

## Luis J. Villanueva-Rivera, M.S.

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### Education

2007 – present. **Doctor in Philosophy program** – Department of Forestry and Natural Resources, Purdue University. West Lafayette, Indiana.

2006. **Master of Science, concentration in Biology - Tropical Ecology Program.** University of Puerto Rico. Río Piedras Campus. Puerto Rico.

1998. **Bachelor of Science, concentration in Biology.** University of Puerto Rico. Río Piedras Campus. Puerto Rico.

### Publications

Villanueva-Rivera, Luis J., and Bryan C. Pijanowski. 2012. **Pumilio: A Web-Based Management System for Ecological Recordings.** Bulletin of the Ecological Society of America 93: 71-81.

Villanueva-Rivera, L. J., B. C. Pijanowski, J. Doucette, and B. Pekin. 2011. **A primer of acoustic analysis for landscape ecologists.** Landscape Ecology 26: 1233-1246.

Pijanowski, B.C., L. J. Villanueva-Rivera, S. Dumyahn, A. Farina, B. Krause, B. Napoletano, S. Gage and N. Pieretti. 2011. **Soundscape ecology: the science of sound in landscapes.** BioScience 61.

Acevedo, M. A., C. J. Corrada-Bravo, H. Corrada-Bravo, L. J. Villanueva-Rivera, and T. M. Aide. 2009. **Automated classification of bird and amphibian calls using machine learning: A comparison of methods.** Ecological Informatics 4: 206-214.

Villanueva-Rivera, L. J. 2007. **Digital recorders increase detection of *Eleutherodactylus* frogs.** Herpetological Review 38: 59-63.

Villanueva-Rivera, L. J. 2006. **Calling activity of *Eleutherodactylus* frogs of Puerto Rico and habitat distribution of *E. richmondi*.** MS Thesis. University of Puerto Rico. Río Piedras Campus. Puerto Rico.

Acevedo, M. A. and L. J. Villanueva-Rivera. 2006. **Using automated digital recording systems as effective tools for the monitoring of birds and amphibians.** Wildlife Society Bulletin 34:211-214.

Villanueva-Rivera, L. J. and R. L. Joglar. 2001. ***Eleutherodactylus cochranæ*. Reproduction.** Herpetological Review 32: 182.

Villanueva-Rivera, L. J., R. L. Joglar, and F. C. Li-Objio. 2000. ***Eleutherodactylus coqui*. Predation.** Herpetological Review 31: 100.

## Employment

August 2007 – July 2011. **Research Assistant.** Human-Environment Modeling & Analysis Facility. Purdue University.

September 2006 – August 2007. **GIS Technician.** Tropical Landscape Ecology Laboratory, University of Puerto Rico, Río Piedras.

February 2006 – August 2007. **Co-Manager – Puerto Rico eBird.** <http://www.ebird.org/PR>. Conservation Trust of Puerto Rico and Cornell Lab of Ornithology.

August 2005 – August 2006. **Research Assistant – Landscape analysis program development and online GIS development.** Tropical Landscape Ecology Laboratory, University of Puerto Rico, Río Piedras.

August 1999 – June 2005. **Teaching Assistant – General Biology, Zoology, and Human Anatomy.** Department of Biology, Natural Sciences College, University of Puerto Rico, Río Piedras, PR

## Grants, Awards, and Fellowships

August 2011 – present. **Graduate Assistance in Areas of National Need (GAANN) Fellowship.** Purdue University.

2010. **OTS Research Fellowship for research at La Selva Biological Station, Costa Rica.** Organization for Tropical Studies.

2010. **NASA-MSU Professional Enhancement Award to attend the 2010 US-IALE Symposium.** Athens, Georgia.

2004. **Alexander Bergstrom Memorial Research Award.** Co-writer with M. Acevedo of the proposal “Comparing novel methods of digital recordings with traditional point-count surveys for rapid assessment of bird communities.”

August 2003 – July 2004. **National Science Foundation - Experimental Program to Stimulate Competitive Research (NSF-EPSCoR) Graduate Fellowship.** University of Puerto Rico, Río Piedras, Puerto Rico.

December 2002 – December 2003. **West Indian Manatee outreach tour and educational material.** Co-writer and Coordinator of the Grant to the Caribbean Stranding Network. Toyota Foundation of Puerto Rico.

## Honors received

August 1996 – December 1998. **Ronald E. McNair Post-Baccalaureate Achievement Program Scholar,** School of General Studies, University of Puerto Rico, Río Piedras, Puerto Rico.

**Computer Proficiency**

**Operating Systems:** Linux; Windows

**GIS:** ArcGIS; ERDAS Imagine; GDAL/OGR

**Languages:** HTML; PHP; Python; SQL

**Databases:** MySQL

**Statistical software:** R; Minitab

**Audio analysis and edition:** Audition; Raven; Audacity

**Other Courses**

August 2010. **Expanding the frontier in tropical ecology through embedded sensors.** Organization for Tropical Studies (OTS) and Pan-American Advanced Studies Institute (PASI). La Selva Biological Station, Costa Rica.

June - July 2010. **ELME: Enhancing Linkages between Mathematics and Ecology.** W. K. Kellogg Biological Station, Michigan State University.

January 2004. **Advanced Training in Research about Declining Amphibian Populations.** Analysis Network of Threatened Neotropical Amphibians (RANA) and the Integrated Research Challenges in Environmental Biology (IRCEB). San José and La Selva Biological Station, Costa Rica.