

JOHN R. POULSEN

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Durham, North Carolina 27708

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EDUCATION

2009 Ph.D. Biology, University of Florida
2000 M.S. Conservation and Ecology, San Francisco State University
1994 B.S. Political Science (*Magna cum laude*), Willamette University

PROFESSIONAL APPOINTMENTS

2012-present Assistant Professor of Tropical Ecology
Nicholas School of the Environment, Duke University

2011-12 Coordinator of Low Emissions Development Strategy (LEDS) and SilvaCarbon
Programs in Gabon, US Forest Service

2011-12 Visiting Faculty
National School of Water & Forests, Gabon

2009-11 Assistant Scientist/Africa Program Director
Woods Hole Research Center

2005-07 Director of the Buffer Zone Project
Wildlife Conservation Society, Congo

2000-02 Co-Director of the Lac Télé Community Reserve Project
Wildlife Conservation Society, Congo

1994-96 Volunteer leader and forestry technician
US Peace Corps, Mali

HONORS

Senior Associate Researcher, Gabon National Parks Agency
Senior Research Fellow, Center for Tropical Research, UCLA
O'Neill Dissertation Fellowship, 2006
EPA Science To Achieve Results (STAR) Fellowship, 2004-2007
Univ. of Florida Presidential Scholarship, 2002-2006
NSF GRT/GAANN Fellowship, 1999
Wildlife Conservation Society Research Fellowship, 1998
Willamette University Alumni Scholarship, 1990-1994

PUBLICATIONS

Peer-Reviewed Articles

53. Bowler, M., M. Anderson, C. Beirne, H. El Bizri, A. DiPaola, M. Gilmore, L. Gomes, P. Mayor, A. Meier, D. Meza, D. Morena, J.R. Poulsen, M. Tobler, and J. Valsecchi. In Review. LED flashlight technology facilitates bushmeat extraction across the tropics.
52. Mills, E.C., J.R. Poulsen, M. Fay, P. Morkel, C.J. Clark, A. Meier, and L.J.T. White. In review. Forest elephant movement and habitat use in a tropical forest-grassland mosaic in Gabon. *Movement Ecology*.
51. Rosin, C. and J.R. Poulsen. In review. **Seed traits, not density or distance from parent, determine seed predation and establishment in an Afrotropical forest.** *Ecology*.

50. Rosin, C., J.R. Poulsen, V. Swamy, A. Granados. 2017. A pantropical assessment of vertebrate physical damage to forest seedlings and the effects of defaunation. *Global Ecology and Conservation* 11: 188-195.
49. Poulsen, J.R., C. Rosin, S.E. Koerner, E. Blanchard, J. Callejas, A. Meier, E. Mills, S. Moore, C. Nunez, M. Sowers. In review. The ecological consequences of declines in forest elephants for Afrotropical forests. *Conservation Biology*.
48. Slik, F., et al. In review. Traces of Gondwana: A phylogenetic classification of the world's tropical forests. *Nature*.
47. ¹Poulsen, J.R., S.E. Koerner, S. Moore, V.P. Medjibe, S. Blake, C.J. Clark, M.E. Akou, M. Fay, A. Meier, J. Okouyi, C. Rosin, L.J.T. White. 2017. Conservation 'nightmare': Poaching empties a Central African wilderness of forest elephants. *Current Biology* 27: R134-R135.
46. Austin, K., M. Lee, C.J. Clark, B. Forester, D. Urban, L.J.T. White, P. Kasibhatla, J.R. Poulsen. 2017. An Assessment of High Carbon Stock and High Conservation Value Approaches to Sustainable Oil Palm Cultivation in Gabon. *Environmental Research Letters* 12: 014005.
45. Daniel J. Ingram, Lauren Coad, Katherine A. Abernethy, Fiona Maisels, Emma J. Stokes, Kadiri S. Bobo, Thomas Breuer, Edson Gandiwa, Andrea Ghiurghi, Elizabeth Greengrass, Tomas Holmern, Towa O. W. Kamgaing, Anne-Marie Ndong Obiang, John R. Poulsen, Judith Schleicher, Martin R. Nielsen, Hilary Solly, Carrie L. Vath, Nathalie van Vliet, **Matthias Waltert**, **Charlotte Whitham**, **David S. Wilkie**, **Jörn P.W. Scharlemann**. 2017. Using local-scale data to assess the exploitation of pangolins across Sub-Saharan Africa. *Conservation Letters*. <http://onlinelibrary.wiley.com/doi/10.1111/conl.12389/epdf>.
44. Poulsen, J.R. 2017. **No 'Dear John Letter' Here** – These Guys Are Committed to Saving the African Jungles: The Arising Researcher. *Bulletin of the Ecological Society of America*.
43. ²Burton, M.E.H., J.R. Poulsen, M.E. Lee, V.P. Medjibe, C. Stewart, A. Venkataraman, L.J.T. White. 2017. Reducing carbon emissions from forest conversion for oil palm agriculture in Gabon. *Conservation Letters* 10(3): 297-307.
42. R.C. Upstill-Goddard, M.E. Salter, P.J. Mann, J. Barnes, J.R. Poulsen, B. Dinga, G.J. Fiske, and R.M. Holme. 2016. The riverine source of tropospheric CH₄ and N₂O from the Republic of Congo, Western Congo Basin. *Biogeosciences*.
41. ^{3,4}Rosin, C. and J.R. Poulsen. 2016. Hunting-induced defaunation drives increased seed predation and decreased seedling establishment of commercially important tree species in an Afrotropical forest. *Forest Ecology and Management* 382: 206-213.
40. Poulsen, J.R., S.E. Koerner, Z. Miao, V. Medjibe, L.J.T. White. 2016. Large liana abundance and biomass increase with tree biomass in Gabon. *Global Biogeography and Ecology*: 26(4) 472-485.

¹ Featured by *National Geographic* (<http://voices.nationalgeographic.com/2017/02/21/more-than-80-percent-of-gabons-rare-forest-elephant-species-lost-to-poachers/>); *Science* (<http://www.sciencemag.org/news/2017/02/no-place-safe-africa-s-hunted-forest-elephants>); *NRDC* (<https://www.nrdc.org/onearth/gabons-jungle-was-once-refuge-elephants-now-its-killing-field>); *Tech Times* (<http://www.techtimes.com/articles/198484/20170221/no-place-is-safe-poachers-are-emptying-key-african-reserve-of-elephants.html>); <http://www.thestar.com.my/news/environment/2017/02/21/gabon-forest-elephants-slain-for-ivory-at-alarms-rate/>; *Science News* (http://www.upi.com/Science_News/2017/02/20/Gabons-elephants-are-being-decimated-by-poachers/9821487616628/); *Huffington Post* (http://www.huffingtonpost.com/entry/poaching-forest-elephants-mink%C3%A9b%C3%A9-gabon-africa-us_58ab4c3ae4b0a855d1d8bfe5); *Yahoo.com* (<https://www.yahoo.com/news/gabons-forest-elephants-slain-ivory-alarms-rate-182221803.html>); *Gizmodo* (<http://gizmodo.com/african-elusive-forest-elephants-are-being-poached-at-a-1792580605>); *International Business Times* (<http://www.ibtimes.co.uk/cameroon-ivory-poachers-are-emptying-gabons-key-nature-reserve-elephants-1607611>); *Seeker* (<http://www.seeker.com/elephant-numbers-in-sanctuary-collapse-by-80-percent-due-to-poaching-2274431201.html>); *The Atlantic* (<https://www.theatlantic.com/science/archive/2017/02/forest-elephant-extinction-minkebe-gabon-ivory-poaching/517266/>); *The Times* (<http://www.thetimes.co.uk/article/poachers-slaughter-thousands-of-elephants-ww836zkn6>).

² Featured by *phys.org* (<http://phys.org/news/2016-06-key-curbng-emissions-palm-oil.html>) and *Science Daily* (<https://www.sciencedaily.com/releases/2016/06/160628114349.htm>), *Science Newsline* (<http://www.sciencenewsline.com/news/2016062818520018.html>), and *Mongabay* (<https://news.mongabay.com/2016/07/forest-conservation-can-offset-emissions-from-palm-oil-expansion-in-africa-study/>)

³ **Winner of Dean's Award for Outstanding Graduate Student Manuscript.**

⁴ Featured by *Mongabay* (<https://news.mongabay.com/2016/11/hunting-stymies-rainforest-regrowth-says-a-new-study/>).

39. ⁵Carlson, B., S.E. Koerner, V.P. Medjibe, L.J.T. White, J.R. Poulsen. 2016. Selective logging and large trees increase deadwood stocks in Gabon. *Global Change Biology*: 23(4):1648-1660.
38. ⁶Koerner, S.E., J.R. Poulsen, E. Blanchard, J. Okouyi, C.J. Clark. 2016. Hunting alters vertebrate community composition and reduces diversity along a defaunation gradient from rural villages in Gabon. *Journal of Applied Ecology*.
37. Sullivan, M.J.P., J. Talbot, S.L. Lewis, O.L. Phillips, et al. 2016. Diversity and carbon storage across the **world's tropical forests**. *Scientific reports* 7: 39102.
36. Rosin, C. and J.R. Poulsen. 2016. Scatterhoarding and seed fate in an Afrotropical forest. *Biotropica*.
35. Miao, Z., S.E. Koerner, V.P. Medjibe, J.R. Poulsen. Wanted: New allometric equations for large lianas and African lianas. 2016. *Biotropica*. 45(5): 561-564.
34. Ngama, S., L. Korte, J. Bindelle, C. Vermeulen, J.R. Poulsen. How bees deter elephants: beehive trials with forest elephants (*Loxodonta africana cyclotis*) in Gabon. 2016. *PLoS One* 11(5): e0155690. doi:10.1371/journal.pone.0155690.
33. Spencer-Jones, C.L., T. Wagner, B.J. Dinga, E. Schefub, P.J. Mann, J.R. Poulsen, R.G.M. Spencer, J.N. Wabakanghanzi, H.M. Talbot. 2015. Bacterioplanepolyols in tropical soils and sediments from the Congo River catchment area. *Organic Geochemistry* 89-90: 1-13.
32. Slik, F. et al. 2015. An estimate of the number of tropical tree species. *Proceedings of the National Academy of Sciences*. 112: 7472-7477.
31. ⁷Taylor et al. 2015. Synthesizing bushmeat research effort in West and Central Africa: A new regional database. *Biological Conservation* 181: 199-205.
30. Medjibe, V.M., J.R. Poulsen, C.J. Clark, O. Mbani. 2014. Natural regeneration of selected tropical timber species in northern Republic of Congo. *Journal of African Ecology* 1-12. DOI: 10.1111/aje.12167.
29. Lamperti, A.M. et al. 2014. Diet selection is related to breeding status in two frugivorous hornbill species of Central Africa. *Journal of Tropical Ecology* 30: 273-290.
28. Talbot, H.M., L. Handley, C.L. Spencer-Jones, J.B. Dinga, E. Schefub, P.J. Mann, J.R. Poulsen, R.G.M. Spencer, J.N. Wabakanghanzi, T. Wagner. 2014. Variability in aerobic methane oxidation over the past 1.2 Myrs recorded in microbial biomarker signatures from Congo fan sediments. *Geochimica et Cosmochimica Acta* 133: 387-401.
27. Mann, P.J., R.G.M. Spencer, B.J. Dinga, J.R. Poulsen, P.J. Hernes, G. Fiske, M.E. Salter, Z.A. Wang, K.A. Hoering, J. Six, R.M. Holmes. 2014. The biogeochemistry of carbon across a gradient of streams and rivers within the Congo Basin. *Journal of Geophysical Research: Biogeosciences* 119, doi:10.1002/2013JG002442.
26. ⁸Slik, J.W. et al. 2013. Large trees drive forest aboveground biomass variation in moist lowland forests across the tropics. *Global Ecology and Biogeography* 22: 1261-1271.
25. Poulsen, J.R., C.J. Clark, T.M. Palmer. 2013. Ecological erosion of an Afrotropical forest and potential consequences for tree recruitment and forest biomass. *Biological Conservation* 163: 122-130.
24. Lewis, S.L., et al. 2013. Aboveground biomass and structure of 259 African tropical forests. *Philosophical Transaction of the Royal Society* 368: 20120295.
23. ⁹Clark, C.J., J.R. Poulsen, D.J. Levey. 2013. Roles of seed and establishment limitation in determining patterns of Afrotropical tree recruitment. *PLOS One* 8: e63330.

⁵ Featured by Duke Univ. (<https://nicholas.duke.edu/about/news/carbon-emissions-logging-debris-africa-vastly-underestimated>), *EurekAlert!* (https://www.eurekalert.org/pub_releases/2016-10/du-cef100316.php), *Science Daily* (<https://www.sciencedaily.com/releases/2016/10/161003183753.htm?>), and *phys.org* (<http://phys.org/news/2016-10-carbon-emissions-debris-africa-vastly.html>).

⁶ Featured by *Science Daily* (<https://www.sciencedaily.com/releases/2016/11/161108115748.htm>), *EurekAlert* (https://www.eurekalert.org/pub_releases/2016-11/du-bhd110716.php)

⁷ Featured by the Congo Basin Forest Partnership: http://pfbc-cbfp.org/news_en/items/Synthesising-bushmeat.html.

⁸ Featured by Mongabay (<http://news.mongabay.com/2013/0807-big-trees-biomass.html>).

22. Wang, A., D.J. Bienvenu, P. Mann, K. Hoering, J.R. Poulsen, G.M. Robert, R.M. Holmes. 2013. Inorganic carbon speciation and fluxes in the Congo River. *Geophysical Research Letters* 40: 511-516.
21. Moles, A. et al. 2013. Correlations between physical and chemical defences in plants: Trade-offs, syndromes, or just many different ways to skin a herbivorous cat? *New Phytologist* 198: 252-263.
20. Poulsen, J.R., C.J. Clark, B.M. Bolker. 2012. Experimental manipulation of seed shadows of a tropical tree determines drivers of recruitment *Ecology* 93: 500-510.
19. ¹⁰Laurance, W.F. et al. 2012. Averting biodiversity collapse in tropical forest protected areas. *Nature* 489: 290-294.
18. Clark, C.J., J.R. Poulsen, D.J. Levey. 2012. Vertebrate herbivory impacts seedling recruitment more than niche partitioning, distance- or density-dependent mortality. *Ecology* 93: 554-564.
17. Poulsen, J.R., C.J. Clark, B.M. Bolker. 2011. Decoupling the effects of logging and hunting on an Afrotropical animal community. *Ecological Applications* 21: 1819-1836.
16. Moles, A. et al. (47 authors). 2011. Putting plant resistance traits on the map: a test of the idea that plants are better defended at lower latitudes. *New Phytologist* 191: 777-788.
15. ¹¹Levey, D.J., G.A. Londono, J. Ungvari-Martin, M.R. Hiersoux, J.E. Jankowski, J.R. Poulsen, C.M. Stracey, S.K. Robinson. 2009. Urban mockingbirds quickly learn to identify individual humans. *Proceedings of the National Academy of Sciences* 106: 8959-8962.
14. Poulsen, J.R., C.J. Clark, G. Mavah, P.W. Elkan. 2009. Bushmeat supply and consumption in a tropical logging concession in northern Congo. *Conservation Biology* 23: 1597-1608.
13. Clark, C.J., J.R. Poulsen, R. Malonga, P.W. Elkan. 2009. Logging concession can extend the conservation estate for Central African tropical forests. *Conservation Biology* 23: 1281-1293.
12. ^{12,13}Bolker, B.W., M. Brooks, C.J. Clark, S. Geange, J.R. Poulsen, H. Stevens, J. White. 2009. Generalized Linear Mixed Models in Ecology and Evolution. *Trends in Ecology and Evolution* 24: 127-135.
11. Poulsen, J.R., C.W. Osenberg, C.J. Clark, D.J. Levey. 2007. Plants as reef fish: An examination of the functional form of seedling recruitment. *American Naturalist* 170: 167-183.
10. Clark, C.J., J.R. Poulsen, D.J. Levey, C.W. Osenberg. 2007. Are plant populations seed limited?: A meta-analysis of seed augmentation studies. *American Naturalist* 170: 128-142.
9. Clark, C.J., J.R. Poulsen, B.W. Bolker, E.F. Connor, V.T. Parker. 2005. Comparative seed shadows of bird-, monkey-, and wind-dispersed tree species in a Central African tropical forest. *Ecology* 86, 2684 – 2694.
8. Chapman, C.A., L.J. Chapman, T.T. Struhsaker, A.E. Zanne, A.E., C.J. Clark, J.R. Poulsen. 2005. A long-term evaluation of fruit phenology: importance of climate change. *Journal of Tropical Ecology* 21: 31-45.
7. Poulsen, J.R., C.J. Clark. 2004. Densities, distributions, and seasonal movements of gorillas and chimpanzees in swamp forest in northern Congo. *International Journal of Primatology* 25, 285-306.
6. Clark, C.J., J.R. Poulsen, E.F. Connor, V.T. Parker. 2004. Fruiting trees as dispersal foci in closed canopy tropical forests. *Oecologia* 139: 66-75.
5. Poulsen, J.R., C.J. Clark, E.F. Connor, T.B. Smith. 2002. Differential resource use by primates and hornbills: implications for seed dispersal. *Ecology* 83, 228-240.

⁹ Featured by the NSF (http://nsf.gov/discoveries/disc_summ.jsp?cntn_id=127949&org=NSF).

¹⁰ Featured by Mongabay (<http://news.mongabay.com/2012/0725-hance-tropical-parks-biodiversity.html>).

¹¹ Featured and publicized by the following newspapers and blogs: *National Geographic*, *Observer*, *Guardian*, *Science Daily*, *Science*, *Telegraph*, and *Discover*.

¹² With over 1900 citations, this paper is listed as the most cited paper from *Trends in Ecology and Evolution* in the last five years.

¹³ #2 on the *Top 25 Hottest Articles* in 2009 by *Science Direct*; #10 on the *Top 25 Hottest Articles* in 2014 by *Science Direct*.

4. Poulsen, J.R., C.J. Clark, T.B. Smith. 2001. Seasonal variation in the feeding ecology of the grey-cheeked mangabey *Lophocebus albigena* in Cameroon. *American Journal of Primatology* 54, 91-105.
3. Poulsen, J.R., C.J. Clark, T.B. Smith. 2001. Seed dispersal by a primate community in the Dja Reserve, Cameroon. *Journal of Tropical Ecology* 17, 787-808.
2. Poulsen, J.R., C.J. Clark 2001. Predation on mammals by grey-cheeked mangabeys *Lophocebus albigena*. *Primates* 42: 391-394.
1. Clark, C.J., J.R. Poulsen, V.T. Parker. 2001. The role of arboreal seed dispersal groups on the seed rain of a lowland tropical forest. *Biotropica* 33, 606-620.

Books

1. ¹⁴Clark, C.J. and J.R. Poulsen, eds. 2012. *Tropical Forest Conservation and Industry Partnership: An Experience from the Congo Basin*. Blackwell Publishing, Oxford, UK, 260 pages.

Refereed Book Chapters

4. Poulsen, J.R., C.J. Clark. 2010. Congo Basin timber certification and biodiversity conservation. In: D. Sheil, F.E. Putz, and R.J. Zagt (eds.). *Biodiversity conservation in certified forests*. Tropenbos International, Wageningen, Netherlands. Pp 55-60.
3. Poulsen, J.R., C.J. Clark, G. Mavah. 2007. Wildlife management in a logging concession in Northern Congo: Can livelihoods be maintained through sustainable hunting? Pgs 140-157 in G. Davies and D. Brown (eds.). *Bushmeat and Livelihoods*. Blackwell Publishing, Oxford, UK.
2. Kwit, C., D.J. Levey, S.A. Turner, C.J. Clark, J.R. Poulsen. 2007. Out of one shadow and into another: Causes and consequences of spatially contagious seed dispersal by frugivores. In: A.J. Dennis, E.W. Schupp, R. Green, and D. Westcott (eds.). *Seed Dispersal: Theory and Its Application in a Changing World*. CAB International Publishing, Wallingford, UK.
1. Chapman, C.A., L.J. Chapman, A.E. Zanne, J.R. Poulsen, C.J. Clark. 2005. A 12-year phenological record of fruiting: implications for frugivore populations and indicators of climate change. In: J. Boubli, J.L. Dew, and K. Milton (eds.). *Tropical fruits and frugivores*. Springer, Netherlands. Pp 75-92.

Selected Technical Reports

5. Poulsen, J.R. and E. Mills. 2017. Gabon Parks Elephant Collaring Program. Duke University and Gabon National Parks.
4. Poulsen, J.R., C.J. Clark, B.K. Curran. 2010. Forest concession land use planning: Lessons learned from Congolaise Industrielles des Bois (CIB) – PROGEPP Project. D. Yanggen, K. Angu, and N. Tchamou (eds). *Landscape-scale conservation in the Congo Basin: Lessons learned from the Central Africa Regional Program for the Environment (CARPE)*. IUCN and USAID.
3. Poulsen, J.R.. 2009. Building private-sector partnerships for conservation (PSPCs): Lessons learned from the collaboration between WCS, CIB, and the Republic of Congo in forestry concessions. USAID and WCS.
2. Poulsen, J.R., C.J. Clark, R. Malonga. 2005. Recensement et distribution des grands mammifères et activités humaines dans les concessions forestières de la CIB. Report to Congolaise Industrielle des Bois, Government of Congo, Wildlife Conservation Society.
1. Poulsen, J.R., C.J. Clark. 2002. Feasibility study of the Lac Télé Community Reserve. Wildlife Conservation Society.

TEACHING

Duke University

ENV 590: Conservation and Ecology of Gabon

Spr. 2014, 2015, 2016

¹⁴ Reviewed in *Oryx*, *Ecology and Society*, and *Ecology Management and Restoration*.

ENV 517: Tropical Ecology Spr. 2013, 2014, 2015, 2017
ENV 710: Applied Statistics for the Environment Spr. 2013, Fall 2013-2015
UPE 702: University Program in Ecology (Taught 1 section) Fall 2013

Gabon National School of Forestry
Tropical Ecology Spr. 2012
Conservation Biology & Private Sector Partnerships Spr. 2012

University of Florida (Lab Instructor)
BSC 2009L: Biological Sciences Fall 2003
PCB 4043C: General Ecology Spr. 2002

San Francisco State University (Lab Instructor)
BIOL 230: Introductory Biology Spr. 2000

International Training Courses

2012 Measurement of forest biomass, National School of Forestry, Gabon
2007 Private-Public Partnerships for Conservation, College of African Wildlife Management, Tanzania
2006 DISTANCE Analysis of Mammal Densities, Bomassa Training Center, Congo
2001 Field Methods in Conservation Biology, WCS-Congo

MENTORING

Graduate Student Committees (as chair)

Chase Nunez (Ph.D. candidate, Duke University)
Amelia Meier (Ph.D. candidate, Duke University)
Graden Froese (Ph.D. candidate, Duke University)
Cooper Rosin (Ph.D. 2017, Duke University)

James McCarthy (MEM 2018, Duke University)
Emily Mills (MEM 2017, Duke University)
Alexis Kovach (MEM 2017, Duke University)
Nina Hamilton (MEM 2017, Duke University)
Trisha Gopolakrishna (MEM 2016, Duke University)
Sarah Moore (MEM 2016, Duke University)
Sarah Mason (MEM 2016, Duke University)
Saira Haider (MEM 2015, Duke University)
Margaret Ernest (MEM 2015, Duke University)
Ian Markham (MEM 2015, Duke University)
Emily Blanchard (MEM 2015, Duke University)
Arianne Messerman (MEM 2014, Duke University)
Mark Burton (MEM 2014, Duke University)
Ben Carlson (MEM 2013, Duke University)

Anthelme Allam (MS 2014, National School of Water & Forests, Gabon)
Roger Azizet (MS 2014, National School of Water & Forests, Gabon)
Julia Bilogue (MS 2014, National School of Water & Forests, Gabon)
Andrea Minkwe (MS 2014, National School of Water & Forests, Gabon)
Steeve Ngama (MS 2014, National School of Water & Forests, Gabon)

Graduate Student Committees

Kemen Austin (Ph.D. candidate, Duke University)
Liz Schrack (Ph.D. candidate, Duke University)
Steve Ngama (Ph.D. candidate, Université de Liège)
Natalia Ocampo Penuela (Ph.D. 2016, Duke University)
Germain Mavah (Ph.D. 2015, Univ. of Florida)

Post-doctoral Researchers

Dr. Chris Beirne (2017-present)

Dr. Sally Koerner (2015-2016)

Dr. Beth Stein (2015)

Dr. Vincent Medjibe (2012-2015)

Dr. Zewei Miao (2014-2015)

Undergraduate Student Researchers

Anna DiPaola (UCSD), Caitlin Hawley (Univ. Arizona), Ariana Chedraui (Oregon State Univ.), Monica Acosta (Pennsylvania State), Gisèle Aubin (Earlham College), Anamica Brandon (New College, Florida), Brandon Hays (Univ. North Carolina), Kendall Beals (Dickenson College), Michael Belovitch (James Madison Univ.), Carolyn Delevitch (Ohio State Univ.), Ruby Harrison (Univ. Wisconsin), Keary Missler (Ohio State Univ.), Megan Pendred (Dublin Univ.), Johnny Deng (Duke Univ.), Kyrsten Lulow (Duke Univ.), Megan Sullivan (Ohio State), Keary Missler (Ohio State), Jennifer Callejas (Duke Univ.)

SERVICE AND SYNERGISTIC ACTIVITIES

Duke University

Faculty member, University Program in Ecology (UPE)

UPE Executive Committee (2015-2017)

UPE Admission Committee (2014-2017)

Duke Tropical Conservation Initiative (2013-2017)

Duke Engage (2014)

Co-creator and Technical Advisor to MENTOR-FOREST: With Dr. Connie Clark, created and implemented **Gabon's first MSc in Conservation** of Biodiversity and Forest Ecosystems at the National School of Forestry with funding from USFWS, USFS, USAID.

Coordinator of Gabon National Resource Inventory: Co-created and directed the 1st national resource inventory, executed through the Gabon Parks Agency (ANPN). Oversaw all scientific and administrative aspects of the assessment, including managing a team of over 30 people to establish nearly 200 permanent inventory sites for terrestrial carbon stock assessment, biodiversity monitoring, and land use planning.

Manuscript Review: American Naturalist, BioScience, Biological Conservation, Biotropica, Conservation Biology, Ecology, Ecology Letters, International Journal of Primatology, Nature Climate, Oikos, Philosophical Transactions of the Royal Society, Proceedings of the National Academy of Sciences

Professional Associations: Ecological Society of America, Association of Tropical Biology and Conservation

External Review of Proposals: USAID SilvaCarbon Program, National Science Foundation, CRS Press, National Geographic, US Fish & Wildlife Service

INVITED PRESENTATIONS

Poulsen, J.R., A. Meier, A. Ebang Mbélé, G. Menié Menié. 2016. Assess and Reduce Unsustainable Hunting in the Ivindo-Minkébé Complex Through A Model of Community Collaboration. USWFS Workshop on Combating the Commercial Trade of Bushmeat. Washington, D.C.

Poulsen, J.R., A.R. Hutchins, R. Islam, T. Zhu, & M. Cummings. 2016. Developing a System Using a Quadcopter and Infrared Camera to Monitor and Track the African Forest Elephant *Loxodonta Cyclotis*. Vulcan Inc., Seattle, USA.

Poulsen, J.R. 2016. **Development of Gabon's Natural Resource Inventory**, USFS, Peru.

Poulsen, J.R. 2015. **Aboveground biomass of Gabon's forests: Estimates**, drivers, and the elephant effect. Curriculum for Environment and Ecology, University of North Carolina, NC.

Poulsen, J.R. 2014. Determinants of forest biomass in Gabon. Biology Department, Duke University, NC.

Poulsen, J.R., White, L.T.J. 2014. The Gabon National Resource Inventory: Design and Preliminary Results. Central African Regional Meeting on Forests. Libreville, Gabon.

Poulsen, J.R. 2013. Determinants of forest biomass in Gabon. Wake Forest University, NC.

Poulsen, J.R. 2011. Cascading Effects of Human Disturbance on Tropical Forest Structure and Composition. Washington University, St. Louis, MO.

Poulsen, J.R. 2010. Private-Sector Partnerships for Conservation: Logging in the Congo. African Biodiversity Conservation Group, Washington, D.C.

Poulsen, J.R. 2008. Tropical Forest Conservation: Strategies and Research. Woods Hole Research Center, Falmouth, MA.

CONTRIBUTED ORAL PRESENTATIONS

Swamy, V., Rosin, C., J.R. Poulsen, A. Granados. 2017 A pantropical assessment of physical damage to forest seedlings and the impact of defaunation. Association of Tropical Biology and Conservation, Mexico.

Saatchi, S., C. Silva, A. Ferraz, M. Simard, N. Pinto, Y. Lou, B. Hawkins, V. Meyer, M. Denbina, Z. Yang, S. Hensley, J. Poulsen, L. White, K. White, N. Labriere, J. Chave, S. Lewis, A. Alonso, D. Kenfack, S. Davies. 2017. Assessment of UAVSAR Estimation of Tropical Forest Structure and Biomass using AFRISAR Ground and Airborne LiDAR Measurements. IGARSS, Ft. Worth, TX.

Poulsen, J.R., S. **Saatchi**, **L.J.T. White**. 2016. **Aboveground biomass of Gabon's** Forests. Association of Tropical Biology and Conservation, France.

Coad, L., D. Ingram, J. Scharlemann, K. Abernathy, D. Wilkie, M. Starkey, J. Poulsen, N. van Vliet, R. Nasi. 2016. Patterns of wild meat consumption in Central Africa. Association of Tropical Biology and Conservation, France.

Poulsen, J.R., C.J. Clark, and T.M. Palmer. 2012. Ecological Erosion. Association of Tropical Biology and Conservation, Brazil.

Poulsen, J.R., **C.J. Clark**. 2010. **What Satellites Can't See: On-the Ground Insights into Biomass, Biodiversity, and Bushmeat in the Congo Basin**, WHRC Board Meeting, Falmouth, MA.

Mavah, G., J.R. Poulsen, C.J. Clark. 2007. Wildlife Management in Logging Concessions. Conference on Wildlife Conservation, Makokou, Gabon.

Poulsen, J.R. 2000. Dietary Overlap and Differential Resource Use by Primates and Hornbills. 3rd International Symposium on Frugivory and Seed Dispersal, Sao Paulo, Brazil.

Poulsen, J.R. 2000. Dietary Overlap Among Frugivores and Implications for Seed Dispersal. Bay Area Conservation Biology Symposium, Stanford University.

PROPOSALS SUBMITTED AND FUNDED (Last four years)

2017

Voluntary Wildlife Management Rules as a Solution to Unsustainable Bushmeat Hunting by Gabonese Villages. (Poulsen, J.R.) US Fish & Wildlife Service: Pending

Revolutionizing Elephant Survey Methods to Guide Protected Area Management in Gabon. (Poulsen, J.R.) US Fish & Wildlife Service: Pending

2016

Integrating Movement Ecology into Law Enforcement Strategies to Protect Forest Elephants in Gabonese Parks. (Poulsen, J.R.) USFWS Elephant Conservation Fund: \$146,828

2015

Forest Resource Inventory and Carbon Assessment of the Ekouk and Massika Agricultural Clusters Agence Nationale des Parcs Nationaux (J.R. Poulsen, L.T.J. White) OLAM-Gabon: \$294,863

Total Carbon Estimation in African Mangroves and Coastal Wetlands in Preparation for REDD and Blue Carbon Credits. (Fatoyinbo, T., Trettin, C., Simard, M., Lee, S., Lagomasino, D., Hansen, M., and Poulsen, J.) NASA Research Opportunities in Space and Earth Sciences: \$824,000

Evaluating the Role of Forest Elephants in Determining the Forest Structure and Composition of African Tropical Forests. (Poulsen, J.R.) Nicholas School of the Environment Seed Grant: \$9,900

Designing a low-cost system for wildlife population monitoring in Gabon. (Cummings, M. and J.R. Poulsen) Nicholas School of the Environment Seed Grant: \$9,900

Developing a Quadcopter and Infrared Camera System to Monitor and Track the African Forest Elephant (Loxodonta cyclotis). (Hutchins, A., M. Cummings, J.R. Poulsen). African Elephant Fund: \$16,400

2014

Assess and Reduce Unsustainable Hunting in the Ivindo-Minkebe Complex Through A Model of Community Collaboration. (Poulsen, J.R.) US Fish & Wildlife Service: \$299,464

Integration of Remote Sensing Data with Ground Plot Information for MRV. (Scott, C.T., D. Muchoney, A. Lister, and J.R. Poulsen) USAID SilvaCarbon: \$127,716

Addressing Carbon Emissions and Removals from Selective Logging in Support of MRV System Capabilities in Gabon (Saatchi, S., J.R. Poulsen, and V. Medjibe) USAID SilvaCarbon: \$250,000

Gabon Natural Resource Inventory System. (White, L.T.J., J.R. Poulsen) FAO: \$200,000

2013

Estimating biomass loss and carbon emissions from palm oil agriculture Agence Nationale des Parcs Nationaux (White, L.T.J., J.R. Poulsen) OLAM-Gabon: \$115,000