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ACADEMIC POSITIONS:

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| Visiting Assistant Professor, Texas Tech University | 2008- |
| Adjunct Faculty, Texas Tech University | 2007-2008 |
| Postdoctoral Research Associate, University of Texas at Austin | 2007-2008 |

EDUCATION:

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| University of Texas at Austin | Ecology, Evolution and Behavior | Ph.D. 2007 |
| Universidad de Los Andes | Physiology and Animal Behavior | M.S. 2001 |
| Universidad de Los Andes | Biology | B.S. 1998 |

PUBLICATIONS

Peer-reviewed Papers:

- Bernal, X. E.**, Page, R. A., Ryan, M. J., Argo IV, T. F., Wilson, P. S. 200X. Acoustic radiation patterns of mating calls of the túngara frog (*Physalaemus pustulosus*): Implications for multiple receivers. *J Acous Soc Am* (In review)
- Bernal, X. E.**, Akre, K. L., Baugh, A. T., Rand, A. S. & Ryan, M.J. 2009. Female and male behavioral response to advertisement calls of variable complexity in túngara frogs, *Physalaemus pustulosus*. *Behav Ecol Sociobiol* (Accepted)
- Bernal, X. E.**, Rand, A. S. & Ryan, M. J. 2009. Task differences confound sex differences in receiver permissiveness in túngara frogs. *Proc Roy Soc London B* (In press)
- Cummings, M. E., **Bernal, X. E.**, Reynaga, R., Rand, A. S. & Ryan M.J. 2008. Visual Sensitivity to a Conspicuous Male Cue Varies by Reproductive State in *Physalaemus pustulosus* females. *Journal of Experimental Biology* 211:1203-1210.
- Ryan, M. J., **Bernal, X. E.**, & Rand, A. S. 2007. Patterns of mating call preferences in túngara frogs, *Physalaemus pustulosus*. *J Evol Biol* 20:2235-2247.
- Bernal, X. E.**, Rand, A. S. & Ryan, M. J. 2007. Sexual differences in the behavioral response of túngara frogs, *Physalaemus pustulosus*, to cues associated with increased predation risk. *Ethology* 113:755-763.
- Lampert, K.P., **Bernal, X.E.**, Rand, A.S., Mueller, U.G. & Ryan, M.J. 2007. Island populations of *Physalaemus pustulosus*: history influences genetic diversity and morphology. *Herpetologica* 63(3):311-320.
- Bernal, X.E.**, Rand, A. S. & Ryan, M. J. 2007. Sexual differences in receiver permissiveness to advertisement calls in túngara frogs, *Physalaemus pustulosus*. *Anim Behav* 73:955-964.

- Bernal, X. E.**, Page, R. A., Rand, A. S. & Ryan, M. J. 2007. Cues for eavesdroppers: Do frog calls indicate prey density and quality? *Am Nat* 169: 412-415.
- Page, R. A. & **Bernal, X. E.** 2006. Quick guide Túngara frogs. *Current Biology* 16(23): R979-R780.
- Bernal, X. E.**, Rand, A. S. & Ryan, M. J. 2006. Acoustic preferences and localization performance of blood-sucking flies (*Corethrella* Coquillett). *Behav Ecol* 17:709-715.
- Pauly, G. B., **Bernal, X. E.**, Ryan, M. J. & Rand, A. S. 2006. The role of the vocal sac in increasing call rate in *Physalaemus pustulosus*. *Physiol Biochem Zool* 79:708-719.
- Lampert, K. P., **Bernal, X.E.**, Rand A. S., Mueller, U. G. & Ryan, M. J. 2006. No evidence for female mate choice based on genetic similarity in the túngara frog, *Physalaemus pustulosus*. *Behav Ecol Soc* 59:796-804.
- Bernal, X. E.**, Guarnizo, C. and Luddecke, H. 2005. Geographic variation in the advertisement call and genetic structure of the Andean frog *Colostethus palmatus*. *Herpetologica* 61(4): 395-408.
- Lüddecke, H., Amézquita, A., **Bernal, X.**, Guzmán, F. 2000. Partitioning of vocal activity in a neotropical highland-frog community. *Stud Neotrop Fauna & Environm* 35: 185-194.
- Bernal X.**, Guzmán F. 1999. The advertisement calls of three *Eleutherodactylus* species (Anura: Leptodactylidae) in a Colombian highland community. *Rev Acad Colomb Cien* 23 (Suplemento especial): 261-264.
- Lüddecke, H., Amézquita, A., Guzmán, F., **Bernal, X.**, Agudelo, L. 1998. Comparison of environmental conditions and their effects on call characteristics of five frog species in a Colombian highland community. In: Miaud, C. & Guyétant, R. (eds). *Le Bourget du Lac*, SEH 1998: 285-294.

Manuscripts in preparation

(List including only manuscripts with X.E.Bernal as first author)

- Bernal, X.E.**, Jaramillo, C. Role of skin characteristics of frogs on blood feeding by frog-biting midges.
- Bernal, X.E.**, Taylor, L*. Trypanosome infection in túngara frogs, *Physalaemus pustulosus*.
(*undergraduate student)

Newsletters:

- Bernal, X. E.** 2006. *Caiman crocodilus* (Spectacle caiman). Predation / Eavesdropper. *Natural History Notes Herp Review* 37(4): 460-461.
- Pauly, G.B., **Bernal, X. E.** & Taylor, R. 2005. *Scinax ruber* (Red Snouted Treefrog). Arboreality and parachuting. *Natural History Notes Herp Review* 36(3): 308-309.
- Bernal, X.** & Ron, S. 2004. *Leptodactylus fragilis* (South American white-lipped frog). Courtship. *Natural History Notes Herp Review* 35(4): 372-373.

Books

Ryan, M.J., **Bernal, X.E.**, and Page, R.A. In Press. Eavesdroppers and signal evolution. In: *Animal Behavior 21.1: Research Approaches in the USA during the Early Twenty First Century*. ed., G.R. Bourne. [Currently in negotiation with publisher]

AWARDS AND RESEARCH GRANTS:

- ADVANCE workshop “Negotiating the Ideal Faculty Position” at Rice University, Houston. 2007.
Workshops Supported by an NSF ADVANCE Institutional Transformation Grant to Rice University.
(680 applicants, 50 accepted)
- Warder Clyde Allee Competition. Honorable Mention. 44th Annual Meeting of the Animal Behavior Society.
Burlington, VT. 2007
- Center for Perceptual Systems - Travel Grant to attend 44th Annual Meeting of the Animal Behavior Society.
UT Austin. 2007

National Science Foundation: Eavesdroppers and signal evolution. [Given that graduate students are not allowed to be principal investigator, Dr. Ryan is the sole PI of the grant but the proposal was conceived and written by MJ Ryan, RA Page and XE Bernal] 2006-2010
William S. Livingston Graduate Fellowship. Excellence Award UT Austin. 2006-2007.
Center for Perceptual Systems - Travel Grant to attend Entomological Society of America Meeting. UT Austin. 2005
Center for Perceptual Systems – Small Equipment Grant. UT Austin. 2005
Student Competition President’s Prize in Behavior and Ecology. 53rd Entomological Society of America Meeting. Fort Lauderdale, FL. 2005
Hartman Merit Award. UT Austin. 2005
Short Term Research Fellowship. Smithsonian Tropical Research Institute. 2005
Emily P. Foster Fellowship. Organization for Tropical Studies Research. 2005
Student Competition President’s Prize in Behavior and Ecology. 52nd Entomological Society of America Meeting. Salt Lake City, UT. 2004
Center for Perceptual Systems - Travel Grant to attend Entomological Society of America Meeting. UT Austin. 2004.
Dorothea Bennett Memorial Graduate Fellowship Fund. UT Austin. 2003
Pre-emptive Fellowship. University of Texas, Austin. 2001
Organization for Tropical Studies Education Fellowship. 2001
COLCIENCIAS (Colombian Institute of Science) and CIB (Corporation for Research in Biology) Honor’s Award. Bogotá, Colombia. 1998

TEACHING EXPERIENCE:

Instructor:

Animal Communication – graduate student level, 2008. Texas Tech University.
Plant Physiology Laboratory, 1999, 2000. Universidad de Los Andes.
Animal Physiology Laboratory, 1998, 1999. Universidad de Los Andes.

Teaching Assistant:

Genetics, 2006. UT Austin.
Evolution, 2006. UT Austin.
Introduction to Biology: Structure and Function, 2005. UT Austin.
Animal Communication Laboratory, 2001, 2003, 2004, 2005. UT Austin.
General Biology Laboratory, 1996, 1999. Universidad de Los Andes.
Invertebrate Biology Laboratory, 1995. Universidad de Los Andes.

INVITED LECTURES, AND PRESENTATIONS AT MEETINGS:

(List including only presentations given by X.E. Bernal)

Bernal, X.E., Page R.A., Ryan M.J., Argo IV T.F., Wilson P.S. 2008. Acoustic radiation patterns of mating calls of the túngara frog (*Physalaemus pustulosus*): Implications for multiple receivers. Second International Conference on Acoustic Communication by Animals, Corvallis, OR. USA.
Bernal, X.E. 2007. Frogs and Flies: Communication networks in action. Rice University, Houston, TX. USA
†Bernal, X. E. 2007. Love bites: Interaction between *Corethrella* blood-sucking flies and their anuran prey. 44th Annual Meeting of the Animal Behavior Society. Burlington, VT. USA.
Bernal, X. E. 2006. Frogs and Flies: Communication networks in action. Biological Science Seminar Series. Texas Tech University, Lubbock, TX. USA
*Bernal, X.E. 2005. Potential species differences in acoustic preferences in *Corethrella* flies. 53er Meeting of the Entomological Society of America. Fort Lauderdale, FL. USA.
Bernal, X. E. 2005. Frogs and Flies: Sexual Selection and Parasitism. Neuroethology Club. Cornell University, Ithaca, NY. USA

- *Bernal, X. E. 2004. Acoustic preferences of blood-sucking flies (*Corethrella* spp). 52nd Annual Meeting of the Entomological Society of America. November 14-17. Salt Lake City, Utah.
- Bernal, X. 2004. Sexual differences in perception of signal variation in túngara frogs (*Physalaemus pustulosus*). Symposium Talk. Animal Behavior Society XLI Meeting. Oaxaca, Mexico.
- Bernal, X. & Lüddecke, H. 2000. Variación geográfica de la llamada de advertencia de la rana Andina *Colostethus palmatus*. 1er Congreso Colombiano de Zoología. Mayo 8-12, 2000. Bogota, Colombia.
- Bernal X., Guzmán F., Lüddecke H., Amézquita A. 1999. Efecto térmico diferencial en la vocalización de la rana bogotana (*Eleutherodactylus bogotensis*) en tres poblaciones de alta montaña. Vº Congreso Latinoamericano de Herpetología. Diciembre 11–17, 1999. Montevideo, Uruguay.
- Bernal X., Mejía C. A. 1996. Uso del hábitat por un grupo de paujiles (*Crax alector*). Congreso de Ecología, Universidad Javeriana. Bogotá, Colombia.
- Bernal X., Mejía C. A. 1996. Rango de hogar de un grupo de paujiles patirrusios en el Parque Nacional Natural Tinigua. Instituto de Ciencias Naturales, Universidad Nacional de Colombia. Bogotá, Colombia.

* Awarded best student oral presentation, Ecology and Animal Behavior Section. Entomological Society of America Meeting.

† Honorable Mention, best student talk, W. C. Allee Competition. Animal Behavior Society Meeting.

SERVICE ACTIVITIES:

Reviewer for the following journals and institutions:

Journals: Animal Behavior, Journal of Experimental Biology, Journal of Herpetology, Ethology, Oikos

Institutions: University of Texas at Austin George H. Mitchell/University Co-op Graduate Awards for Excellence in Graduate Research), Texas Tech University (TTU Association of Biologists Mini-grants).

Graduate committee:

Committee served:

Rafael F. Guerrero MSc Physiology & Behavior 2006 Universidad de Los Andes (Bogota, Colombia)

OUTREACH AND RELATED ACTIVITIES:

West Texas Association for Women in Science (WT-AWIS). Board Member (2008, Treasure). WT-AWIS is a newly organized chapter of the National Association for Women in Science. WT-AWIS actively supports and encourages women of all ages and career choices. We envision a day when women will participate fully in science, technology, engineering and mathematics as manifested through equal opportunity, pay equity, and recognition commensurate with their accomplishments.

“*A tropical Chorus: Frogs of Gamboa*”. Interactive CD multimedia presentation. Includes information, photographs, calls and video clips of calling males of 25 species of frogs. Smithsonian Tropical Research Institute. In collaboration with A. S. Rand and C. O. Gridi-Papp

Introduction to the frogs of Gamboa. Field instruction to students visiting Panama as part of a field class with the University of Vienna. Course directed by Walter Hödl. 2005

Introduction to Neotropical frogs. Field instruction to teachers visiting Panama as part of the JASON Project. 2003

Introduction to research on anurans. Smithsonian Tropical Research Institute. Gigante Field Course. Undergraduate students. 2001

COLLABORATORS:

Michael J Ryan (University of Texas), Ron Hoy (Cornell University), Ben Arthur (Cornell University), Art Borkent (Royal British Columbia Museum, American Museum of Natural History), Rachel Page (Max Planck Institute for Ornithology, Germany), Phil Lounibos (University of Florida), Mark Kirkpatrick (University of Texas), Cesar Jaramillo (Universidad Nacional de Panama), Preston Wilson (University of Texas).

REFERENCES

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