

## Employment

<i>Lecturer</i> (Teaching-Research academic), University of Adelaide, SA AUS Fixed term. Coordinator for BSc. Advanced “Principles & Practices of Research” L1-L3 courses	2019-current
<i>Research Fellow</i> , University of Adelaide, SA AUS Research Project: “Understanding the mechanisms of biological diversity using Australian elapid snakes” (Funding: University of Adelaide Research Fellowship)	2017-2019
<i>Postdoctoral Research Fellow</i> , Australian National University, Canberra ACT AUS Research Project: “Morphological evolution of Australian herpetofauna” with Prof. J. Scott Keogh (Funding: ARC DP150102403)	2016-2017
<i>Lecturer</i> (Teaching-Research academic), University of New England, Armidale NSW AUS Fixed term. Unit coordinator for undergraduate course	2014-2016
<i>Postdoctoral Research Assistant</i> , Iowa State University, IA USA. 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)	2013-2014
<i>Postdoctoral Research Assistant</i> , Harvard University, MA USA 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)	2011-2013
<i>Research Technician</i> , The University of Manchester, UK 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)	2006-2007

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

## Awards

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

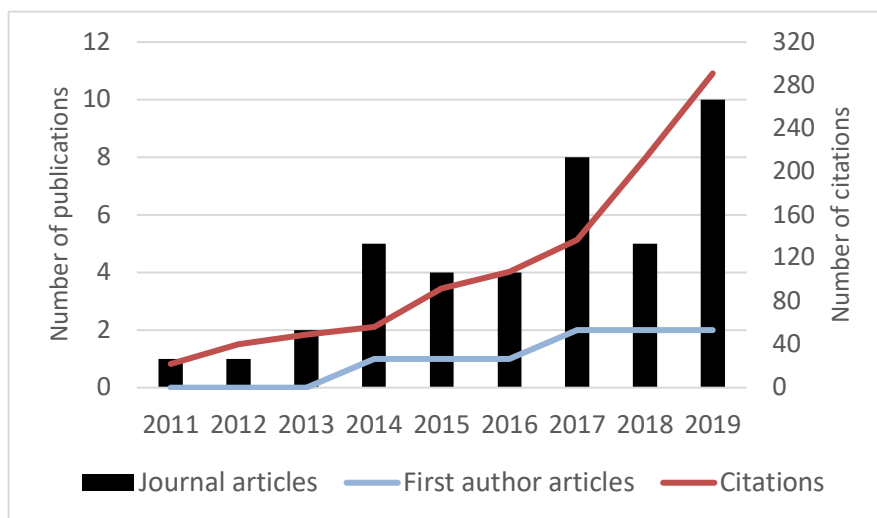
## Research Interests: Macroevolution, Phenotypic Evolution, Morphometrics

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

**43 journal articles.** ORCID ID: 0000-0003-2164-7877. Scopus ID: 56215954900. Google Scholar (GS): h-index = 16, i10-index = 23, 1013 total citations, September 2019

I.F.= Impact Factor InCites 2018; \* = Student lead author; OA = Open Access (23/42)



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

## Accepted/In Press

1. 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. *In press in Journal of Morphology*, <https://doi.org/10.1002/jmor.21074> (I.F. = 1.558, journal ranked 10th in *Anatomy & Morphology*)
2. 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. *In press in Frontiers in Zoology*, #FINZ-S-19-00109.R1 (25<sup>th</sup> Sept 2019) (OA; I.F. = 2.982, journal ranked 9th in *Zoology*)

## 2019

3. **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. (GS citations: 2; I.F. = 1.820, journal ranked 38th in *Evolutionary Biology*)
4. **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 (I.F. = 3.101, journal ranked 8th in *Zoology*)

5. Hipsley, C.A., **Sherratt, E.** Psychology, not technology, is our biggest challenge to open digital morphology data. *Scientific Data*, 6:4. (OA; I.F. = 5.929, journal ranked 9th in Multidisciplinary Sciences)
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., Clark, L.G. Leaf shape and size tracks habitat transitions across forest-grassland boundaries in the grass family (Poaceae). *Evolution*, 73(5): 927–946. (I.F. = 3.573, journal ranked 17th in Evolutionary Biology)
7. 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. (OA; GS citations: 2; I.F. = 3.045, journal ranked 21st in Evolutionary Biology)
8. Bardua, C.\* **Sherratt, E.**, Gower, D.J., Wilkinson, M., Goswami, A. Morphological evolution and modularity of the caecilian skull. *BMC Evolutionary Biology*, 19:30. (OA; GS citations: 5; I.F. = 3.045, journal ranked 21st in Evolutionary Biology)
9. Marshall, A.F.\* **Sherratt, E.**, Bardua, C., Gower, D.J., Wilkinson, M., 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. (OA; GS citations: 2; I.F. = 2.203, journal ranked 32nd in Evolutionary Biology)
10. 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. *Published online in Evolution*, <https://doi.org/10.1111/evo.13851> (I.F. = 4.201, journal ranked 12th in Evolutionary Biology)

## 2018

11. **Sherratt, E.**, Rasmussen, A.R., Sanders, K.L. Trophic specialization drives morphological evolution in sea snakes. *Royal Society Open Science*, 5: 172141. (OA; GS citations: 7; I.F. = 2.515, journal ranked 26th in Multidisciplinary Sciences)
12. **Sherratt, E.**, Anstis, M., Keogh, J.S. Ecomorphological diversity of Australian tadpoles. *Ecology and Evolution*, 8(24): 12929–12939. (OA; GS citations: 1; I.F. = 2.415, journal ranked 27th in Evolutionary Biology)
13. 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. (GS citations: 4; I.F. = 4.304, journal ranked 11th in Evolutionary Biology)
14. 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. (OA; GS citations: 1; I.F. = 2.353, journal ranked 27th in Multidisciplinary Sciences)
15. 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>. (I.F. = 2.082, journal ranked 26th in Zoology)

## 2017

16. **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. (OA; GS citations: 4 I.F. = 3.045, journal ranked 21st in Evolutionary Biology)
17. **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. (GS citations: 14; I.F. = 10.965, journal ranked 3rd in Evolutionary Biology)
18. 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. (GS citations: 15; I.F. = 3.573, journal ranked 17th in Evolutionary Biology)
19. 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. (OA; GS citations: 8; I.F. = 2.541, journal ranked 25th in Evolutionary Biology)
20. Garland, K.\* **Sherratt, E.**, Marcy, A.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. (GS citations: 5; I.F. = 1.820, journal ranked 38th in Evolutionary Biology)
21. 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. (OA; GS citations: 6; I.F. = 2.243, journal ranked 17th in Multidisciplinary Sciences)
22. Attard, M.R.G., Medina, I., Langmore, N., **Sherratt, E.**, Egg shape mimicry in parasitic cuckoos. *Journal of Evolutionary Biology*, 30(11): 2079–2084. (GS citations: 4; I.F. = 2.541, journal ranked 25th in Evolutionary Biology)
23. 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. (GS citations: 8; I.F. = 3.155, journal ranked 20th in Evolutionary Biology)

## 2016

24. **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. (GS citations: 12; I.F. = 3.573, journal ranked 17th in *Evolutionary Biology*)
25. 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. (OA; GS citations: 12; I.F. = 3.045, journal ranked 21st in *Evolutionary Biology*)
26. Kraatz, B.P. and **Sherratt, E.** Evolutionary morphology of the rabbit skull. *PeerJ*, 4: e2453. (OA; GS citations: 3; I.F. = 2.353, journal ranked 27th in *Multidisciplinary Sciences*)
27. Klaczko, J., **Sherratt, E.**, Setz, E.Z.F. Are diet preferences associated to skulls shape diversification in Xenodontine snakes? *PLoS ONE*, 11(2): e0148375. (OA; GS citations: 20; I.F. = 2.776, journal ranked 24th in *Multidisciplinary Sciences*)

## 2015

28. **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. (OA; GS citations: 22; I.F. = 9.580, journal ranked 7th in *Multidisciplinary Sciences*)
29. Kraatz, B.P., **Sherratt, E.**, Bumacod, N., Wedel, M.J. Ecological correlates to cranial morphology in Leporids (Mammalia, Lagomorpha). *PeerJ*, 3: e844. (OA; GS citations: 7; I.F. = 2.353, journal ranked 27th in *Multidisciplinary Sciences*)
30. 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. (OA; GS citations: 26; I.F. = 2.632, journal ranked 3rd in *Palaeontology*)
31. 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. (OA; GS citations: 18; I.F. = 2.143, journal ranked 30th in *Multidisciplinary Sciences*)

## 2014

32. **Sherratt, E.**, Gower, D. J., Klingenberg, C. P., Wilkinson, M. Evolution of cranial shape in Caecilians (Amphibia: Gymnophiona). *Evolutionary Biology*, 41(4): 528–545. (GS citations: 44; I.F. = 2.058, journal ranked 37th in *Evolutionary Biology*)
33. 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. (GS citations: 44; I.F. = 43.070, journal ranked 1st in *Multidisciplinary Sciences*)
34. Maddin, H.C. and **Sherratt, E.** Influence of fossoriality on inner ear morphology: insights from caecilian amphibians. *Journal of Anatomy*, 225: 83–93. (GS citations: 15; I.F. = 2.638, journal ranked 4th in *Anatomy & Morphology*)
35. 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. (GS citations: 10; I.F. = 2.909, journal ranked 10th in *Zoology*)
36. 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. (OA; GS citations: 9; I.F. = 0.990, journal ranked 101st in *Zoology*)

## 2007–2013

37. 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. (OA; GS citations: 53; I.F. = 3.573, journal ranked 17th in *Evolutionary Biology*)
38. 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. # I am corresponding author; (OA; GS citations: 26; I.F. = 2.7776, journal ranked 24th in *Multidisciplinary Sciences*)
39. 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. (OA; GS citations: 81; I.F. = 4.304, journal ranked 11th in *Evolutionary Biology*)
40. Wilkinson, M., San Mauro, D., **Sherratt, E.**, Gower, D.J. (2011) A nine-family classification of caecilians (Amphibia: Gymnophiona). *Zootaxa*, 2874: 41–64. (GS citations: 107; I.F. = 0.990, journal ranked 101st in *Zoology*)
41. 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. (GS citations: 24; I.F. = 0.990, journal ranked 101st in *Zoology*)
42. 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. (OA; GS citations: 55; I.F. = 3.179, journal ranked 19th in *Evolutionary Biology*)

43. 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. (GS citations: 46; I.F. = 3.142, journal ranked 10th in Biodiversity Conservation)

### 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.**, Hutchinson, M.N., Palci, A. Australian Elapid Snakes, *MorphoSource*: project ID P744.
2. **Sherratt, E.**, Sanders, K.L., Watson, A., Hutchinson, M.N., Lee, M.S.Y., Palci, A. (2019). Heterochronic shifts mediate ecomorphological convergence in skull shape of microcephalic sea snakes. *Figshare*: <http://dx.doi.org/10.25909/5cb523d6c6e52>
3. 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>
4. 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>
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., 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>
6. **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>
7. **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>
8. **Sherratt, E.**, Anstis, M., and Keogh, J. S. (2018). Data from: Ecomorphological diversity of Australian tadpoles. *Figshare*: <https://doi.org/10.25909/5be500cf5f0c4>
9. 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>
10. **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>
11. 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>
12. 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>
13. 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>
14. **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>
15. **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

16. 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; remaining as Co-supervisor

*Megan Thomas, B.Sc. (Adv.) Principles & Practice of Research (Advanced) III Student, University of Adelaide, SA AUS	2019
*Alex Harvey, B.Sc. Honours 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.) Principles & Practice of Research (Advanced) III Student, University of Adelaide, SA AUS	2018
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
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
*Kelsey Cain, B.Sc. Student, Iowa State University, IA USA	2013
Simon Le Bouhl, Visiting M.Sc. Student, Harvard University, MA USA	2012
*Jasmine Casart, B.Sc. Student, Harvard University, MA USA	2012
George Bruce, B.Sc. Student, The University of Manchester, Manchester UK	2010-11
Martin Hughes, M.Sc. Student, The Natural History Museum, London UK	2009-10

### 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) (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 (ZOOLOGY 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 (1 day each, 11 participants overall)</i>	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>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>Department of Zoology Seminar, University of Otago, Dunedin NZ,</i>	2017
<i>Applied Mathematics Seminar, Australian National University, ACT AUS</i>	2017
<i>Techniques in Evolutionary Analysis (TEA) Talks series, Australian National University, ACT AUS</i>	2017
<i>Biological Sciences Seminar, University of Queensland, QLD AUS</i>	2015
<i>Evolution, Ecology &amp; Genetics Seminar, Australian National University, ACT AUS</i>	2015
<i>Department of Zoology and Physical Anthropology Seminar, Complutense University of Madrid, Spain</i>	2014

<i>Senior capstone Seminar, Skidmore College, NY USA</i>	2012
<i>Ecology and Evolutionary Biology Seminar, Brown University, RI USA</i>	2011
<i>Bangor Herpetological Society Seminar, Bangor University, Wales UK</i>	2010
<i>Hull-York Medical School Seminar, York University, UK</i>	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: "X-ray microtomography in herpetology"*, World Congress of Herpetology 9, Dunedin, New Zealand 2020
- Plenary speaker at *Australasian Evolution Society Meeting*, Sydney NSW, AUS 2019
- Keynote speaker at *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 The 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

#### Student examination

<i>PhD Thesis Examination</i> , Warren Handley (w/ Trevor Worthy), Flinders University, SA AUS	2019
<i>Honours Thesis Examination</i> , Katherine Hill (w/ Phill Cassey), University of Adelaide, SA AUS	2018
<i>PhD Confirmation of Candidature</i> , Jacob van Zoelen (w/ Gavin Prideaux), Flinders University, SA AUS	2019

#### Committee appointments

<i>Panel Member</i> , Research Committee, School of Biological Sciences, University of Adelaide, SA AUS	2019
<i>Membership Secretary</i> , Council of The Royal Society of South Australia, SA AUS	2018
<i>Small Grants Committee member</i> , The Royal Society of South Australia, SA AUS	2018
<i>Medals Committee member (Judge of Verco and Andrewartha medals)</i> , The Royal Society of South Australia, SA AUS	2018
<i>Panel Member</i> , 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 (66 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 "The shape of life, and the museum of possible forms"	2018
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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>

## **Technical, Statistical and Computational Skills**

Expert proficiency in 3D image acquisition, particularly x-ray micro computed tomography (micro-CT) using Nikon and Skyscan systems, and 3D surface scanning using Breuckmann and NextEngine white light scanning systems.

Experienced in scanning electron microscopy and radiography, and specimen preparation techniques (enzyme clearing and staining, dissection, preservation).

Expert proficiency in Geometric Morphometrics (geomorph R package, ImageJ, tpsDIG suite, MorphoJ) and multivariate statistics (R, JMP, SPSS).

Expert proficiency in 3D and volumetric visualisation software (VGStudioMax, AMIRA, AVIZO, Mimics, Meshlab, IDAV Landmark).