

Brandon Ballengée: Science Curriculum Vitae

EDUCATION AND AFFILIATION

- 2021-26 Adjunct Faculty of Ecology and Evolutionary Biology at Tulane University, New Orleans, LA
- 2016-19 Postdoctoral Research, Ichthyology Department, Louisiana State University, Baton Rouge, LA
- 2014 Ph.D., Transdisciplinary Art and Science, University of Plymouth, England / Zurich University of the Arts, Switzerland
- 2008 M.Phil., University of Plymouth, England / Zurich University of the Arts, Switzerland

RESEARCH INTERESTS

My research interests include: proximate causes for developmental deviation and declining populations of ectothermic vertebrates, mostly amphibians and fishes; the potential recovery or decline of endemic Gulf of Mexico fishes following the 2010 Deepwater Horizon oil spill; the effective role that public volunteers (citizen scientists) can play in data collection as well as conservation of wildlife.

RESEARCH AND FIELD EXPERIENCE

2021-2026 Adjunct Faculty, Tulane University School of Ecology and Evolutionary Biology

- Develop research design and implement surveys of endemic Gulf of Mexico fishes. Develop citizen science program focused on Gulf fishes with coastal fisherfolk, oil and gas workers and youth in Plaquemines Parish, Louisiana.
- Develop a series of public and educational programs about Gulf of Mexico biodiversity and natural history of Louisiana marine species given at the Royal Suttkus Royal D. Suttkus Fish Collection, Tulane University Biodiversity Research Institute, Belle Chasse, Louisiana

2015-18 Postdoctoral Research Associate, Museum of Natural Science, Louisiana State University, Baton Rouge, LA

- Develop research design and implement surveys of fishes in Coastal Louisiana during the field seasons of 2016-17 to gauge for biodiversity and population levels of endemic Gulf of Mexico fishes at sites impacted by the 2010 Deepwater Horizon oil spill.
- Analysis and imaging of cleared and stained field-sampled fishes.
- Develop a series of public and educational activities about Gulf of Mexico biodiversity and natural history of Louisiana marine species.
- Instigate and collaborate in the creation of a portable science and art educational museum focused on Gulf of Mexico biodiversity that travelled to schools, public venues and field sites.

2009-15 Visiting Scientist, Redpath Museum, McGill University, Montreal, Canada

- Develop research design and implement wetland-surveys in Southern Quebec during the field seasons of 2009-10 to ascertain percentages of injury and developmental deformities among naturally occurring populations of anuran amphibians.
- Develop research design and implement numerous controlled experiments with anuran larvae and predatory fishes and arthropods to ascertain effects of selective predation on tadpole limb development.
- Analysis and imaging of cleared and stained field-sampled and experimental larvae and peri-metamorphic anurans.
- Develop a series of public and educational activities about native Canadian amphibian natural history and conservation at varied Quebec venues.
- Develop research design and implement pilot wetland-surveys in Piedmont Region, Italy and Co. Offaly, Ireland during the field seasons of 2010 to ascertain percentages of injury and developmental deformities among naturally occurring populations of anuran amphibians.
- Develop research design and implement pilot wetland-surveys in Essonne, France during the field seasons of 2012-13 to ascertain percentages of injury and developmental deformities among naturally occurring populations of anuran amphibians.
- Develop research design and implement pilot wetland-surveys in the greater City Municipality of Ljubljana during the field seasons of 2013 to ascertain percentages of injury and developmental deformities among naturally occurring populations of anuran amphibians.
- Develop research design and implement pilot wetland-surveys in Limburg, Netherlands during the field seasons of 2014 to ascertain percentages of injury and developmental deformities among naturally occurring populations of anuran amphibians.

2005-2008 M.Phil./ Ph.D. Researcher, University Of Plymouth, England

- Develop research design and implement wetland-surveys in Essex and Yorkshire regions in UK during the field seasons of 2006-08 to ascertain percentages of developmental deformities among naturally occurring populations of anuran amphibians.
- Develop research design and implement numerous controlled experiments with anuran larvae and predatory fishes and arthropods to ascertain effects of selective predation on tadpole limb development.
- Develop research design and implement a series of controlled experiments with anuran larvae and infected aquatic snails to ascertain effects of parasitic infestation on tadpole limb development.
- Analysis and imaging of cleared and stained field-sampled and experimental larvae and peri-metamorphic anurans.
- Develop research design and implement examinations of preserved historic natural history museum specimens to ascertain historic ratios of hind-limb

deformities among anuran larvae at varied institutions including The Field Museum in Chicago, Peabody Museum at Yale University, Natural History Museum London, and others.

- Develop a series of public and educational activities about amphibian natural history and conservation at venues in Europe and North America.

2003-08 Field Researcher and Environmental Educator, Drew Garden, Bronx, New York

- Sampled and created species index of aquatic animal species at a 2-Acre section of Bronx River.
- Determined and analyzed dissolved oxygen and nitrate levels present in Bronx River water samples from varied localities.
- Developed Bronx River Environmental Educational Curriculum for High School Students.

2004-05 Field Researcher and Environmental Educator, Clearpool Environmental Education Center, Carmel, New York

- Developed research design and collected data on naturally occurring populations of amphibian in 300+ Acre ecological preserve.
- Developed educational curriculum and stewardship initiative with high-school students (grades 10-12) on local wetland ecology.
- Operated and maintained nature center for temporary housing of amphibian specimens and educational activities.

2001-03 Field Researcher and Environmental Educator, University Settlement Beacon Campus, Beacon, New York

- Wetland mitigation project involving restoration of marsh that had been piped in the late 20th Century.
- Developed educational curriculum and stewardship initiative with high-school students (grades 10-12) on local wetland ecology.
- Monitored wetland for recruitment of amphibian and other aquatic species.
- Operated and maintained nature center for temporary housing of aquatic specimens and educational activities.

2002-03 Independent Study with Stanley K. Sessions, Department of Biology, Hartwick College, Oneonta, New York

- Primary study into regenerative responses in mid to late-stage Wood frog/ *Rana sylvatica* tadpoles, included: performing micro-surgeries on developing limb buds of tadpoles; monitoring regeneration in disrupted limbs; Comparison with experimentally induced developmental abnormalities with those found in wild populations.
- Primary study focus on developmental response to mechanical disruption in front limb buds in early stage Spotted salamander/ *Ambystoma maculatum* larvae, included: Perform micro-surgeries on developing limb buds of larvae; Monitoring

abnormal growth in disrupted limb buds; Comparison with experimentally induced developmental abnormalities with those found in wild populations.

2000-01 Independent Study with James Barron, Department of Biology, Ohio University Lancaster, Lancaster, Ohio

- Develop research design and implement wetland-surveys in central and southern Ohio during 2000-01 to ascertain percentages of developmental deformities among naturally occurring populations of anuran amphibians. Results were reported to USGS's NARCAM.
- Assisted in the preservation of voucher anuran and caudate specimens for Stanley K. Sessions, Hartwick College, Oneonta, NY.

1998-00 Independent Study with Peter R. Warny, Department of Zoology, New York State Museum, Albany, New York

- Assisted in implementing general amphibian population surveys at varied localities in Connecticut, New York, New Jersey and Rhode Island during the field seasons of 1998-2000.
- Assisted in the preservation of voucher anuran and caudate specimens for the New York State Museum

1999-03 Volunteer reporter, North American Reporting Center for Amphibian Malformations (NARCAM), United States Geological Survey

- Reported results deformity ratios among natural populations of amphibians from numerous pilot field surveys conducted in Florida, Michigan, New Jersey, New York, Ohio, and Tennessee.

AWARDS/GRANTS

- 2021 Guggenheim Fellowship, New York, NY
- 2020 Grist 50 Emerging Environmental Leader, Seattle, WA
- 2017 Smithsonian Artist Research Fellowship, National Museum of Natural History (NMNH) and Smithsonian American Art Museum (SAAM), Washington, DC
Interdisciplinary Projects Grant Award, National Academies Keck Futures Initiative, National Academies of Sciences, Washington, DC
- 2016 Interdisciplinary Projects Grant Award, National Academies Keck Futures Initiative, National Academies of Sciences, Washington, DC
- 2011 Conservation Leadership Award & Fellowship, National Audubon Society & Toyota TogetherGreen Program, Washington, DC
- 2002-03 Foreman Institute Fellowship, Hartwick College, Oneonta, New York
- 2000-01 Rockefeller Foundation Fellowship, Alfred University, Alfred, New York

SELECTED HONORS / RESIDENCIES

- 2024 Visiting Scholar, University of Antwerp, Antwerp, Belgium
- 2019 Visiting Scholar, The University of Tennessee, Knoxville, TN
- 2018 Visiting Scholar, Ohio State University, Columbus, OH
Visiting Scholar, Westminster College, Salt Lake City, UT
Visiting Scholar, Western Washington University, Bellingham, WA
- 2016 Visiting Lecturer, Hoger Instituut voor Schone Kunsten (HISK), Gent, Belgium
- 2009 Visiting Scholar, Monash University, Melbourne, Australia
- 2007 Researcher in residence, Société des arts technologiques [SAT], Montreal, Canada

PROFESSIONAL MEMBERSHIPS

- 2022-current Co-Founder of the Creative Gulf Network, in collaboration with the Cultural Programs of the National Academy of Sciences (CPNAS) and Gulf Research Program of the National Academy of Sciences (GRP)
- 2010-15 Membership, American Society For Ichthyologists And Herpetologists
- 2014-2015 Membership, Association For Environmental Studies And Sciences (Aess)
- 2014-2015 Membership, International Association Of Bioethics
- 2001/14 Associate Membership Sigma Xi, The Scientific Research Society
- 2001 Constituent, Peabody Museum, Yale University

PUBLICATIONS

- Ballengée, B., Ballengée, A., Harrison, J., Griffard, P.B., Villa., J., (*accepted*) “Memory in the Life of a Cajun Prairie”, *Leonardo*, MIT Press, Cambridge, MA.
- Ballengée, A., Ballengée, B., (*in press*) “Atelier de la Nature: A Living Community Artwork”, *Integrative Contemporary Art and Science Practices*, Routledge, NY, NY.
- Dubansky, B., Ballengée, B., Franzen, S., Dubansky, B., & Ballengée, A., (2025), “Le Bleu Perdu: The Lost Blue of Louisiana Indigo”, *Blue Gold: The Art and Science of Indigo*, Mingei International Museum, San Diego, CA.
- Chakrabarty, P., Sheehy, A.J., Clute, X., Cruz, S.B. and Ballengée, B. (2024). “Ten years later: An update on the status of collections of endemic Gulf of Mexico fishes put at risk by the 2010 Oil Spill”, *Biodiversity Data Journal*, 12.
- Ballengée, B. (2023), “Environmental Apparitions”, *Issues in Science & Technology*, 40 (1).
- Ballengée, B. (2023), “Searching for Ghosts of the Gulf”, *Field Journal*, Issue 23, Winter 23
- Ballengée, B. (2018), “Crude Life”, *Issues In Science And Technology*, 34(2), 66-71.
- Ballengée, B., & Kirn, M. (2017), “Crude Life: The Art and Science of Engagement In AGU Fall Meeting Abstracts.

Chakrabarty, P., O'Neill, G., Hardy, B., & Ballengée, B. (2016). "Five Years Later: An Update on the Status of Collections of Endemic Gulf of Mexico Fishes Put at Risk by the 2010 Oil Spill", *Biodiversity Data Journal*, (4), e8728.

Ballengée, B. and Chakrabarty, P. (2016). "Combining Art and Science for Conservation Outreach of Ectothermic Vertebrates (Amphibians and Fishes)", Poster presented at the 2016 Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA.

Ballengée, B. (2015), "Ghosts of the Gulf", *Cultural Politics*, November 2015, 11 (3).

Ballengée, B. "The Art, Science, and Environmentalism of Deformed Amphibian Research", *Art Practical*, Issue 7.2, October 29, 2015.

<http://www.artpractical.com/feature/the-art-science-and-environmentalism-of-deformed-amphibian-research/>

VanBuggenum, H.J.M., B. Ballengée, M.Kik, and A. Spitzen-van der Sluijs (2015) "Een voor amfibieën dodelijk ranavirus ook in Limburg", *Natuurhistorisch Maandblad*, Volume 104, number 3, pp. 54-59

Ballengée, B. (2012) in L Poissant & E Daubner (eds.), "La conscience écologique par la recherche biologique en art", *Bioart: Transformations du vivant*, Presses de l'Université du Québec, pp. 61-70.

Ballengée, B. (2011) in A Gleiniger, A Hilbeck, & J. Scott (eds.), "Helen and Newton Harrison conversation with Brandon Ballengée", *Transdiscourse 1: Mediated Environments*, Zürich, Switzerland.

Ballengée, B & Green DM (2011) *Temporal and spatial analysis of deformed amphibians at selected localities in Southern Quebec: What role do Odonate predators play in inducing anuran limb abnormalities? Year Two*, report, Canadian Wildlife Service, Gatineau, Canada.

Warny, P., S.K. Sessions and B. Ballengée. (2010) "Scanning Salamanders: A Natural History of Species and Seekers", *Reptiles & Amphibians*, vol. 17, no. 3, pp. 26-28.

Ballengée, B. and D.M. Green (2010), *Temporal and spatial analysis of deformed amphibians at selected localities in Southern Quebec: What role do Odonate predators play in inducing anuran limb abnormalities?*, Canadian Wildlife Service, Environmental Canada Summer Research Summary, Gatineau, Canada.

Sessions, S. K. and B. Ballengée (2010) "Explanations for Deformed Frogs: Plenty of Research Left to do (A Response to Skelly and Benard)", *Journal of Experimental Zoology*, Volume 314B Issue 5, pp. 341 – 346.

Ballengée, B and S. K. Sessions (2010) "The Case of the Deviant Toad: An introduction to the proximate causes for limb deformities in amphibians", *Brandon Ballengée: Malamp, The Occurrence of Deformities in Amphibians*, Arts Catalyst, London and Yorkshire Sculpture Park, Wakefield, England, pp. 40-44.

S.K. Sessions and B. Ballengée (2010) "Developmental Deformities in Amphibians", *Brandon Ballengée: Malamp, The Occurrence of Deformities in Amphibians*, Arts Catalyst, London and Yorkshire Sculpture Park, Wakefield, England, pp. 62-72.

- Ballengée, B. (2009) in D. Montag (ed.) "An Impetus for Biological Research in the Arts", *Artful Ecologies 2*, Falmouth, England: University College Falmouth.
- Ballengée, B. and S.K. Sessions (2009), "Explanation for Missing Limbs in Deformed Amphibians", *Journal of Experimental Zoology*, Volume 312B Issue 7, pp. 770 – 779.
- Ballengée, B. (2009) in D. Bulatov (ed.) "The Occurrence of Deformed Amphibians in the United Kingdom and North America", *Evolution Haute Couture: Art and Science in the Post-Biological Age*, National Center for Contemporary Art, Kaliningrad Branch, Russia, pp. 78-79.
- Ballengée, B. (2008) in E. Kac (ed.) "The Art of Unnatural Selection", *Signs of Life*, Cambridge, MA: MIT Press.
- Ballengée, B. (2007) in P. Anders (ed.) "Visualizing Biological Abstraction in Nature: The Occurrence of Deformed Amphibians", *Reviewing the Future: Vision, Innovation, Emergence, Abstracts from the 2007 Planetary Collegium Montreal Summit*, University of Plymouth, Plymouth, England.
- Ballengée, B. (2005) in J. Osman, J. Spahr, (eds.), "It's Not Easy Being Green", *CHAIN*, Temple University, Philadelphia, PA, Volume 12, Summer Issue, pp. 15-23.
- Ballengée, B. and Lipton, A. (2005) "Eco-artists in the Concrete Jungle", *Cluster*, vol. 5, pp. 92-97.
- Ballengée, B. (2004) in D. Bulatov (ed.) "The Origins and Application of Artificial Selection", *Biomediale*, National Center for Contemporary Art, Kaliningrad Branch, Russia.
- Ballengée, B. (2002), "Deformities in North American Amphibians", *greenmusuem.org*, <http://www.greenmuseum.org/MALAMP>
- Ballengée, B. (2001), "Deformed Amphibians; An Overview", *New York Herpetological Society Newsletter*, Spring Issue.
- Ballengée, B. (2001), "The Ever-Changing Tide: The Ecological Dynamics of the Earth's Oceans as Exemplified through the Biodiversity of the Flushing New York Seafood Markets", *NY Arts Magazine*, vol. 6, no. 11, pp. 16-17.
- Ballengée, B. (2000), "Malformed Amphibians", *Journal for the Partnership of Amphibian and Reptile Conservation* (online), September-December. <http://www.parcplace.org/MALAMP>
- Ballengée, B. (2000), "Global Warming and RAPID RESPONSE at Irena Nikolei Fine Art", *ZingMagazine*, no. 12.
- Ballengée, B. (2000) "A Field Trip to Fernald", *disk-o.com*, no. 5. <http://disk-o.com/malamp/fernald.html>, 2000
- Ballengée, B. (2000), "Daniel Zeller and Adam Ross", *ZingMagazine*, no. 11.
- Ballengée, B. (1999), "Selections from the Atomic Frogs Series", *ZingMagazine*, no. 10.
- Ballengée, B. (1999), "The Malformed Amphibian Project 1996-1999", Fall issue. <http://www.articlemagazine.com/articlefl99/index.html#>

Ballengée, B. (1999), "The Fifth Lucky Dragon- A Brief History of the United States Above Ground Atomic Testing in the Pacific", *Sandbox.com*, no. 7.

<http://sandbox.com/fifthdragon.html>

Ballengée, B. (1998), "Mark Lombardi, Pierogi 2000 Gallery", *ZingMagazine*, no. 9.

Ballengée, B. (1998), "Dennis Oppenheim, Joseph Helman Gallery", *Cover*, Spring issue.