

BIOLOGY

REFEREED JOURNAL PUBLICATIONS

- Anyonge, W., & Baker, A.** (2006). Craniofacial morphology and feeding behavior in *Canis dirus*, the extinct Pleistocene dire wolf. *Journal of Zoology, London*, 269, 309-316.
- Anyonge, W., & Roman, C.** (2006). New body mass estimates for *Canis dirus*, the extinct Pleistocene dire wolf. *Journal of Vertebrate Paleontology*, 26, 209-212.
- Blair, B. C.** (2005). Fire effects on the spatial patterns of soil resources in a Nicaraguan wet tropical forest. *Journal of Tropical Ecology*, 21, 435-444.
- Simons, T. R., Shriner, S. A., & **Farnsworth, G. L.** (2006). Comparison of breeding bird and vegetation communities in primary and secondary forests of Great Smoky Mountains National Park. *Biological Conservation*, 129, 302-311.
- Farnsworth, G. L., & Smolinski, J. L.** (2006). Numerical discrimination by wild Northern Mockingbirds. *Condor*, 108, 953-957.
- Farnsworth, G. L.** (2005). Failure of a free-living Northern Mockingbird (*Mimus polyglottos*) to discriminate food rewards on the basis of number. *Ohio Journal of Science*, 105, 97-99.
- Farnsworth, G. L., & Simons, T. R.** (2005). Relationship between Mayfield nest-survival estimates and season fecundity: A cautionary reply. *Auk*, 122, 1000-1001.
- Hedeen, S.** (2003). Winter bird population changes during a 38-year period in an urbanizing region. *Meadowlark*, 12, 82-85.
- Schnell, P. O., Ignacak, M., Bauer, A. L., Striet, J. B., **Paulding, W. R., & Czyzyk-Krzeska, M. F.** (2003). Regulation of tyrosine hydroxylase promoter activity by the van Hippel-Lindau tumor suppressor protein and hypoxia-inducible transcription factors. *Journal of Neurochemistry*, 85, 483-491.
- Robbins, J. R., & Roy, P.** (2007). The natural selection: Identifying and correcting non-science student preconceptions through an inquiry-based, critical approach to evolution. *American Biology Teacher*, 69(8), 460-466.
- Robbins, J. R., Tierney, D. A., & Schmitzer, H.** (2006). Optically driven bacterial screw of Archimedes. *Applied Physics Letters*, 88(2), 023901-023903.
- Zakrzewska, A., Schnell, P. O., Striet, J. B., Hui, A., **Robbins, J. R.,** Petrovic, M., Conforti, L., Gozal, D., Wathelet, M. G., & Czyzyk-Krzeska, M. F. (2006). Hypoxia-activated metabolic pathway stimulates phosphorylation of p300

and CBP in oxygen-sensitive cells. *Journal of Neurochemistry*, 94(5), 1288-1296.

Robbins, J. R., Lee, S., Filipovich, A. H., Neumeier, L., Szigligeti, P., Petrovic, M., & Conforti, L. (2005). Modulation of membrane potential and calcium homeostasis by hypoxia in human T lymphocytes. *Journal of Physiology*, 564(1), 131-143.

Cameron, L. A., **Robbins, J. R.**, Footer, M. A., & Theriot, J. A. (2004). Biophysical parameters influence actin-based movement, trajectory and initiation in a cell-free system. *Molecular Biology of the Cell*, 15(5), 2312-2323.

Robbins, J. R., & Theriot, J. A. (2003). *Listeria monocytogenes* rotates around its long axis during actin-based motility. *Current Biology*, 13(19), R754-R756.

Robbins, J. R., & **Roy, P.** (2007). The natural selection: Identifying and correcting non-science student preconceptions through an inquiry-based, critical approach to evolution. *American Biology Teacher*, 69(8), 460-466.

BOOKS

Anyonge, W. (2003). *A survival guide for the college freshman: Achieving academic excellence*. Kearney, NE: Morris Publishing.

BOOK CONTRIBUTIONS

Pollock, K. H., Marsh, H., Bailey, L. L., **Farnsworth, G. L.**, Simons, T. R., & Aldridge, M. W. (2004). Separating components of detection probability in abundance estimation: an overview with diverse examples. In W. L. Thompson (Ed.), *Sampling rare or elusive species* (pp. 43-58). Covelo, CA: Island Press.

Robbins, J. R., Baldwin, D. N., McCallum, S., & Theriot, J. A. (2005). Bacterial manipulation of the host cell cytoskeleton. In P. Cossart, P. Boquet, S. Normark & R. Rappuoli (Eds.), *Cellular microbiology* (2nd ed., pp 275-298). Washington, DC: ASM Press.

REVIEWS & CREATIVE WRITING

Anyonge, W. (2005). [Review of the textbook manuscript *General biology*]. Boston, MA: Pearson Custom Publishing.

Anyonge, W. (2005). Reassessing the size of exceptionally large rodents using tooth-row length and area as proxies for body mass. Peer review of article for *Journal of Mammalogy*.

Anyonge, W. (2004). Comparative biomechanics of the forelimb in the extant felids and the primitive saber-toothed cat, *Paramachairodus ogygia* (Carnivora, Felidae, Machairodontinae) from the Late Miocene of Spain. Peer review of article for *Paleobiology*.

PROCEEDINGS

Anyonge, W., Meyer, J., Baker, A., Alberico, P., & Roman, C. (2003). Body mass and feeding behavior in the extinct Pleistocene dire wolf (*Canis dirus*). *Journal of Vertebrate Paleontology*, 23(Supplement 3), pg. not available.

Schmitzer, H., Swearingen, J., Robbins, J. R., **Engle, D.**, Dultz, W., & Tierney, D. (2006). Helical bacteria as optically driven microrotors. In *Proceedings of the 107th Spring Meeting of the German Society of Applied Optics* [Weingarten]. Erlangen, GE: The Society.

Farnsworth, G. L., Nichols, J. D., Sauer, J. R., Fancy, S. G., Polloc, K. H., Shriner, S. A., et al. (2005). Statistical approaches to the analysis of point count data: A little extra information can go a long way. In C. J. Ralph & T. D. Rich (Eds.), *Bird conservation implementation and integration in the Americas: Proceedings of the Third International Partners in Flight Conference: Vol. 2* (pp. 736-743). Albany, CA: U. S. Department of Agriculture, Forest Service, Pacific Southwest Research Station.

Grossman, C. J., Kluener, C., Herbert, S. T., & Johnson, J. (2004). Frequency modulation in male-to-male acoustical communication in the Florida manatee (*Trichechus manatus*). *Proceedings of the 18th National Conference on Undergraduate Research (NCUR)*. Asheville, NC: University of North Carolina at Asheville.

Grossman, C. J. (2004). Manatee directional response to sound, avoidance and behavioral effects of audible vs. ultrahigh frequencies. In R. D. Yearout (Ed.), *Proceedings of the 18th National Conference on Undergraduate Research (NCUR)*. Asheville, NC: University of North Carolina at Asheville.

Grossman, C. J. (2003). Manatee directional response to high frequency sounds, preliminary report. In R. D. Yearout (Ed.), *Proceedings of the 17th National Conference on Undergraduate Research (NCUR)*. Asheville, NC: University of North Carolina at Asheville.

Schmitzer, H., Swearingen, J., **Robbins, J. R.**, Engle, D., Dultz, W., & Tierney, D. (2006). Helical bacteria as optically driven microrotors. In *Proceedings of the 107th Spring Meeting of the German Society of Applied Optics* [Weingarten]. Erlangen, GE: The Society.

PRESENTATIONS AT ACADEMIC CONFERENCES

- Anyonge, W., & Baker, A.** (2005). *Craniofacial morphology and feeding behavior in *Canis dirus*, the extinct Pleistocene dire wolf*. Paper presented at the Annual Meeting of the American Society of Mammalogists, Southwest Missouri State University, Springfield, MO.
- Anyonge, W., & Baker, A.** (2003). *Body mass and cranial morphology in the extinct dire wolf (*Canis dirus*)*. Paper presented at the Annual Meeting of the Society of Vertebrate Paleontology, St. Paul, MN.
- Anyonge, W., & Baker, A.** (2003). *Body mass in the extinct dire wolf (*Canis dirus*)*. Paper presented at the Annual Meeting of the American Society of Mammalogists, Texas Tech University, Lubbock, TX.
- Schmitzer, H., Swearingen, J., Robbins, J., **Engle, D.**, Dultz, W., & Tierney, D. (2006). *Helical bacteria as optically driven microrotors*. Paper presented at the 107th Spring Meeting of the German Society of Applied Optics, Weingarten, Germany.
- Farnsworth, G. L., & Diefenbach, D. R.** (2006). *A new point count bird survey method: Incorporating time to detection and distance from observer to estimate detection probability and density*. Poster presented at the EURING Conference, Dunedin, New Zealand.
- Shriner, S. A., **Farnsworth, G. L.**, Simons, T. R., & Kashian, D. (2006). *Potential effects of an invasive pest and associated hemlock loss on forest and bird communities in the southern Appalachians*. Paper presented at the 91st Meeting of the Ecological Society of America, Memphis, TN.
- Farnsworth, G. L., Diefenbach, D. R., Mulvihill, R. S., Lanzone, M. J., & Brauning, D. W.** (2006). *Estimating breeding bird abundances with point counts from the "2nd Pennsylvania Breeding Bird Atlas."* Paper presented at the IV North American Ornithological Conference, Veracruz, Mexico.
- Gaydos, M., & **Farnsworth, G. L.** (2005). *Factors affecting parental nest attendance in Northern Mockingbirds (*Mimus polyglottos*)*. Paper presented at the Joint Meeting of the Wilson Ornithological Society and the Association of Field Ornithologists, Washington, DC.
- Smolinski, J. L., & **Farnsworth, G. L.** (2005). *Numerical competence in wild Northern Mockingbirds*. Paper presented at the Joint Meeting of the Wilson Ornithological Society and the Association of Field Ornithologists, Washington, DC.
- Farnsworth, G. L.** (2004). *Sup-optimal foraging by a Northern Mockingbird in a novel feeding situation*. Paper presented at the 89th Annual Meeting of the Ecological Society of America, Portland, OR.
- Farnsworth, G. L.** (2004). *Evaluating Great Smoky Mountains National Park as a population source for the Wood Thrush*. Seminar delivered to the Department of Biological Sciences, Northern Kentucky University, Highland Heights, KY.

- Shen, J., Wensley, R., **Grossman, C. J.**, & Robbins, J. R. (2007). *Manatee vocalization computational analysis*. Paper presented at American Association for the Advancement of Sciences Annual Meeting, San Francisco, CA.
- Grossman, C. J.**, Herbert, S., Kluener, C., Johnson, J., & Bellman, D. (2005). *Acoustical research studies on the captive manatees at the Cincinnati and Columbus zoos*. Invited paper presented at the International Sirenian Symposium, San Diego, CA.
- Grossman, C. J.**, Herbert, S., Bellman, D., Johnson, J., Flaspohler, D., & Kluener, C. (2005). *Behavioral patterns elicited to audible sound frequencies may be related to the interactions taking place between different manatee pairs*. Paper presented at the Marine Mammals Conference, San Diego, CA.
- Grossman, C. J.**, Broestl, M., Bender, M., Deitsch, M., Johatan, D., & Konieczny, K. et al. (2005). *Manatee directional response to sound: Behavioral patterns elicited to audible sound frequencies may be related to the interactions taking place between different manatee pairs*. Paper presented at the National Conferences on Undergraduate Research, Virginia Military Institute and Washington and Lee University, Lexington, VA.
- Kluener, C. J., Robbins, J. R., Jacob, G. A., Schroder, B. J., Herbert, S., & **Grossman, C. J.** (2005). *Presence of ultrasonic harmonics and a frequency modulation repertoire in male-to-male vocalizations by captive adult Florida manatees*. Poster presented at the Marine Mammals Conference, San Diego, CA.
- Grossman, C. J.** (2004). *Manatee acoustical responses to generated frequencies in the audible range and associated avoidance behaviors*. Poster presented at the Ohio Fish and Wildlife Service Conference, Fawcett Center, Ohio State University, Columbus, OH.
- Kluener, C. J., Robbins, J. R., **Jacob, G. A.**, Schroder, B. J., Herbert, S., & Grossman, C. J. (2005). *Presence of ultrasonic harmonics and a frequency modulation repertoire in male-to-male vocalizations by captive adult Florida manatees*. Poster presented at the Marine Mammals Conference, San Diego, CA.
- Shen, J., Wensley, R., Grossman, C. J., & **Robbins, J. R.** (2007). *Manatee vocalization computational analysis*. Paper presented at American Association for the Advancement of Sciences Annual Meeting, San Francisco, CA.
- Meyer-Morse, N., **Robbins, J. R.**, Rae, C. S., & Portnoy, D. A. (2007). *Autophagy in early Listeria infection*. Paper presented at the Keystone Symposium: Autophagy in Health and Disease, Monterey, CA.
- Tierney, D., **Robbins, J. R.**, & Schmitzer, H. (2006). *Effects of optically driven helical bacteria*. Poster presented at the Optics and Photonics Conference of the International Society for Optical Engineering, San Diego, CA.

- Schmitzer, H., Swearingen, J., **Robbins, J. R.**, Engle, D., Dultz, W., & Tierney, D. (2006). *Helical bacteria as optically driven microrotors*. Paper presented at the 107th Spring Meeting of the German Society of Applied Optics, Weingarten, Germany.
- Robbins, J. R.**, Tierney, D., & Schmitzer, H. (2005). *A bacterial screw of Archimedes*. Poster presented at the Meeting of the American Society for Cell Biology, San Francisco, CA.
- Schmitzer, H., **Robbins, J. R.**, & Tierney, D. (2005). *Bacteria as micro mechanical augers*. Poster presented at the 89th Annual Meeting of the Optical Society of America, Tucson, AZ.
- Spaeth, A., **Robbins, J. R.**, Tierney, D., & Schmitzer, H. (2005). *Rotating bacteria using optical tweezers with an elliptically shaped focus*. Paper presented at the American Association of Physics Teachers Meeting, Albuquerque, NM.
- Kluener, C. J., **Robbins, J. R.**, Jacob, G. A., Schroder, B. J., Herbert, S., & Grossman, C. J. (2005). *Presence of ultrasonic harmonics and a frequency modulation repertoire in male-to-male vocalizations by captive adult Florida manatees*. Poster presented at the Marine Mammals Conference, San Diego, CA.
- Szigligeti, P., **Robbins, J. R.**, Petrovic, M., & Conforti, L. (2004). *Differential effects of hypoxia on ion channels in human T lymphocytes: Selective modulation of Kvl.3 channels*. Poster presented at Biology of Hypoxia: The Role of Oxygen Sensing in Development, Normal Function and Disease, Steamboat Springs, CO.
- Robbins, J. R.**, Lee, S., Filipovich, A. H., & Conforti, L. (2004). *Hypoxia modulates T cell receptor-mediated activation in a subset of human T lymphocytes via Kvl.3 channels*. Poster presented at Biology of Hypoxia: The Role of Oxygen Sensing in Development, Normal Function and Disease, Steamboat Springs, CO.
- Conforti, L., **Robbins, J. R.**, Lee, S., & Filipovich, A. H. (2004). *Hypoxia modulates membrane potential and Ca homeostasis in human T cells*. Poster presented at the FASEB Experimental Biology Meeting, Washington, DC.
- Curran, K. C., **Robbins, J. R.**, & Conforti, L. (2004). *Hypoxia decreases T cells' ability to respond to pathogens*. Poster presented at FASEB Experimental Biology Meeting, Washington, DC.
- Curran, K. C., **Robbins, J. R.**, & Conforti, L. (2004). *Pre-exposure to hypoxia depresses the cytosolic calcium plateau of T cell activation*. Poster presented at the National Conference of Undergraduate Research, Indianapolis, IN.

OTHER

- Anyonge, W.** (2006). *Unraveling the paleobiology of the extinct Pleistocene dire wolf (Canis dirus): Evidence from body mass and cranio-dental anatomy*. Paper presented at the Department of Biology Faculty Seminar Series, Xavier University, Cincinnati, OH.
- Anyonge, W.** (2005). *Craniofacial morphology and feeding behavior in Canis dirus, the extinct Pleistocene wolf*. Paper presented at the Science Faculty Research Presentations, Xavier University, Cincinnati, OH.
- Close-Jacob, L.,** Alunday, R., Carpenter, J., DiCarlo, A., Habash, K., & Hill, J. et al. (2004). *The effect of interleukin-6 soluble receptor fragment on bovine coronary arteries*. Paper presented at the Celebration of Student Research, Xavier University, Cincinnati, OH.
- Endicott, D.** (2004). *Creating an exposure technique chart for the radiology department*. Paper presented at the Educational Meeting, Cincinnati, OH.
- Engle, D.,** Klamunde, M., Loftus, A., Mehl, C., Sullenberger, V., & Sullenberger, J. (2004). *Sequencing of a possible intermediate filament gene of Aspergillus nidulans*. Paper presented at the Xavier University Celebration of Student Research, Xavier University, Cincinnati, OH.
- Farnsworth, G. L.** (2007). *Numerical discrimination in wild mockingbirds*. Seminar presented to the Biology Department, John Carroll University, Cleveland, OH.
- Farnsworth, G. L.** (2007). *Numerical discrimination in wild mockingbirds*. Seminar presented to the Biology Department, University of Cincinnati, Cincinnati, OH.
- Farnsworth, G. L.** (2007). *Numerical discrimination in wild mockingbirds*. Paper presented to the October meeting of the Springfield Audubon Society, Springfield, OH.
- Farnsworth, G. L.** (2007). *Numerical discrimination in wild mockingbirds*. Paper presented to the November meeting of the Cincinnati Wildflower Preservation Society, Cincinnati, OH.
- Farnsworth, G. L.** (2006). *Bird vocalizations*. Paper presented to the 3rd Amish Bird Symposium, Adams County, OH.
- Farnsworth, G. L.** (2006). *Experiments with wild songbirds*. Paper presented to the Cincinnati Bird Club, Cincinnati, OH.
- Farnsworth, G. L.** (2006). *Intelligence tests for wild mockingbirds*. Paper presented to the Cincinnati Nature Center, Cincinnati, OH.
- Farnsworth, G. L.** (2006). *Numerical discrimination by wild mockingbirds*. Paper presented to the Langdon Club, Cincinnati, OH.
- Farnsworth, G. L.** (2004). *Conservation of Wood Thrushes*. Paper presented to Oxbow, Inc., Cincinnati, OH.

- Farnsworth, G. L.** (2004). *Intelligence test for wild birds*. Paper presented to the Langdon Club, Cincinnati, OH.
- Grossman, C. J.** (2003). *Manatee research*. Paper presented at the Cincinnati Zoo, Cincinnati, OH.
- Hedeen, S.** (2004). *The ecology and geology of greater Cincinnati*. Paper presented at the Wildflower Society of Cincinnati, Cincinnati, OH.
- Hedeen, S.** (2004). *A natural history of Cincinnati parks, Cincinnati, OH*. Retrieved February 20, 2006, from http://www.cincinnati-oh.gov/cityparks/downloads/cityparks_pdf9892.pdf
- Hedeen, S.** (2004). *Designed for intelligence*. Faculty address delivered at the Xavier Celebration of Honors, Xavier University, Cincinnati, OH.
- Hedeen, S.** (2004). *The landscapes and streams of Greater Cincinnati*. Presentation delivered at the Cincinnati Nature Center, Cincinnati, OH.
- Hedeen, S.** (2004). *Ecoregions of the Cincinnati area*. Presentation delivered at the Hamilton County Environmental Action Commission, Cincinnati, OH.
- Hedeen, S.** (2004). *Tri-state greenspaces*. Presentation delivered at the Ohio-Kentucky-Indiana Regional Council of Government.
- Hedeen, S.** (2003). *Successes and failures of an environmental resource center*. Paper presented at the Hamilton County Environmental Action Commission, Cincinnati, OH.
- Hedeen, S.** (2003). *Restoration of the Mill Creek*. Paper presented at the Cincinnati Earth Institute, Cincinnati, OH.
- Hedeen, S.** (2003). *The ecoregions of the Cincinnati area*. Paper presented at the Cincinnati Museum Center, Cincinnati, OH.
- Hedeen, S.** (2003). *Creating a new vision for the Mill Creek*. Paper presented at the Hamilton County Department of Environmental Services, Cincinnati, OH.
- Hedeen, S.** (2003). *Birds of the Little Miami river valley*. Paper presented at the California Woods Nature Center, Cincinnati, OH.
- Hedeen, S.** (2003). *Pollution indicators in the Mill Creek*. Paper presented at the Hamilton County Environmental Action Commission, Cincinnati, OH.
- Hedeen, S.** (2003). *An evolutionary view of the Cincinnati Zoo*. Presentation delivered at the Xavier University Honors Program, Cincinnati, OH.
- Hedeen, S.** (2003). *The ecology of Polk Run*. Presentation delivered at the Symmes Township Trustees meeting, Cincinnati, OH.
- Hedeen, S.** (2003). *A greenprint for the Cincinnati region: greenwoods, greenways and greenbelts (green paper #2)*. Paper presented at the Regional Greenspace Initiative.