

## Employment

<i>Research Fellow</i> , University of Adelaide, SA AUS	2020-current
Research Projects: "Adaptive Morphology and Evolution of Invasive Rabbits and Hares" & "Snake fangs: insights into evolution, palaeoclimate and biodesign" (Funding: ARC Future Fellowship FT190100803; ARC Discovery Project DP200102328)	
<i>Lecturer</i> (Teaching-Research academic), University of Adelaide, SA AUS	2019-2020
Fixed term. Coordinator for BSc. Advanced "Principles & Practices of Research" L1-L3 courses	
<i>Research Fellow</i> , University of Adelaide, SA AUS	2017-2019
Research Project: "Understanding the mechanisms of biological diversity using Australian elapid snakes" (Funding: University of Adelaide Research Fellowship)	
<i>Postdoctoral Research Fellow</i> , Australian National University, Canberra ACT AUS	2016-2017
Research Project: "Morphological evolution of Australian herpetofauna" with Prof. J. Scott Keogh (Funding: ARC DP150102403)	
<i>Lecturer</i> (Teaching-Research academic), University of New England, Armidale NSW AUS	2014-2016
Fixed term. Unit coordinator for undergraduate course	
<i>Postdoctoral Research Assistant</i> , Iowa State University, IA USA.	2013-2014
Research Project: "Examining the tempo of phenotypic evolution" with Prof. Dean C. Adams (Funding: United States National Science Foundation (NSF) DEB-1118884 and DEB-1257287)	
<i>Postdoctoral Research Assistant</i> , Harvard University, MA USA	2011-2013
Research Project: "Investigation of Miocene <i>Anolis</i> lizards in amber using micro-CT" with Prof. Jonathan B. Losos (Funding: grants from Harvard University and NSF)	
<i>Research Technician</i> , The University of Manchester, UK	2006-2007
Research Project: "Evolutionary genetics of genomic imprinting in mice", with Prof J.M. Cheverud, Prof. C.P. Klingenberg and Dr J.B. Wolf (Funding: grants from the Biotechnology and Biological Sciences Research Council, UK (BBSRC), an Underwood Fellowship from the BBSRC and NIH Grants DK055736 and RR015116 and NSF BCS-0725068)	

## Education

<b>Ph.D. Animal Biology.</b> Thesis title: "Evolution of the Caecilian Skull" The University of Manchester, UK and The Natural History Museum, London, UK. Supervisors: Prof. Christian P. Klingenberg, Dr. Mark Wilkinson & Dr. David Gower	2007-2011
<b>B.Sc. Zoology with Industrial Experience, first class with honours</b> The University of Manchester, UK (and London NHM for industrial experience)	2002-2006

## Funding

### Research Grants

<i>Discovery Project (CI)</i> , Australian Research Council (DP200102328) 3-years' research funds, \$425,930	2020
<i>Future Fellowship</i> , Australian Research Council (FT190100803) 4-years' salary and research funds, \$681,697	2020
<i>Research Fellowship</i> , University of Adelaide, SA AUS (13120262) 12-months' salary and research funds, \$125,590	2018
<i>Research Fellowship</i> , University of Adelaide, SA AUS (13117787) 12-months' salary and research funds, \$121,400	2017
<i>Ph.D. studentship</i> , Natural Environmental Research Council (NERC) UK industrial Collaborative Awards in Science and Engineering (CASE) studentship (NE/F009011/1 ES) 3.5-years stipend and research funds, £48,000	2007
<i>British Herpetological Society Student Grant</i> , UK Research funds £1,000	2005
<i>Summer Studentship Grant</i> , Natural History Museum London, UK Research funds £1,000	2005

## Travel Grants

<i>Travel Award from Society for the Study of Evolution</i>	2018
Travel grant (US\$500) to attend Evolution Joint Congress in Montpellier, France	
<i>Early Career Researcher International Conference Travel Scheme, University of Adelaide, SA AUS</i>	2017
Travel grant (AU\$2,000) to attend Evolution, Portland OR USA	
<i>Postdoctoral Award for Professional Development, Harvard University, MA USA</i>	2012
Travel grant (US\$1,000) to attend World Congress of Herpetology, Vancouver Canada	
<i>Zochonis Special Enterprise award, The University of Manchester, UK</i>	2003
Travel grant (£1,000) to join Operation Wallacea conservation group in Indonesia	

## Awards

<i>Women's Research Excellence Award, University of Adelaide, SA AUS</i>	2019
Research fund \$5000	
<i>Best talk, at Research School of Biology early- and mid-career researchers Future Conference, Australian National University, ACT AUS</i>	2017
<i>Zoology Prize of Excellence, for B.Sc. (Hons) first class, The University of Manchester UK</i>	2006

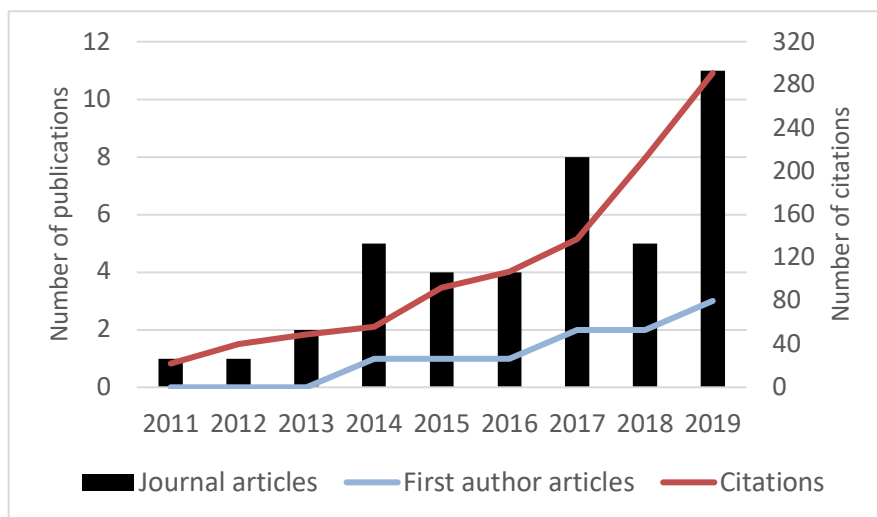
## Research Interests: Macroevolution, Phenotypic Evolution, Morphometrics

I am an evolutionary biologist, engaged in the study of phenotypic evolution. I research macroevolutionary trends in the morphological evolution of animals to understand the historical factors responsible for biodiversity. My empirical research has covered a diverse array of animals including reptiles, amphibians, mammals, molluscs and birds. I apply my expertise in 3D digital imaging (micro-CT, surface scanning and microscopy) to characterise morphological structures. I then apply my expertise in morphometrics (landmark-based “geometric morphometrics” and linear morphometrics) and phylogenetic comparative methods to quantitatively assess morphological variation in an evolutionary context. I also use these data to contribute to systematics (taxonomy) and phylogenetics.

## Peer-reviewed Publications

**44 journal articles.** ORCID ID: 0000-0003-2164-7877. Scopus ID: 56215954900. Google Scholar (GS): h-index = 17, i10-index = 23, 1106 total citations, November 2019

I.F.= Impact Factor InCites 2018; \* = Student lead author)



Number of publications (left axis) including number of first author, and number of citations (right axis) since PhD conferral. Source Google Scholar.

## 2019

- Sherratt, E.,** Coutts, F.J., Rasmussen, A.R., Sanders, K.L. Vertebral evolution and ontogenetic allometry: The developmental basis of extreme body shape divergence in microcephalic sea snakes. *Evolution & Development*, 21:135–144
- Sherratt, E.,** Sanders, K.L., Watson, A., Hutchinson, M.N., Lee, M.S.Y, Palci, A. Heterochronic shifts mediate ecomorphological convergence in skull shape of microcephalic sea snakes. *Integrative and Comparative Biology*, 59(3): 616–624

3. **Sherratt, E.**, Sanders, K.L. Patterns of intracolumnar size variation inform the heterochronic mechanisms underlying extreme body shape divergence in microcephalic sea snakes. *Evolution & Development*, <https://doi.org/10.1111/ede.12328>
4. Hipsley, C.A., **Sherratt, E.** Psychology, not technology, is our biggest challenge to open digital morphology data. *Scientific Data*, 6:4
5. Gallaher, T.J., Adams, D.C., Attigala, L., Burke, S.V., Craine, J.M., Duvall, M.R., Klahs, P.C., **Sherratt, E.**, Wysocki, W.P., Clark, L.G. Leaf shape and size tracks habitat transitions across forest-grassland boundaries in the grass family (Poaceae). *Evolution*, 73(5): 927–946
6. Gray, J.A.\* , **Sherratt, E.**, Hutchinson, M.N., Jones, M.E.H. Changes in ontogenetic patterns facilitate diversification in skull shape of Australian agamid lizards. *BMC Evolutionary Biology*, 19:7
7. Bardua, C.\* , Gower, D.J., Wilkinson, M., **Sherratt, E.**, Goswami, A. Morphological evolution and modularity of the caecilian skull. *BMC Evolutionary Biology*, 19:30
8. Marshall, A.F.\* , Bardua, C., Gower, D.J., Wilkinson, M., **Sherratt, E.**, Goswami, A. High-density three-dimensional morphometric analyses support conserved static (intraspecific) modularity in caecilian (Amphibia: Gymnophiona) crania. *Biological Journal of the Linnean Society*, 126(4): 721–742
9. Gray, J.A.\* , **Sherratt, E.**, Hutchinson, M.N., Jones, M.E.H. Evolution of cranial shape in a continental-scale evolutionary radiation of Australian lizards. *Evolution*, <https://doi.org/10.1111/evo.13851>
10. Martin, M.L.\* , Travouillon, K.J., **Sherratt, E.**, Fleming, P.A., Warburton, N.M. Covariation between forelimb musculature and bone shape in an Australian scratch-digging marsupial: comparison of morphometric methods. *Journal of Morphology*, <https://doi.org/10.1002/jmor.21074>
11. Weisbecker, V., Guillerme, T., Speck, C., **Sherratt, E.**, Mehari Abraha, H., Sharp, A.C., Terhune, C.E., Collins, S., Johnston, S., Panagiotopoulou, O. Individual variation of the masticatory system dominates 3D skull shape in the herbivory-adapted marsupial wombats. *Frontiers in Zoology*. 16(41): 1–14

#### 2018

12. **Sherratt, E.**, Rasmussen, A.R., Sanders, K.L. Trophic specialization drives morphological evolution in sea snakes. *Royal Society Open Science*, 5: 172141
13. **Sherratt, E.**, Anstis, M., Keogh, J.S. Ecomorphological diversity of Australian tadpoles. *Ecology and Evolution*, 8(24): 12929–12939
14. Mitchell, D.R.\* , **Sherratt, E.**, Ledogar, J., Wroe, S. The biomechanics of foraging behaviours determine face length among kangaroos and their relatives. *Proceedings of the Royal Society of London B: Biological Sciences*, 285: 20180845
15. Attard, M.R.G., **Sherratt, E.**, McDonald, P., Young, I., Vidal-García, M. Wroe, S. A new, three-dimensional geometric morphometric approach to assess egg shape. *PeerJ*, 6: e5052
16. Mitchell, D.R.\* , **Sherratt, E.**, Sansalone, G., Ledogar, J., Flavel, R.J., Wroe, S. Feeding biomechanics influences craniofacial morphology at the subspecies scale among Australian pademelons (Macropodidae: *Thylogale*). *Journal of Mammalian Evolution*, <https://doi.org/10.1007/s10914-018-9455-8>

#### 2017

17. **Sherratt, E.**, Serb, J.M., Adams, D.C. Rates of morphological evolution, asymmetry and morphological integration of shell shape in scallops. *BMC Evolutionary Biology*, 17: 248
18. **Sherratt, E.**, Vidal-García, M., Anstis, M., Keogh, J.S. Adult frogs and tadpoles have different macroevolutionary patterns across the Australian continent. *Nature Ecology & Evolution*, 1: 1385–1391
19. Esquerré, D.\* , **Sherratt, E.**, Keogh, J.S. Evolution of extreme ontogenetic allometric diversity and heterochrony in pythons, a clade of giant and dwarf snakes. *Evolution*, 71(12): 2829–2844
20. Serb, J.M., **Sherratt, E.**, Alejandrino, A., Adams, D.C. Phylogenetic convergence and multiple shell shape optima for gliding scallops (Bivalvia: Pectinidae). *Journal of Evolutionary Biology*, 30(9): 1736–1747
21. Garland, K.\* , Marcy, A.E., **Sherratt, E.**, Weisbecker, V. Out on a limb: bandicoot limb covariation suggests complex impacts of development and adaptation on marsupial forelimb evolution. *Evolution & Development*, 19(2): 69–84
22. Dickson, B.V., **Sherratt, E.**, Losos, J.B., Pierce, S.E., Semicircular canals in *Anolis* lizards: ecomorphological convergence and ecomorph affinities of fossil species. *Royal Society Open Science*, 4: 170058
23. Attard, M.R.G., Medina, I., Langmore, N., **Sherratt, E.**, Egg shape mimicry in parasitic cuckoos. *Journal of Evolutionary Biology*, 30(11): 2079–2084
24. Barak, M.M., **Sherratt, E.**, Lieberman, D.E. Using principal trabecular orientation to differentiate joint loading orientation in the 3<sup>rd</sup> metacarpal heads of humans and chimpanzees. *Journal of Human Evolution*, 113: 173e182

## 2016

25. **Sherratt, E.**, Alejandrino, A., Kraemer, A.C., Serb, J.M., Adams, D.C. Trends in the sand: directional evolution in the shell shape of recessing scallops (*Bivalvia*: Pectinidae). *Evolution*, 70(9): 2061–2073
26. Marcy, A.E.\*, Hadley, E.A., **Sherratt, E.**, Garland, K., Weisbecker, V. Getting a head in hard soils: Convergent skull evolution and divergent allometric patterns explain shape variation in a highly diverse genus of pocket gophers (*Thomomys*). *BMC Evolutionary Biology*, 16(1): 27
27. Kraatz, B.P. and **Sherratt, E.** Evolutionary morphology of the rabbit skull. *PeerJ*, 4: e2453
28. Klaczko, J., **Sherratt, E.**, Setz, E.Z.F. Are diet preferences associated to skulls shape diversification in Xenodontine snakes? *PLoS ONE*, 11(2): e0148375

## 2015

29. **Sherratt, E.**, Castañeda, M.d.R., Garwood, R., Mahler, D.L., Sanger, T.J., Herrel, A., de Queiroz, K., Losos, J.B. Amber fossils demonstrate deep-time stability of Caribbean lizard communities. *Proceedings of the National Academy of Sciences (PNAS)*, 112(32): 9961–9966
30. Kraatz, B.P., **Sherratt, E.**, Bumacod, N., Wedel, M.J. Ecological correlates to cranial morphology in Leporids (Mammalia, Lagomorpha). *PeerJ*, 3: e844
31. Hetherington, A.J., **Sherratt, E.**, Ruta, M., Wilkinson, M., Deline, B., Donoghue, P.C.J. Do cladistic and morphometric data capture common patterns of morphological disparity? *Palaeontology*, 58(3): 393–399
32. Leamy, L., Klingenberg, C.P., **Sherratt, E.**, Wolf, J., Cheverud, J. The genetic architecture of fluctuating asymmetry of mandible size and shape in a population of mice: another look. *Symmetry*, 2015, 7(1): 146–163

## 2014

33. **Sherratt, E.**, Gower, D. J., Klingenberg, C. P., Wilkinson, M. Evolution of cranial shape in Caecilians (Amphibia: Gymnophiona). *Evolutionary Biology*, 41(4): 528–545
34. Tschopp, P., **Sherratt, E.**, Sanger, T. J., Groner, A. C., Aspiras, A. C., Hu, J. K., Pourquié, O., Gros, J., Tabin, C.J. A relative shift in cloacal location repositions external genitalia in amniote evolution. *Nature*, 516(7531): 391–394
35. Maddin, H.C. and **Sherratt, E.** Influence of fossoriality on inner ear morphology: insights from caecilian amphibians. *Journal of Anatomy*, 225: 83–93
36. Castañeda, M.d.R, **Sherratt, E.**, Losos, J.B. The Mexican amber anole, *Anolis electrum*, within a phylogenetic context: implications for Caribbean anoles origins. *Zoological Journal of the Linnean Society*, 172: 133–144
37. Wilkinson, M., Presswell, B., **Sherratt, E.**, Papadopoulou, A., Gower, D.J. A new species of striped *Ichthyophis* Fitzinger, 1826 (Amphibia: Gymnophiona: Ichthyophiidae) from Myanmar. *Zootaxa*, 3779(3): 383–388

## 2007–2013

38. Sanger, T.J., **Sherratt, E.**, Abzhanov, A., Losos, J.B. (2013) Convergent evolution of sexual dimorphism in skull shape using distinct developmental strategies. *Evolution*, 67(8): 2180–2193
39. Wilkinson, M., **Sherratt, E.**, Starace, F., Gower, D.J. (2013) A new species of skin-feeding caecilian and the first report of reproductive mode in *Microcaecilia* (Amphibia: Gymnophiona: Siphonopidae). *PLoS ONE*, 8: e57756
40. Kamei, R.G., San Mauro, D., Gower, D.J., Ivan Bocxlaer, I., **Sherratt, E.**, Thomas, A., Babu, S., Bossuyt, F., Wilkinson, M., Biju, S.D. (2012) Discovery of a new family of amphibians from Northeast India with ancient links to Africa. *Proceedings of the Royal Society of London B: Biological Sciences*, 279(1737): 2396–2401
41. Wilkinson, M., San Mauro, D., **Sherratt, E.**, Gower, D.J. (2011) A nine-family classification of caecilians (Amphibia: Gymnophiona). *Zootaxa*, 2874: 41–64
42. Gower, D.J., Wilkinson, M., **Sherratt, E.**, Kok, P.J.R. (2010) A new species of *Rhinatrema* Duméril & Bibron (Amphibia: Gymnophiona: Rhinatrematidae) from Guyana. *Zootaxa*, 2391: 47–60
43. Leamy, L.J., Klingenberg, C.P., **Sherratt, E.**, Wolf, J.B., Cheverud, J.M. (2008) A search for quantitative trait loci exhibiting imprinting effects on mouse mandible size and shape. *Heredity*, 101: 518–526
44. Poynton, J.C., Loader, S.P., **Sherratt, E.**, Clarke, B.T. (2007) Amphibian diversity in East African biodiversity hotspots: altitudinal and latitudinal patterns. *Biodiversity and Conservation*, 16(4): 1103–1118

## Software Development

2013–2017. Adams, D.C., Collyer, M., Kaliontzopoulou, A., **Sherratt, E.** geomorph: Software for geometric morphometric analyses. vs.1.1-4 to 3.0.5. R package:

<https://cran.r-project.org/web/packages/geomorph/index.html>

Download statistics from CRAN: 1969/month; CRAN package has 158 citations, and the accompanying publication has been cited 817 times (Adams & Otárola-Castillo, 2013 *Methods in Ecology and Evolution*; I replaced O-C in late 2013).

I was co-developer of the leading free software R-package *geomorph* for geometric morphometrics from 2013 to 2017. In that time, I wrote and curated the functions for I/O, digitizing landmark data on 2D images and 3D surface models, and the visualisations for shape deformation. I also wrote and maintained the website (<http://geomorphr.github.io/geomorph/>), the google groups forum for user questions (which were implemented in August 2016, replacing an old blogspot website with 80,500 page views), and the GitHub repository (<https://github.com/geomorphR/geomorph>). I also wrote the comprehensive user guide to *geomorph*.

I continue to run training workshops on geometric morphometrics including how to use *geomorph* and other software packages within Australia and internationally ([see below](#)).

### Published Datasets

1. **Sherratt, E.**, Sanders, K.L. (2019). Data from: Patterns of intracolumnar size variation inform the heterochronic mechanisms underlying extreme body shape divergence in microcephalic sea snakes. *Figshare*: <https://doi.org/10.25909/5dafed7096ae5>
2. **Sherratt, E.**, Hutchinson, M.N., Palci, A. Australian Elapid Snakes, *MorphoSource*: project ID P744.
3. **Sherratt, E.**, Sanders, K.L., Watson, A., Hutchinson, M.N., Lee, M.S.Y, Palci, A. (2019). Data from: Heterochronic shifts mediate ecomorphological convergence in skull shape of microcephalic sea snakes. *Figshare*: <https://doi.org/10.25909/5cb523d6c6e52>
4. Hipsley, C. A. and **Sherratt, E.** (2019). Literature and survey data for: Psychology, not technology, is our biggest challenge to open digital morphology data. *Figshare*: <https://doi.org/10.26188/5c6656eb6735c>
5. Gray, J.A., **Sherratt, E.**, Hutchinson, M.N., Jones, M.E.H. Data from: Changes in ontogenetic patterns facilitate diversification in skull shape of Australian agamid lizards. *Morphobank*: <http://dx.doi.org/10.7934/P3110>
6. Gallaher, T.J., Adams, D.C., Attigala, L., Burke, S.V., Craine, J.M., Duvall, M.R., Klahs, P.C., **Sherratt, E.**, Wysocki, W.P., and Clark, L.G. (2019). Data from: Leaf shape tracks transitions across forest-grassland boundaries in the grass family (Poaceae). *Dryad Digital Repository*: <https://doi.org/10.5061/dryad.54hv675>
7. **Sherratt, E.**, Rasmussen, A. R., and Sanders, K. L. (2018). Data from: Trophic specialisation drives morphological evolution in sea snakes. *Dryad Digital Repository*: <https://doi.org/10.5061/dryad.48r5h.2>
8. **Sherratt, E.**, Coutts, F. J., Rasmussen, A. R., and Sanders, K. L. (2018). Data from: Vertebral evolution and ontogenetic allometry: The developmental basis of extreme body shape divergence in microcephalic sea snakes. *Figshare*: <https://doi.org/10.25909/5b6149d4483bd>
9. **Sherratt, E.**, Anstis, M., and Keogh, J. S. (2018). Data from: Ecomorphological diversity of Australian tadpoles. *Figshare*: <https://doi.org/10.25909/5be500cf5f0c4>
10. Attard, M. R. G., Sherratt, E., McDonald, P., Young, I., Vidal-García, M., and Wroe, S. (2018). Data from: A new, three-dimensional geometric morphometric approach to assess egg shape. *Figshare*: <https://doi.org/10.6084/m9.figshare.3382477.v1>
11. **Sherratt, E.**, Vidal-García, M., Anstis, M., and Keogh, J. S. (2017). Data from: Adult frogs and tadpoles have different macroevolutionary patterns across the Australian continent. *Dryad Digital Repository*: <https://doi.org/10.5061/dryad.23j6t>
12. Esquerré, D., **Sherratt, E.**, and Keogh, J. S. (2017). Data from: Evolution of extreme ontogenetic allometric diversity and heterochrony in pythons, a clade of giant and dwarf snakes. *Dryad Digital Repository*: <https://doi.org/10.5061/dryad.qb799>
13. Dickson, B. V., **Sherratt, E.**, Losos, J. B., and Pierce, S. E. (2017). Data from: Semicircular canals in *Anolis* lizards: ecomorphological convergence and ecomorph affinities of fossil species. *Dryad Digital Repository*: <https://doi.org/10.5061/dryad.8s586>
14. Attard, M. R. G., Medina, I., Langmore, N., and **Sherratt, E.** (2017). Data from: Egg shape mimicry in parasitic cuckoos. *Dryad Digital Repository*: <https://doi.org/10.5061/dryad.v5375>
15. **Sherratt, E.**, Alejandrino, A., Kraemer, A. C., Serb, J. M., and Adams, D. C. (2016). Data from: Trends in the sand: directional evolution in the shell shape of recessing scallops (Bivalvia: Pectinidae). *Dryad Digital Repository*: <https://doi.org/10.5061/dryad.43548>
16. **Sherratt, E.**, Castañeda, M. d. R., Garwood, R., Mahler, D. L., Sanger, T. J., Herrel, A., de Queiroz, K., and Losos, J. B. (2015). Data from: Amber fossils demonstrate deep-time stability of Caribbean lizard communities. *Zenodo*: <https://doi.org/10.5281/zenodo.17442>  
⇒ modern specimens archived in *MorphoSource*: project ID P459
17. Castañeda, M. d. R., **Sherratt, E.**, and Losos, J. B. (2014). Data from: The Mexican amber anole, *Anolis electrum*, within a phylogenetic context: implications for the origins of Caribbean anoles. *Morphobank*: <http://dx.doi.org/10.7934/P1108>

## Student Supervision (\* indicates Primary Supervisor)

### Ph.D.

D. Rex Mitchell, Ph.D. student, University of New England, NSW AUS <i>Chancellor's Doctoral Research Medal recipient</i>	2015-18
Theodora Luk, Ph.D. student, University of New England, NSW AUS <i>Chancellor's Doctoral Research Medal recipient</i>	2015-18

### Masters

*Kevin De Vlieghe, Visiting M.Sc. Student (3-month project), University of Adelaide, SA AUS	2019
Simon Le Bouhl, Visiting M.Sc. Student (3-month project), Harvard University, MA USA	2012
Martin Hughes, M.Sc. Student, The Natural History Museum, London UK	2009-10

### B.Sc. Honours

*Alex Harvey, B.Sc. Honours Student, University of Adelaide, SA AUS	2019
James H. Nankivell, B.Sc. Honours Student, University of Adelaide, SA AUS	2018
Aurelie Kanishka, B.Sc. Honours Student, University of Adelaide, SA AUS	2018
Matthew B. Patterson, B.Sc. Honours Student (part time), Murdoch University, WA AUS	2017-18

### Bachelors

*Ellen Martin, Summer Scholarship Student, University of Adelaide, SA AUS	2019
*Jackson Dann, Summer Scholarship Student, University of Adelaide, SA AUS	2019
*Megan Thomas, B.Sc. (Adv.) Principles & Practice of Research III Student, University of Adelaide, SA AUS	2019
*Stuart J. O'Neill, Summer Scholarship Student, University of Adelaide, SA AUS	2018
*Tory Botha, B.Sc. (Adv.) PPR III Student, University of Adelaide, SA AUS	2018
*Kelsey Cain, B.Sc. Student, Iowa State University, IA USA	2013
*Jasmine Casart, B.Sc. Student, Harvard University, MA USA	2012
George Bruce, B.Sc. Student, The University of Manchester, Manchester UK	2010-11

## Student Mentoring

Ray Chatterji, Ph.D. student, University of Adelaide, SA AUS	2017-19
Jaimi A. Gray, Ph.D. student, University of Adelaide, SA AUS <i>Chancellor's Doctoral Research Medal recipient</i>	2017-18
Damien Esquerré, Ph.D. student, Australian National University, ACT AUS	2016-17
Kathleen Garland, B.Sc. Honours Students, University of Queensland, QLD AUS	2016
Ariel Marcy, B.Sc. Honours Students, University of Queensland, QLD AUS	2016
Bonnie Mayes, B.Sc. Student, 'Balancing the Equation' Mentoring Scheme, UNE, NSW AUS	2015

## Teaching

### Unit coordinator and instructor

University of Adelaide, SA AUS <i>Undergraduate student courses (L1-L3). Principles &amp; Practices of Research (Advanced) I, II, III (SCIENCE 1300, 2300, 3100)</i> (12-week courses, including Tutorials, Research Placements, and Research Symposia; ~60 students each year)	2019
University of New England, NSW AUS <i>Undergraduate student course (L1). Principles in Zoology (ZOOL 100)</i> (12-week course; 1-week intensive school, plus 9 labs and 23 lectures; 52 Students -27 on campus, 25 off campus)	2014,15

### Primary instructor

Melbourne Museum & Boden Conference, Melbourne VIC AUS. <i>Graduate student and above course. Short course in Geometric Morphometrics (2 hours, 19pp.)</i>	2019
University of Adelaide, SA AUS. <i>Graduate student and above course. Short course in Morphometrics (2 hours, 10pp.)</i>	2019
Society of Vertebrate Paleontology Annual Meeting, Dallas TX USA. <i>Graduate student and above workshop. Short course in Geometric Morphometrics (1 day, 35pp.)</i>	2015

Australian National University, ACT AUS.	
<i>Graduate student and above course. Short course in Geometric Morphometrics (1 day, 12pp.)</i>	2015
University of Adelaide, SA AUS.	
<i>Graduate student and above course. Short course in Geometric Morphometrics (1 day, 36pp.)</i>	2015
University of Queensland, QLD AUS.	
<i>Graduate student and above course. Short course in Geometric Morphometrics (1 day, 13pp.)</i>	2014
University of New England, NSW AUS.	
<i>Graduate student and above course. Short course in Geometric Morphometrics (2 days, 21pp.)</i>	2014
The Natural History Museum, London, The University of Manchester, and Harvard University	
<i>Training in micro-Computed Tomography Scanning and Processing Software</i>	
(1 day each, 11 participants overall)	2009-13
The Natural History Museum, London.	
<i>Graduate student and above course. Micro-CT Processing and Software Workshop (1 day, 5pp.)</i>	2010
<i>Graduate student and above course. Endnote Tricks and Tips Workshops (1 day each, 8pp.)</i>	2009

### **Co-instructor**

University of Adelaide, SA AUS.	
<i>Undergraduate course. Lectures x 16, Science or Fiction (SCIENCE 1400)</i>	2019
University of Iowa, IA USA.	
<i>Graduate &amp; above course. Short course in Geometric Morphometrics, (with Prof. D.C. Adams)</i>	2013
Universitat Autònoma de Barcelona, Spain.	
<i>Graduate &amp; above course. Geometric Morphometrics &amp; Phylogeny (with Prof. C.P. Klingenberg)</i>	2010

### **Guest lectures/labs**

University of Adelaide, SA AUS	
<i>Two Labs for Evolutionary Biology III (ENV BIOL 3590)</i>	2018,19
University of Adelaide, SA AUS	
<i>Lecture on Trait Evolution, Research Methods in Evolutionary Biology (ENV BIOL 3535)</i>	2018,19
University of Idaho, ID USA	
<i>Skype discussion on My Research in Herpetology for Herpetology (BIOL 489)</i>	2015,16,17,19
Australian National University, ACT AUS	
<i>Lecture and lab for Australian Vertebrates course (BIOL 2111)</i>	2016
<i>Lecture for 3D visualisations for Cyberculture course (ARTV 2018)</i>	2016
University of New England, NSW AUS	
<i>Lecture for Evolution and Biogeography (EVOL 211/411)</i>	2015
Iowa State University, IA USA	
<i>Two lectures for Vertebrate Biology course (BIOL 365)</i>	2013
Harvard University, MA USA	
<i>Lecture and lab on caecilians for Herpetology course (OEB 167)</i>	2012

### **Teaching assistant**

The University of Manchester, UK. Undergraduate student courses	
<i>Anatomy Student Research Skills (lab-based, 1 semester)</i>	2010, 2011
<i>Data handling skills (lab- and computer-based, 1 semester)</i>	2011
<i>Analysis of Organismal Form (in person &amp; online, 1 semester)</i>	2009, 2010
<i>Tropical Biology Field course, Ecuador (3 weeks)</i>	2009
<i>Behaviour &amp; Ecology Field course, France (2 weeks)</i>	2007
<i>Marine Biology Field course, Scotland (1 week)</i>	2007

### **Invited Seminars at Universities, Museums and Societies**

<i>School of Biological Sciences Research Day, University of Adelaide, SA AUS</i>	2019
<i>Biological Sciences Seminar, University of Western Australia, WA AUS</i>	2019
<i>Centre of Integrative Ecology seminar, Deakin University, VIC AUS</i>	2019
<i>Biological Sciences Seminar, University of Queensland, QLD AUS</i>	2019
<i>Department of Ecology &amp; Evolutionary Biology seminar, University of Adelaide, SA AUS</i>	2018
<i>Department of Life Sciences seminar, The Natural History Museum, London UK</i>	2017
<i>Seminar on Morphology, Zoological Research Museum Alexander Koenig, Bonn GER</i>	2017

<i>School of Biological Sciences Research Day</i> , University of Adelaide, SA AUS	2017
<i>Department of Zoology Seminar</i> , University of Otago, Dunedin NZ,	2017
<i>Applied Mathematics Seminar</i> , Australian National University, ACT AUS	2017
<i>Techniques in Evolutionary Analysis (TEA) Talks series</i> , Australian National University, ACT AUS	2017
<i>Biological Sciences Seminar</i> , University of Queensland, QLD AUS	2015
<i>Evolution, Ecology &amp; Genetics Seminar</i> , Australian National University, ACT AUS	2015
<i>Department of Zoology and Physical Anthropology Seminar</i> , Complutense University of Madrid, Spain	2014
<i>Senior capstone Seminar</i> , Skidmore College, NY USA	2012
<i>Ecology and Evolutionary Biology Seminar</i> , Brown University, RI USA	2011
<i>Bangor Herpetological Society Seminar</i> , Bangor University, Wales UK	2010
<i>Hull-York Medical School Seminar</i> , York University, UK	2009

## Conference and Meeting Presentations

### Published conference abstracts

- Sherratt, E.**, Sanders, K.L. (2019). Tiny heads: the evolution of microcephalic sea snakes. *Integrative and Comparative Biology*, 59: E212.
- Barak, M.M., **Sherratt, E.**, Lieberman, D.E. (2016). Trabecular orientation in the 3<sup>rd</sup> metacarpal head of humans and chimps reveals their difference in locomotion behavior. *American Journal of Physical Anthropology*, 159:86-86.
- Sherratt, E.**, Adams, D.C., Serb, J.M. (2015). Macroevolution, phylomorphospace and directional evolution in recessing scallops. *Integrative and Comparative Biology*, 55: E166.
- Sherratt, E.**, Wilkinson, M., Gower, D.J., Klingenberg, C.P. (2012). Evolution of cranial modularity in caecilians. *Integrative and Comparative Biology*, 52: E159.

### Invited presentations

- Symposium: “*Sea snakes*”, World Congress of Herpetology 9, Dunedin, New Zealand 2020
- Symposium: “*X-ray microtomography in herpetology*”, World Congress of Herpetology 9, Dunedin, New Zealand 2020
- Plenary: *Australasian Evolution Society Meeting*, Sydney NSW, AUS 2019
- Keynote: *Boden Research Conference “Ecological transitions in vertebrate history”*, sponsored by Australian Academy of Science, Melbourne VIC AUS 2019
- Symposium: “*Comparative Evolutionary Morphology and Biomechanics in the Era of Big Data*”, *Society of Integrative and Comparative Biology Annual Meeting*, Tampa FL, USA 2019
- Meeting: “*Disparity*”, sponsored by The Royal Society UK, Milton Keynes UK 2018
- Interdisciplinary Workshop and Conference: “Biomechanics and Biomimetics”*, University of Adelaide, SA AUS 2014
- Symposium: “*Advances in Caecilian Biology*”, World Congress of Herpetology 7, Vancouver, Canada 2012

### Oral presentations

- Joint Congress on Evolutionary Biology II*, Montpellier, France 2018
- Evolution Annual Meeting*, Portland OR, USA 2017
- Research School of Biology early- and mid-career researchers Future Conference*, Australian National University, ACT AUS 2017
- \* Awarded prize for best talk 2017
- Society of Vertebrate Paleontology Annual Meeting*, Dallas TX, USA 2015
- Australian Society of Herpetology Annual Meeting*, VIC AUS 2015
- Modern Phylogenetic Comparative Methods Meeting*, Seville Spain 2014
- Evolution Annual Meeting*, Raleigh NC, USA 2014
- World Congress of Herpetology 7*, Vancouver, Canada 2012
- Society of Integrative and Comparative Biology Annual Meeting*, Charleston SC, USA 2012
- Ernst Mayr Award Symposium, Evolution Annual Meeting*, Portland OR, USA 2010
- BII symposium 'Statistical Analysis of Shapes'*, *Biomedical Imaging Institute*, Manchester UK 2009
- European Society for Evolutionary Biology 12th Congress*, Torino Italy 2009
- Annual Student Conference*, The Natural History Museum Students' Association, London UK 2009
- Young Systematists Forum*, The Systematics Association, London UK 2007



## **Poster presentations**

Centre for Ecology & Evolution symposium: Integrating ecology into macroevolutionary research, London UK	2011
Second One-Day Meeting on Morphometrics and Statistical Shape Analysis, Kent UK	2010
Faculty of Life Sciences Annual Research Symposium, The University of Manchester UK	2009

## **Field Experience**

Technical Officer on two University of Manchester field courses (Tropical Biology Field course, Ecuador, and Behaviour & Ecology Field course, France)	2007/2009
Researcher, collecting caecilians and burrowing snakes for the NHM, London in French Guiana In conjunction with a pilot study of the Systematics and Ecology of Caecilian Amphibians of the station de recherche des Nouragues, funded in part by CNRS, France	2008
Assistant Herpetologist, conducting biodiversity surveys of cloud forest herpetofauna for Operation Wallacea, Cusuco NP, Honduras	2004
Assistant Herpetologist, conducting biodiversity surveys of forest and marine fauna for Operation Wallacea, SE Sulawesi, Indonesia. Marine surveys with Reef Check	2003

## **Professional Activities**

### **Committee appointments**

Panel Member, Research Committee, School of Biological Sciences, University of Adelaide, SA AUS	2019-current
Membership Secretary, Council of The Royal Society of South Australia (RSSA), SA AUS	2018-current
Small Grants Committee member, The RSSA, SA AUS	2018
Medals Committee member (Judge of Verco and Andrewartha medals), The RSSA, SA AUS	2018
Panel Member, Natural History Museum Students' Association, London UK	2008-2010

### **Conference and meeting organisation**

Symposium "Life Underground: Morphological Consequences of Fossoriality" at International Congress of Vertebrate Morphology 11, Washington DC	2016
Symposium and Workshop "The Shape of Things to Come: Geometric Morphometrics in Vertebrate Paleontology" at Society of Vertebrate Paleontology Annual Meeting, Dallas TX	2015
First UK One-Day Meeting on "Morphometrics and Statistical Shape Analysis", Manchester UK	2009
Annual Student Conference and Thakray Lecture, NHM Students' Association, London UK	2008

### **External reviewer**

32 journals (69 articles) including *Nature Communications*, *Nature Ecology & Evolution*, *Systematic Biology*, *Evolution*, *BMC Evolutionary Biology*, *Methods in Ecology & Evolution*, *Science Advances*, *Ecology Letters*.  
<https://publons.com/author/390576/emma-sherratt>

### **Professional memberships**

The Royal Society of South Australia – Fellow  
The Society for the Study of Evolution – general member  
Society for Integrative and Comparative Biology – general member

## **Outreach & Synergistic Activities**

### **Non-peer reviewed articles**

- Sherratt, E.** (2012). They've kept on keeping on: a review of Horseshoe Crabs and Velvet Worms by R. Fortey. *Science* 338:46. A book review.
- Sherratt, E.** (2012). Is it a snake? Is it a worm? No it's a caecilian! *Biological Sciences Review*. 24(4):17-23. Article aimed at 16 to 18-year-olds
- Sherratt, E.** (2009). New Generation Curation! Digital Specimen archiving by micro-CT. *Annual Report of the Department of Zoology 2008-2009*. Edited by C. Patterson, The Natural History Museum, London. A yearly research report.
- Gower, D.J., **Sherratt, E.**, Wilkinson, M. (2009) A Pilot Study of the Systematics and Ecology of Caecilian Amphibians of the Station de Recherche des Nouragues. *Nouragues Research Station 2008 Annual Report* (<http://www.nouragues.cnrs.fr/>). A research report for funders.

### **Public outreach: lectures**

Sprigg Lecture, South Australian Museum, Adelaide SA AUS <i>"The shape of life, and the museum of possible forms"</i>	2018
Malacological Society of South Australia bi-monthly meeting, Adelaide SA AUS <i>Talk on Scallops to malacology enthusiasts</i>	2017
ACT Herpetological Association bi-monthly meeting, Canberra ACT AUS <i>Talk on Caecilians to herpetology enthusiasts</i>	2016
HSC Booster Days: Earth & Environment, University of New England, NSW AUS <i>2 lectures on the Cambrian Explosion to 16-17-year-old students</i>	2015

### **Public outreach: online**

Contributed to online blog 'Anole Annals': a free source for disseminating new scientific research, natural history anecdotes, and a wide range of other information related to *Anolis* lizards (<http://anoleannals.org/>).

- March. 6<sup>th</sup> 2012. The Hi-Tech World of Anole Paleontology.
- Feb. 15<sup>th</sup> 2012. Piecing Together the Anole Family Tree: Anole Fossils.
- Nov. 24<sup>th</sup> 2011. Skeletal Anomalies - Curious Case of the Asymmetrical Sacrum.
- Nov. 18<sup>th</sup> 2011. Anolis - Now in 3D!

Writer of online resources 'Advances in Caecilian Biology' for increasing awareness of caecilian amphibians, disseminating new scientific research and providing educational material ([www.facebook.com/advancesincaecilianbiology](http://www.facebook.com/advancesincaecilianbiology) | Twitter: @CaecilianBiology).

### **Public outreach: radio**

Contributor to Canberra community radio station 2XXFM Fuzzy Logic Science Show: "Darwin Day" February 12<sup>th</sup> 2017. <https://fuzzylogicon2xx.podbean.com/e/darwin-day/>

Contributor to ABC New England North West (Australia Radio) morning show: "Creepy but Curious"

- May 5<sup>th</sup> 2015. Caecilians <http://www.abc.net.au/local/audio/2015/05/05/4229759.htm>
- May 19<sup>th</sup> 2015 *Pippa pippa*, the Surinam toad <http://www.abc.net.au/local/audio/2015/05/19/4238622.htm>
- June 16<sup>th</sup> 2015 Extreme Amphibians: <http://www.abc.net.au/local/audio/2015/06/16/4256154.htm>
- July 14<sup>th</sup> 2015 Environmental Sex Determination <http://www.abc.net.au/local/audio/2015/07/14/4273298.htm>
- September 1<sup>st</sup> 2015: Transparent Animals <http://www.abc.net.au/local/audio/2015/09/01/4303978.htm>
- September 22<sup>nd</sup> 2015 Horseshoe Crabs <http://www.abc.net.au/local/audio/2015/09/22/4317395.htm>
- November 13<sup>th</sup> 2015 Tuatara <http://www.abc.net.au/local/audio/2015/11/10/4348776.htm>

### **Media Engagement**

Select media interviews and write-ups about my research:

- Nature Research Highlights, Aug. 2015, "Lizards evolved at snail's pace"  
<http://www.nature.com/nature/journal/v524/n7563/full/524009b.html>
- The New York Times, July 2015, "Anoles going strong on Hispaniola millions of years later"  
<http://nyti.ms/1MSkiT3>
- ABC Science Online July 2015, "Ancient lizards in amber amaze scientists"  
<http://www.abc.net.au/science/articles/2015/07/28/4279562.htm>
- Scientific American, April 2013, "New skin-feeding amphibian found in French Guiana"  
<http://blogs.scientificamerican.com/running-ponies/new-skin-feeding-amphibian-found-in-french-guiana/>
- National Geographic, France Nov. 2013, "Il se nourrit de la peau de sa mère"
- BBC News, Feb. 2012, "New amphibian family find for India" <http://www.bbc.com/news/science-environment-17100578>