Andrew W. Park

Contact Information	Odum School of Ecology University of Georgia Athens, GA 30602-2202 USA	*Phone:* (706) 542-5373 *E-mail:* awpark@uga.edu

ACADEMIC HISTORY

Present rank	Associate Professor, University of Georgia (2014 – present)
Allocation of effort (% time) assignments	60% Scholarship (0.449 EFT), 33% Teaching (0.248 EFT), 7% Service (0.053 EFT)
Tenure status	Tenured (2014)
Highest degree	PhD Biology, University of Cambridge, UK, 2001
Graduate Faculty status	Current
Academic positions	Undergraduate, Aston University, UK *B.S., Mathematics & Chemistry, 1991-1994* Masters graduate student, University of Dundee, UK *M.S., Mathematical Biology, 1995-1996* (*Distinction*) PhD graduate student, University of Cambridge, UK *Ph.D., Biology, 1996-2001 (Advisor: Prof. Christopher A. Gilligan)* Postdoctoral Fellow (2001-2003), Dept. Zoology (University of Cambridge, UK) Postdoctoral Fellow (2004-2005), Dept. Mathematics & Statistics (York University, Canada) & Dept. Biology (Queen's University, Canada) Visiting Fellow (2005) Australian National University Postdoctoral Fellow (2005-2008), Swiss Federal Institute for Aquatic Science and Technology (Zürich, Switzerland) & Institut de Recherche pour le Développement (Montpellier, France) Assistant Professor, University of Georgia (2008-2014) Associate Professor, University of Georgia (2014 – present) • Odum School of Ecology (2008 – present) • Dept. Infectious Diseases, College of Veterinary Medicine (2008 – present) • Faculty of Infectious Diseases (2008 – present) • Institute of Bioinformatics (2008 – present) • Bimoedical Health Sciences Institute (2014 – present)
Postgraduate awards	2005 International Visiting Fellowship - Australian National University (~$5,000)

INSTRUCTION

Courses taught

Population and community ecology (ECOL 4000/6000, 3CR, 50% effort, except 2012 100%)
Fall: 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020
Typical enrollment: 30

Population biology of infectious diseases (ECOL/BIOL 4150L/6150L, 4CR, 50% effort)
Spring: 2010, 2011, 2012, 2014, 2015, 2016, 2017, 2019
Typical enrollment: 40

Modeling infectious diseases (EPID/ECOL/IDIS 8515L, 4CR, 50% effort)
Fall: 2009
Typical enrollment: 15

Cross disciplinary ecology (ECOL 8030, 1CR, 25% effort)
Fall: 2010
Typical enrollment: 30

Ecology and evolution of infectious diseases (IDIS 8050, 1CR, 50% effort)
Fall: 2011, 2013, 2015, 2018
Typical enrollment: 30

Research methods in disease ecology (ECOL/IDIS 8140L, 4CR, 50% effort)
Fall: 2012
Typical enrollment: 10

Topics in modern ecology (ECOL 8000, 3CR, 25% effort)
Fall: 2016, 2017
Typical enrollment: 15

Fundamentals of disease biology (ECOL 8510L, 4CR, 50% effort)
Fall: 2016, 2017, 2019, 2020
Typical enrollment: 20

Vaccines: From design to development (IDIS 8020, 3CR, 10% effort)
Fall: 2016, 2017, 2019
Typical enrollment: 15

Scientific programming (ECOL 8540, 2CR, 50% effort):
Maymester: 2017, 2019, 2020
Typical enrollment: 20

FYOS: Understanding and communicating uncertainty, 1CR, 100% effort
Spring: 2017
Typical enrollment: 15

Development of new courses

Population and community ecology (ECOL 4000/6000): Devised new computational research projects (2016)

Population biology of infectious diseases (ECOL/BIOL 4150L/6150L): Devised new lab activities and new lectures (2012-present)

Modeling infectious diseases (EPID/ECOL/IDIS 8515L): New course (2009)

Cross disciplinary ecology (ECOL 8030): Devised new modules (2010)

Ecology and evolution of infectious diseases (IDIS 8050): New course (2011)

Research methods in disease ecology (ECOL/IDIS 8140L): New course (2012)

Topics in modern ecology (ECOL 8000): Devised new modules (2016, 2017)

Fundamentals of disease biology (ECOL 8510L): New course and new modules (2016, 2017, 2019)

Vaccines: From design to development (IDIS 8020): Devised new lectures and activities (2016)

Scientific programming (ECOL 8540): New course (2017)

FYOS: Understanding and communicating uncertainty: New course (2017)

Theses Directed

Chris Cleveland, MS Population Health (joint supervision with Dr. J. Corn), 2013-2015 "Metacommunity ecology links environmental drivers to *Culicoides* spp. communities and hemorrhagic disease reports in the southeastern United States" - Currently Assistant Professor SCWDS, UGA

Brett Berry, MS Ecology (joint supervision with Dr. J. Porter), 2013-2016 "Quantifying the effects of White Pox disease and bleaching in elkhorn coral in the Florida Keys from 1994-2014" - Currently Associate, GA State Environmental Protection Division

Ashton Griffin, PhD Ecology (joint supervision with Dr. J. Porter), 2012-2018 "Understanding and predicting coral disease across scales" - Currently Data Scientist, MailChimp, Atlanta GA

TJ Odom, PhD Ecology, Topic: Consequences of climate-tracking species on their host-parasite interactions, expected 2025

John Vinson, PhD Ecology, 2013-2020 "Vector-borne parasite transmission potential in ecological communities" - Currently Post-doctoral associate, Center for Ecology of Infectious Diseases, UGA

David Vasquez, PhD Ecology, Topic: The role of host, environment, and co-infecting parasites on parasite abundance and distribution, expected 2022

Annakate Schatz, PhD Ecology (joint supervision with Dr. S. Altizer), Topic: The macroecology of parasites of invasive host species, expected 2023

Daniel Suh, PhD Ecology, Topic: Community competence and amphibian pathogen transmission, expected 2024

Thesis Committees

Amy Briggs, PhD Ecology (advisor: Craig Osenberg, ongoing)

Mary Browning, MS Genetics (advisor: Nancy Manley, completed 2015)

Sarah Bowden, PhD Ecology (advisor: John Drake, completed 2016)

Austin Coleman, MS Ecology (advisor: Stacey Lance, completed 2018)

Tad Dallas, PhD Ecology (advisor: John Drake, completed 2016)

Lambodhar Damodaran, PhD Bioinformatics (advisor: Justin Bahl, ongoing)

Ming Fung, MS Pathology (advisor: Nicole Gottdenker, completed 2012)

Elizabeth Hamman, PhD Ecology (advisor: Craig Osenberg, completed 2017)

Reni Kaul, PhD Ecology (advisor: John Drake, ongoing)

Shamus Keeler, PhD Population Health (advisor: Dave Stallknecht, completed 2012)

Yan Li, PhD Public Health (advisor: Andreas Handel, completed 2013)

Paige Miller, PhD Ecology (advisor: John Drake, completed 2020)

Mike Newberry, PhD Ecology (advisor: Sonia Altizer, Courtney Murdock, ongoing)

Robbie Richards, PhD Ecology (advisor: John Drake, Vanessa Ezenwa, ongoing)

Kate Sabey, PhD Infectious Diseases (advisor: Vanessa Ezenwa, ongoing)

Dara Satterfield, PhD Ecology (advisor: Sonia Altizer, completed 2016)

Brittany Seibert, PhD Comparative Biomedical Sciences (advisor: Daniel Perez, ongoing)

Megan Tomamichel, PhD Ecology (advisor: Jeb Byers, Richard Hall, ongoing)

Kathryn Worsley-Tonks, MS Ecology (advisor: Vanessa Ezenwa, completed 2012)

Rachel Xu, PhD Bioinformatics (advisor: Liliana Salvador, ongoing)

Nibiao Zheng, PhD Public Health (advisor: Andreas Handel, completed 2013)

Undergraduate mentorship

2009 Amanda Perofsky: Spatio-temporal dynamics of epizootic hemorrhagic disease (research assistant)

2010 Ashton Griffin: Spatial tracking of infectious diseases (directed reading)

2010 Elliot Rickett: Population and community ecology (directed reading)

2010 Brad White: Effect of deer density on spread of viral epizootic hemorrhagic disease (research credit)

2011 Brett Berry: The effects of land use changes on epizootic hemorrhagic disease over a 30-year period in the US (research credit)

2011 Kamran Mohammad: Synthesis of empirical data and theoretical techniques to establish rate of emergence of drug resistance in macroparasites (research credit)

2011 Kamran Mohammad: Host demography and epidemic size variability of influenza outbreak (research credit)

2011 Brad White: Modeling the ecological niche of *Culicoides* species (research credit)

2012 Matt Foretitch: Ecological models and data in R (directed reading)

2012 Scott Saunders: Predicting the effect of climate change on the distribution of invasive Lyme disease strains (research credit)

2012 Laura Alexander: Understanding the role of vector overwintering on the dynamics of epizootic hemorrhagic disease (research credit)

2013 Paige Miller: The perfect storm - factors that lead to increased transmission and resistance emergence of heartworm in the US (NSF REU summer student)

2013 Javier Alarcon-Valenzuela: The role of biodiversity in predicting pathogenic Leptospira species prevalence in the state of Georgia (foreign exchange student)

2014 Laura Alexander: Spatial spread of Ebola virus in West Africa (research assistant)

2015 John Roquet: Biodiversity and disease - variation of West Nile virus outbreaks (research credit)

2017 Jenna Lea: Analysis of tick and tick-borne parasite sharing in terrestrial mammals (research credit)

2017 Keri-Niyia Cooper: Parasite sharing in marine and terrestrial mammals (NSF REU summer student)

2019-2020 Grant Foster: Macroecology of complex lifecycle parasites (NSF-funded research assistant)

Postdoctoral mentorship	2010-2012 Krisztian Magori: Modeling, Hemorrhagic disease, Vaccine escape, Cross-species transmission - Currently Faculty at Eastern Washington University
	2011-2014 James Haven: Modeling, Lyme disease, Parasite generalism vs specialism - Currently employed in private health sector
	2013-2014 Suzanne O'Regan: Mathematical modeling of infectious diseases, Theoretical development of disease-diversity relationships - Currently Faculty at North Carolina A&T
	2015 Chris Dibble: Bifurcation delay in infectious disease systems at critical points (joint with John Drake) - Currently Research Scientist, Battelle
	2015-2019 Eamon O'Dea: Modeling infectious diseases at critical points (joint with John Drake) - Currently Postdoc at UGA
Recognition for Excellence in Teaching	2010 President's Venture Fund UGA - Computational Ecology Workshops ($3,000)
	2011 UGA Lilly Fellowship ($2,000, one of 10 tenure-track faculty selected into 2-year program for excellence in instruction)
	2012 Odum School of Ecology undergraduate instruction award
Instructional Grants	2015 **National Science Foundation** (Ecology & Evolution of Infectious Diseases) *Conference Support for Ecology and Evolution of Infectious Diseases international conference 2015* Co-PIs: A. Park, S. Altizer (Total $6,000, amount to Park $3,000)
Instructional Grants (Supporting role)	2012-2015 **National Science Foundation** (Research Experience for Undergraduates Site Award) *Population biology of infectious diseases* PI: J. Drake, Park was Senior Personnel (Total $283,500, amount to Park $0)
	2012 **National Science Foundation** (Research Experience for Undergraduates Project Award) *Water quality patterns and coral disease processes in the Florida Keys* PI: J. Porter, Co-PI: A. Park (Total $9,000, amount to Park $0)
	2014-2017 **National Institutes of Health** (Training Award) *Post-baccalaureate training in infectious disease research* PIs: J. Moore, M. Tompkins, Park was Key Personnel (Total $1.59M, amount to Park $0)
	2015-2020 **National Science Foundation** (NRT-DESE: Interdisciplinary Disease Ecology Across Scales: from byte to benchtop to biosphere) PI: V. Ezenwa, Park was Senior Personnel and contributed to grant writing (Total $3M, amount to Park $0)
	2017-2022 **National Science Foundation** (Research Experience for Undergraduates Site Award) *Population biology of infectious diseases* PI: J. Drake, Park was Senior Personnel (Total $558,756, amount to Park $0)
Trainee achievements	2017 John Vinson: Teaching certificate (developing calculus curriculum for life sciences majors)
	2017 David Vasquez: NSF GRFP award
	2017 Jenna Lea: CURO Fellowship
	2019 Annakate Schatz: Fish and Wildlife Agencies travel award

SCHOLARLY ACTIVITIES

Book Chapters

Drake, J.M. & Park, A.W. 2016. A model for coupled outbreaks contained by behavior change. In: *Mathematical and Statistical Modeling for Emerging and Re-emerging Infectious Diseases* (Eds: Chowell, G. & Hyman, J.M.) Springer International Publishing Switzerland
(doi: 10.1007/978-3-319-40413-4_3)

Newton, J.R., Park, A.W. & Wood, J.L.N. 2004. Maximizing the benefits of vaccination against equine influenza. In: Equine respiratory diseases (Ed: Lekeux, P.) IVIS Ithaca New York
(doi: https://www.ivis.org/library/equine-respiratory-diseases/maximizing-benefits-of-vaccination-against-equine-influenza)

Journal Articles

† Denotes senior authorship of multi-author papers; * Denotes mentee authorship. Unless otherwise stated, all works are peer-reviewed, original research.

51. Park, A.W. 2020. Trip duration modifies spatial spread of infectious diseases (peer-reviewed invited commentary). ***PNAS***
(doi: 10.1073/pnas.2015730117)
50. Richards, R.L., Cleveland, C.A., Hall, R.J., Tchindebet Ouakou, P., Park, A.W., Ruiz-Tiben, E., Weiss, A., Yabsley, M.J. & Ezenwa, V.O. 2020. Identifying correlates of Guinea worm (*Dracunculus medinensis*) infection in domestic dog populations. ***PLoS Neglected Tropical Diseases*** (in press)
49. Park, A.W. & Ezenwa, V.O. 2020. Characterizing interactions between co-infecting parasites using age-intensity profiles. ***Int. J. Parasitol.***
(doi: 10.1016/j.ijpara.2019.11.001)
48. Park, A.W. 2019. Phylogenetic aggregation increases zoonotic potential of mammalian viruses. ***Biol. Lett.***
(doi: 10.1098/rsbl.2019.0668)
47. Vinson*, J.E. & Park†, A.W. 2019. Vector-borne parasite invasion in communities across space and time. ***Proc. R. Soc. Lond. B***
(doi: 10.1098/rspb.2019.2614)
46. Pappalardo, P., Morales-Castilla, I., Park, A.W., Huang, S., Schmidt J.P. & Stephens, P.R. 2019. Comparing methods for mapping global parasite diversity. ***Global Ecology & Biogeog.***
(doi: 10.1111/geb.13008)
45. Park, A.W. 2019. Food web structure selects for parasite host range. ***Proc. R. Soc. Lond. B***
(doi: 10.1098/rspb.2019.1277)
44. Hodgkinson, J.E., Kaplan, R.M., Kenyon, F., Morgan, E.R, Park, A.W., Paterson, S., Babayan, S.A., Beesley, N.J., Britton, C., Chaudray, U., Doyle, S.R., Ezenwa, V.O., Fenton, A., Howell, S.B., Laing, R., Mable, B.K., Matthews, L., McIntyre, J., Milne, C.E., Morrison, T.A., Prentice, J.C., Sargison, N.D., Williams, D.J.L., Wolstenholme, A.J. & Devaney, E. 2019. Refugia and anthelmintic resistance: Concepts and challenges. ***Int. J. Parasitol.: Drugs & Drug Res.***
(doi: 10.1016/j.ijpddr.2019.05.001)
43. Drake, J.M., Brett, T.S., Chen, S., Epureanu, B.I., Ferrari, M.J., Marty, E., Miller P.B., ODea*, E.B., ORegan, S.M., Park, A.W. & Rohani P. 2019. The statistics of epidemic transitions. ***PLoS Computational Biology***
(doi: 10.1371/journal.pcbi.1006917)

42. Vilches, T., Bonesso, M., Guerra, H., Fortaleza, C., Park, A.W. & Ferreira, C. 2019. The role of intra and inter-hospital patient transfer in the dissemination of healthcare-associated multidrug-resistant pathogens. ***Epidemics***
(doi: 10.1016/j.epidem.2018.11.001)

41. Dallas, T., Han, B.A., Nunn, C.L., Park, A.W., Stephens, P.R. & Drake, J.M. 2018. Host traits associated with species roles in parasite sharing networks. ***Oikos***
(doi: 10.1111/oik.05602)

40. Brett, T.S., O'Dea*, E.B., Marty, E., Miller, P.B., Park, A.W., Drake, J.M. & Rohani, P. 2018. Anticipating epidemic transitions with imperfect data. ***PLOS Computational Biology***
(doi: 10.1371/journal.pcbi.1006204)

39. O'Dea*, E.B., Park, A.W. & Drake, J.M. 2018. Estimating the distance to an epidemic threshold. ***J. Roy. Soc. Interface***
(doi: 10.1098/rsif.2018.0034)

38. Park, A.W., Farrell, M.J., Schmidt, J.P., Huang, S., Dallas, T.A., Pappalardo, P., Drake J.M., Stephens, P.R., Poulin, R., Nunn, C.L. & Davies, T.J. 2018. Characterizing the phylogenetic specialism-generalism spectrum of mammal parasites. ***Proc. R. Soc. Lond. B***
(doi: 10.1098/rspb.2017.2613)

37. Dallas, T., Huang, S., Nunn, C.L., Park, A.W. & Drake, J.M. 2017. Estimating parasite host range. ***Proc. R. Soc. Lond. B***
(doi: 10.1098/rspb.2017.1250)

36. Dallas, T., Park, A.W. & Drake, J.M. 2017. Predicting cryptic links in host-parasite networks. ***PLOS Computational Biology***
(doi: 10.1371/journal.pcbi.1005557)

35. Stephens, P.R., Pappalardo, P., Huang, S., Byers, J.E., Farrell, M.J., Gehman, A., Ghai, R.R., Haas, S.E., Han, B., Park, A.W., Schmidt, J.P., Altizer, S., Ezenwa, V.O., & Nunn, C.L. 2017. Global Mammal Parasite Database version 2.0. ***Ecology***
(doi: 10.1002/ecy.1799)

34. Schmidt, J.P., Park, A.W., Kramer, A., Han, B.A., Alexander*, L.W. & Drake, J.M. 2017. Spatiotemporal fluctuations and triggers of Ebolavirus spillover. ***Emerging Infectious Diseases***
(doi: 10.3201/eid2303.160101)

33. Dallas, T.A., Park, A.W. & Drake J.M. 2017. Predictability of helminth parasite host range using information on geography, host traits and parasite community structure. ***Parasitology***
(doi: 10.1017/S0031182016001608)

32. Dibble*, C.J., O'Dea*, E.B., Park, A.W. & Drake, J.M. 2016. Waiting time to infectious disease emergence. ***J. Roy. Soc. Interface***
(doi: 10.1098/rsif.2016.0540)

31. Kramer, A., Pulliam, J., Alexander*, L., Park, A.W., Rohani, P., & Drake, J.M. 2016. Spatial spread of the West Africa Ebola epidemic. ***Roy. Soc. Open Science***
(doi: 10.1098/rsos.160294)

30. Stephens, P.R., Altizer, S., Smith, K., Aguirre, A., Brown, J., Budischak, S., Byers, J.E., Dallas, T.A., Davies, J., Drake, J.M., Ezenwa, V., Farrell, M., Gittleman, J.G., Han, B.A., Huang, S., Hutchinson, R., Johnson, P., Nunn, C., Onstad, D., Park, A.W., Vazquez-Prokopec, G., Schmidt, J.P. & Poulin, R. 2016. The

macroecology of infectious diseases: a new perspective on global-scale drivers of pathogen distributions and impacts. ***Ecology Letters***
(doi: 10.1111/ele.12644)

29. Vinson*, J.E., Drake, J.M., Rohani, P. & Park†, A.W. 2016. The potential for sexual transmission to compromise control of Ebola virus outbreaks. ***Biology Letters***
(doi: 10.1098/rsbl.2015.1079)

28. Sutherland, K.P., Berry*, B., Park, A.W., Kemp, D.W., Kemp, K.M., Lipp, E.K. & Porter J.W. 2016. Shifting white pox etiologies affecting *Acropora palmata* in the Florida Keys, 1994-2014. ***Phil. Trans. R. Soc. B.***
(doi: 10.1098/rstb.2015.0205)

27. Park, A.W., Haven*, J., Kaplan, R. & Gandon S. 2015. Refugia and the evolutionary epidemiology of drug resistance. ***Biology Letters***
(doi: 10.1098/rsbl.2015.0783)

26. ORegan*, S.M., Vinson*, J.E. & Park†, A.W. 2015. Interspecific contact and competition may affect the strength and direction of disease-diversity relationships for directly transmitted microparasites. ***American Naturalist***
(doi: doi.org/10.1086/682721)

25. Park, A.W., Cleveland*, C.A., Dallas, T.A., & Corn, J.L. 2015. Vector species richness increases hemorrhagic disease prevalence through functional diversity modulating the duration of seasonal transmission. ***Parasitology***
(doi: 10.1017/S0031182015000578)

24. Drake, J.M, Kaul, R.B., Alexander*, L.W., ORegan*, S.M., Kramer, A.M., Pulliam T.J., Ferrari, M.J., & Park, A.W. 2015. Ebola cases and health system demand in Liberia. ***PLoS Biology***
(doi: 10.1371/journal.pbio.1002056)

23. Han, B.A., Park, A.W., Jolles, A., & Altizer, S. 2015. Infectious disease transmission and behavioral allometry in wild mammals. ***J. Anim. Ecol.***
(doi: 10.1111/1365-2656.12336)

22. Stallknecht, D.E., Allison, A.B., Park, A.W., Phillips, J.E., Goekjian, V.H., Nettles, V.F. & Fishcher, J.R. 2014. Apparent increase of reported and confirmed hemorrhagic disease in the Midwest and Northeast United States. ***J. Wildlife Dis.***
(doi: 10.7589/2013-12-330)

21. Park, A.W., Vandekerkhove, J. & Michalakis, Y. 2014. Sex in an uncertain world: environmental stochasticity helps restore competitive balance between sexually and asexually reproducing populations. ***J. Evol. Biol.***
(doi: 10.1111/jeb.12419)

20. Haven*, J. & Park†, A.W. 2013. Superinfection reconciles host-parasite association and cross-species transmission. ***Theor. Pop. Biol.***
(doi: 10.1016/j.tpb.2013.09.015)

19. Daly, J.M., Newton, J.R., Wood, J.L.N. & Park, A.W. 2013. What can mathematical models bring to the control of equine influenza? ***Eq. Vet. J.***
(doi: 10.1111/evj.12104)

18. Magori*, K & Park†, A.W. 2013. The evolutionary consequences of alternative types of imperfect vaccines. ***J. Math. Biol.***
(doi: 10.1007/s00285-013-0654-x)

17. Berry*, B.S., Magori*, K., Perofsky*, A.C., Stallknecht, D.E. & Park†, A.W. 2013. Wetland cover dynamics drive hemorrhagic disease patterns in white-tailed

deer in the United States. ***J. Wildlife Dis.***
(doi: 10.7589/2012-11-283)

16. Park, A.W., Magori*, K., White*, B.A. & Stallknecht, D.E. 2013. When more transmission equals less disease: reconciling the disconnect between disease hotspots and parasite transmission. ***PLoS One***
(doi: 10.1371/journal.pone.0061501)

15. Haven*, J., Magori*, K. & Park†, A.W. 2012. Ecological and inhost factors promoting distinct life-history strategies in Lyme borreliosis. ***Epidemics***
(doi: 10.1016/j.epidem.2012.07.001)

14. Park, A.W. 2012. Infectious disease in animal metapopulations: the importance of environmental transmission. ***Ecol. Evol.***
(doi: 10.1002/ece3.257)

13. Park, A.W., Jokela, J. & Michalakis, Y. 2010. Parasites and deleterious mutations: interactions influencing the evolutionary maintenance of sex. ***J. Evol. Biol.***
(doi: 10.1111/j.1420-9101.2010.01972.x)

12. Park, A.W., Daly, J.M., Lewis, N.S., Smith, D.J., Wood, J.L.N. & Grenfell, B.T. 2009. Quantifying the impact of immune escape on transmission dynamics of influenza. ***Science***
(doi: 10.1126/science.1175980)

11. Park, A.W. & Glass, K. 2007. Dynamic patterns of avian and human influenza in East and South East Asia. ***Lancet Inf. Dis.***
(doi: 10.1016/S1473-3099(07)70186-X)

10. Day, T., André, J.B. & Park, A.W. 2006. The evolutionary emergence of pandemic influenza. ***Proc. R. Soc. Lond. B***
(doi: 10.1098/rspb.2006.3638)

9. Day, T., Park, A.W., Madras, N., Gumel, A. & Wu, J. 2006. When is quarantine a useful control strategy for emerging infectious diseases? ***Am. J. Epidemiology***
(doi: 10.1093/aje/kwj056)

8. Park, A.W., Wood, J.L.N., Daly, J.M., Newton, J.R., Glass, K., Henley, W., Mumford, J.A & Grenfell, B.T. 2004. The effects of strain heterology on the epidemiology of equine influenza in a vaccinated population. ***Proc. R. Soc. Lond. B***
(doi: 10.1098/rspb.2004.2766)

7. Daly, J.M., Yates, P.J., Newton, J.R., Park, A.W., Henley, W., Wood, J.L.N.Davis-Poynter, N. & Mumford, J.A. 2004. Evidence supporting the inclusion of strains from each of the two co-circulating lineages of H3N8 equine influenza virus in vaccines. ***Vaccine***
(doi: 10.1016/j.vaccine.2004.02.048)

6. Wood, J.L.N., Kelly, L., Cardwell, J.M. & Park, A.W. 2004. Results of a quantitative assessment of the risks of reducing routine swabbing requirements for the detection of *Taylor equigenitalis*. ***Vet. Rec.***
(doi: 10.1136/vr.157.2.41)

5. Park, A.W., Wood, J.L.N., Newton, J.R., Daly, J.M., Mumford, J.A & Grenfell, B.T. 2003. Optimizing vaccination strategies in equine influenza. ***Vaccine***
(doi: 10.1016/s0264-410x(03)00156-7)

4. Wood, J.L.N., Newton, J.R., Daly, J.M., Park, A.W. & Mumford, J.A. 2003. It's all in the mix: infection transmission in populations. ***Eq. Vet. J.***
(doi: 10.2746/042516403775467315)

3. Park, A.W., Gubbins, S. & Gilligan, C.A. 2002. Extinction times for closed epidemics: the effects of host spatial structure. ***Ecology Letters*** (doi: 10.1046/j.1461-0248.2002.00378.x)
2. Park, A.W., Gubbins, S. & Gilligan, C.A. 2001. Invasion and persistence of plant parasites in a spatially structured metapopulation. ***Oikos*** (doi: 10.1034/j.1600-0706.2001.10489.x)
1. Davidson, F.A. & Park, A.W. 1998. A mathematical model for fungal development in heterogeneous environments. ***Appl. Math. Lett.*** (doi: 10.1016/S0893-9659(98)00102-5)

Letters to Editors

Rivers, C., Alexander, K., Bellan, S., Del Valle, S., Drake, J.M., Eisenberg, J.N.S., Eubank, S., Ferrari, M., Halloran, M.E., Galvani, A., Lewis, B.L., Lewnard, J., Lofgren, E., Macal, C., Marathe, M., Ndeo Mbah, M.L., Ancel Meyers, L., Meza, R., Park, A.W., Porco, T., Scarpino, S.V., Shaman, J., Vespignani, A. & Yang, W. 2014. Ebola: models do more than forecast (letter to the editor). ***Nature*** (doi: 10.1038/515492a)

Encyclopedia Entries

Park, A.W. & Day, T. 2007. Quarantine and isolation. In: *Encyclopedia of Epidemiology*, Sage Publishing. (doi: 10.4135/9781412953948.n383)

Conference Proceedings

Park, A.W., Wood, J.L.N., Newton, J.R., Daly, J., Mumford, J.A., Glass, K. & Grenfell, B.T. 2002. Modelling equine influenza: epidemiology, vaccination, spatial spread and strain variation. ***Proc. Soc. Vet. Epidem. Prev. Med.*** (ISBN 0 948073 54 3, pp: 48-60)

Invited Reviews

Park, A.W. 1998. Plants fight back against fungi. ***Trends Plant Sci.*** (doi: 10.1016/S1360-1385(98)01300-4)

Research Grants

2009-2013 **McDonnell Foundation** (Complex Systems) *Transient pathogen evolution in heterogeneous host populations* Sole PI (Total and amount to Park $462,828)

2010-2015 **National Science Foundation** (Ecology & Evolution of Infectious Diseases) *Ecology of a reverse zoonosis: human-environment interactions in the transmission, persistence, and virulence of white pox disease in elkhorn coral* PI: J.Porter, Co-PIs: A. Park, J. Wares, E. Lipp, K. Sutherland (Total $2.3M, amount to Park $166,173)

2013-2015 **Zoetis** *Mathematical modeling of heartworm transmission, drug resistance and intervention* PI: R. Kaplan, Co-PI: A. Park (Total $41,541, amount to Park $20,770)

2013-2014 **UGA One Health seed grant** *The ecology of leptospirosis* PI: A. Park, Co-PI: S. Rajeev (Total $5,000, amount to Park $4,500)

2014-2019 **National Institutes of Health** (R01) *Forecasting tipping points in emerging and re-emerging infectious diseases* PI: J. Drake, Co-PIs: A. Park, B. Epureanu, M. Ferrari, P. Rohani (Total $3.2M, amount to Park $966,486)

2015 **National Science Foundation** (Rapid Award) *Fitting ebola multi-type branching process models to data* Sole PI (Total and amount to Park $58,021)

2017-2018 **Carter Center** *Investigating the spatial and temporal drivers of Dracunculus medinensis epidemiology in Chad* PI: M. Yabsley, Co-PIs: A. Park, V. Ezenwa, R. Hall (Total $90,362, amount to Park $22,658)

2018-2021 **National Science Foundation** (Population & Community Ecology) *The macroecology of parasites of invasive host species* Sole PI (Total and amount to Park $185,192)

2020-2025 **USDA-NIFA** (Interagency Ecology & Evolution of Infectious Diseases RFA) & **BBSRC** US-UK Collab: The evolutionary ecology of pathogen emergence via cross-species transmission in the avian-equine influenza system PI: A. Park (US Total $1.06M)

Research Grants (Supporting role)

2013-2017 **National Science Foundation** (Research Coordination Network) *The macroecology of infectious diseases* PI: P. Stephens, Park was a core participant and assisted in grant writing (Total $500,000, amount to Park $0)

2016-2019 **BBSRC** (United States-UK Partnering Award) *Co-infection and resistance (CORE)* PI: E. Devaney, Park was a core participant and assisted in grant writing (Total £49,898, amount to Park $0)

Research Grants Pending

2020-2027 **National Institutes for Health** Center for Influenza Disease and Emergence Research (CIDER) PI: M. Tompkins, Park is a Co-Investigator (Total $65.8M)

2020-2025 **Center for Disease Control** Georgia-Emory Center for Influenza Modeling and Policy UGA PI: P. Rohani, Park is a Co-Investigator (Total $1.87M)

Recognition for Excellence in Research

2011 John M. Bowen award for excellence in biomedical research ($1,000, UGA award for developing an extramurally funded research program)

2014 Michael F. Adams Early Career Scholar Award ($2,000, Recognition by UGA of outstanding accomplishment and evidence of potential future success in scholarship, creative work or research by an early career faculty member in any discipline - up to one scholar per year)

Invited Presentations

2010 Invited speaker at Emory University Graduate Student Association, Population Biology, Ecology & Evolution Seminar, Atlanta, GA

2011 Invited participant and speaker at Phylodynamics workshop, NESCENT, Durham, NC

2011 Invited participant and speaker at UGA & University of Liverpool Biomedical Sciences joint initiative, Atlanta, GA

2012 Invited participant and speaker at Mathematical Biosciences Institute Workshop on Evolution and spread of infectious diseases, Columbus, OH

2012 Invited speaker at Institute of Bioinformatics Modeling Symposium, UGA

2013 Invited speaker at University of Michigan, Ecology, Evolution and Behavior (post-doctoral associates annual invitation), Ann Arbor, MI

2013 Research presentation at Fayetteville State University, to raise awareness of UGA's REU site Population Biology of Infectious Diseases, Fayetteville, NC

2015 Invited speaker at Georgia Tech Ebola Workshop, Atlanta, GA

2015 Invited speaker at Tulane University, Ecology and Evolution Seminar, New Orleans, LA

2015 Invited keynote speaker at American Association of Veterinary Parasitologists, Boston, MA

2017 Invited speaker at North Carolina State University, Entomology & Plant Pathology Seminar, Raleigh, NC

2017 Invited speaker at Triangle Center for Evolutionary Medicine (TriCEM), Durham, NC

2018 Invited speaker at University of Nebraska, Biological Sciences Seminar, Lincoln, NE

2018 Invited participant and speaker at Mathematical Biosciences Institute Workshop on Socioepidemiology, Columbus, OH

2018 Invited speaker at Drug Resistance and Refugia workshop, Glasgow, UK

2018 Invited participant at Gates Foundation Guinea worm eradication meeting, Seattle, WA

2018 Invited symposium organizer at Evolution, Montpellier, France

2019 Invited speaker at Pathogens gone global: Disease ecology & evolution in a changing world, Duke University, NC

2020 Invited speaker at UC Berkeley EEID seminar series, UC Berkeley, CA (live video)

Society Conference Presentations

2005 Quantifying the impact of immune escape on transmission dynamics of influenza, Ecological Society of America (Montreal, Canada)

2007 Ploidy, parasites and deleterious mutations: interactions influencing the evolutionary maintenance of sex, European Society for Evolutionary Biology (Upsala, Sweden)

2009 Parasites and deleterious mutations: interactions influencing the evolutionary maintenance of sex, Ecological Society of America (Albuquerque, NM)

2010 Parasites and deleterious mutations: interactions influencing the evolutionary maintenance of sex, American Society for the Study of Evolution (Portland, OR)

2011 Sex in an uncertain world: Unpredictable environments restore competitive balance between sexually and asexually reproducing populations, Ecological Society of America (Austin, TX)

2013 Trouble where you least expect it: Causes and consequences of disconnects between transmission and disease hotspots in a vector-borne wildlife disease, Ecology & Evolution of Infectious Diseases (Penn State, PA)

2017 Phylogenetic generalism in mammal parasites, Ecological Society of America (Portland, OR)

2018 Population biology of infectious diseases, special session on education, Ecology & Evolution of Infectious Diseases (Glasgow, Scotland)

2018 The cost of generalism and definitive host diet breadth influence intermediate host specificity in helminth parasites, Evolution (Montpellier, France)

2019 Food webs select for parasite specificity, British Ecological Society Macroecology Special Interest Group (Cornwall, England)

2019 Phylogenetic aggregation increases zoonotic potential of mammalian viruses, British Ecological Socity (Belfast, Northern Ireland)

PROFESSIONAL SERVICE

Service to Professional Societies

2014-2015 Co-chair Ecology and Evolution of Infectious Diseases 13th International Conference Steering committee

Editorial Boards

Journal of Applied Ecology (Associate Editor: 2018 – present)

Ecosphere (Associate Editor: 2013 – 2018)

Ad hoc manuscript reviews (recent)	The American Naturalist, EcoHealth, Ecology, Ecology Letters, Epidemics, Evolution, Evolution Letters, Journal of Animal Ecology, Journal of Applied Ecology, Journal of Theoretical Biology, Oikos, PLoS Computational Biology, PLoS Pathogens, PLoS Neglected Tropical Diseases, PLoS One, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B, Science, Theoretical Population Biology
Grant reviews	The National Science Foundation, The Singapore Government
PhD Examiner	2003 Deirdre Hollingswoth, University of Cambridge, UK
	2019 Reed Hranac, Massey University, New Zealand
Service within UGA	2009-2020 Odum School of Ecology Graduate Committee, UGA
	2009-2013 Interdisciplinary Life Sciences Executive Committee, UGA
	2009-2011 Faculty of Infectious Diseases Executive Committee, UGA
	2010 Department of Infectious Diseases 5-year Planning Committee, UGA (ad-hoc)
	2011 Faculty delegate, UGA Teaching Symposium.
	2011 Coordinator of Enthusiasts of Diversity, Genetics & Evolution seminar series, UGA
	2011 Search Committee - Graduate advisor position, Odum School, UGA
	2012 Search Committee - Faculty position, Odum School, UGA
	2013 Search Committee - Faculty position, Dept. Plant Biology, UGA
	2013 Coordinator, Spring seminar series, Dept. Infectious Diseases, UGA
	2014 Search Committee chair Faculty position, Odum School and Dept. Infectious Diseases, UGA
	2015-2019 Faculty mentor (committee member) to Dr. Murdock, UGA
	2015 Post-tenure Review Committee for Prof. Tompkins, Infectious Disease Dept., UGA
	2015-present IDEAS Admissions Committee, UGA
	2015-present IDEAS Steering Committee, UGA
	2016-2017 Center for Ecology of Infectious Diseases Advisory Board, UGA
	2017-2018 Bylaws & Governance Committee, Odum School of Ecology, UGA
	2017 Search committee - Lecturer (two positions), Odum School, UGA
	2018-present University-wide Data Literacy Committee, UGA (on hiatus)
	2018-present Faculty mentor to Takao Sasaki, UGA
	2018 Search Committee - Graduate advisor position, Odum School, UGA
	2019-present Odum School of Ecology IT Committee chair, UGA
	2020 Search Committee chair Faculty position, Odum School and College of Veterinary medicine, UGA
	2020 Post-tenure Review Committee for Prof. Ross, Infectious Disease Dept., UGA
	2020-present University Council (and Faculty Affairs sub-committee), UGA

Updated: December 22, 2020