School of BioSciences Postgraduate Symposium, the University of Melbourne, Parkville, Australia
- Predicting egg development in the parthenogenetic grasshopper *Warramaba virgo* (Orthoptera: Morabidae). Australian and New Zealand Society for Comparative Physiology and Biochemistry Conference, Western Sydney University, N.S.W., Australia

2015

- Novel applications of thermocyclers for high-throughput phenotyping of invertebrate thermal response. Australian and New Zealand Society for Comparative Physiology and Biochemistry Conference, Fowler's Gap, N.S.W., Australia

2013

- Every Breath You Take Links Metabolism and Ecology
- Three Minute Thesis, Undergraduate Research Conference, the University of Queensland, Australia
- Every Breath You Take Links Metabolism and Ecology. Summer Research Introduction Session 2013, invited by the Office of Undergraduate Education, the University of Queensland, Australia
- Flying foxes and you: Exploring the exposure of society to so-called "rats with wings"
- Bachelor of Science Welcome Day, invited by the Faculty of Science, the University of Queensland, Australia

2012

- Flying foxes and you: Exploring the exposure of society to so-called "rats with wings"
- Advanced Study Program in Science Student Conference, the University of Queensland, Australia

2011

- Female-biased dispersal in the Eastern Water Dragon (*Physignathus lesueurii lesueurii*)
- Advanced Study Program in Science Student Conference, the University of Queensland, Australia

Professional service and affiliations

- 2015 – Present Member: Australian and New Zealand Society for Comparative Physiology and Biochemistry (ANZSCPB)
 - 2019 – Present Member: British Ecological Society (BES) & Irish Ecological Association (IEA)
 - 2018 Member: Royal Society of Victoria (RSV)
 - 2017 – Present Member: Society for Experimental Biology (SEB)
 - 2015 – 2020 Member: Australian Entomological Society (AES)
 - 2019 – 2020 Member: European Society for Evolutionary Biology (ESEB)
 - 2017 – 2018 President, BioSciences Postgraduate Society, the University of Melbourne
 - 2016 – 2017 Vice President, BioSciences Postgraduate Society, the University of Melbourne
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Professional development qualifications

- 26/01/2021 Epigeum Research Integrity Course
 - 19/03/2021 Dynamic Energy Budget Course
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Community outreach and communication

2021

- Contributor to the Trinity Walton Club [STEM@Universi-TY](#) program, Trinity College Dublin
- Mentor for Irish Ecological Association mentoring meeting. 7th January
- The Socio-Economic Theory of Animal Abundance. April Fools blog post for [EcoEvo@TCD](#). 1st April

2020

- Profiled on Humans of BioSciences by the School of BioSciences, the University of Melbourne, Australia. [Website](#) & [Twitter](#). 17th December
- Guest interview with Newstalk radio, Ireland. 14th January

2019

- Mentor for BES Women in Science Mentoring Program
- Home and Away: 3 part blog series for [EcoEvo@TCD](#)
 - Home and Away: Would a Rosella by any other name smell as sweet (online 1 Nov)
 - Home and Away: Monotreme mistakes (online 22 Nov)
 - Home and Away: Australian expats (online 12 Dec)
- Victorian Biodiversity Conference Volunteer, Melbourne, Australia

2018

- Big Ideas in Macrophysiology. Report on the 2018 Animal Biology Satellite Meeting, Florence Italy. [Society for Experimental Biology Magazine](#)

- The University of Melbourne Open Day Volunteer, the University of Melbourne, Melbourne, Australia

2017

- The University of Melbourne Open Day Volunteer, the University of Melbourne, Melbourne, Australia
- Session Chair, BioSciences Postgrad Symposium, the University of Melbourne, Australia
- Victorian Biodiversity Conference Volunteer, Melbourne, Australia
- Blog post for Graduate Student Association, University of Melbourne on the biodiversity photo competition

2016

- Session Chair, BioSciences Postgrad Symposium, the University of Melbourne, Australia
- Novel applications of thermocyclers for characterising invertebrate thermal responses. [Video for Methods in Ecology and Evolution](#)

2015

- The University of Melbourne Open Day Volunteer, the University of Melbourne, Melbourne, Australia
- The Real Life of a Research Student. Science Undergraduate Research Journal (SURJ), Issue 2. The University of Queensland, Australia
- Jacinta on Zoology & Research. Interview with BITE BACK, Black Dog Institute, Australia. 31st August. [Link likely broken](#)

2014

- Brisbane Open House Volunteer, Brisbane Open House, Brisbane, Australia
- Student Chaperone for the International Baccalaureate World Student Conference, the University of Queensland, Australia
- Moreton Bay Research Station Open Day Assistant, Moreton Bay Research Station, Brisbane, Australia

2013

- Science Mentor to Science Undergraduate Students, appointed by the Faculty of Science, the University of Queensland, Australia

2012

- Moreton Bay Research Station Open Day Assistant, Moreton Bay Research Station, Brisbane, Australia