## **Scott Carver**

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Website; Google Scholar; ORCID; ResearchGate; ResearcherID

#### **Education**

- 2005-08 PhD, University of Western Australia, Australia
- 2001-04 MSc (with distinction), Victoria University of Wellington, New Zealand
- 1998-00 BSc, Victoria University of Wellington, New Zealand

## **Employment/Positions/Research Experience**

## Current positions

- 2024- *Professor*. Odum School of Ecology, University of Georgia
- 2024- Associate Director. Center for the Ecology of Infectious Diseases (CEID), University of Georgia
- 2024- *Member.* Promotion and Tenure Committee, Odum School of Ecology, University of Georgia
- 2024- Adjunct Faculty. Department of Biological Sciences, University of Tasmania
- 2023- Member. Center for the Ecology of Infectious Diseases (CEID), University of Georgia
- 2022- Affiliate Faculty. School of Life and Environmental Sciences, University of Sydney
- 2020- Expert Advisor. Australian Capital Territory Government Wombat Working Group
- 2016- *Expert Advisor*. Department of Natural Resources and Environment Tasmania Wombat Working Group
- 2011- Associate Editor. Journal of Wildlife Diseases. Wildlife Disease Association

# Previous positions

- 2022-23 Associate Professor. Department of Biological Sciences, University of Tasmania
- 2021-23 Chair. Research and Grants Committee, Wildlife Disease Association International
- 2022-23 Chair. Animal Ethics Committee, University of Tasmania
- 2018-22 Senior Lecturer. Department of Biological Sciences, University of Tasmania
- 2018-21 Chair. Wildlife Disease Association Australasia
- 2018-21 State Representative. Australian Society of Parasitology
- 2017-21 Council member. Wildlife Disease Association
- 2017-18 Chair-Elect. Wildlife Disease Association Australasia
- 2016-23 Associate member. Wildlife Health Australia
- 2016-21 Category B member. Animal Ethics Committee, University of Tasmania
- 2016-18 *Faunal Specialist*. Tasmanian Department of Primary Industries, Parks, Water and Environment (DPIPWE) Property Assessment Group *Academic representative*. Work Health and Safety Committee, UTAS School of Biological Sciences
- 2016-17 Review Editor. EcoHealth, EcoHealth Alliance
- 2015-18 Communications officer. Australian Mammal Society
- 2012-17 Lecturer. Department of Biological Sciences, University of Tasmania
- 2012-17 Affiliate Faculty. Department of Biology, Colorado State University
- 2010-12 *Postdoctoral Fellow.* Department of Microbiology, Immunology and Pathology, and Department of Fish, Wildlife and Conservation Biology, Colorado State University. Mentors: Sue VandeWoude, Kevin Crooks. *Effects of urbanization and cross-species transmission on pathogens of wild and domestic felids*

- 2008-10 *Postdoctoral Fellow/Assistant Research Professor*. Department of Biology, Montana Tech of the University of Montana. Mentors: Richard Douglass, Amy Kuenzi, James Mills (CDC). *Small mammal ecology and transmission on Sin Nombre virus*
- 2005-08 *PhD Candidate.* School of Animal Biology and School of Population Health, University of Western Australia. Mentors: Philip Weinstein, Helen Spafford, Andrew Storey. *Dryland salinity and the ecology of Ross River virus*
- 2004 Research Associate. School of Biological Sciences, Victoria University of Wellington. Mentor: Ben Bell. Risk of endangered island populations of native Leiopelmatid frogs to chytrid fungus exposure
- 2002-04 Ecology Technician. Ecology Department, Massey University, New Zealand
- 2001-04 *Masters Candidate*. School of Biological Sciences, Victoria University of Wellington. Mentors: Ben Bell, Nicola Mitchell. *The impact of chytrid fungus on amphibian physiology*

## Other successful employment applications

- 2014 Lecturer in Zoology. La Trobe University, Melbourne, Victoria, Australia.
- 2010 *Postdoctoral Fellow / Disease Ecologist.* National Ecological Observatory Network (NEON), Boulder, Colorado, USA.

## **Grants/Contracts/Awards/Honors**

## Total awarded >\$5.5 million

- 2024 NSW Department of Planning and Environment. Carver, S., Burgess, L. Richards, S. The landscape epidemiology of sarcoptic mange in bare-nosed wombats across New South Wales. \$14,974. Awarded April 2024.
  - UGA Student Technology Fee. Carver, S., Injaian, A. Motion activated camera technology for teaching. \$4,307.39. Awarded December 2024.
- 2023 NSW Department of Planning and Environment. Kaye, L., Carver, S., Leary, T. Olsson, A. Curb Wombat Mange Program Rapid Response Wombat Mange Treatment Grants. \$204,120. Awarded November 2023.
  - NSW Department of Planning and Environment. Carver, S., Burgess, L. Richards, S. The landscape epidemiology of sarcoptic mange in bare-nosed wombats across New South Wales. \$149,743. Awarded May 2023.
  - University of Tasmania Deputy Vice-Chancellor Education Commendation for student satisfaction in Teaching,
- 2022 Barry L. Munday Recognition Award. Wildlife Disease Association, Australasia. Awarded November 2022.
  - NSW Wildlife Information, Rescue and Education Service. Carver, S. Improving the delivery of treatment to wombats for control of sarcoptic mange disease. \$191,340. Awarded January 2022.
  - UTAS Wombat Disease fund. **Carver, S.** Accumulating philanthropic donations since 2015. >\$80,000.
  - Holsworth Wildlife Research Endowment. Wilkinson, V., Richards, S., Carver, S. Management and pathophysiology of sarcoptic mange in the bare-nosed wombat (*Vombatus ursinus*). \$5,400. Awarded July, 2022.
  - Holsworth Wildlife Research Endowment. Wells, M., Lee, M., Carver, S. The spatial and temporal health of seabirds. \$7,500. Awarded July, 2022.
  - SCINEMA 2022 Best Documentary/Film. Secrets of the Scat documentary featuring our research on how wombats produce cube shaped scats.



2021 - ACT Government Environment, Planning and Sustainable Development Directorate. **Carver, S.** Developing a remote delivery method for Bravecto to treat mange in wombats. \$10,000. Awarded October, 2021.

- Wildlife Disease Association, Australasia. Naesborg-Nielsen, C., Burridge, C., Carver, S. Transmission and control of *Sarcoptes scabiei* in the bare-nosed wombat. \$2,000. Awarded June, 2021.
- Margaret Middleton Fund, Australian Academy of Science. Wells, M., Lee, M., Carver, S. Investigating the health of little penguins as a sentinel of Tasmanian ecosystem health. \$17,300. Awarded October, 2021.
- Wildlife Disease Association, Australasia. Wells, M., Lee, M., Carver, S. Pollutant toxicity in little penguins nesting along an urban fringe. \$2,000. Awarded June, 2021
- Holsworth Wildlife Research Endowment. Wells, M., Lee, M., Carver, S. The spatial and temporal health of seabirds. \$6,695. Awarded April, 2021.
- Holsworth Wildlife Research Endowment. Broeren, R., Carver, S., Hamede, R. A new disease in disguise the second type of devil facial tumour disease. \$7,000. Awarded August, 2021.
- Soft Matter Most Popular papers 2021. Intestines of non-uniform stiffness mold the corners of wombat feces.
- Athletics South Cross Country Handicap Series champion, Awarded September, 2021.
- 2020 National Institutes of Health R21 Grant DE029733-01A1. VandeWoude, S., Miller, C., Dean, G., Rawlinson, J., Abdo, Z., **Carver, S.** 2020. Translational studies to determine mechanisms of HIV oral perturbations in the FIV animal model. US\$250,000. Awarded August 1, 2020.
- 2019 Australian Research Council Linkage Grant LP180101251. Carver, S., Richards, S., Charleston, M., Phalen, D., Mounsey, K., Nichols, D. Developing feasible *in situ* control of mange disease in wombats. \$358,117 (ARC \$178,117; Industry \$180,000). Awarded July 5, 2019.
  - Ig Nobel Prize in Physics. Patricia J Yang, Alexander B Lee, Miles Chan, Alynn Martin, Ashley Edwards, **Scott Carver**, David L Hu. For studying how, and why, wombats make cube-shaped poo. Awarded September, 2019.
  - University of Tasmania Provost Commendation for student satisfaction in Teaching, KPZ306 Conservation Physiology and Disease Ecology. Awarded August, 2019.
- 2018 Australian Research Council Discovery Grant DP190102020. Charleston, M., Carver, S., VandeWoude, S., Craft, M. Managing infectious disease through partial wildlife social networks. \$397,000. Awarded November 27, 2018.
  - Mineral Resources Tasmania, Department of State Growth. Penrose, B., Carver, S., Parbhakar-Fox, A. Examining pollutant linkage chains at the Royal George Tailings, Tasmania. \$29,713. Awarded November 5, 2018.
  - Harry Smith Prize in Molecular Ecology. Fountain-Jones et al. 2017. Urban landscapes can slow virus gene flow and evolution in a fragmentation-sensitive carnivore. *Molecular Ecology*. 26:6487-6498. Awarded September, 2018.
- 2017 Australian Research Council Linkage Grant LP160101599. Polkinghorne, A., Huston, W., Carver, S., Marsh, I. Development of new tools for surveillance of chlamydial infections in sheep. \$498,500 (ARC \$293,000; Industry \$205,500). Awarded May 31, 2017.
  - Wildlife Disease Association, Australasia. Martin, A., Burridge, C., Carver, S. Understanding genetic health and diversity of wombats in light of the increasing sarcoptic mange threat. \$2,000. Awarded June, 2017
  - Department of Primary Industries, Parks, Water and Environment contract. Developing a single dose long-lasting treatment of sarcoptic mange in wombats. \$35,000. Awarded August 25, 2017.
  - University of Tasmania Teaching Merit Certificate. Learning and Teaching Committee. KPZ211 Population and Community Ecology. Awarded May, 2017.

- 2016 University of Tasmania Dean's Award for Outstanding Research Performance (Level A/B). Faculty of Science, Engineering and Technology. August, 2016.
  - Australian Research Council Linkage Grant LP160100138. Timms, P., Polkinghorne, A., Carver, S. Developing a chlamydial vaccine for koalas. \$474,000 (ARC \$339,000; Industry \$135,000). Awarded May 6, 2016.
  - Cradle Coast Authority NLP1516CE04\_UTAS\_Wombat Protection and Recovery Project contract. Wombat Health Management and Monitoring Project. \$15,260. Awarded March 2, 2016.
  - Holsworth Wildlife Research Endowment. Martin, A., Burridge, C., **Carver, S.** Assessing genetic health and diversity of the not-so-common 'common' wombat (*Vombatus ursinus*). \$5,000. Awarded October, 2016.
  - Department of Primary Industries, Parks, Water and Environment contract. Detection and investigation of chytrid fungus in amphibian communities in Tasmania. \$7,500. Awarded April 8, 2016.
- 2015 Holsworth Wildlife Research Endowment. Fraser, T., Polkinghorne, A., Carver, S. Transcriptional and phylogenetic analysis of sarcoptic mange in the common wombat. \$10,000. Awarded October, 2015.
  - Holsworth Wildlife Research Endowment. Comte, S., Hamede, R., Carver, S., Jones, M. E. Demography and epidemiology of Tasmanian devils and facial tumour disease in long-diseased areas. \$12,000. Awarded October, 2015.
  - Holsworth Wildlife Research Endowment. Ruiz, M., Hamede, R., Carver, S., Jones, M. E. Devil conservation physiology: understanding the devil-tumour physiological relationships. \$11,000. Awarded October, 2015 (renewed June 2015).
- 2014 National Science Foundation Ecology and Evolution of Infectious Diseases award. DEB 1413925. VandeWoude, S., Crooks, K. R., Carver, S., Funk, W. C., Craft, M. E., Earnst, H. Impacts of landscape structure, host demography, and management interventions on disease dynamics US\$2,140,013. Awarded June 13, 2014. <a href="http://www.nsf.gov/awardsearch/showAward?AWD">http://www.nsf.gov/awardsearch/showAward?AWD</a> ID=1413925.
  - Australian Research Council Linkage Grant LP140100315. Pilkinghorne, A., Timms, P., Carver, S. Improving the diagnosis, management and control of chlamydial infections in Australian livestock. \$689,100 (ARC \$509,100; Industry \$189,000). Awarded June 27, 2014.
  - National Science Foundation Graduate Research Fellowship Program for Annie Kellner. Co-PIs, Antolin, M., Carver, S., VandeWoude, S., Crooks, K. R. The role of anthropogenic landscape change on the spread of a recently discovered multi-host feline pathogen. US\$132,000.
  - Government of Western Australia Funding Initiative for Mosquito Management. Carver, S. Improving understanding of Ross River virus transmission, impacts of current mosquito management and alternative vector control strategies in south-western Australia. \$17,684. Awarded August 6, 2014.
  - Holsworth Wildlife Research Endowment. Botwe, P., Barmuta, L., Magierowski, R., Carver, S. Approaches to evaluating the biological structure of stream ecosystems. \$16,500. Awarded May 30, 2014 (renewed June 2015 and 2016).
  - University of Tasmania Teaching Merit Certificate. Learning and Teaching Committee. KZA161 Biology of Animals. Awarded May, 2014.
- 2012 University of Tasmania, Research Enhancement Grants Scheme \$10,000.
  - University of Tasmania, Visiting Scholar Award for Dr. Sue VandeWoude \$5,000
  - Rocky Mountain Virology Association Postdoctoral Presentation Award. 2012.
- 2011 National Science Foundation, Research Experience for Undergraduates award for Anne Kellner \$7,500

## 2005-07

- Australian Postgraduate Award \$57,000
- Jean Rogerson Postgraduate Award \$15,000

- Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry, Land & Water Australia \$10,000
- Ray Hart Memorial Award \$3,500
- CRC for Plant Based Management of Dryland Salinity Travel Award \$2,500
- Graduate Research School Travel Award \$1,520

#### 2001-04

- New Zealand Department of Conservation Investigation Contract (3299) \$20,000

## Awards to my Undergraduate Research Students

## 2022

- UTAS, Dean's Summer Research Scholarship for Kate McMahon and Zac Lewin \$2,000 2021
- UTAS, University Medal for the most outstanding students at Honours level to Leah Burgess
- UTAS, Dean's Summer Research Scholarship for Leah Burgess and Zac Lewin, \$2,000 each 2020
- UTAS, University Medal for the most outstanding students at Honours level to Alyce Hennessy
- UTAS, Dean's Summer Research Scholarship for Laura Smith, Leah Burgess and Elizabeth Browne, \$2,000 each

## 2019

- UTAS, Dean's Summer Research Scholarship for Kawinwit Kittipalawattanapol, \$2,000 2018
- UTAS, Dean's Summer Research Scholarship for Elizabeth Browne, Kotaro Takano and Debby Ng, \$2,000 each

## 2017

- UTAS, Dean's Summer Research Scholarship for Wiebke Knoblauch, \$2,000 2016
- UTAS, Dean's Summer Research Scholarship for Tamika Lunn, Iain Koolhof, Elise Ringwaldt, Natalia Pacheco and Sandon James, \$2,000 each

## 2015

- UTAS, Dean's Summer Research Scholarship for Elise Ringwaldt, Samantha James, Danielle Madden, Claire Frappell, \$2,000 each

## 2014

- UTAS, Dean's Summer Research Scholarship for Rhys Rumley \$3,000 2012
- UTAS, Dean's Summer Research Scholarship for Kellie Simpson and Dahlia Foo \$3,000 each

## **Publications**

# Peer-reviewed papers

- 1. Young, E. T., McKelson, J., Kalstrom, D., Sipthorp, L., Wicker, L., Higgins, D., Marschner, C., Nichols, D. S., Phalen, D., Greenville, A. C., Carver, S. 2024. Pharmacokinetics and safety of topical fluralaner in koalas (*Phascolarctos cinereus*). *International Journal for Parasitology: Parasites and Wildlife*. 23:100999.
- 2. Lévêque, L., Buettel, J.C., Carver, S., Brook, B.W. 2024. What passes through the extinction filter? Historical and contemporary patterns of vulnerability of the most extinction-prone bird family (Aves: Rallidae). *Cambridge Prisms: Extinction*. 2:e8.
- 3. Russell, G. G., Wilkinson, V., Pefanis, S., Thompson, A., Peck, S., Dann, A., Pye, R., Carver, S., Flies, A. S. 2024. Sarcoptic mange in a Tasmanian devil (*Sarcophilus harrisii*) and a Bennett's wallaby (*Notamacropus rufogriseus*). *Journal of Wildlife Diseases*. 60:980-984.

- 4. Næsborg-Nielsen, C., Mounsey, K., Wilkinson, V., Eisenhofer, R., Burridge, C. P., Carver, S. 2024. Changes in the skin microbiota between two bare-nosed wombats (*Vombatus ursinus*) with differing recovery trajectories following treatment for sarcoptic mange. *Journal of Wildlife Diseases*. 60:734-738.
- 5. Wilkinson, V., Richards, S. A., Burgess, L., Næsborg-Nielsen, C., Gutwein, K., Vermaak, Y., Mounsey, K., Carver, S. 2024. Adaptive interventions for advancing *in situ* wildlife disease management. *Ecological Applications*. E3019.
- 6. Fountain-Jones, N. M., Charleston, M., Flies, E., Carver, S., Yates, L. 2024. Why some countries but not others? Urbanisation, GDP and endemic disease predict global SARS-CoV-2 excess mortality patterns. *Landscape Ecology*. 39:144.
- 7. Tan, W. J., Carver, S., Martin, A. M., Fountain-Jones, N. M., Proft, K., Burridge, C. 2024. Sex and landscape influence spatial genetic variation in a large fossorial mammal (*Vombatus ursinus*). *Journal of Mammalogy*. 105:481-489.



- 8. Wilkinson, V., Richards, S. A., Carver, S., Næsborg-Nielsen, C., Cray, C., Rossi, G. 2024. Non-specific markers of inflammation in bare-nosed wombats (*Vombatus ursinus*) with sarcoptic mange. *Frontiers in Veterinary Research*. 11: 1403221.
- 9. Young, E. T., Phalen, D., Greenville, A. C., Donkers, K., Carver, S. 2024. A retrospective epidemiological study of sarcoptic mange in koalas (*Phascolarctos cinereus*) using wildlife carer admission records. *International Journal for Parasitology: Parasites and Wildlife*. 24:100955.
- 10. Takano, K., Carver, S., Vermaak, Y., Fischer, K., Harvey, R. J., Mounsey, K. E. 2024. Assessment of the *in vitro* acaricidal activity of Bravecto® (fluralaner) and a proposed orange oil-based formulation vehicle for the treatment of *Sarcoptes scabiei*. *Parasites and Vectors*. 17:194.
- 11. Hindle, I. J., Forbes, L. K., Walters, S. J., Carver, S. 2024. The effects of spatially-constrained treatment regions upon a model of wombat mange. *Journal of Mathematical Biology*. 88:53.
- 12. Koolhof, I. S., Beeton, N., Bettiol, S., Charleston, M., Firestone, S. M., Gibney, K., Neville, P., Jardine, A., Markey, P., Kurucz, N., Warchot, A., Krause, V., Onn, M., Rowe, S., Franklin, L., Fricker, S., Williams, C., Carver, S. 2024. Testing the intrinsic mechanisms driving the dynamics of Ross River Virus across Australia. *PLoS Pathogens*. 20:e1011944.
- 13. Carver, S., Stannard, G. L., Martin, A. M. 2024. The distinctive biology and characteristics of the bare-nosed wombat (*Vombatus ursinus*). *Annual Review of Animal Biosciences*. 12:135-160.

- 14. Wells, M. R., Coggan, T. L., Stevenson, G., Singh, N., Askeland, M., Lea, M. A., Philips, A., **Carver, S.** 2023. Per- and polyfluoroalkyl substances (PFAS) in little penguins and associations with urbanisation and health parameters. *Science of the Total Environment*. 912:169084.
- 15. Fountain-Jones, N. M., Silk, M., Appaw, R. C., Hamede, R. H., Rushmore, J., VanderWaal, K., Craft, M. E., Carver, S., Charleston, M. 2023. The spectral underpinnings of pathogen spread on animal networks. *Proceedings of the Royal Society of London B.* 2007:20230951.
- 16. Kozakiewicz, C. P., Burridge, C. P., Lee, J. S., Kraberger, S. J., Fountain-Jones, N. M., Fisher, R. N., Lyren, L. M., Jennings, M. K., Riley, S. P. D., Serieys, L. E. K., Craft, M. E. Funk, W. C., Crooks, K. R., VandeWoude S., Carver, S. 2023. Habitat connectivity and

- host relatedness influence virus spread across an urbanising landscape in a fragmentationsensitive carnivore. *Virus Evolution*. 9:veac122.
- 17. Ringwaldt, E. M., Brook, B. W., Buettel, J. C., Cunningham, C. X., Fuller, C., Gardiner, R., Hamer, R., Jones, M., Martin, A. M., Carver, S. 2023. Host, environment, and anthropogenic factors drive landscape dynamics of an environmentally transmitted pathogen: sarcoptic mange in the bare-nosed wombat. *Journal of Animal Ecology*. 92:1786-1801.
- 18. Knoblauch, W., Carver, S., Driessen, M. M., Gales, R., Richards, S. A. 2023. Abundance and population growth estimates for bare-nosed wombats. *Ecology and Evolution*. 13:10465.
- 19. Carver, S., Lewin, Z. M., Burgess, L. G., Wilkinson, V., Whitehead, J., Driessen, M. M. 2023. Density independent decline from an environmentally transmitted parasite. *Biology Letters*. 19: 20230169.
- 20. Lévêque, L., Amin, R. J., Buettel, J. C., Carver, S., Brook, B. W. 2023. A secure future? Human urban and agricultural land use benefits a flightless island-endemic rail despite climate change. *Royal Society Open Science*. 10: 230386.
- 21. Lewin, Z. M., Astorga, F., Escobar, L. E., **Carver, S.** 2023. Assessing variation in the individual-level impacts of a multi-host pathogen. *Transboundary and Emerging Diseases*. 2023:4003285.
- 22. Wells, M. R., Philips, A., Lea, M. A., Carver, S. 2023. The potential of ecologists to enhance our understanding of seabird health. *Marine Ornithology*. 51:11-22.
- 23. Dyke, H. J. C., Lodo, K. L., Carver, S., Stephens, N. 2023. The first confirmed outbreak of Barmah Forest virus in Tasmania 2019. *Australia and New Zealand Journal of Public Health*. 47:100039.
- 24. Kim, J., Behzadi, E. S., Nehring, M., Carver, S., Cowan, S. R., Conry, M. K., Rawlinson, J. E., VandeWoude, S., Miller, C. A. 2023. Combination antiretroviral therapy and immunophenotype of Feline Immunodeficiency Virus. *Viruses*. 15:822.
- 25. Takano, K., Harvey, R. J., de Hayr, L., Carver, S., Mounsey, K. 2023. Pharmacokinetic and pharmacodynamic considerations for treating sarcoptic mange with cross-relevance to Australian wildlife. *International Journal for Parasitology: Drugs and Drug Resistance*. 21:97-113.
- 26. Burgess, L. G., Richards, S. A., Driessen, M. M., Wilkinson, V., Amin, R. J., Carver, S. 2023. Fine-scale landscape epidemiology: sarcoptic mange in bare-nosed wombats (*Vombatus ursinus*). *Transboundary and Emerging Diseases*. 2023:2955321.
- 27. Wilkinson, V., Næsborg-Nielsen, C., Richards, S., Carver, S. 2023. Time to consider pharmacological interventions against infectious disease in wildlife. *Journal of Applied Ecology*. 60:229-236.
- 28. Magondu, B., Lee, A. B., Schulz, A., Cervantes Buchelli, G., Meng, M., Kaminski, C., Yang, P. J., Carver, S., Hu, D. L. 2023. Drying dynamics of pallet feces. *Soft Matter*. 19:723.

- 29. Carver, S., Peters, A., Richards, S. 2022. Model Integrated Disease Management to facilitate effective translatable solutions for wildlife disease issues. *Journal of Applied Ecology*. 59:2902-2910.
- 30. Næsborg-Nielsen, C., Eisenhofer, R., Fraser, T. A., Wilkinson, V., Burridge, C. P., Carver, S. 2022. Sarcoptic mange changes bacterial and fungal microbiota of bare-nosed wombats (*Vombatus ursinus*). *Parasites and Vectors*. 15:323.
- 31. Gilbertson, M. L. J., Fountain-Jones, N. M., Malmberg, J. L., Gagne, R. B., Lee, J. S., Kraberger, S., Kechejian, S., Petch, R., Chiu, E., Onorato, D., Cunningham, M. W., Crooks, K. R., Funk, W. C., Carver, S., VandeWoude, S., VanderWaal, K., Craft, M. E. 2022. Apathogenic proxies for transmission dynamics of a fatal virus. *Frontiers in Veterinary Science*. 9:940007.

- 32. Næsborg-Nielsen, C., Wilkinson, V., Mejia-Pacheco, N., Carver, S. 2022. Evidence underscoring immunological and clinical pathological changes associated with *Sarcoptes scabiei* infection: synthesis and meta-analysis. *BMC Infectious Diseases*. 22:658.
- 33. Ringwaldt, E. M., Brook, B. W., Carver, S., Buettel, J. C. 2022. Signs of rumpwear in the common ringtail possum, *Pseudocheirus peregrinus*. *Journal of Wildlife Diseases*. 58:675-679.
- 34. Bains, J., Carver, S., Hua, S. 2022. Pathophysiological and pharmaceutical considerations for enhancing the control of *Sarcoptes scabiei* in wombats through improved transdermal drug delivery. *Frontiers in Veterinary Science*. 9:944578.
- 35. Penrose, B., MacIntosh, A. E., Parbhakar-Fox, A., Smith L. B. E., Sawyer, T., D'Agnese, E., Carver, S. 2022. Heavy metal wombats? Metal exposure pathways to bare-nosed wombats (*Vombatus ursinus*) living on remediated tin mine tailings. *Science of the Total Environment*. 835:155526.
- 36. Hindle, I. J., Forbes, L. K., **Carver, S.** 2022. The effect of spatial dynamics on the behaviour of an environmentally transmitted disease. *Journal of Biological Dynamics*. 16:144-149.
- 37. Driessen, M. M., Dewar, E., Carver, S., Gales, R. 2022. Conservation status of common wombats in Tasmania I: incidence of mange and its significance. *Pacific Conservation Biology*. 28:103-114.
- 38. Driessen, M. M., Dewar, E., Carver, S., Lawrence, C., Gales, R. 2022. Conservation status of common wombats in Tasmania II: population distribution and trends, and the incidence and significance of roadkill. *Pacific Conservation Biology*. 28:115-123.
- 39. Browne, E., Driessen, M. M., Cross, P. C., Escobar, L. E., Foley, J., López-Olvera, J. R., Niedringhaus, K. D., Rossi, L., Carver, S. 2022. Sustaining transmission in different host species: the emblematic case of *Sarcoptes scabiei*. *BioScience*. 72:166-176.
- 40. Mounsey, K. Harvey, R. J., Wilkinson, V., Takano, K., Old, J., Stannard, H., Wicker, L., Phalen, D., Carver, S. 2022. Drug dose and animal welfare: important considerations in the treatment of wildlife. *Parasitology Research*. 121:1065-1071.
- 41. Eisenhofer, R., D'Agnese, E., Taggart, D., Carver, S., Penrose, B. 2022. Microbial biogeography of the wombat gastrointestinal tract. *PeerJ.* 10:e12982.
- 42. Fountain-Jones, N. M., Kraberger, S., Gagne, R., Gilbertson, M. L. J., Trumbo, D. R., Charleston, M., Salerno, P., Funk, W. C., Crooks, K., Logan, K., Alldredge, M., Dellicour, S., Baele, G., Didelot, X., VandeWoude, S., Carver, S., Craft, M. E. 2022. Hunting alters viral transmission and evolution in a large carnivore. *Nature Ecology and Evolution*. 6:174-182.



- 43. Gagne, R. B., Crooks, K. R., Craft, M. E., Chiu, E. S., Fountain-Jones, N. M., Malmberg, J. L., Carver, S., Funk, W. C., Vanedwoude, S. 2022. Parasites as conservation tools. *Conservation Biology*. 36: e13719.
- 44. Escobar, L. E., **Carver, S.**, Cross, P., Rossi, L., Almberg, E. S., Yabsley, M. J., Niedringhaus, K. D., Van Wick, P., Dominguez-Villegas, E., Gakuya, F., Xie, Y., Angelone, S., Gortazar, C., Astorga, F. 2022.Sarcoptic mange: an emerging panzootic in wildlife. *Transboundary and Emerging Diseases*. 69:927-942.

2021

45. Pye, R., Darby, J., Fox, S., Flies, A., Carver, S., Elmer, J., Swift, K., Hogg, C., Pemberton, D., Woods, G., Lyons, B. 2021. Post release immune responses of Tasmanian devils vaccinated with an experimental devil facial tumour disease vaccine. *Wildlife Research*. 48:701-712.

- 46. Fountain-Jones, N. M., Kozakiewicz, C. P., Forester, B. R., Landguth, E. L., Carver, S., Charleston, M., Gagne, R. B., Greenwell, B., Kraberger, S., Trumbo, D. R., Mayer, M., Clark, N. J., Machado, G. 2021. MrIML: Multi-response interpretable machine learning to model genomic landscapes. *Molecular Ecology Resources*. 21:2766-2781.
- 47. Tamura, J., Ingram, J., Martin, A., Burridge, C., Carver, S. 2021. Contrasting population manipulations reveal resource competition between two large marsupials: bare-nosed wombats and eastern grey kangaroos. *Oecologia*. 197: 313-325.
- 48. Lévêque, L., Buettel, J. C., Carver, S., Brook, B. W. 2021. Characterising the spatio-temporal threats, conservation hotspots, and conservation gaps for the most extinction-prone bird family (Aves: Rallidae). *Royal Society Open Science*. 8:210262.
- 49. Browne, E., Driessen, M. M., Ross, R., Roach, M., Carver, S. 2021. Environmental suitability of bare-nosed wombat burrows for *Sarcoptes scabiei*. *International Journal of Parasitology: Parasites and Wildlife*. 16:37-47.
- 50. Ross, R., Carver, S., Browne, E., Thai, B. S. 2021. WomBot: an exploratory robot for monitoring wombat burrows. *SN Applied Sciences*. 3:647. most downloaded journal article in June and July 2021.
- 51. Ringwaldt, E. M., Brooke, B. W., Carver, S., Buettel, J. C. 2021. The patterns and causes of dermatitis in terrestrial and semi-aquatic mammalian wildlife. *Animals*. 11:1691.
- 52. Carver, S., Charleston, M., Hocking, G., Gales, R., Driessen, M. M. 2021. Long-term spatiotemporal dynamics and factors associated with trends in bare-nosed wombats. *Journal of Wildlife Management*. 85:449-461.



- 53. Koolhof, I. S., Firestone, S. M., Bettiol, S., Charleston, M., Gibney, K. B., Neville, P. J., Jardine, A., Carver, S. 2021. Optimising predictive modelling of Ross River virus using meteorological variables. *PLoS Neglected Tropical Diseases*. 15:e0009252.
- 54. Beeton, N., Forbes, L. K., **Carver, S.** 2021. Comparing modes of transmission for sarcoptic mange dynamics and management in bare-nosed wombats. *Letters in Biomathematics*. 8:3-18.
- 55. Yang, P. J., Lee, A. B., Chan, M., Kowalski, M., Qiu, K., Waid, C., Cervantes, G., Magondu, B., Biagioni, M., Vogelnest, L., Martin, A., Edwards, A., Carver, S., Hu, D. L. 2021. Intestines of non-uniform stiffness mold the corners of wombat feces. *Soft Matter*. 17:475-488 2019 Ig Nobel prize winning research Soft Matter Most Popular 2021



- 56. Wilkinson, V., Tokano, K., Nichols, D., Martin, A., Holme, R., Phalen, D., Mounsey, K., Charleston, M., Kriess, A., Pye, R., Browne, E., Næsborg-Nielsen, C., Richards, S. A., Carver, S. 2021. Fluralaner as a novel treatment for sarcoptic mange in the bare-nosed wombat (*Vombatus ursinus*): safety, pharmacokinetics, efficacy, and practicable use. *Parasites & Vectors*. 14:18.
- 57. Martin, A. M., Carver, S. 2021. Ecology and conservation of the critically endangered northern hairy-nosed wombat, *Lasiorhinus krefftii*: past, present and future. *Australian Mammalogy*. 43:10-21.
- 58. Fountain-Jones, N. M., Kraberger, S., Gagne, R. B., Trumbo, D. R., Salerno, P. E., Funk, W. C., Crooks, K., Biek, R., Alldredge, M., Logan, K., Beale, G., Dellicour, S., Ernest, H. B., VandeWoude, S., Carver, S., Craft, M. E. 2021. Host relatedness and landscape

connectivity shape pathogen spread in a large secretive carnivore. *Communications Biology*. 4:12.

## 2020

- 59. Fountain-Jones, N. M., Appaw, A. C., Carver, S., Didelot, X., Volz, E., Charleston, M. 2020. Emerging phylogenetic structure of the SARS CoV-2 pandemic. *Virus Evolution*. 6:veaa082.
- 60. Peters, A., Meredith, A., Skerratt, L., Carver, S., Raidal, S. 2020. Infectious disease is an important consideration in emergency conservation interventions. *Conservation Biology*. 34:784-785.
- 61. Lizárraga, D., Timms, P., Quigley, B. L., Hanger, J., Carver, S. 2020. Capturing complex vaccine-immune-disease relationships for free-ranging koalas: higher chlamydial loads are associated with less IL17 expression and more chlamydial disease. *Frontiers in Veterinary Science*. 7:697.
- 62. Ortiz-Baez, A. S., Cousins, K., Eden, J-S., Chang, W-S., Harvey, E., Pettersson, J. H-O., Carver, S., Polkinghorne, A., Šlapeta, J., Rose, K., Holmes, E. 2020. Meta-transcriptomic identification of *Trypanosoma* spp. in native wildlife species from Australia. *Parasites and Vectors*. 13:447.
- 63. Kozakiewicz, C. P., Burridge, C. P., Funk, W. C., Craft, M. E., Crooks, K. R., Fisher, R. N., Fountain-Jones, N. M., Jennings, M. K., Kraberger, S. J., Lee, J. S., Lyren, L. M., Riley, S. P. D., Serieys, L. E. K., VandeWoude, S., Carver, S. 2020. Does the virus cross the road? Viral phylogeographic patterns among bobcat populations reflect a history of urban development. *Evolutionary Applications*. 13:1806-1817.
- 64. Prahalad, V., Kirkpatrick, J. B., Aalders, L., Carver, S., Ellison, J., Harrison-Day, V., McQuillan, P., Morrison, B., Richardson, A., Woehler, E. 2020. Conservation ecology of Tasmanian coastal saltmarshes, south-east Australia. *Pacific Conservation Biology*. 26:105-129.
- 65. Rowbottom, R., Carver, S., Barmuta, L. A., Weinstein, P., Allen, G. R. 2020. How do local differences in saltmarsh ecology influence disease vector mosquito populations? *Medical and Veterinary Entomology*. 34:279-290.
- 66. Koolhof, I. S., Gibney, K. B., Bettiol, S., Charleston, M., Wiethoelter, A., Arnold, A. L., Campbell, P. T., Neville, P. J., Aung, P., Shiga, T., Carver, S., Firestone, S. M. 2020. The forecasting of dynamical Ross River virus outbreaks: Victoria, Australia. *Epidemics*. 30:100377.
- 67. Carver, S., Lunn, T. 2020. When are pathogen dynamics likely to reflect host population genetic structure? *Molecular Ecology*. 29:859-861.
- 68. Comte, S., Carver, S., Hamede, R., Jones, M. 2020. Changes in spatial organization following an acute epizootic: Tasmanian devils and their transmissible cancer. *Global Ecology and Conservation*. 22:e00993.
- 69. Dannemiller, N. G., Kechejian, S., Kraberger, S., Logan, K., Alldredge, M., Crooks, K. R., VandeWoude, S., Carver, S. 2020. Diagnostic uncertaintiy and the epidemiology of Feline Foamy Virus in pumas (*Puma concolor*). *Scientific Reports*. 10:1587.
- 70. Kraberger, S., Fountain-Jones, N. M., Gagne, R. B., Malmberg, J., Dannemiller, N. G., Logan, K., Alldredge, M., Varsani, A., Crooks, K. R., Craft, M., Carver, S., VandeWoude, S. 2020. Frequent cross-species transmissions of foamy virus between domestic and wild felids. *Virus Evolution*. 6:vez058.
- 71. Watts, E. T., Johnson, C. N., Carver, S., Butler, C., Harvey, A. M., Cameron, E. Z. 2020. Maternal protectiveness in feral horses: responses to intraspecific and interspecific sources of risk. *Animal Behaviour*. 159:1-11.

## 2019

72. Kechejian, S., Dannemiller, N., Kraberger, S., Ledesma-Feliciano, C., Lochelt, M., Carver, S., VandeWoude, S. 2019. Feline foamy virus sero-prevalence and demographic risk factors in Colorado, Southern California and Florida stray domestic cat populations. *Journal of Feline Medicine and Surgery Open Reports*. 5: 2055116919873736.

- 73. Lizárraga, D., Carver, S., Timms, P. 2019. Navigating to the most promising directions amid complex fields of vaccine development: a chlamydial case study. *Expert Review of Vaccines*. 18:1323-1337.
- 74. Peters, A., Carver, S., Skerratt, L. F., Meredith, A., Woods, R. 2019. A solutions-focused translational research framework for wildlife health. *BioScience*. 69:1019-1027.
- 75. Reynolds, J. J. H., **Carver, S.**, Cunningham, M. W., Logan, K. A., Vickers, W., Crooks, K. R., VandeWoude, S., Craft, M. E. 2019. Feline immunodefiency virus in puma: estimation of the force of infection reveals insights into transmission. *Ecology and Evolution*. 9:11010-11024.
- 76. Bommana, S., Jelocnik, M., Borel, N., Marsh, I., **Carver, S.**, Polkinghorne, A. 2019. The limitations of commercial serological assays for detection of chlamydial infections in Australian livestock. *Journal of Medical Microbiology*. 68:627-632.
- 77. Ng, D., Carver, S., Gotame, M., Karmasharya, D., Pradhan, S. M., Rana, A. N., Johnson, C. N. 2019. Canine distemper in Nepal's Annapurna Conservation Area Implications of dog husbandry and human behavior for wildlife disease. *PLoS ONE*. 14:e0220874.
- 78. Kechejian, S. R., Dannemiller, N., Kraberger, S., Ledesma Feliciano, C., Malmberg, J., Roelke Parker, M., Cunningham, M., McBride, R., Riley, S. P. D., Vickers, W., Logan, K., Alldredge, M., Crooks, K., Lochelt, M., Carver, S., VandeWoude, S. 2019. Feline foamy virus is highly prevalent in free-ranging *Puma concolor*. *Viruses*. 11:359.
- 79. Kozakiewicz, C. P., Burridge, C. P., Funk, W. C., Salerno, P. E., Trumbo, D. R., Gagne, R. B., Boydston, E. E., Fisher, R. N., Lyren, L. M., Jennings, M. K., Riley, S. P. D., Serieys, E. E. K., VandeWoude, S., Crooks, K. R., Carver, S. 2019. Urbanization reduces genetic connectivity in bobcats (*Lynx rufus*) at both intra- and inter-population spatial scales. *Molecular Ecology*. 28:5068-5085.
- 80. Trumbo, D. R., Salerno, P., Logan, K., Alldredge, M., Gagne, R. B., Kozakiewicz, C. P., Kraberger, S., Fountain-Jones, N., Craft, M. E., **Carver, S.**, Ernest, H. B., Crooks, K., VandeWoude, S., Funk, W. C. 2019. Urbanization impacts apex predator gene flow but not genetic diversity across an urban-rural divide. *Molecular Ecology*. 28:4926-4940.
- 81. Fountain-Jones, N. M., Machado, G., Carver, S., Packer, C., Recamonde-Mendoza, M., Craft, M. E. 2019. How to make more from exposure data? An integrated machine learning pipeline to predict pathogen exposure. *Journal of Animal Ecology*. 88:1447-1461.
- 82. Krakoff, E., Gagne, R. B., VandeWoude, S., **Carver, S.** 2019. Variation in intra-individual lentiviral evolution rates: a systematic review of human, non-human primate and felid species. *Journal of Virology*. 92:e00649-18.
- 83. Martin, A. M., Richards, S. A., Fraser, T. A., Polkinghorne, A., Burridge, C. P., Carver, S. 2019. Population-scale treatment informs solutions for control of environmentally transmitted wildlife disease. *Journal of Applied Ecology*. 56:2363-2375.
- 84. Attipa, C., Solano-Gallego, L., Leutenegger, C. M., Papasouliotis, K., Soutter, F., Balzer, J., Carver, S., Buch, J. S., Tasker, S. 2019. Associations between clinical canine leishmaniosis and multiple vector-borne co-infections: a case-control serological study. *BMC Veterinary Research*. 15:331.
- 85. Martin, A. M., Carver, S., Proft, K., Fraser, T. A., Polkinghorne, A., Banks, S., Burridge, C. P. 2019. Isolation, marine transgression, and translocation of the bare-nosed wombat (*Vombatus ursinus*). *Evolutionary Applications*. 12:1114-1123.
- 86. Rowe, M. L., Whiteley, P. L., Carver, S. 2019. The treatment of sarcoptic mange in wildlife: a systematic review. *Parasites and Vectors*. 12:99.
- 87. Davies, G. T. O., Kirkpatrick, J. B., Cameron, E. Z., **Carver, S.**, Johnson, C. N. 2019. Ecosystem engineering by digging mammals: effects on soil fertility and condition in Tasmanian temperate woodland. *Royal Society Open Science*. 6:180621.

- 88. Fraser, T., Holme, R., Martin, A., Whiteley, P., Montarello, M., Raw, C., Carver, S., Polkinghorne, A. 2019. Expanded molecular typing of *Sarcoptes scabiei* provides further evidence of disease spill-over events in the epidemiology of sarcoptic mange in Australian marsupials. *Journal of Wildlife Diseases*. 55:231-237.
- 89. Beeton, N., Carver, S., Forbes, L. K. 2019. A model for the treatment of environmentally transmitted sarcoptic mange in bare-nosed wombats (*Vombatus ursinus*). *Journal of Theoretical Biology*. 462:466-474.
- 90. Martin A. M., Ricardo, H., Tompros, A., Fraser, T. A., Polkinghorne, A., Carver, S. 2019. Burrows with resources have greater visitation and may enhance mange transmission among wombats. *Australian Mammalogy*. 41:287-290.

- 91. Ruiz-Aravena, M., Jones, M. E., Carver, S., Estay, S., Espjo, C., Storfer, A., Hamede, R. K. 2018. Sex bias in ability to cope with cancer: Tasmanian devils and facial tumour disease. *Proceedings of the Royal Society of London B.* 285:20182239.
- 92. Kozakiewicz, C. P., Burridge, C. P., Funk, W. C., VandeWoude, S., Craft, M. E., Crooks, K. R., Ernest, H. B., Fountain-Jones, N. M., Carver, S. 2018. Pathogens in space: advancing understanding of pathogen dynamics and disease ecology through landscape genetics. *Evolutionary Applications*. 11:1763-1778.
- 93. Kellner, A., Carver, S., Scorza, V., McKee, C. D., Lappin, M., Crooks, K. R., VandeWoude, S., Antolin, M. F. 2018. Transmission pathways and spillover of an erythrocytic bacterial pathogen from domestic cats to wild felids. *Ecology and Evolution*. 8:9779-9792.
- 94. Astorga, F., Carver, S., Almberg, E. S., Sousa, G. R., Wingfield, K., Niedringhaus, K. D., Van Wick, P., Rossi, L., Xie, Y., Cross, P., Angelone, S., Gortazar, C., Escobar, L. E. 2018. International meeting on sarcoptic mange in wildlife, June 2018, Blacksburg, Virginia, USA. *Parasites and Vectors*. 11:449.
- 95. Powers, J., Carver, S., Chiu, E., Kraberger, S., Roelke-Parker, M., Lowery, I., Erbeck, K., Troyer, R., VandeWoude, S. 2018. Feline leukemia virus disease outcomes in a domestic cat breeding colony: relationship to endogenous FeLV and other chronic viral infections. *Journal of Virology*. 92:e00649-18.
- 96. Fraser, T. A., Carver, S., Martin, A. M., Mounsey, K., Polkinghorne, A., Jelocnic, M. 2018. A *Sarcoptes scabiei* specific isothermal amplification assay for detection of this important ectoparasite of wombats and other animals. *PeerJ*. 6:e5291.
- 97. Quigley, B. L., Carver, S., Hanger, J., Vidgen, M. E., Timms, P. 2018. The relative contribution of causal factors in the transition from infection to clinical chlamydial disease. *Scientific Reports*. 8:8893.
- 98. Fraser, D., Mouton, A., Serieys, L. E. K., Cole, S., Carver, S., VandeWoude, S., Lappin, M., Riley, S. P. D., Wayne, R. 2018. Genome-wide expression reveals multiple systemic effects associated with detection of anticoagulant poisons in bobcats (*Lynx rufus*). *Molecular Ecology*. 27:1170-1187.
- 99. Flies, E. J., Lau, C. L., **Carver, S.**, Weinstein, P. 2018. Another emerging mosquito-borne disease? Endemic Ross River virus transmission in the absence of marsupial reservoirs. *BioScience*. 68:288-293.
- 100. Fountain-Jones, N. M., Pearse, W. D., Escobar, L. E., Alba-Casals, A., **Carver, S.**, Davies, T. J., Kraberger, S., Papes, M., Vandegrift, K., Worsley-Tonks, K., Craft, M. E. 2018. Towards and eco-phylogenetic framework for infectious disease ecology. *Biological Reviews*. 93:950-970.
- 101. Martin, A. M., Fraser, T. A., Lesku, J. A., Simpson, K., Roberts, G. L., Garvey, J., Polkinghorne, A., Burridge, C. P., Carver, S. 2018. The cascading pathogenic consequences of *Sarcoptes scabiei* infection that manifest in host disease. *Royal Society Open Science*. 5:180018.

- 102. Sprague, W., VandeWoude, S., Zheng, X., MacMillian, M., Troyer, R., Wood, B., Carver, S. 2018. Prior puma lentivirus infection modifies early immune responses and attenuates FIV infection in cats. *Viruses*. 10:210.
- 103. Botwe, P. K., Carver, S., Magierowski, R., McEvoy, P., Goonan, P., Madden, C., Barmuta, L. A. 2018. Effects of salinity and flow interactions on macroinvertebrate traits in temporary streams. *Ecological Indicators*. 89:74-83.
- 104. Walker, E., Jelocnik, M., Bommana, S., Timms, Carver, S., Polkinghorne, A. 2018. Understanding the health and production impacts of endemic *Chlamydia pecorum* infections in lambs. *Veterinary Microbiology*. 217:90-96.
- 105. Attipa, C., Laia, S. G., Kostas, P., Soutter, F., Morris, D., Helps, C., Carver, S., Tasker, S. 2018. Association between canine leishmaniosis and *Ehrlichia canis* co-infection: a prospective case-control study. *Parasites and Vectors*. 11:184.
- 106. Pye, R., Patchett, A., McLennan, E. Thomson, R., Carver, S., Fox, S., Pemberton, D., Kreiss, A., Baz Morelli, A., De Siva, A., Pearse, M. J., Corcoran, L. M., Belov, K., Hogg, C. J., Woods, G., Lyons, B. A. 2018. Immunisation strategies producing a humoral IgG immune response against DFTD in the majority of Tasmanian devils destined for wild release. *Frontiers in Immunology*. 9:259.
- 107. Fraser, T., Martin, A., Polkinghorne, A., Carver, S. 2018. Comparative diagnostics reveals PCR assays on skin scrapings is the most reliable method to detect *Sarcoptes scabiei* infestations. *Veterinary Parasitology*. 251:119-124.
- 108. Bommana, S., Walker, E., Desclozeaux, M., Jelocnic, M., Timms, P., Polkinghorne, A., Carver, S. 2018. Molecular and serological dynamics of *Chlamydia pecorum* infection in a longitudinal study of prime lamb production. *PeerJ*. 6:e4296.
- 109. Serieys, L. E. K., Lea, A. J., Epeldegui, M., Armenta, T. C., Moriarty, J., VandeWoude, S., Carver, S., Foley, J., Wayne, R. K., Riley, S. P. D., Uittenbogaart, C. H. 2018. Urbanization and anticoagulant poisons promote immune dysfunction in bobcats. *Proceedings of the Royal Society of London B.* 285:20172533.
- 110. Kozakiewicz, C. P., Carver, S., Burridge, C. P. 2018. Under-representation of avian studies in landscape genetics. *IBIS*. 160:1-12.
- 111. Martin, A. M., Burridge, C. P., Ingram, J., Fraser, T. A., Carver, S. 2018. Invasive pathogen drives host population collapse: a travelling wave of sarcoptic mange impacting bare-nosed wombats. *Journal of Applied Ecology*. 55:331-341.

- 112. Fraser, T. A., Shao, R., Fountain-Jones, N., Charleston, M., Martin, A., Whiteley, P., Holme, R., Carver, S., Polkinghorne, A. 2017. Mitochondrial genome sequencing reveals potential origins of the scabies mite *Sarcoptes scabiei* infesting two iconic Australian marsupials. *BMC Evolutionary Biology*. 17:233.
- 113. Fountain-Jones, N. M., Craft, M. E., Funk, C. W., Kozakiewicz, C., Trumbo, D., Boydston, E. E., Lyren, L. M., Crooks, K. R., Lee, J. S., VandeWoude, S., **Carver, S.** 2017. Urban landscapes can slow virus gene flow and evolution in a fragmentation-sensitive carnivore. *Molecular Ecology*. 26:6487-6498. Harry Smith Prize winning paper.
- 114. Koolhof, I., Bettiol, S., **Carver, S.** 2017. Fine-temporal forecasting of outbreak probability and severity: Ross River virus in Western Australia. *Epidemiology and Infection*. 145:2949-2960.
- 115. Lewis, J. S., Logan, K. A., Alldredge, M. W., Carver, S., Bevins, S. N., VandeQoude, S., Crooks, K. R. 2017. The effects of demographic, social, and environmental characteristics on pathogen prevalence in wild felids across a gradient of urbanization. *PLoS ONE*. 12:e0187035.
- 116. Escobar, L. E., **Carver, S.**, Romero-Alvarez, D., VandeWoude, S., Crooks, K., Lappin, M. R., Craft, M. 2017. Inferring the ecological niche of environmentally transmitted pathogens: *Toxoplasma gondii* and *Bartonella* spp. in wild felids. *Frontiers in Veterinary Science*. 4:172.

- 117. Kozakiewicz, C. P., Carver, S., Austin, J. J., Shephard, J. M., Burridge, C. P. 2017. Intrinsic factors drive spatial genetic variation in a highly vagile species, the wedge-tailed eagle (*Aquila audax*), in Tasmania. *Journal of Avian Biology*. 48:1025-1034.
- 118. Burnard, D., Huston, W. M., Webb, J. K., Gillett, A., Fitzgibbon, S., Carver, S., Carrucan, J., Lacasse, C., Flanagan, C., Timms, P., Polkinghorne, A. 2017. Molecular evidence of *Chlamydia pecorum* and arthropod-associated Chlamydiae in an expanded range of marsupials. *Scientific Reports*.7:12844.
- 119. Kellner, A., Carver, S., Gramza, A., Lewis, J. S., VandeWoude, S., Crooks, K. R. 2017. Outdoor recreation at the wildland-urban interface: examining human activity patterns and compliance with dog management policies. *Natural Areas Journal*. 37:514-528.
- 120. Miller, C. A., Boegler, K., Carver, S., MacMillan, M., Bielefeldt-Ohmann, H., VandeWoude, S. 2017. Pathogenesis of Oral FIV Infection. *PLoS ONE*. 12:e0185138.
- 121. Denholm, L., Beeton, N. J., Forbes, L. K., Carver, S. 2017. A model for the dynamics of Ross River virus in the Australian environment. *Letters in Biomathematics*. 4:187-206.
- 122. Jelocnik, M., Islam, M. M., Madden, D., Jenkins, C., Branley, J., **Carver, S.**, Polkinghorne, A. 2017. Development and evaluation of rapid novel isothermal amplification assays for important veterinary pathogens: *Chlamydia psittac*i and *Chlamydia pecorum. PeerJ.* 5:e3799.
- 123. Hamede, R. K., Beeton, N., Carver, S., Jones, M. E. 2017. Untangling the model muddle: empirical tumour growth in Tasmanian devil facial tumour disease. *Scientific Reports*. 7:6217.
- 124. Lunn, T., Munks, S., Carver, S. 2017. The impacts of timber harvesting on stream biota an expanding field of heterogeneity. *Biological Conservation*. 213:154-166.
- 125. Rowbottom, R., Carver, S., Barmuta, L. A., Weinstein, P., Allen, G. R. 2017. The distribution of a vector mosquito in a saltmarsh: determinants of eggs in a variable environment. *Journal of Vector Ecology*. 42:161-170
- 126. Stanhope, J., Carver, S., Weinstein, P. 2017. Health and safety consideration for beekeeping: a systematic review. *Journal of Apicultural Research*. 56:100-111.
- 127. Koolhof, I. S., **Carver, S.** 2017. Epidemic host community contribution to mosquito-borne disease transmission: Ross River virus. *Epidemiology and Infection*. 145:656-666. 2016
- 128. Gilbertson, M. L. J., Carver, S., VandeWoude, S., Crooks, K. R., Lappin, M. R., Craft, M. E. 2016. Is pathogen exposure spatially autocorrelated? Patterns of pathogens in puma (*Puma concolor*) and bobcat (*Lynx rufus*). *Ecosphere*. 7:e01558.
- 129. Hohnen, R., Tuft, K., Legge, S., Walters, N., Johanson, L., Carver, S., Radford, I., Johnson, C. N. 2016. The significance of topographic complexity in habitat selection and persistence of a declining marsupial in the Kimberley region of Western Australia. *Australian Journal of Zoology*. 64:198-216.
- 130. Lunn, T., Macgregor, J., Munks, S., Carver, S. 2016. Dermatophilus congolensis infection in the Platypus (*Ornithorhynchus anatinus*). Journal of Wildlife Diseases. 52:965-967.
- 131. Fraser, T., Charleston, M., Martin, A., Polkinghorne, A., Carver, S. 2016. The emergence of sarcoptic mange in Australian wildlife: an unresolved debate. *Parasites and Vectors*. 9:316.
- 132. **Carver, S.** 2016. The koala, an iconic animal under threat. *Journal of Wildlife Diseases*. 52:197-198.
- 133. Carver, S., Bevins, S. N., Lappin, M. R., Boydston, E. E., Lyren, L. M., Alldredge, M., Logan, K. A., Sweanor, L. L., Riley, S. P. D., Serieys, L. E. K., Fisher, R. N., Vickers, T. W., Boyce, W., McBride R., Cunningham, M. C., Jennings, M., Lewis, J., Lunn, T., Crooks, K. R., VandeWoude, S. 2016. Pathogen exposure varies widely among sympatric populations of wild and domestic felids across the United States. *Ecological Applications*. 26:367-381. 'Featured Article' for Ecological Applications, March 2016.

- 134. Simpson, K., Johnson, C. N., Carver, S. 2016. *Sarcoptes scabiei*: the mange mite with mighty effects on the common wombat (*Vombatus ursinus*). *PLoS ONE*. 11:e0149749.
- 135. Waugh, C. A., Ali Khan, S., **Carver, S.**, Hanger, J., Loader, J., Polkinghorne, A., Beagley, K., Timms, P. 2016. A prototype recombinant-protein based *Chlamydia pecorum* vaccine results in reduced chlamydial burden and less clinical disease in free-ranging koalas (*Phascolarctos cinereus*). *PLoS ONE*. 11:e0146934.

- 136. Hohnen, R., Tuft, K., Legge, S., Radford, I., Carver, S., Johnson, C. N. 2015. Post-fire habitat use of the Golden-backed Tree-rat (*Mesembriomys macrurus*) in the northwest Kimberley, Western Australia. *Austral Ecology*. 40:941-952.
- 137. **Carver, S.**, Beatty, J. A., Troyer, R. M., Harris, R. L., Stutzman-Rodriguez, K., Barrs, V. R., Chan, C. C., Tasker, S., Lappin, M. R., VandeWoude, S. 2015. Closing the gap on causal processes of infection risk form cross-sectional data: structural equation models to understand infection and coinfection. *Parasites and Vectors*. 8:658.
- 138. Rowbottom, R., Carver, S., Barmuta, L., Weinstein, P., Foo, D., Allen, G. 2015. Resource limitation, controphic ostracod density and larval mosquito development. *PLoS ONE*. 10:e0142472.
- 139. Botwe, P. K., Barmuta, L. A., Magierowski, R., McEvoy, P., Goonan, P., Carver, S. 2015. Temporal patterns and environmental correlates of macroinvertebrate communities in temporary streams. *PLoS ONE*. 10:e0142370.
- 140. Carver, S., Mills, J. N., Parmenter, C. A., Parmenter, R. R., Richardson, K., Harris, R. L., Douglass, R., Kuenzi, A., Luis, A. D. 2015. Toward a mechanistic understanding of climatically forced disease emergence: Sin Nombre hantavirus. *BioScience*. 65:651-666.
- 141. Stanhope, J., Carver, S., Weinstein, P. 2015. The risky business of being and entomologist: a systematic review. *Environmental Research*. 140:619-633.
- 142. McEvoy, J., While, G. M., Sinn, D. L., Carver, S., Wapstra, E. 2015. Structural consistency of behavioral traits and behavioral syndromes (or lack thereof) in a social lizard species, *Egernia whitii*. *Journal of Zoology*. 296:58-66.
- 143. Pepin, K. M., Leach, C. B., Marques-Toledo, C., Laass, K. H., Paixao, K. S., Luis, A. D., Hayman, D. T. S., Johnson, N. G., Buhnerkempe, M. G. Carver, S., Grear, D. A., Tsao, K., Eiras, A. E., Webb, C. T. 2015. Utility of mosquito surveillance data for spatial prioritization of vector control against dengue viruses in three Brazilian cities. *Parasites and Vectors*. 8:98.
- 144. Tompkins, D. M, Carver, S., Jones, M. E., Krkosek, M., Skerratt, L. F. 2015. Emerging infectious diseases of wildlife: a critical perspective. *Trends in Parasitology*. 31:149-159. 2014
- 145. Haley, N. J., Carver, S., Henderson, D. M., Davenport, K. A., Bundting, E., Shawn, G., Trindle, B., Galeota, J., LeVan, I., Dubovos, T., Shelton, P., Hoover, E. A. 2014. Evaluation of retropharyngeal lymph nodes from free-ranging cervids for chronic wasting disease by real time quaking-induced conversion. *Journal of Clinical Microbiology*. 52:3237-3243.
- 146. Beatty, J. A., Troyer, R. M., Carver, S., Barrs, V. R., Espinasse, F., Conradi, O., Stutzman-Rodriguez, K., Chan, C. C., Tasker, S., Lappin, M. R., VandeWoude, S. 2014. *Felis catus* gammherpesvirus 1: a widely endemic potential pathogen of domestic cats. *Virology*. 460-461:100-107.
- 147. Troyer, R. M., Beatty, J. A., Stutzmann-Rodriguez, K. R., Carver, S., Lozano, C. C., Lee, J. S., Lappin, M. R., Riley, S. D. P., Serieys, L. E. K., Logan, K. A., Sweanor, L. L., Boyce, W. M., Vickers, T. W., McBride, R., Crooks, K. R., Lewis, J. S., Cunningham, M. W., Rovnak, J., Quackenbush, S. L., VandeWoude, S. 2014. Novel gammaherpesviruses in North American domestic cats, bobcats and pumas: identification, prevalence and risk factors. *Journal of Virology*. 88:3914-3924.

- 148. Haley, N. J., Van de Motter, A., Carver, S., Henderson, D., Davenport, K., Seelig, D., Mathiason, C. K., Hoover, E. A. 2013. Prion-seeding activity in cerebrospinal fluid of deer with chronic wasting disease. *PLoS ONE*. 8:e81488.
- 149. Wood, B. A., Carver, S., Troyer, R. M., Elder, J. H., VandeWoude, S. 2013. Microsphere immunoassay for the quantification of domestic cat antibodies and the detection of antibodies against Feline Immunodeficiency virus in plasma. *Journal of Immunological Methods*. 396:74-86.
- 150. Hoon-Hanks, L. L., Haley, N. J., Henderson, D., Carver, S., Caughey, B., Hoover, E. A. 2013. Analysis of cervid field samples by RT-QuIC: Potential for improved sensitivity in surveillance and modeling. *Prion.* 7:S21.
- 151. Richardson, K. S., Kuenzi, A., Douglass, R. J., Hart, J., Carver, S. 2013. Human exposure to particulate matter potentially contaminated with Sin Nombre virus. *EcoHealth*. 10:159-165.
- 152. Lagana, D. Lee, J. S. Lee, Lewis, J. S., Bevins, S. N., Carver, S., Sweanor, L. L., McBride, C., Crooks, K. R., VandeWoude, S. 2013. Characterization of regionally-associated Feline Immunodeficiency Virus (FIV) in Bobcats (*Lynx rufus*). *Journal of Wildlife Diseases*. 49:718-722.

- 153. Jones, C. P., Carver, S., Kendall, L. V. 2012. Evaluation of common anesthetic and analgesic techniques for tail biopsy in mice. *Journal of the American Association for Laboratory Animal Science*. 51:1-7.
- 154. **Carver, S.**, Scorza, A. V., Bevins, S. N., Riley, S. P. D., Crooks, K. R., VandeWoude, S., Lappin, M. R. 2012. Zoonotic parasites of bobcats around human landscapes. *Journal of Clinical Microbiology*. 50:3080-3083.
- 155. Haley, N. J., Mathiason, C. K., Carver, S., Telling, G. C., Zabel, M. D., Hoover, E. A. 2012. Sensitivity of protein misfolding cyclic amplification vs. immunohistochemistry in antemortem detection of chronic wasting disease. *Journal of General Virology*. 93:1141-1150.
- 156. Haley, N. J., Mathiason, C. K., Carver, S., Telling, G. C., Zabel, M. D., Hoover, E. A. 2012. Sensitivity of protein misfolding cyclic amplification vs. immunohistochemistry in antemortem detection of chronic wasting disease. *Prion.* 6:S92.
- 157. Bevins, S. N., Carver, S., Boydston, E. E., Lyren, L. M., Alldredge, M., Logan, K. A., Riley, S. P. D., Fisher, R. N., Vickers, W. T., Boyce, W. M., Salman, M., Lappin, M. R., Crooks, K. R., VandeWoude, S. 2012. Three pathogens in sympatric populations of pumas, bobcats, and domestic cats: implications for infectious disease transmission. *PLoS ONE*. 7:e31403.
- 158. Werner, A. K., Goater, S., Carver, S., Robertson, G., Allen, G. R., Weinstein, P. 2012. Environmental drivers of Ross River virus in south-east Tasmania, Australia: towards strengthening public health interventions. *Epidemiology and Infection*. 140:359-371.
- 159. Richardson, K., Carver, S., Douglass, R., Kuenzi, A. 2011. Effect of rock cover on small mammal abundance in a Montana grassland. *Intermountain Journal of Sciences*. 17:20-29.
- 160. **Carver, S.**, Goater, S., Allen, G., Parr, R., Fearnley, E., Weinstein, P. 2011. Relationships of the Ross River virus (Togoviridae: Alphavirus) vector, *Aedes camptorhynchus* (Thomson) (Diptera: Culicidae), to biotic and abiotic factors in saltmarshes of south-eastern Tasmania, Australia: a preliminary study. *Australian Journal of Entomology*. 50:344-355.
- 161. Carver, S., Kuenzi, A., Bagamian, K. H., Mills, J. N., Rollin, P. E., Zanto, S. N., Douglass, R. 2011. A temporal dilution effect: hantavirus infection in deer mice and the intermittent presence of voles in Montana. *Oecologia*. 166:713-721.

- 162. Haley, N. J., Mathiason, C. K., Carver, S., Zabel, M., Telling, G. C., Hoover, E. A. 2011. Detection of CWD prions in salivary, urinary, and intestinal tissues of deer: potential mechanisms of prion shedding and transmission. *Journal of Virology*. 85:6309-6318.
- 163. Zheng, C., Carver, S., Troyer, R., Terwee, J. A., Vandewoude, S. 2011. Prior virus exposure alters the longterm landscape of viral replication during feline lentiviral infection. *Viruses*. 3:1891-1908.
- 164. Weinstein, P. Judge, D. Carver, S. 2011. Biological and cultural coevolution and emerging infectious disease: Ross River virus in Australia. *Medical Hypotheses*. 76:893-896.
- 165. **Carver, S.**, Trueax, T. J., Douglass, R., Kuenzi, A. 2011. Delayed density-dependent prevalence of Sin Nombre virus infection in deer mice (*Peromyscus maniculatus*) in central and western Montana. *Journal of Wildlife Diseases*. 47:56-63.

- 166. **Carver, S.**, Kilpatrick, A. M., Kuenzi, A., Douglass, R., Ostfeld, R. S., Weinstein, P. 2010. Integration of environmental monitoring to enhance comprehension and control of infectious diseases. *Journal of Environmental Monitoring*. 12:2048-2055 *Invited submission for "Emerging Investigators" issue*.
- 167. **Carver, S.**, Bell, B. D., Waldman, B. 2010. Does chytridiomycosis disrupt amphibian skin function? *Copeia*, 2010:487-495 *Most read article for September 2010 issue of Copeia*.
- 168. **Carver, S.**, Spafford, H., Storey, A., Weinstein, P. 2010. The roles of predators, competitors and secondary salinization in structuring mosquito (Diptera: Culicidae) assemblages in ephemeral water bodies of the Wheatbelt of Western Australia. *Environmental Entomology*, 39:798-810.
- 169. Cline, B. J., **Carver. S.**, Douglass, R. 2010. Relationship of human behaviour within outbuildings to potential for exposure to Sin Nombre virus in western Montana. *EcoHealth*. 7:389-393.
- 170. **Carver, S.**, Kuenzi, A., Mills, J. N., Douglass, R. 2010. Sampling frequency differentially influences interpretation of zoonotic pathogen and host dynamics: Sin Nombre virus and deer mice. *Vector-Borne and Zoonotic Diseases*. 10:575-583.
- 171. **Carver, S.** 2010. Resistance of mammal assemblage structure to dryland salinity in a fragmented landscape. *Journal of the Royal Society of Western Australia*. 93:119-128. 2009
- 172. **Carver, S.**, Bestall, A., Jardine, A., Ostfeld, R. S. 2009. The influence of hosts on the ecology of arboviral transmission: potential mechanisms influencing dengue, Murray Valley encephalitis and Ross River virus in Australia. *Vector-Borne and Zoonotic Diseases*, 9:51-64. *Editors pick for "hot paper" February 2009*.
- 173. Carver, S., Storey, A., Spafford, H., Weinstein, P. 2009. Dryland salinity and the ecology of Ross River virus: the ecological underpinnings of potential for transmission. *Vector-Borne and Zoonotic Diseases*. 9:611-622.
- 174. **Carver, S.**, Spafford, H., Storey, A., Weinstein, P. 2009. Colonisation of ephemeral water bodies in the Wheatbelt of Western Australia by assemblages of mosquitoes (Diptera: Culicidae): role of environmental factors, habitat and disturbance. *Environmental Entomology*. 38:1585-1594.
- 175. van Schie, C., Spafford Jacob, H., Carver, S., Weinstein, P. 2009. The salinity tolerance of *Aedes camptorhynchus* from different regions of southwest Western Australia. *Australian Journal of Entomology*. 48:293-299.
- 176. **Carver, S.**, Storey, A., Spafford, H., Lynas, J., Chandler, L., Weinstein, P. 2009. Salinity as a driver of aquatic invertebrate colonisation behaviour and distribution in the wheatbelt of Western Australia. *Hydrobiologia*, 617:75-90.

177. **Carver, S.**, Sakalidis, V., Weinstein, P. 2008. House mouse abundance and Ross River virus notifications in Victoria, Australia. *International Journal of Infectious Diseases*, 14:528-533.

## 2007

- 178. Jardine, A., Speldewinde, P., Carver, S., Weinstein, P. 2007. Dryland salinity and Ecosystem distress syndrome: human health implications. *EcoHealth*, 4:10-17.
- 179. Spafford, H. Jardine, A., Tarala, K., Carver, S., Weinstein, P. 2007. Laboratory determination of efficacy of a *Santalum spicatum* extract for mosquito control. *Journal of the American Mosquito Control Association*, 23:304-311.

## 2004

180. Bell, B. D., **Carver, S.**, Mitchell, N. J., Pledger, S. 2004. The recent decline of a New Zealand endemic: how and why did populations of Archey's frog *Leiopelma archeyi* crash over 1996-2001. *Biological Conservation*, 120: 193-203.

## Peer-reviewed Book Chapters and Book Reviews

- 1. Carver, S. 2016. *Radiology of Australian Mammals* by Larry Vogelnest and Graeme Allan, Collingwood, Victoria, Australia, 2016, CSIRO Publishing. *The Quarterly Review of Biology*. 91:230-231.
- 2. Carver, S., Rowbottom, R. 2015. *Mosquito Eradication: The Story of Killing Campo* by Brian Kay and Richard Russell (eds), CSIRO Publishing, Collingwood, 2014, 280 pp, ISBN 978-1486300570. *Australasian Journal of Environmental Management*. 23:119-121.
- 3. Carver, S., Slaney, D., Liesnham, P., Weinstein, P. 2015. Healthy Wetlands, Healthy People: Mosquito Borne Disease, pp 95-121. In Wetlands and Human Health. Eds Finlayson, C. M., Horwitz, P., Weinstein, P. Springer. Australia.

## **Grey Literature**

- 1. Ringwaldt, E., Richards, S., Carver, S. 2023. NSW Department of Planning and Environment. Curb Wombat Mange Program. The landscape epidemiology of sarcoptic mange in bare-nosed wombats across New South Wales. November, 2023.
- 2. **Carver, S.** 2023. Disease in the dirt: how mange-causing mites decimated a Tasmanian wombat population. The Conversation. August, 2023. <a href="https://theconversation.com/disease-in-the-dirt-how-mange-causing-mites-decimated-a-tasmanian-wombat-population-211992">https://theconversation.com/disease-in-the-dirt-how-mange-causing-mites-decimated-a-tasmanian-wombat-population-211992</a>
- 3. NSW Department of Planning and Environment. 2023. Curb Wombat Mange Program training videos. <a href="https://www.environment.nsw.gov.au/topics/animals-and-plants/native-animals/rehabilitating-native-animals/curb-wombat-mange-program">https://www.environment.nsw.gov.au/topics/animals-and-plants/native-animals/rehabilitating-native-animals/curb-wombat-mange-program</a>. June, 2023.
- 4. Carver, S. 2023. Report to WaterNSW on sarcoptic mange in wombats at Bendeela Recreation Area and proposed strategies for disease management. March, 2023.
- 5. Carver, S. 2023. General considerations for trapping *Culex annulirostris*. Guidelines document for the Tasmanian Department of Health and Biosecurity Tasmania. February, 2023.
- 6. Death, C. E., Wintle, B., Skerratt, L., Hufschmid, J., Meredith, A., Carver, S. 2021. Guidelines for the treatment of Australian wildlife with sarcoptic mange: Part 1 Treatment Guidelines Report. National Environmental Science Program, Threatened Species Recovery Hub. Project 1.4.4. <a href="https://www.nespthreatenedspecies.edu.au/media/aayh54vj/1-4-4-guidelines-for-treatment-of-australian-wildlife-with-sarcoptic-mange-report-part-1-treatment-guidelines-v6.pdf">https://www.nespthreatenedspecies.edu.au/media/aayh54vj/1-4-4-guidelines-for-treatment-of-australian-wildlife-with-sarcoptic-mange-report-part-1-treatment-guidelines-v6.pdf</a>
- 7. Death, C. E., Wintle, B., Skerratt, L., Hufschmid, J., Meredith, A., Carver, S. 2021. Guidelines for the treatment of Australian wildlife with sarcoptic mange: Part 2 Literature Review Report. National Environmental Science Program, Threatened Species Recovery Hub. Project 1.4.4. <a href="https://www.nespthreatenedspecies.edu.au/media/bx5pmfxu/1-4-4-guidelines-for-treatment-of-australian-wildlife-with-sarcoptic-mange-report-part-2-lit-review\_v4.pdf">https://www.nespthreatenedspecies.edu.au/media/bx5pmfxu/1-4-4-guidelines-for-treatment-of-australian-wildlife-with-sarcoptic-mange-report-part-2-lit-review\_v4.pdf</a>

- 8. Death, C. E., Wintle, B., Skerratt, L., Hufschmid, J., Meredith, A., Carver, S. 2021. Guidelines for the treatment of Australian wildlife with sarcoptic mange: Information sheet to the report. National Environmental Science Program, Threatened Species Recovery Hub. Project 1.4.4. <a href="https://www.nespthreatenedspecies.edu.au/media/bxubtd01/1-4-4-information-sheet-mange-treatment-v3.pdf">https://www.nespthreatenedspecies.edu.au/media/bxubtd01/1-4-4-information-sheet-mange-treatment-v3.pdf</a>
- 9. Wilkinson, V., Carver, S. 2021. Guidelines for the use of fluralaner ('Bravecto spot-on solution for dogs') to treat sarcoptic mange in wombats. https://eprints.utas.edu.au/36130/
- 10. Carver, S. 2019. Developing a single dose long-lasting treatment of sarcoptic mange in wombats. Tasmanian Government Department of Primary Industries, Parks, Water and the Environment.
- 11. Martin, A., Skerratt, L., **Carver, S.** 2017. Sarcoptic mange in Australian wildlife. Fact Sheet for Wildlife Health Australia. <a href="https://wildlifehealthaustralia.com.au/FactSheets.aspx">https://wildlifehealthaustralia.com.au/FactSheets.aspx</a>.
- 12. Carver, S., Dent, C., Beeton N., Forbes, L. 2016. Improving understanding of Ross River virus transmission, impacts of current mosquito management and alternative vector control strategies in southwestern Australia. Funding Initiative for Mosquito Management in Western Australia project report.
- 13. Carver, S. 2016. Contribution to 'Ask and Expert' on wombats. Australian Geographic magazine. March/April Issue, 2016.
- 14. Carver, S. 2013. From mozzies to big cats and back again. Environmental Consultants Association of Western Australia News. Issue 4, Winter 2013.
- 15. VandeWoude, S., Carver, S., Crooks, K. R. 2012. The effects of urban fragmentation and landscape connectivity on disease prevalence and transmission in North American felids. National Science Foundation Ecology of Infectious Diseases annual report. Project No.0723676.
- 16. VandeWoude, S., Carver, S., Crooks, K. R. 2011. Iowa Bobcat Seroprevalence Analysis Update, May 31, 2011. Technical Report from NSF EID project No.0723676. The effects of urban fragmentation and landscape connectivity on disease prevalence and transmission in North American felids. pp. 4.
- 17. VandeWoude, S., Carver, S., Crooks, K. R. 2011. The effects of urban fragmentation and landscape connectivity on disease prevalence and transmission in North American felids. National Science Foundation Ecology of Infectious Diseases annual report. Project No.0723676.
- 18. Carver, S. 2011. Colorado research update. Wild Felid Monitor (Wild Felid Association). Summer 2011.
- 19. Carver, S., K. R. Crooks, S. VandeWoude, and M. R. Lappin. 2011. The impact of urbanization on pathogens of North American wild and domestic felids. Abstract in J. Rovnak, and R. J. Cohrs, editors. The 11th Annual Rocky Mountain Virology Association: Current Advances in Virology in the Rocky Mountain Region. *Translational Biomedicine* 2:1-7.
- 20. Carver, S. 2006. Salinity, mosquitoes, mammals and the health of people living in the Western Australian wheatbelt. Report to the Bureau of Rural Sciences and Land and Water Australia. 2005 Science and Innovation Award for Young People in Agriculture, Fisheries and Forestry.
- 21. Jardine, A., Speldewinde, P., Carver, S. 2006. Dryland salinity and human health outcomes. Proceedings from ISEE/ISEA, Paris, France. *Epidemiology*, 17:S434.
- 22. Bell, B. D., Carver, S. and Mitchell, N. J. 2005. Factors influencing the recent decline of frogs in New Zealand with particular reference to the decline of Archey's frog (*Leiopelma archeyi*) over 1996-2001. New Zealand Department of Conservation research investigation 3299.
- 23. Carver, S., Bell, B. D., Waldman, B. 2005. Chytridiomycosis has no effect on skin function of the Southern Bell Frog, *Litoria raniformis*. Proceedings of the Society for Research on Amphibians and Reptiles in New Zealand. Abstracts of papers presented at the 11<sup>th</sup> Biennial

Conference of the Society, Springbrook National Park, south-east Queensland, Australia, 7-11 February 2005. *New Zealand Journal of Zoology*, 32: 219-232.

## Articles highlighting my work

- 1. **Carver, S.** 2023. Disease in the dirt: how mange-causing mites decimated a Tasmanian wombat population. The Conversation. <a href="https://theconversation.com/disease-in-the-dirt-how-mange-causing-mites-decimated-a-tasmanian-wombat-population-211992">https://theconversation.com/disease-in-the-dirt-how-mange-causing-mites-decimated-a-tasmanian-wombat-population-211992</a>
- 2. Kamath, P. L., Prentice, M. B. 2022. Hunting shapes wildlife disease transmission. *Nature Ecology & Evolution*. 6:136-137.
- 3. The Wildlife Society. 2021. Wombat mange outbreak limited to north Tasmania. <a href="https://wildlife.org/jwm-wombat-mange-outbreak-limited-to-north-tasmania/">https://wildlife.org/jwm-wombat-mange-outbreak-limited-to-north-tasmania/</a>
- 4. Royal Society for Chemistry. 2021. Wombat research that's not to be sniffed at. https://www.rsc.org/news-events/articles/2021/jan/wombat-poo/
- 5. Science magazine AAAS. 2021. How do wombats poop cubes? Scientists get to the bottom of the mystery. <a href="https://www.sciencemag.org/news/2021/01/how-do-wombats-poop-cubes-scientists-get-bottom-mystery">https://www.sciencemag.org/news/2021/01/how-do-wombats-poop-cubes-scientists-get-bottom-mystery</a>
- 6. Science News. 2018. These are the most-read *Science News* stories of 2018. Science news. <a href="https://www.sciencenews.org/article/most-popular-stories-science-news-2018-yir?utm">https://www.sciencenews.org/article/most-popular-stories-science-news-2018-yir?utm</a> source=email&utm medium=email&utm campaign=latest-newsletter-v2
- 7. Carver, S. 2017. Conservation, connections of humans and nature, and unravelling a world of infectious diseases. Scientia. http://www.scientia.global/dr-scott-carver/
- 8. Bates, M. 2012. Sharing habitats means sharing diseases. *AAAS MemberCentral*. http://membercentral.aaas.org/blogs/qualia/sharing-habitats-means-sharing-diseases.
- 9. Mills, J. N., Fulhorst, C. F. 2010. Small mammal-associated zoonoses. *Vector-Bourne and Zoonotic Diseases*. 10:547.
- 10. Daszak P. 2009. Lucky country, broken land. EcoHealth, 6:476-478.

## **Grant Reviewer**

- Australian Research Council, 2016-23
  - Discovery Projects, Linkage Projects, Future Fellowships, Discovery Early Career Researcher Awards
- Holsworth Wildlife Endowment, 2013-23
- WIRES Research Grants Program, 2022
- The Wellcome Trust, 2017
  - o Early-Career Awards
- Israel Science Foundation, 2015
- US Department of Defense, 2013 Peer Reviewed Medical Research Program

## Peer Reviewer (alphabetical order)

Animals, Australian Journal of Environmental Management, Australian Journal of Entomology, Australian Journal of Zoology, Australian Mammalogy, Archives of Public Health, Biological Invasions, Biology Letters, BMC Infectious Diseases, BMC Genomics, Conservation Biology, Conservation Genetics, Ecography, EcoHealth, Ecological Modelling, Ecology, Ecology Letters, Ecosphere, Environmental Research Health, Faculty Reviews, Freshwater Ecology, Frontiers in Ecology and the Environment, Frontiers in Veterinary Science, General and Comparative Endocrinology, Evolutionary Applications, Integrative Zoology, International Journal of Infectious Diseases, International Journal of Parasitology Parasites and Wildlife, Journal of Animal Ecology, Emerging Infectious Diseases, Journal of Applied Animal Welfare Science, Journal of Applied Entomology, Journal of Applied Ecology, Journal of Infectious Diseases, Journal of Wildlife Diseases, Journal of Zoo and Wildlife Medicine, Landscape Ecology, Letters in Biomathematics, Limnologica, Molecular Ecology, Nature Communications, Naturwissenschaften, Oecologia, Parasite, Parasites and Vectors, Parasitology Research, PeerJ,

PLoS Neglected Tropical Diseases, PLoS ONE, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society of London B, Research in Veterinary Science, Science of the Total Environment, Scientific Reports, Transboundary and Emerging Diseases, Trends in Ecology and Evolution, Vector-Borne and Zoonotic Diseases, Veterinary Medicine, Wildlife Research, Zoonoses and Public Health

## **Scientific Societies/Associations/Centers**

## Current

- UGA Center for the Ecology of Infectious Diseases (CEID), 2023-
- Australian Society for Parasitology, 2016-
- Wildlife Disease Association, 2011-

## Previous

- Australian Mammal Society, 2015-17
- Mosquito Control Association of Australia, 2015-17
- American Society for Microbiology, 2012 -2013
- Society of Conservation Biology, 2011-12
- International Association for Ecology and Health, 2009-2014
- Society for the Research of Amphibians and Reptiles in New Zealand, 2003-2013
- American Society of Ichthyology and Herpetology, 2010
- Royal Society of Western Australia, 2007-2009
- Australian Entomological Society, 2006-2007

## **Advisor / Mentor**

## Postdoctoral fellows

- Marta Valldeperes. 2025-. Odum School of Ecology, University of Georgia
- Macy Kailing. 2025-. Odum School of Ecology, University of Georgia
- Elise Ringwaldt. 2023-25. School of Natural Sciences, University of Tasmania.
- *Nicholas Fountain-Jones*. 2015, 2018-23. Departments of Biological Sciences and Mathematics and Physics, University of Tasmania
- Nicholas Beeton. 2014-15. School of Biological Sciences, University of Tasmania
- Rachel Harris. 2013-15. School of Biological Sciences, University of Tasmania

## Research associates

- Leah Burgess. 2022-24. Department of Biological Sciences, University of Tasmania
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- Renee Dodd. 2019. Department of Biological Sciences, University of Tasmania
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- Madison Solomon. 2024-. Odum School of Ecology, University of Georgia
- Pippi Lawn. 2022-. School of Geography and Environment, University of Tasmania
- Ellyssia Young/Watts. 2022-. School of Veterinary Science, University of Sydney
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- Victoria Wilkinson. 2020-24. Department of Biological Sciences, University of Tasmania
- Melanie Wells. 2020-24. Department of Biological Sciences, University of Tasmania
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- Iain Koolhof. 2017-22. School of Medicine, University of Tasmania
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- Lucile Leveque. 2017-2022. Department of Biological Sciences, University of Tasmania

- *Christopher Kozakiewicz*. 2015-2018. Department of Biological Sciences, University of Tasmania
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- Alynn Martin. 2014-2018. Department of Biological Sciences, University of Tasmania
- Sebastien Comte. 2014-19. Department of Biological Sciences, University of Tasmania
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- Paul Botwe. 2013-17. School of Biological Sciences, University of Tasmania
- *Raylea Rowbottom*. 2011-2020. School of Agricultural Science, University of Tasmania Master students
- Kylie Green. 2024-. Odum School of Ecology, University of Georgia
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- Julie Tamura. 2019-20. Department of Biological Sciences, University of Tasmania
- Kotaro Takano. 2017-18. School of Biological Sciences, University of Tasmania
- Natalia Mejia Pacheco. 2016-17. School of Biological Sciences, University of Tasmania
- Iain Koolhof. 2015-16. School of Biological Sciences, University of Tasmania
- Annie Kellner. 2012-2016. Department of Biology, Colorado State University
- Kyle Richardson. 2010-12. Department of Biology, Montana Tech of the University of Montana
- *Barbara Cline*. 2010. Department of Industrial Hygiene, Montana Tech of the University of Montana. Mentored bringing completed thesis to publication

## Honors students

- Kate McMahon. 2023. Department of Biological Sciences, University of Tasmania
- Reika Takeuchi. 2022-23. Department of Biological Sciences, University of Tasmania
- Ryan McClusky. 2022. School of Life and Environmental Sciences, University of Sydney
- Zac Lewin. 2022. Department of Biological Sciences, University of Tasmania
- Tyler Maher. 2022. Institute of Applied Ecology, University of Canberra
- Leah Burges. 2021. Department of Biological Sciences, University of Tasmania
- Louise Callanan. 2020-22. Department of Biological Sciences, University of Tasmania
- Elizabeth Browne. 2020. Department of Biological Sciences, University of Tasmania
- Laura Smith. 2019-20. Department of Biological Sciences, University of Tasmania
- Amy MacIntosh. 2019. Department of Biological Sciences, University of Tasmania
- Woei Jiun Tan. 2019. Department of Biological Sciences, University of Tasmania
- Alyce Hennessy. 2018-20. Department of Biological Sciences, University of Tasmania
- Debby Ng. 2018. Department of Biological Sciences, University of Tasmania
- Ellyssia Watts. 2016-17. School of Biological Sciences, University of Tasmania
- Elise Ringwaldt. 2016. School of Biological Sciences, University of Tasmania
- Luke Denholm. 2015-16. Department of Mathematics and Physics, University of Tasmania
- Tamika Lunn. 2015. School of Biological Sciences, University of Tasmania
- Joanne Horton. 2014-15. School of Biological Sciences, University of Tasmania
- Kelly Simpson. 2014. School of Biological Sciences, University of Tasmania
- Chris Kozakiewicz. 2013-14. School of Biological Sciences, University of Tasmania
- *Clarissa van Schie*. 2006. School of Animal Biology, University of Western Australia Undergraduate and Independent Research students
- Catherine Hanks. 2024-25. Odum School of Ecology, University of Georgia
- Kate McMahon. 2022-23. Department of Biological Sciences, University of Tasmania
- Zac Lewin. 2021. Department of Biological Sciences, University of Tasmania
- Leah Burges. 2020-21. Department of Biological Sciences, University of Tasmania
- Elizabeth Browne. 2019. Department of Biological Sciences, University of Tasmania
- *Kawinwit Kittipalawattanapol*. 2019. Department of Biological Sciences, University of Tasmania
- Samantha Seah. 2018-19. Department of Biological Sciences, University of Tasmania
- Anila Kalonia. 2018. Department of Biological Sciences, University of Tasmania

- Renee Dodd. 2018. Department of Biological Sciences, University of Tasmania
- Emma Nichols. 2018. Department of Biological Sciences, University of Tasmania
- Wiebke Knoblauch. 2018. Department of Biological Sciences, University of Tasmania
- Kotaro Takano. 2017. Department of Biological Sciences, University of Tasmania
- Sandon James. 2016. School of Biological Sciences, University of Tasmania
- Natalia Mejia Pacheco. 2016. School of Biological Sciences, University of Tasmania
- Kotaro Takano. 2016. School of Biological Sciences, University of Tasmania
- Samantha James. 2016. School of Biological Sciences, University of Tasmania
- Sybil Sim. 2016. School of Biological Sciences, University of Tasmania
- Danielle Madden. 2016. School of Biological Sciences, University of Tasmania
- Elise Ringwaldt. 2015. School of Biological Sciences, University of Tasmania
- Amanda Sinclair. 2015. School of Biological Sciences, University of Tasmania
- Marie Jones. 2014-15. Institute on the Environment, University of Minnesota
- Tamika Lunn. 2014. School of Biological Sciences, University of Tasmania
- Iain Koolhof. 2014. School of Biological Sciences, University of Tasmania
- Rhys Rumley. 2014. School of Biological Sciences, University of Tasmania
- Jessica Scanlan. 2014. School of Biological Sciences, University of Tasmania
- Ee-Jon Yeoh. 2013. School of Zoology, University of Tasmania
- Kellie Simpson. 2013. School of Zoology, University of Tasmania
- Dahlia Foo. 2012-13. School of Zoology, University of Tasmania
- *Anne Kellner*. 2011-12. Department of Fish, Wildlife and Conservation Biology, Colorado State University
- *J. Alexander Griffith*. 2010-11. Department of Microbiology, Immunology and Pathology, Colorado State University
- Jeremy Trueax. 2009-10. Department of Biology, Montana Tech of the University of Montana
- *Kyle Richardson*. 2009-10. Department of Biology, Montana Tech of the University of Montana. Awarded Best Undergraduate Presenter at the Montana Academy of Sciences conference, 2010
- Cody Richardson. 2009-10. Department of Biology, Montana Tech of the University of Montana
- *Kelsey Estabrook*. 2008-2009. Department of Biology, Montana Tech of the University of Montana
- Vanessa Sakalidis. 2007. School of Animal Biology, University of Western Australia, Perth

## **Thesis Examiner (external examinations)**

- 2024 Tian Chen PhD, Melbourne Veterinary School, University of Melbourne
- 2023 Chloe Steventon PhD, Melbourne Veterinary School, University of Melbourne Ka Yeung Yuen PhD, School of Veterinary Science, University of Queensland
- 2022 Zoe Imisides MSc, School of Earth, Atmospheric and Life Sciences, University of Wollongong
- 2021 Eliza Stott BSc Honours, Melbourne Veterinary School, University of Melbourne
- Anushika Herath PhD, School of Life and Environmental Sciences, University of Sydney
   Helena Stokes PhD, School of Life and Environmental Sciences, Deakin University
   Jayne Hanford PhD, School of Life and Environmental Sciences, University of Sydney
- Eloise Stephenson PhD, School of Environment and Science, Griffith University
   Gillian Dennis PhD, Ecology Group, Massey University
   Karina Jones PhD, College of Public Health, Medical and Veterinary Sciences, James Cook University
   Patrick Taggard PhD, School of Animal and Veterinary Sciences, University of Adelaide
- 2018 Michael Swinbourne PhD, School of Biological Sciences, University of Adelaide Anita Tolpinrud MVetSci, Melbourne Veterinary School, University of Melbourne
- Julie Anne Tall PhD, School of Public Health and Social Work, Queensland University of Technology

Patricia Alejandra Ramirez Saavedra – PhD, School of Biological Sciences, Victoria University of Wellington

Samantha James – BSc Honours, School of Biological Sciences, University of Tasmania Inala Swart – BSc Honours, School of Biological Sciences, University of Tasmania

- 2016 Christopher Niebuhr PhD, Department of Zoology, University of Otago Jacinta Sillince BSc Honours, School of Biological Sciences, University of Tasmania
- 2015 Sharna Rainer BSc Honours, School of Biological Sciences, University of Tasmania Andre Precejus BSc Honours, School of Biological Sciences, University of Tasmania Soon Hoe Ho Masters of Public Health, School of Population Health, University of Western Australia
- 2014 Michael Bird BSc Honours, School of Biological Sciences, University of Tasmania Renate Wiesmann BSc Honours, School of Biological Sciences, University of Tasmania
- 2013 Lily Leahy BSc Honours, School of Zoology, University of Tasmania

## Teaching, Unit, Course Coordination and Workshop Delivery Experience

2024- *Instructor*. Odum School of Ecology:

Ecological Basis for Environmental Issues (ECOL 1000)

Modeling Infectious Diseases (ECOL 8990)

Field Methods in Animal Ecology (ECOL 3510)

Perception and Preparedness: A Multi-disciplinary Inquiry-based Longitudinal Study of Healthcare Seeking Behaviors Before, During and After a Pandemic (VIPR)

2017-23 *Lecturer*. Department of Biological Sciences, University of Tasmania:

Conservation Physiology and Disease Ecology (KPZ306)

*Workshops delivered*. Department of Biological Sciences, University of Tasmania: Writing a literature review for Honours students

2016-23 *Unit / Course coordinator*. Department of Biological Sciences, University of Tasmania: Population and Community Ecology (KPZ211)

Masers of Applied Science Biological Sciences (K7J2)

2013-16 *Unit coordinator*. Department of Biological Sciences, University of Tasmania:

Animal Evolution and Ecology (KZA211)

Lecturer. Department of Biological Sciences, University of Tasmania:

Biology and Society (KZA306)

Conservation Biology and Wildlife Management (KZA360)

Scientific Methods in Biology (KPZ312)

Workshops delivered. Department of Biological Sciences, University of Tasmania:

Structural Equation Modelling for Ecology and Evolutionary Biology

2013-23 *Lecturer*. Department of Biological Sciences, University of Tasmania:

Biology of Animals (KZA161)

Functional Biology of Animals (KZA212)

Zoology Research Project (KZA304)

2009-10 *Course coordinator*. Department of Biology, Montana Tech of the University of Montana:

Biology and Man (BIOL 1016/1026)

Introduction to Biodiversity Laboratory (BIOL 1096)

General Zoology (BIOL 3326)

Environmental Issues (BIOL 1826)

2008-10 *Guest Lecturer*. Department of Biology and the Bureau of Mines and Geology, Montana Tech of the University of Montana:

Animal Ecology (BIOL 3126)

Freshman Seminar (BIOL 1946)

Mathematical Modeling (M 426)

2006 Guest Lecturer. School of Population Health, University of Western Australia:

Ecology and Health (PUBH 8783)

*Teaching Assistant*, School of Animal Biology, University of Western Australia: Introduction to Ecology (ENVT 2250)

2003-04 Guest Lecturer. Ecology Department, Massey University:

Vertebrate Zoology (199.212)

Guest Lecturer. School of Biological Sciences, Victoria University of Wellington:

Biodiversity and Conservation (BIOL 132)

**Teaching Assistant**. School of Biological Sciences, Victoria University of Wellington:

Cell Biology (BIOL 111)

Animal Biology (BIOL 114)

Plant Biology (BIOL 113)

Ecology and Environment (ENVI 222)

Plant Ecology (BIOL 316)

## **Professional Outreach and Engagement**

## **Ongoing**

- 2024- Public Service and Outreach committee, Odum School of Ecology, University of Georgia
- 2024- Promotion and Tenure committee, Odum School of Ecology, University of Georgia
- 2024- Instructional Advisory Board, University of Georgia
- 2016- National Coordination Team focused on wombats and sarcoptic mange disease Australian Wildlife Health Initiative Initiative / Coalition of Applied Wildlife Health Solutions

## Occasional

- Advancing control of sarcoptic mange in wombats. Presentation to the Australian Pesticides and Veterinary Management Authority
  Wildlife Disease Association 2024 conference review committee
- Monitoring, disease surveillance and disease management in wombats at Bendeela Recreation area. Training program delivered to WaterNSW staff.
- NSW National Parks and Wildlife Service Wildlife Heroes webinar series Expert Reviewer for Wildlife Health Australia Koala Disease Risk Assessment for sarcoptic mange

Expert Reviewer for Wildlife Information, Rescue and Education Service (WIRES) mange course training program

Grant Reviewer for Wildlife Information, Rescue and Education Service (WIRES) scientific grants program

WaterNSW manage treatment research update webinar

Wildlife Information, Rescue and Education Service (WIRES) Advancing Treatment Delivery to Wombats webinar

- 2021 ACT Government Wombat Mange Stakeholder Working Group NSW National Parks and Wildlife Service Wildlife Heroes webinar series
- 2020 AgFest presenter on Science and Industry engagement, Tasmania
- 2019 Convener of Wildlife Disease Association Australasia, Hobart, Tasmania Workshop convener with David Howells (UTAS Menzies) and Geoff Dandie (Uni Adelaide), Experimental Design and Statistics for AEC Members, ANZCCART conference, Hobart, Tasmania
- 2018 Scholarship Reviewer, Wildlife Pathology Short Course, Australian Registry of Wildlife Health, Sydney, New South Wales

Local organizing committee, Australasian Wildlife Management Society, Hobart, Tasmania

Coordinator of organised symposium on Wildlife Disease Management, Australasian Wildlife Management Society, Hobart, Tasmania

Co-chair of Scientific Program for joint meeting of Asian Society of Conservation Medicine and Wildlife Disease Association Australasia, Bali, Indonesia

Chair of Symposium on Integrating Wildlife Management, Nature Conservation and Production in Land, River and Seascapes, Australasian Wildlife Management Society, Hobart, Tasmania

External reviewer of Wildlife Health Australia proposed Federal Guidelines for the Management of an Emergency Wildlife Disease

Expert assessor on National Priority Exotic Environmental Pests and Diseases project, Australian Bureau of Agriculture and Resource Economics and Sciences

External reviewer for Federal Government National Wildlife Biosecurity Guidelines,

Australian Bureau of Agriculture and Resource Economics and Sciences

Scientific advisor to Federal Government National Biosecurity Statement, Australian Bureau of Agriculture and Resource Economics and Sciences

UTAS Animal Ethics Working Group for Deloitte External Review

- 2017 Chair Organised Oral Session on Intersection of Ecology and Wildlife Health, Wildlife Disease Association Australasia, Falls Creek, Victoria Student presentation judge, Wildlife Disease Association Australasia, Falls Creek, Victoria
- Guest speaker for Certificate III in Animal Studies (run by Bonorong Wildlife Sanctuary), on Wildlife Disease and Infection Control Ecological Society of America Best Student Paper Award judge, Disease Ecology section, Ecological Society of America, Florida Science Worth Seeing, University of Tasmania, Inspiring Australia event
- 2015 Discussion about wombats Sassafras Primary School, Sassafras, Tasmania Mentor for the Student-Mentor mixer, Wildlife Disease Association International, Sunshine Coast, Queensland

Panelist for Australian Mammal Society postgraduate day, University of Tasmania – Hobart, Tasmania

Presenter to Tasmanian Field Naturalists, University of Tasmania – Hobart, Tasmania Presenter to Bookend Trust, Maria Island Teacher Workshop, University of Tasmania – Hobart, Tasmania

Wombat Protection Society of Australia Bulletin 50:Jan 2015 contributing author

- 2013 Environmental Consultants Association of Western Australia News contributing author
- School of Zoology postgraduate Research Symposium poster judge, University of Tasmania Hobart, Tasmania
   College of Veterinary and Molecular Biosciences Research Day poster judge, Colorado State University Fort Collins, CO
- 2011 College of Veterinary and Molecular Biosciences Research Day poster judge, Colorado State University Fort Collins, CO
- 2010 Facilitated complete review of undergraduate biology curriculum, Department of Biology, Montana Tech of the University of Montana Butte, MT Activities relating to New Zealand, Montana Tech Kids College Butte, MT
- 2009 Study group for undergraduate and graduate students preparing for GRE exams Butte, MT

Montana State High School Science Fair judge – Butte, MT Montessori Elementary School Science Fair judge – Butte, MT

Re-vegetation of mine-site overburden – Butte, MT

2008 Greenhouse construction to grow plants for re-vegetation of mine-site overburden – Butte, MT

## **Other Service Activities**

2024

- Odum School of Ecology, University of Georgia Fall Convocation speaker Coffee Hour host

Family Day guide

Graduate Student Symposium volunteer

- Center for the Ecology of Infectious Diseases, University of Georgia

Self-Study and Review author

**External Evaluation** 

Viral Traits symposium committee

Foot and Mouth Disease symposium committee

Professional Development series organizer and presenter

Vector Working Group lead

# Other Impact and Engagement

2024

- Australian Pesticides and Veterinary Management Authority PER90837. Permit to allow minor use of a registered agvet chemical product for control of sarcoptic mange in wombats.
- Guidelines for the Use of Fluralaner ('Bravecto® Spot-on Solution for Dogs') to Treat Sarcoptic Mange in Wombat. <a href="https://wombat-mange-treatment.weebly.com">https://wombat-mange-treatment.weebly.com</a>
   2022
- Australian Pesticides and Veterinary Management Authority PER90837. Permit to allow minor use of a registered agvet chemical product for control of sarcoptic mange in wombats.
   2021
- UTAS WomBot video on social media. Footage exploring wombat burrows attracting >5 million views in one week, making it the most viewed video ever released by UTAS. https://www.facebook.com/UniversityofTasmania/videos/381392396928848/
- NSW Government National Parks and Wildlife webinar series. Improving standards in the rehabilitation of wombats. https://youtu.be/CDVNRx2Wc M.
- World Congress of Veterinary Dermatology Q&A on Skin Diseases in Australian Wildlife. https://www.youtube.com/watch?v= xKjEOMxMCg&t=2s
- Wildlife Disease Association Strategic committee. Focused on the strategic international direction of the WDA.
- United Nations Biodiversity Conference COP 15. Parasite Biodiversity Day presentation on marsupial parasites.

2020

- Wildlife Disease Association Strategic committee. Focused on the strategic international direction of the WDA.

2019

- Wildlife Health Australia. Invited external consultation to the Future Directions Workshop of the organization, including overarching Mission and Objectives. March 1, 2019.
- National Mange Report. Member of National Coordination Team on mange disease in wombats. First meeting on March 1, 2019.
- Australian Government Department of Environment and Energy. Decision by the Minister for the Environment (Hon. Melissa Price MP) to remove the Vulnerable Category and delist the Bass Strait sub-species of wombat (*Vombatus ursinus ursinus*), supported by my labs genetic research (Martin et al. 2019). <a href="https://www.environment.gov.au/minister/price/media-releases/mr20190218a.html">https://www.environment.gov.au/minister/price/media-releases/mr20190218a.html</a>. February 18, 2019.
- Australian Government Senate Environment and Communications Reference Committee on Australia's faunal extinction crisis. Submission by Wombat Rescue Tasmania on the threats to wombats, featuring my labs research. February 4, 2019.

- National Coordination Team for mange in wombats formation.
- Tasmanian Government Legislative Council. Extended discussion wombat and wildlife health issues, featuring my labs research.
   <a href="https://www.parliament.tas.gov.au/lc/proceedings/2018/Hansard/LC%20Tuesday%2030%200">https://www.parliament.tas.gov.au/lc/proceedings/2018/Hansard/LC%20Tuesday%2030%200</a> ctober%202018.pdf. October 30, 2018

## **Press Releases**

- October 2022. Popular flea and paralysis tick treatment, Bravecto Spot-On for Dogs, is granted a permit by the Australian Pesticides and Veterinary Medicine Authority to combat sarcoptic mange in wombats. Joint press release by Bravecto and WIRES
- July 2022. New research into treating mange in koalas, The University of Sydney Koala Health Hub
- January 2021. Wombat research that's not to be sniffed at, Royal Society for Chemistry
- January 2021. Scientists get to the bottom of wombat cubed poo mystery proving you can fit a square peg through a round hole. University of Tasmania
- July 2019. New treatment program offers hop for controlling wombat mange. University of Tasmania
- March 2019. Range-wide population genetic structure of wombats analysed for the first time. University of Tasmania
- November 2018. Research suggest sex bias in ability to cope with deadly DFTD. University of Tasmania
- October 2018. Scientists explain mystery of wombats' cubed poop. American Institute of Physics. Maryland
- May 2018. University partners in international cancer research collaboration. University of Tasmania
- April 2018. New findings to help in the fight against wombat mange. University of Tasmania January 2018. Research sheds light on mite causing wombat mange. University of Sunshine Coast
- June 2017. Soaring high, but still in the neighbourhood. University of Tasmania News
- November 2016. Wombats suffering and dying from treatable disease, say experts. Cradle Coast Natural Resource Management
- August 2014. Puma project aims to prevent disease spread in wildlife. University of Tasmania News
- July 2014. Researchers examine disease in mountain lions. Colorado State University News November 2012. What we have in common with wild cats and other fellow urban-dwellers.

University of Tasmania News

- November 2012. Cool Cat in a Hot Zone: Urban bobcats pick up diseases from humans, not the reverse. NSF Press Release
- October 2012. Bobcats More Likely to Get Diseases from Urban Areas, Colorado State University Scientists Say. Colorado State University News
- March 2008. Dryland salinity in the grain belt causing viral infection risk. University of Western Australia Department of Agriculture and Food. Perth, Australia
- June 2005. Dryland salinity in the wheatbelt causing viral infection risk. Australian Government Department of Agriculture, Forestry and Fisheries

## **Media Engagement**

2024 Online: ABC, MSN, UGA Today, Knowable magazine

Television: Sky News

Podcasts: No Such Thing as Fish, UK

UGA: Odum School of Ecology News, EcoVoice magazine, UGA PSO

2023 Radio: ABC radio Tasmania, 2GB Sydney

Newspaper: The Mercury Tasmania

Television: ABC news

Online: ABC news, The Daily Mail, IFL Science

Podcasts: Wildlife Health Talks (WDA)

2022 Radio: ABC radio Tasmania

Newspaper: The Mercury Tasmania

Online: ABC news, SBS news, Canberra Times

*Documentary*: NOVA Secrets of the Scat (filmed in 2021 – awarded SCINEMA 2022 Best Film/Documentary)

2021 Radio: ABC radio Tasmania, Deutschland Radio Germany, 2GB Sydney, Times Radio

*Newspaper*: The Canberra Times, Port Macquarie News, The Mercury Tasmania, The West Australian

*Online*: Science, Royal Society for Chemistry, CNN, The Guardian, Huffington Post, GeoBeats, New Atlas, Every Little Thing podcast, BBC Earth Amaze Me

Television: The Late Show with Steph Colbert

Podcasts: RadioWeissen (Germany), Short Stuff (USA), Every Little Thing (USA), Voice of Real Australia

YouTube: Bizarre Beasts

2020 Television: ABC news Australia, WIN news, Southern Cross news

Radio: ABC radio, Tasmania

*Newspaper*: The Mercury, Tasmania, The Examiner, The Advocate, The Queensland Times

Online media: ABC news

Television: Al Jazeera. ABC news Australia, WIN news, Southern Cross news Radio: ABC radio, Tasmania, NSW and ACT, LAFM, NPR USA Newspaper: The Mercury, Tasmania, The Examiner, The Advocate Online media: Roaring 40's Kayaking, The Guardian, ABC news

2018 Television: Chanel Nine, Queensland. ABC news, Tasmania. The Project, Australia. Online media: PBS, The Guardian, Science News, National Geographic, CNN, The Washington Post, Campus review, Physics.org, Gizmodo, The Independent Radio: ABC radio, Tasmania, Canberra and Sydney Newspaper: The Mercury, Tasmania. The Examiner, Tasmania.

Documentaries: Anna and the Wild Animals, Kinderkanal and ARD, Germany

Podcasts: Utbildningsradion (Swedish Public Service broadcaster)

2017 Television: ABC news Australia

Newspaper: The Mercury, Tasmania. The Examiner, Tasmania.

Radio: ABC radio, Tasmania. Tasmania Talks with Brian Carlton, 7AD/7BU, Tasmania

Magazine: The veterinarian

Online media: Crinkling news

Television: ABC news Australia

Newspaper: The Mercury (cover story), Tasmania. The Advocate, Tasmania

*Radio*: ABC radio, Tasmania. LAFM, Tasmania. Tasmania Talks with Brian Carlton, 7AD/7BU, Tasmania

Online media: The Australian. SBS news. The Geelong Advertiser. News.com.au. Vice. Australian Geographic

2015 Television: ABC news Australia. ABC 7:30 Report

Documentaries: NHK Japan. Blink Films England

*Newspaper*: The Mercury, Tasmania (cover story). The Sunday Tasmanian. The Examiner, Tasmania. Advocate, Tasmania.



2016

Radio: Tas Broadcasters, Tasmania. ABC radio, Tasmania

Magazine: The veterinarian, Australian Geographic

Online media: BBC, The Guardian

2014 *Television*: ABC news Australia

Newspaper: The Mercury, Tasmania. The Examiner, Tasmania. The Denver Post,

Colorado. The Coloradoan, Colorado. The Minnesota Daily, Minnesota.

Radio: ABC radio, Tasmania Television: ABC news 2013 Newspaper: The Mercury, Tasmania Radio: ABC radio, Tasmania Online media: National Science Foundation research highlights 2012 Online media: National Science Foundation press release, Colorado State University Campus News, MSNBC, University of Tasmania news, AAAS Radio: ABC Launceston, Tasmania Newspaper: The Mercury, Tasmania 2011 Print media: Wild Felid Monitor Short videos: US Centres for Disease Control and Prevention 2009 Radio: 6PR Perth and ABC Rural, Western Australia 2007 Print media: The West Australian, Farmonline, The Albany Advertiser 2006 Radio: ABC Bunbury, Western Australia Print media: Landcare Journal (Australian Government, Land and Water), Focus on Salt magazine (Cooperative Research Centre for Plant Based Management of Dryland Salinity) 2005 Radio: Great Western News, Western Australia

# Other Relevant Training

- Clifton Strengths, Gallup, University of Georgia 2024
- Responding to Campus Tragedy / Teaching Through Tragedy, University of Georgia 2024
- Cybersecurity Awareness Training KnowBe4 2024 Social Engineering Red Flags, University of Georgia 2024

Print media: University of Western Australia News, The Great Southern Herald, The

- Ethics Training, University System of Georgia 2024
- IACUC 101, University of Georgia 2024

Great Southern Farmer

- Sharps Training, University of Georgia 2024
- Staying Healthy While Working with Animal, University of Georgia 2024s
- Employee Recruitment Training, University of Georgia 2024
- Statewide Fuel Card Standards and Guidelines, Georgia Department of Administrative Services 2024
- First Aid Training, University of Tasmania 2021
- Appropriate Workplace Behaviour, University of Tasmania 2021
- Work Health and Safety Induction and Training, University of Tasmania 2019
- Trauma First Aid, Sexual Assault Support Service, University of Tasmania 2019
- Improving grant writing success, University of Tasmania 2016
- Future Research Leaders Program, University of Tasmania 2015
- Introduction to Meta-Analysis and Research Synthesis in Ecology, University of Tasmania 2013
- Animal Care and Use training, Colorado State University 2012
- Ethical Conduct of Research (GRAD 544), Colorado State University 2011
- Information-Theoretic Approaches to Formal Inference, Colorado State University 2011
- Ecology and Evolution of Infectious Diseases: Modeling and analysis in R. University of Georgia 2009, Cornell University 2010.
- Media training, University of Western Australia 2007
- Recent Advances in Spatial Ecology: Theory and Practice, University of Western Australia 2006
- Detecting Multivariate Changes in Biological Assemblages: Experimental Design and Data Analysis, University of Western Australia 2005
- Animal Welfare, Ethics and Science, University of Western Australia 2005
- Working with Venomous Snakes. Department of Environment and Conservation, Western Australia 2005
- Electrofishing certificate, 4WD and ATV training, Massey University 2004

## **Invited Keynote, Plenary and Symposium Speeches**

- **Carver, S.** 2024. The ecology and control of sarcoptic mange in wombats. Entomological Society of America. Phoenix Arizona Invited symposium speaker
- Carver, S., 2022. Toward feasible control of sarcoptic mange disease in wombats. Australian Society for Parasitology, Cairns, Queensland Plenary presentation.
- Carver, S., Edwards, A., Martin, A. 2022. Intestines of non-uniform stiffness mould the corners of wombat faeces. Australasian Humour Society Network. Hobart, Tasmania. invited closing ceremony speech.
- **Carver, S.** 2018. Sarcoptic mange and wombats. Wombats Through Time and Space Conference. September 2018, Adelaide, South Australia. Talk title: Sarcoptic mange and wombats.
- CONSTAT 2018 (conference of the Science Teachers' Association of Tasmania). March 2018, Burnie, Tasmania invited but couldn't attend owing to other commitments at the time.

#### **Paid Presentations**

- Carver, S. September 2022. Ecology of bare-nosed wombats. New South Wales National Parks and Wildlife Service Wildlife Heroes webinar training
- Carver, S. May 2021. Sarcoptic mange disease of wombats in Australia. VetFest, Australian Veterinary Association, Online
- Carver, S. April 2021. The impacts and treatment of sarcoptic mange in wombats. New South Wales National Parks and Wildlife Service Wildlife Heroes webinar training
- Carver, S. October 2020. Sarcoptic mange in wombats and koalas. World Congress of Veterinary Dermatology, Online

## **Invited and Department Seminars**

- Carver, S. March 2023. Advancing disease control in wildlife. University of Tasmania, Hobart, Tasmania
- Carver, S. November 2022. Advancing disease control in wildlife. University of Georgia, Athens Georgia
- Carver, S. August 2022. The significance and management of sarcoptic mange disease in wombats, University of Montana Western
- Carver, S. May 2021. Sarcoptic mange disease of wombats in Australia. VetFest, Australian Veterinary Association, Online
- Carver, S. December 2020. Feigning excitement for statistics and experimental design in Animal Ethics applications, University of Tasmania
- Carver, S. October 2020. Sarcoptic mange in wombats and koalas. Australian Association of Animal Sciences, University of Queensland
- Carver, S. October 2020. Sarcoptic mange in wombats and koalas. World Congress of Veterinary Dermatology, Sydney
- Carver, S. September 2020. Ecology and control of sarcoptic mange in wombats. Launceston Field Naturalists, Launceston
- Carver, S. August 2020. Cubed poo, scabies and Scott Carver. Wildlife Disease Association Australasia Student Chapter, Melbourne
- Carver, S. June 2020. Mange in wombats current status. Government Roundtable, National Coordination Team, Melbourne
- Carver, S. February 2020. Ecology and control of sarcoptic mange in wombats. University of Turin, Turin, Italy
- Carver, S. August 2019. Ecology and control of sarcoptic mange in wombats. University of Georgia, Georgia
- Carver, S. August 2019. Ecology and control of sarcoptic mange in wombats. Georgia Tech, Georgia
- Carver, S. June 2018. Ecology of wildlife diseases. Virginia Tech, Blacksburg, Virginia

- Carver, S. June 2018. Mange in Oceania. Mange in Wildlife workshop, Virginia Tech, Blacksburg, Virginia.
- Carver, S. February 2018. Sarcoptic mange and wombats. Port Authur Historic Site talks, Tasmania
- Carver, S. September 2017. Sarcoptic mange and wombats. School of Zoology, La Trobe University
- Carver, S. August 2017. The fun parts of being a biologist. Freshman Seminar, Montana Tech of the University of Montana
- Carver, S. August 2016. Sarcoptic mange and wombats. CSU chapter of the Wildlife Disease Association, Colorado State University
- Carver, S. June 2016. Sarcoptic mange and wombats. School of Biological Sciences, University of Tasmania
- Carver, S. June 2016. Sarcoptic mange and wombats. Faculty of Health, Education and Engineering, University of the Sunshine Coast
- Carver, S. May 2016. Sarcoptic mange and wombats. Department of Ecology and Evolutionary Biology. University of Minnesota
- Carver, S. June 2015. What 'mite' be the future of wombats in Tasmania: impacts of and research on sarcoptic mange in Tasmania. Tasmanian Field Naturalists, University of Tasmania, Hobart, Tasmania
- Carver, S. March 2014. The impact of urbanization and habitat fragmentation on pathogens of North American felids. School of Zoology. La Trobe University, Melbourne
- Carver, S. July 2013. Dryland salinity, community ecology and the risk of Ross River virus. Australian Society for Limnology. Hobart, Tasmania
- Carver, S. April 2013. Climate, small mammals and transmission of a zoonotic hantavirus in North America. School of Zoology. University of Tasmania, Hobart, Tasmania
- Carver, S. November 2012. The Ecology of Ross River virus. Vector Borne Disease in Tasmania in a Changing Climate: Professional Communities of Practice Workshop. University of Tasmania, Hobart, Tasmania
- Carver, S., Bevins, S. N., Lappin, M. R., Crooks, K. R., VandeWoude, S. November 2012. The impact of urbanization and habitat fragmentation on pathogens of North American felids. School of Zoology. University of Tasmania, Hobart, Tasmania
- Carver, S., Bevins, S. N., Lappin, M. R., Crooks, K. R., VandeWoude, S. July 2012. The impact of urbanization and habitat fragmentation on pathogens of North American felids. Biofrontiers Institute. University of Colorado, Colorado Springs, Colorado
- Carver, S., Bevins, S. N., Lappin, M. R., Crooks, K. R., VandeWoude, S. May 2012. The impact of urbanization on pathogens of North American wild felids. Department of Microbiology, Immunology and Pathology. Colorado State University, Colorado
- Carver, S., Bevins, S. N., Lappin, M. R., Crooks, K. R., VandeWoude, S. March 2012. The impact of urbanization on pathogens of North American wild felids. Department of Ecology & Evolutionary Biology. University of California, Los Angeles
- Carver, S. December 2011. Climate, small mammals and transmission of a zoonotic hantavirus in North America. School of Biological Sciences. Victoria University of Wellington, New Zealand
- Carver, S. August 2010. Species interactions and environmental determinants of pathogen activity: Experiences with Ross River and Sin Nombre viruses. Department of Microbiology, Immunology and Pathology. Colorado State University, Colorado
- Carver, S. August 2010. Surveillance for zoonoses: Personal experience and a vision for NEON. National Ecological Observatory Network, Colorado
- Carver, S. January 2010. Dryland salinity and the ecology of Ross River virus: The potential for disease activity. Bureau of Mines and Geology. Montana Tech of the University of Montana, Montana
- Carver, S. April 2009. Dryland salinity and the ecology of Ross River virus: The potential for disease activity. Ministry for Agriculture and Forestry, Wellington

- Carver, S. April 2008. The potential for disease activity: dryland salinity and the ecology of Ross River virus. Environmental Consultants association. Perth, Australia
- Carver, S., Spafford, H., Storey, A., Weinstein, P. August 2007. Dryland salinity, risk perception and the ecology of Ross River virus. Pennsylvania State University, Pennsylvania
- Carver, S., Spafford, H., Storey, A., Weinstein, P. August 2007. Dryland salinity, risk perception and the ecology of Ross River virus. Carey Institute for Ecosystem Studies. Millbrook, New York
- Carver, S., Spafford, H., Storey, A., Weinstein, P. July 2006. Dryland salinity and the ecology of Ross River virus. Carey Institute for Ecosystem Studies. Millbrook, New York
- Carver, S., Bell, B. D., Mitchell, N. J., Waldman, B. January 2004. Global amphibian declines: trying to find out how chytrid kills frogs. Victoria University of Wellington. Wellington, New Zealand
- Carver, S., Bell, B. D., Mitchell, N. J., Waldman, B. March 2004. Global amphibian declines: trying to find out how chytrid kills frogs. Massey University. Palmerston North, New Zealand
- Bell, B. D., Carver, S., Mitchell, N. J. 2003. Global amphibian declines. Victoria University of Wellington. Wellington, New Zealand

## **Conference Presentations (incomplete list)**

- Carver, S. 2024. The ecology and control of sarcoptic mange in wombats. Entomological Society of America. Phoenix Arizona
- Wells, M. R., Lea, M. A., Philips, A., Carver, S. 2023. Impacts of terrestrial and marine influences on a seabird sentinel, the little penguin. International Penguin conference, Vina del Mar, Chile
- Richards, S. A., Carver, S., Wilkinson, V., Martin, A. 2022. Adaptive treatment of wombats with mange in the field. One Health conference, Hobart, Tasmania.
- Wells, M., Philips, A., Lea, M. A., Carver, S. 2022. Investigating health of little penguins as a sentinel of Tasmanian ecosystem health. Cradle Coast Academic Community, Devonport, Australia
- Wells, M. R., Coggan, T. L., Stevenson, G., Philips, A., Lea, M. A., Carver, S. Per- and polyfluoroalkyl substances (PFAS) in nesting material and blood of little penguins along a gradient of human disturbance. Wildlife Disease Association Australasia, Victoria, Australia.
- Carver, S. 2022. Toward feasible control of sarcoptic mange disease in wombats. Wildlife Disease Association, Madison, Wisconsin.
- **Carver, S.** 2022. Toward feasible control of sarcoptic mange disease in wombats. Australian Society for Parasitology, Cairns, Queensland Plenary presentation.
- Mounsey, K., Takano, K., Carver, S., Vetter, I., Harvey, R. 2022. Molecular and functional characterisation of the ligand-gated chloride channel superfamily of *Sarcoptes scabiei*: opportunities for improved control of sarcoptic mange. Australian Society for Parasitology, Cairns, Queensland.
- Takano, K., Mounsey, K., Carver, S., Chen, I., Fraser, T., Holme, R., Harvey, R. 2022. Sequence characterisation of Glutamate and GABA-gated chloride channels from wombat derived scabies mites (*Sarcoptes scabiei*). Australian Society for Parasitology, Cairns, Queensland.
- Fountain-Jones, N., Appaw, R., Carver, S., Charleston, M. 2022. Network approaches to model parasite dynamics: a guide. Australian Society for Parasitology, Cairns, Queensland.
- Carver, S., Edwards, A., Martin, A. 2022. Intestines of non-uniform stiffness mould the corners of wombat faeces. Australasian Humour Society Network. Hobart, Tasmania. invited closing ceremony speech.
- Næsborg-Nielsen, C., Eisenhofer, R., Fraser, T., Wilkinson, V., Burridge, C., Carver, S. 2022. There and back again: a wombat's mangy tale. Pathology and control of *S. scabiei* in barenosed wombats (*Vombatus ursinus*). Regional Research and Education Conference, Devonport, Tasmania.
- Carver, S. 2021. Sarcoptic mange disease of wombats in Australia. VetFest, Australian Veterinary Association, Online

- Carver, S. 2019. How research on wombat disease is a diverse landscape of social and ethical challenges. ANZCCART. Hobart, Tasmania.
- Carver, S. 2019. The impact and control of sarcoptic mange in wombat populations. Australian Society for Parasitology. Adelaide, Australia.
- Martin, A., Richards, S., Carver, S. 2018. Treatment of wombats for sarcoptic mange disease informs solutions for population scale disease control. Ecological Society of America. New Orleans, Louisiana.
- Yang, P. J., Chan, M., Carver, S., Hu, D. L. 2018. How do wombats make cubed poo? American Physical Society's Division of Fluid Dynamics. Atlanta, Georgia.
- Yazar, S., Fraser, T. A., Meynert, A., Moussalli, A., Austin, J. J., Deakin, D., Martin, A., Hung, S. S., Mackay, D. A., Oz Mammal Genomics Consortium, MacDonald, A. J., Polkinghorne, A., Brown, M. A., Taylor, M., Semple, C., Carver, S., Hewitt, A. W. 2018. De novo genome and transcriptome assemblies of the bare-nosed wombat. Wombats Through Time and Space, Adelaide, Australia.
- Yazar, S., Fraser, T. A., Meynert, A., Moussalli, A., Austin, J. J., Deakin, D., Martin, A., Hung, S. S., Mackay, D. A., Oz Mammal Genomics Consortium, MacDonald, A. J., Polkinghorne, A., Brown, M. A., Taylor, M., Semple, C., Carver, S., Hewitt, A. W. 2018. De novo genome and transcriptome assemblies of the bare-nosed wombat. Genome Science, Nottingham, UK.
- Lizarraga, D. M., Carver, S., Timms, P. 2018. Reviewing the effects of chlamydial immunisations on the host immune system. Australian Society for Microbiology, Brisbane, Queensland.
- Koolhof, I. S., Bettiol, S., Charleston, M., Carver, S. 2018. Ecology and epidemiology of Ross River virus dynamics across Australia. Australian Epidemiology Society, Perth, Western Australia.
- Koolhof, I. S., Bettiol, S., Charleston, M., Carver, S. 2018. Ecology and epidemiology of vector-borne disease dynamics across Australia, Ross River virus. Mosquito Control Association of Australia, Tweed Shire, New South Wales.
- Fountain-Jones, N. M., Carver, S., Kraberger, S., Gagne, R., Trumbo, D., Salerno, P., Funk, W. C., Crooks, K., Biek, R., Alldredge, M., Logan, K., Dellicour, S., Ernst, H. B., VandeWoude, S., Craft, M. E. 2018. Resistance across the urban to rural interface: what restricts or promotes the spread of viruses in puma (*Puma concolor*). Ecological Society of America, New Orleans, Louisiana.
- Kozakiewicz, C. P., Burridge, C. P., Funk, W. C., Salerno, P. E., Trumbo, D., Gagne, R. B., Crooks, K. R., VandeWoude, S., Boydston, E., Lyren, L., Jennings, M., Riley, S. P. D., Serieys, L., Carver, S. 2018. Regional- and local-scale landscape influences on functional connectivity of bobcats in urbanized southern California. Ecological Society of America, New Orleans, Louisiana.
- Fountain-Jones, N. M., Carver, S., Kraberger, S., Gagne, R., Trumbo, D., Salerno, P., Funk, W. C., Crooks, K., Biek, R., Alldredge, M., Logan, K., Dellicour, S., Ernst, H. B., VandeWoude, S., Craft, M. E. 2018. Resistance across the urban to rural interface: what restricts or promotes the spread of viruses in puma (*Puma concolor*). Ecological and Evolution of Infectious Diseases, Glasgow, Scotland.
- Beeton, N., Carver, S., Forbes, L. 2018. Modelling mange in the common wombat. Australian and New Zealand Industrial and Applied Mathematics, Hobart, Tasmania.
- Martin, A., Burridge, C., Fraser, T., Carver, S. 2017. Impacts and control of sarcoptic mange in the bare-nosed wombat, Wildlife Disease Association Australasia, Falls Creek, Victoria.
- Martin, A., Burridge, C., Fraser, T., Carver, S. 2017. Impacts and control of sarcoptic mange in the bare-nosed wombat, Ecological Society of America, Portland, Oregon.
- Carver, S., Fountian-Jones, N., Craft, M., Funk, W. C., Kozakiewicz, C., Trumbo, E., Boydston, E., Lyren, L., Crooks, K., Lee, J., VandeWoude, S. 2017. Urban landscapes can slow viral spread and evolution in a fragmentation sensitive carnivore. Wildlife Disease Association Australasia, Falls Creek, Victoria.
- Carver, S., Fountian-Jones, N., Craft, M., Funk, W. C., Kozakiewicz, C., Trumbo, E., Boydston, E., Lyren, L., Crooks, K., Lee, J., VandeWoude, S. 2017. Urban landscapes can slow viral

- spread and evolution in a fragmentation sensitive carnivore. Ecological Society of America, Portland, Oregon.
- Burnard, D., Devlin, J., Carver, S., Timms, P., Polkinghorne, A. 2017. Novel *Ca*. Rhabdochlamydia sp. associated with both native Australian marsupials and their parasitising tick species. ESCCAR.
- Munks, S., MacGregor, J., Lunn, T., Carver, S. 2017. Platypuses and land-use practices: catchement-scale studies provide some insight into the effect of forestry and agriculture. International Mammal Congress, Perth, Western Australia.
- Fraser, T., Carver, S., Polkinghorne, A. 2016. Characterisation of the bare-nosed wombat immune response to sarcoptic mange. Wildlife Disease Association. Cornell University, New York.
- Carver, S., Dent, C., Forbes, L., Beeton, N. 2016. The ecology of Ross River virus transmission and impacts of control in southwestern Australia. MCAA, Gold Coast, Queensland.
- Koolhof, I. S., Bettiol, S., Carver, S. 2016. Predictive forecasting of Ross River virus outbreaks and their relative severity in Western Australia. MCAA, Gold Coast, Queensland.
- Kellner, A., Carver, S., Scorza, V., McKee, C. D., Lappin, M., Crooks, K. R., VandeWoude, S., Antolin, M. F. 2016. Cross-species transmission of a feline haemoplasma from domestic to wild cats. Ecology and Evolution of Infectious Diseases. Cornell University, New York.
- Kellner, A., Scorza, V., Carver, S., Lappin, M., Crooks, K. R., VandeWoude, S., Antolin, M. F. 2016. Cross-species transmission of a multi-host feline pathogen between wild and domestic cats. Colorado Chapter of the Wildlife Society conference, Colorado Springs, Colorado.
- Carver, S., Fountain-Jones, N., Craft, M., Lee, J. S., Kozakiewicz, C., Crooks, K., VandeWoude, S. November 2015. Relatedness and urban development shape viral transmission dynamics in bobcats. Phylomania, University of Tasmania, Tasmania.
- Carver, S., Sprague, W., Troyer, R., Zheng, C., Wood, B., Miller, C., MacMillan, M, VandeWoude, S. 2015. Interactions of Feline Immunodeficiency virus with the immune system of domestic cats. ANZBMS, MEPSA and MBSANZ, Hobart, Tasmania, Australia.
- Waugh, C. A., Khan, S. A., Carver, S., Hanger, J., Loader, J., Moody, K., Begley, K., Polkinghorne, A., Timms, P. 2015. Immunization against Chlamydia pecorum in wild-caught koalas (Phascolarctos cinerius) is associated with a reduced chlamydial burden and less progression to pathology. Wildlife Diseases Association International, Sunshine Coast, Queensland, Australia.
- Ruiz-Arvena, M., Hamede, R., Carver, S., Jones, M. 2015. Devil-tumour physiological relationships: is there room for coevolution between devil and tumour? Australian Mammal Society, University of Tasmania, Tasmania.
- **Carver, S.**, Fountain-Jones, N., Craft, M., Lee, J. S., Kozakiewicz, C., Crooks, K., VandeWoude, S. July 2015. Ecophylodynamic approaches reveal that relatedness and urban development shape viral transmission dynamics in bobcats (*Lynx rufus*). Australian Mammal Society, University of Tasmania, Tasmania.
- Koolhof, I., Carver, S. July 2015. Epidemic host community contribution to mosquito-borne disease transmission: Ross River virus. Australian Mammal Society, University of Tasmania, Tasmania.
- Beeton, N., Carver, S. July 2015. Understanding the role of macropods in Ross River virus transmission. Australian Mammal Society, University of Tasmania, Tasmania.
- Hamede, R., Pearse, A. M., Swift, K., Barmuta, L., Murchison, E., Beeton, N., Carver, S., Jones, M. July 2015. What's in a strain? Competition in tumour genetic lineages and host population response in Tasmanian devil facial tumour disease. Australian Mammal Society, University of Tasmania, Tasmania.
- **Carver, S.** September 2014. Determining host contributions to Ross River virus transmission across Australia. Mosquito Control Association of Australia, Mandurah, Australia.
- Carver, S. October 2013. Sarcoptic mange in common wombats from Narawntapu national park, Tasmania. Wildlife Diseases Association. Grampians National Park, Victoria, Australia
- Troyer, R. M., Beatty, J. A., Stutzman-Rodriguez, K., Carver, S., Lozano, C. C., Lee, J. S., Lappin, M. R., Quackenbush, S. L., VandeWoude, S. September 2013. Identification of

- novel gammaherpesviruses in felids. Rocky Mountain Virology Association. Pingree Park, Colorado
- Rowbottom, R., Allen, G., Carver, S., Barmuta, L., Weinstein, P. August 2013. Vector mosquitoes increase generation times in the presence of competitors. Ecological Society of America. Minneapolis, Minnesota
- Hoon-Hanks, L. L., Haley, N. J., Henderson, D., **Carver, S.**, Caughey, B., Hoover, E. A. January 2013. Analysis of cervid field samples for chronic wasting disease by RT-QuIC: potential for greater sensitivity in surveillance and modeling. College of Veterinary and Medical Biosciences Research Day. Colorado State University, Fort Collins
- Rowbottom, R., Allen, G., Carver, S., Barmuta, L., Weinstein, P. November 2012. Ecological interaction and the Ross River virus vector, *Aedes camptorhynchus* (Diptera: Culicidae), in Tasmania. Australian Society of Entomology conference, Hobart, Tasmania
- **Carver, S.**, Bevins, S. N., Lappin, M. R., Crooks, K. R., VandeWoude, S. March 2012. The impact of urbanization on pathogens of North American wild felids. NSF EEID conference. University of California, Berkeley
- Haley, N. J., Mathiason, C. K., Carver, S., Telling, G. C., Zabel, M. D., Hoover, E. A. May 2012. Sensitivity of protein misfolding cyclic amplification vs. immunohistochemistry in antemortem detection of chronic wasting disease. Prion. Amsterdam, Netherlands
- Carver, S., Bevins, S. N., Lappin, M. R., Crooks, K. R., VandeWoude, S. December 2011. The impact of urbanization on pathogens of North American wild and domestic felids. Conservation Biology. Auckland, New Zealand
- Carver, S., Bevins, S. N., Lappin, M. R., Crooks, K. R., VandeWoude, S. September 2011. The impact of urbanization on pathogens of North American wild and domestic felids. Rocky Mountain Virology Association. Pingree Park, Colorado
- Carver, S., Bevins, S. N., VandeWoude, S., Crooks, K. R., Lappin, M. R. August 2011. Mechanisms of intra- and inter-specific transmission of a newly discovered pathogen: hemoplasma in felids. Ecological Society of America. Austin, Texas
- Carver, S., Mills, J. N., Kuenzi, A., Douglass, R. August 2010. Precipitation gradients drive human-deer mouse interactions and incidence of Hantavirus Pulmonary Syndrome across the US. Ecological Society of America. Pittsburgh, Pennsylvania
- Carver, S., Kuenzi, A., Alvarado, A., Bagamian, K. H., Mills, J. N., Douglass, R. September 2009. Hantavirus infection in deer mice in Montana: effect of intermittent presence of voles. NIH COBRE-INBRE, Big Sky, Montana
- Carver, S., Kuenzi, A., Alvarado, A., Bagamian, K. H., Mills, J. N., Douglass, R. August 2009. Hantavirus infection in deer mice in Montana: effect of intermittent presence of voles. Ecological Society of America. Albuquerque, New Mexico
- Carver, S., Dryland salinity and the ecology of Ross River virus, September 2007. Royal Society of Western Australia postgraduate symposium. Perth, Australia
- Jardine, A., Speldewinde, P. Carver, S. January 2007. Dryland salinity and human health outcomes. EcoHealth. Melbourne, Australia
- **Carver, S.**, Dryland salinity and the ecology of Ross River virus, August 2006. Ecological Society of America. Memphis, Tennessee
- **Carver, S.,** Waldman, B., Bell, B. February 2005. Chytridiomycosis does not affect the skin function of the southern bell frog *Litoria raniformis*. Australian Society of Herpetology, Society for the Research of Amphibians and Reptiles in New Zealand, Fijian Society of Herpetologists
- Carver, S., Bell, B., Killick, M. August 2004. Offshore Island susceptibility to chtyrid invasion. New Zealand Department of Conservation National Frog Recovery Group meeting. Auckland, New Zealand
- Carver, S., Bell, B., Waldman, B., Mitchell, N. August 2003. How chytrid *Batrachochytrium dendrobatidis* influences amphibian physiology. New Zealand Department of Conservation National Frog Recovery Group meeting. Hamilton, New Zealand

## **Posters (incomplete list)**

- Carver, S. 2024. The ecology and control of sarcoptic mange in wombats. Entomological Society of America. Phoenix Arizona
- Wells, M. R., Coggan, T. L., Stevenson, G., Philips, A., Lea, M. A., Carver, S. 2023. Per- and polyfluoroalkyl substances (PFAS) in nesting material and blood of little penguins along a gradient of urbanisation in Tasmania. International Penguin conference, Vina del Mar, Chile.
- Bashor, L., Kozakiewicz, C., Nehring, M., Behzadi, E., Miller, C., Kim, J., Conry, M., Carver, S., Rawlinson, J., Abdo, Z., VandeWoude, S. 2023. Notable characteristics of the oral microbiome of domestic cats infected with Feline Immunodeficiency Virus in the presence and absence of antiretroviral therapy. Colorado State University College of Veterinary and Medical BioSciences Research Day, Fort Collins, Colorado.
- Næsborg-Nielsen, C., Eisenhofer, R., Fraser, T., Wilkinson, V., Burridge, C., Carver, S. 2022. Mange and microbes: microbial changes associated with sarcoptic mange in bare-nosed wombats (*Vombatus ursinus*). Wildlife Disease Association, Madison, Wisconsin.
- Wilkinson, V., Takano, K., Nichols, D., Martin, A., Holme, R., Phalen, D., Mounsey, K., Charleston, M., Kreiss, A., Pye, R., Browne, E., Næsborg-Nielson, C., Richards, S.A., Carver, S. 2021. Fluralaner as a novel treatment for sarcoptic mange in the bare-nosed wombat (*Vombatus ursinus*): safety, pharmacokinetics, efficacy and practicable use. Wildlife Disease Association, online.
- Lizarraga, D., Timms, P., Quigley, B., Carver, S. 2019. How does vaccination protect koalas against *Chlamydia*? Australian Society for Microbiology, Adelaide, Australia.
- Ruiz-Aravena, M. Carver, S., Hamede, R. K., Woods, G., Lyons, B., Malley, R., Kalodimou, G., Espejo, C., Storfer, A., Jones, M. E. 2019. Femalse cope better with cancer: Tasmanian devils and facial tumour disease. Ecology and Evolution of Infectious Diseases, Princeton, New Jersey, USA.
- Kuenzi, A. J., Douglass, R. J., Mills, J. N., Carver, S. 2018. Host and pathogen dynamics differ where spillover occurs. Wildlife Disease Association. Florida, USA.
- Vandewoude, S., Crooks, K., Love, H., Bentley, E., Tracey, A., Earnest, H., Funk, W. C., Gagne, E., Carver, S., Craft, M. 2018. Broader impacts as real world applications. Ecology and Evolution of Infectious Diseases, Glasgow, Scotland.
- Lizarraga, D. M., Carver, S., Timms, P. 2018. Reviewing the effects of chlamydial immunizations on the host immune system. Australian Parasitology Society, Melbourne, Victoria.
- Gilbertson, M. L. J., White, L. A., Vickers, T. W., Boyce, W. M., Carver, S., VandeWoude, S., Craft, M. E. 2018. The dynamics of puma (*Puma concolor*) contact networks and consequences for pathogen transmission. International Conference on One Medicine One Science, Minneapolis, Minnesota.
- Gagne, R., Trumbo, D., LaCava, M., Salerno, P., Kozakiewicz, C., Malmberg, J., Kraberger, S., Fountain-Jones, N., Vickers, W. T., Riley, S., Sikich, J., Boyce, W., Craft, M., Carver, S., Crooks, K., Funk, W. C., VandeWoude, S., Ernest, H. 2018. Genomics identify landscape variation of host and viral spread in urban landscapes. Ecology and Evolution of Infectious Diseases, Glasgow, Scotland.
- Bommana, S., Walker, E., Carver, S., Timms, P., Polkinghorne, A. 2016. Improving our understanding of the diagnosis, prevalence and impact of *Chlamydia pecorum* infections on prime lamb production in Australia. Australian Society for Parasitology, Brisbane, Australia.
- Kozakiewicz, C., Burridge, C., Funk, W. C., VandeWoude, S., Crooks, K., Carver, S. 2016. Review: landscape genetics of diseases. Ecology and Evolution of Infectious Diseases. Cornell University, New York.
- Martin, A., Burridge, C., Carver, S. 2015. Impacts and control of sarcoptic mange in common wombats. Australian Mammal Society, University of Tasmania, Tasmania.
- Fraser, T., Polkinghorne, A., Carver, S. 2015. Transcriptional and phylogenetic analysis of progressive sarcoptic mange in the common wombat. Australian Mammal Society, University of Tasmania, Tasmania.

- Kozakiewicz, C., Burridge, C., Funk, C. W., Crooks, K., VandeWoude, S., Carver, S. 2015. Landscape genomics of disease transmission in southern Californian bobcats, Australian Mammal Society, University of Tasmania, Tasmania.
- Fountain-Jones, N., Craft, M., Lee, J. S., Kozakiewicz, C., Crooks, K., VandeWoude, S., Carver, S. 2015. Ecophylodynamic approaches reveal that relatedness and urban development shape viral transmission dynamics in bobcats (*Lynx rufus*), Ecology and Evolution of Infectious Disease, University of Georgia, Georgia
- Jones, M., Carver, S., VandeWoude, S., Crooks, K., Craft, M. 2015. Spatial autocorrelation in pathogen serostatus for bobcat and puma, Points of Pride Research Day, College of Veterinary Medicine, University of Minnesota, Minneapolis
- Waugh, C. A., Ali Khan, S., Carver, S., Beagley, K., Polkinghorne, A., Hanger, J., Loader, J., Timms, P. 2015. Immunization against *Chlamydia pecorum* in wild-caught koalas (*Phascolarctos cinereus*) is associated with a reduced chlamydial burden and less progression to pathology. Wildlife Diseases Association. Maroochydoore, Australia.
- Jones, M., Carver, S., VandeWoude, S., Crooks, K. R., Craft, M. 2014. Spatial autocorrelation in pathogen serostatus for bobcat and puma, Merial-NIH National Veterinary Scholars Program Symposium, Cornell University, New York
- Stutzman-Rodriguez, K., Troyer, R., Beatty, J., Carver, S., Lappin, M., VandeWoude, S. July 2013. Novel gammaherpesviruses in mountain lions and domestic cats: variations in prevalence and predictor variables. College of Veterinary and Medical Biosciences Veterinary Summer Scholarship symposium. Colorado State University, Fort Collins
- Van de Motter, A. D., Haley, N. J., Carver, S., Seelig, D. M., Mathiason, C. K., Henderson, D., Telling, G., Hoover, E. A. January 2013. Detection of chronic wasting disease prions in cerebrospinal fluid by in vitro amplification. College of Veterinary and Medical Biosciences Research Day. Colorado State University, Fort Collins
- Hoon-Hanks, L. L., Haley, N. J., Henderson, D., Carver, S., Caughey, B., Hoover, E. A. February 2013. Analysis of cervid field samples for chronic wasting disease by RT-QuIC: potential for greater sensitivity in surveillance and modeling. CMB Research Day, Fort Collins
- Hoon-Hanks, L. L., Haley, N. J., Henderson, D., Carver, S., Caughey, B., Hoover, E. A. May 2013. Analysis of cervid field samples for chronic wasting disease by RT-QuIC: potential for greater sensitivity in surveillance and modeling. International Prion Congress. Banff, Alberta
- Carver, S., VandeWoude, S. August 2012. Elucidating Mechanisms of FIV Co-infection Dynamics. 11th International Feline Retrovirus Research Symposium. Leipzig, Germany
- Carver, S., Bevins, S. N., Lappin, M. R., Crooks, K. R., VandeWoude, S. May 2012. How does urbanization impact pathogen exposure in North American felids? Ecology and Evolution of Infectious Diseases. University of Michigan, Ann Arbor
- Scorza, A. V., Carver, S., Bevins, S. N., Crooks, K. R., VandeWoude, S., Lappin, M.R. March 2012. Shedding of zoonotic parasites by bobcats in human-occupied landscapes. NSF EEID conference. University of California, Berkeley
- Carver, S., Bevins, S. N., VandeWoude, S., Crooks, K. R., Lappin, M. R. June 2011. Determining mechanisms of intra- and inter-specific hemoplasma transmission in felids. Ecology and Evolution of Infectious Diseases. University of California, Santa Barbara
- Carver, S., Bevins, S. N., VandeWoude, S., Crooks, K. R., Lappin, M. R. March 2011.

  Determining mechanisms of intra- and inter-specific hemoplasma transmission in felids. NSF EEID conference. University of Wisconsin, Madison
- Haley, N. J., Mathiason, C. K., Carver, S., Zabel, M., Telling, G. C., Hoover, E. A. May 2011. Detection of CWD prions in salivary, urinary, and intestinal tissues of deer: potential mechanisms of prion shedding and transmission. Prion. Quebec, Canada
- Carver, S., Bell, B. D., Waldman, B. June 2010. Does chytridiomycosis disrupt amphibian skin function? Ecology and Evolution of Infectious Diseases. Cornell University, Cornell

- Carver, S., Kuenzi, A., Mills, J. N., Flietstra, T., Douglass, R. May 2009. When is enough sampling enough? Host population and zoonotic pathogen dynamics: deer mice, *Peromyscus maniculatus*, and Sin Nombre virus. Ecology Evolution of Infectious Diseases. University of Georgia, Athens
- Jardine, A., Speldewinde, P., Carver, S. 2006. Dryland salinity and human health outcomes; restoring the balance. Proceedings from ISEE/ISEA, Paris, France International Society for Environmental Epidemiology 2006, Paris, France

## **Other Professional Presentations**

- Carver, S. December 2024. Research interests. OSE-SCWDS meeting
- Carver, S. December 2024. Vector research interests. CEID Vector Working Group.
- Drake, J., Carver, S. November 2024. Interests and Capabilities of the Center for the Ecology of Infectious Diseases. UGA presentation to Department of Defense consultants.
- Carver, S. October 2024. Discovering Down Under. Linger Longer Living. Reynolds Lake Oconee
- Carver, S. October 2024. 5th Annual Government Roundtable Mange in Wombats
- Carver, S. June 2024. Advancing disease control science and application in wildlife. OSE Emeritus Faculty Lunch. University of Georgia, Athens Georgia
- Carver, S. April 2024. Advancing disease control science and application in wildlife. OSE Alumni Board Meeting. University of Georgia, Athens Georgia
- Carver, S. March 2024. How to run a successful meeting. CEID Professional Development Series. Effective Collaboration Workshops. University of Georgia, Athens Georgia
- Carver, S. March 2024. My career as a wildlife disease ecologist. OSE staff meeting. University of Georgia, Athens Georgia
- Carver, S. March 2024. Advancing control of sarcoptic mange in wombats. Australian Pesticides and Veterinary Management Authority