

Leticia Margarita Ochoa Ochoa, PhD candidate

Curriculum Vitae

Date and place of birth: 1st November, 1979, México, D.F.; México.

Address: Harris Manchester College, Mansfield Rd, Oxford, OX1 3TD, UK. (until 14th June).

Permanent postal address: Bajío 374 Int 8, Col. Hipódromo, Del. Cuauhtémoc, Cp. 06100, México, D.F.

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EDUCATION

2008 - 2012 Dphil in Geography and Environment. University of Oxford, UK.

Thesis: “Mexican amphibian diversity in a changing World: a view from Mexico”

Supervisor: **Dr. Robert J. Whittaker**

2004 - 2006 MSc focussed on Environmental Biology. Biological Sciences, National University of Mexico (Universidad Nacional Autónoma de México, UNAM).

Thesis: “Beta of the Mexican herpetofauna, analysis of patterns”

Supervisor: Dr. Oscar A. Flores-Villela

Graduated with honours and candidate to ‘Alfonso Caso’ medal for exceptional students. Grade: 9,67 (scale 1 to 10).

1997 - 2002 Biology, Faculty of Sciences, National University of Mexico (Universidad Nacional Autónoma de México, UNAM).

Grade: 9,45 (scale 1 to 10).

Supervisor: Dr. Oscar A. Flores-Villela

Thesis: “Endemism Centres Analysis of the Mexican Herpetofauna”.

Languages. Mother tongue: Spanish. English fluent.

PUBLICATIONS

➤ **In peer-reviewed journals**

Ochoa-Ochoa, L.M. & R.J. Whittaker. Amphibian meta-community structure drivers vary between two protected areas in Chiapas, Mexico. *Conservation Biology* (to be submitted).

Ochoa-Ochoa, L.M. & R.J. Whittaker. Variability of amphibian meta-communities in fluctuating environments key-factor for long-term persistence. *Journal of Animal Ecology* (to be submitted).

Aranda-Coello, J.M., **L.M. Ochoa-Ochoa** & E.J. Naranjo-Piñera. Evaluación de algunos efectos de la extracción tradicional de bromelias sobre la herpetofauna de los bosques de Chanal, Chiapas. *Acta Zoológica Mexicana (Nueva Serie)*, submitted under revision.

Ochoa-Ochoa, L.M., M. Munguía-Carrara, A.G. Navarro-Sigüenza, O.A. Flores-Villela, V. Sánchez-Cordero & P. Rodríguez. Multi-scale effects of environmental heterogeneity on β -diversity patterns of Mexican terrestrial vertebrates. *Journal of Biogeography*, submitted under revision.

Ochoa-Ochoa, L.M., R.J. Whittaker & R. Ladle. The demise of the golden toad and the creation of a climate change icon species. *Conservation and Society*, submitted under revision.

Ochoa-Ochoa, L.M., P. Rodríguez, F. Mora, O. Flores-Villela & R.J. Whittaker. 2012. Climate change and amphibian diversity patterns in México. *Biological Conservation*, accepted March 2012.

Canseco-Márquez L., J.L. Aguilar-López, R. Luría-Manzano, E. Pineda & **L.M. Ochoa-Ochoa**. A new species of treefrog of the genus *Duellmanohyla* (Anura: Hylidae) from southern Mexico. *Copeia*, submitted.

Ochoa-Ochoa, L.M., J. Bezaury-Creel., L.B. Vázquez & O. Flores-Villela. 2011. Choosing the survivors? A GIS-based triage support tool for micro-endemics: application to data for Mexican amphibians. *Biological Conservation*, 144: 2710–2718.

Ochoa-Ochoa, L.M., J.N. Urbina-Cardona, L.B. Vázquez, O. Flores-Villela & J. Bezaury-Creel. 2009. The Effects of Governmental Protected Areas and Social Initiatives for Land Protection on the Conservation of Mexican Amphibians. *PlosOne*, Vol 4 (9).

<http://www.plosone.org/article/info:doi%2F10.1371%2Fjournal.pone.0006878>

Ochoa-Ochoa, L.M., B. Cruz, G. García & A. Luis-Martínez. 2003. Contribución al Atlas Panbiogeográfico de México: Los géneros *Adelpha* y *Hamadryas* (Nymphalidae) y *Dismorphia*, *Enanita*, *Lienix* y *Pseudopieris* (Pieridae) (Papilionoidea; Lepidoptera). *Folia Entomologica Mexicana*, 42 (1): 65-77.

➤ **Books**

Ochoa-Ochoa, L.M. & O. Flores-Villela. 2006. Áreas de Diversidad y Endemismo de la Herpetofauna Mexicana. Jiménez Editores/CONABIO/UNAM. México, D.F. 259p. ISBN: 970-32-3177-2. (Spanish)

➤ **Books (as editor)**

Flores-Villela, O., A. Handal-Silva & **L.M. Ochoa-Ochoa** (eds). 2003. Diagnóstico de la diversidad biológica de El Salvador. REDMESO/SER, México, D. F. 171 pp. ISBN: 9688782009. (Spanish)

➤ **Chapters in Books**

Ochoa-Ochoa, L. & O. Flores-Villela. 2011. **Endemismo de la herpetofauna de Veracruz: Análisis y problemáticas**, pp: 545-558 . In A. Cruz Angón (Ed.) La Biodiversidad en Veracruz, estudio del Estado, Vol. II. Diversidad de especies: conocimiento actual. CONABIO, México: 679 pp.

Flores-Villela O., L. Canseco-Márquez & **L.M. Ochoa-Ochoa.** 2010. **Geographic distribution and conservation of herpetofauna of central highlands of México.** p. 18-35. In: Wilson, L.R and J. H. Townsend. Conservation of Mesoamerican Amphibians and Reptiles. <http://eaglemountainpublishing.com/index.php/table-of-contents/>

Koleff P., J. Soberón, H. Arita, P. Dávila, O. Flores-Villela, G. Halfpeter, A. Lira-Noriega, C.E. Moreno, E. Moreno, M. Munguía, M. Murguía, A. Navarro-Sigüenza, O. Téllez, **L.M. Ochoa-Ochoa**, A.T. Peterson & P. Rodríguez. 2008. **Patrones de diversidad espacial en grupos selectos de especies.** Segundo Estudio de País. México.

Bezaury-Creel, J. E. & **L.M. Ochoa-Ochoa.** 2007. **Áreas Naturales Protegidas del Centro y Occidente de México.** In: Plan Ecorregional del Centro y Occidente de México.

Ochoa-Ochoa L.M., L.B. Vázquez, N. Urbina & O. Flores Villela. **Anfibios.** 2007. En: Análisis de vacíos y omisiones en la conservación de la biodiversidad

terrestre en México: espacios y especies. Conabio-Conanp-TNC-Pornatura-FCF, UNAL. México.

Ochoa-Ochoa L.M., L.B. Vázquez, N. Urbina & O. Flores Villela. **Reptiles**. 2007. En: Análisis de vacíos y omisiones en la conservación de la biodiversidad terrestre en México: espacios y especies. Conabio-Conanp-TNC-Pornatura-FCF, UNAL. México.

Flores Villela, O., **L.M. Ochoa-Ochoa** & C. Moreno. 2005. **Variación latitudinal y longitudinal de la riqueza de especies y la diversidad beta de la herpetofauna mexicana**. Chapter 11. Pp. 143-152. In: Halfter, G., J. Soberón, P. Koleff & A. Melic (Eds.). Sobre diversidad biológica: el significado de las diversidades alfa, beta y gama. Monografías tercer milenio. SEA, CONABIO, Grupo DIVERSITAS & CONACYT, Zaragoza. IV +242 p.

➤ **Science popularization (or disclosure)**

Bezaury-Creel J.E., J.F. Torres, **L.M. Ochoa-Ochoa**, M. Castro- Campos. 2011. Áreas Naturales Protegidas y Otros Espacios Destinados a la Conservación, Restauración y Uso Sustentable de la Biodiversidad en México. The Nature Conservancy-México. Poster Format.

Nogué, S., A.M.C. Santos, M. Sanders and **L.M. Ochoa-Ochoa**. 2012. **Discussing the last advances in biogeography with the young biogeographers**. *Frontiers in Biogeography*. Accepted.

Ochoa-Ochoa, L.M., N. Urbina-Cardona & O.A. Flores-Villela. 2011. **Planning Amphibian Conservation in Mexico**. *Froglog* 97: 51-52.

Ochoa-Ochoa, L.M., J. Bezaury-Creel., L.B. Vázquez, y O. Flores-Villela. 2011. **Choosing the survivors? A GIS-based triage support tool for micro-endemics: application to data for Mexican amphibians**. *Froglog* 99: 49.

Flores-Villela, O., R. Calderón-Mandujano y **L.M. Ochoa-Ochoa**. 2009. **Anfibios (ranas, sapos y salamandras) de la zona arqueológica de Oxtankah, una visión de la cultura Maya**. En: H. Vega-Nova (ed.) Una Ciudad Prehispánica en las tierras bajas del Área Maya. Vol. 1. Medio físico y Biodiversidad. INAH-CNA, Cuernavaca, Morelos.

Ochoa-Ochoa, L.M. Sonidos y colores nocturnos. I. J. March Mifsut & M. A. Lazcano Barrero (eds). *Relatos de fogata: anécdotas de biólogos y conservacionistas de campo*. Upcoming title (Spanish).

Natural Protected Areas from the Mexican States and Counties. Poster Format.

CONABIO, PRONATURA, TNC. 2007. Ecorregional Plan of the Centre and Occident of Mexico. Format CD.

➤ **Other kind of publications**

Bezaury-Creel J. E., J. Fco. Torres, **L. M. Ochoa-Ochoa** & M. Castro-Campos 2012. Áreas Naturales Protegidas y Otros Espacios Destinados a la Conservación, Restauración y Uso Sustentable de la Biodiversidad en México. The Nature Conservancy-México, D.F. Capas ArcGIS en formato CD.

Bezaury-Creel, J.E. & **L.M. Ochoa-Ochoa**. 2010. Base de datos geográfica de los espacios naturales dedicados a la investigación en México V.1.0. TNC. Shapefile.

Bezaury-Creel, J.E., **L.M Ochoa-Ochoa** & M. Castro-Campos. 2010. Base de datos geográfica de zonas núcleo de áreas naturales protegidas estatales y municipales de México V.1.0. TNC. Shapefile.

Bezaury-Creel, J.E., J.F Torres, **L.M. Ochoa-Ochoa**, M. Castro-Campos & N. Moreno. 2010. Base de datos geográfica de áreas naturales protegidas federales de México y sus zonas núcleo. Modified and adapted from CONANP. Shapefile

Bezaury-Creel, J.E., J.F Torres, **L.M. Ochoa-Ochoa**, M. Castro-Campos & N. Moreno. 2009. Base de datos geográfica de áreas naturales protegidas estatales, del Distrito Federal y Municipales de México V.2.0, actualized 31/05/2010. TNC / CONABIO / CONANP. Shapefile.

Bezaury-Creel, J.E., **L.M. Ochoa-Ochoa**, J.F Torres & M. Castro-Campos. 2008. Base de datos geográfica de reservas privadas y sociales en México V.1.0, actualized 31/05/2010. TNC. Shapefile.

Bezaury-Creel, J.E., R. de la Maza-Elvira, **L.M. Ochoa-Ochoa** & M. Castro-Campos. 2008. Base de datos geográfica de las áreas destinadas voluntariamente a la conservación certificadas por la CONANP en México, V. 1.0, actualized 31/05/2010. CONANP / TNC. Shapefile.

Bezaury-Creel, J.E., S. Madrid, L. Bourillón, **L.M. Ochoa-Ochoa** & J.F. Torres. 2008. Base de datos geográfica de predios bajo manejo forestal certificado por el Forest Stewardship Council y pesquerías certificadas por el Marine Stewardship Council en México V.1.0, 08/2008. TNC / Consejo Civil Mexicano para la Silvicultura Sostenible A.C. / Comunidad y Biodiversidad A.C. Shapefile.

Bezaury-Creel, J.E. & **L.M.Ochoa-Ochoa**. 2008. Base de Datos Geográfica de Predios con Áreas Forestales Permanentes en México V.1.0, 08/2008. TNC. Shapefile.

CONFERENCES

September 2011. *Oral presentation*. **Amphibian meta-community structure in two Mexican landscapes and its relationship with ecological and geographical space**. Advances in biogeography: early career conference. Oxford, UK.

January 2011. *Oral presentation*. **Not all that glitters is gold**. Biennial Conference of the International Biogeography Society. Heraclion, Creta, Greece.

January 2011. *Poster*. Multi-scale assessment of β -diversity patterns of Mexican terrestrial vertebrates. Biennial Conference of the International Biogeography Society. Heraclion, Creta. Greece.

January 2009. *Oral presentation*. **Climate change and the collapse of amphibian diversity in Mexico**. Biennial Conference of the International Biogeography Society. Mérida, Yucatán. México.

November 2007. *Oral presentation*. **Beta Diversity Dynamics of the Mexican Amphibians: A global warming approach**. VII International Symposium of Zoology. Topes de Collantes, Cuba.

January 2007. *Poster*. **Richness and Endemism, a matter of scales?** 3rd Biennial Conference of the International Biogeography Society. Tenerife, Spain. **Poster awarded**.

November 2006. *Oral presentation*. **Diversity scaling of Mexican Vertebrates**. National Ecology Congress. Morelia, Michoacán, Mexico.

November 2006. *Oral presentation*. **Beta diversity of Mexican Vertebrates: The Mesoamerican Zone**. X Mesoamerican Conference for Biology and Conservation. Antigua, Guatemala.

November 2006. *Oral presentation*. **Diversity Patterns in Mexican**

Herpetofauna. IX National herpetology meeting. Monterrey, Nuevo León, Mexico.

November 2005. *Oral presentation.* Beta diversity of Mexican Vertebrates. IX Mesoamerican Conference for Biology and Conservation. La Ceiba, Honduras.

August 2005. *Poster.* National collection of amphibians and reptiles in the Biology Institute, UNAM. VII Latin American Congress of Herpetology. Cuernavaca, Morelos, México.

January 2005. *Poster.* **Is there a relationship between species' fundamental ecological niche and geographic range?** 2nd Biennial Conference of the International Biogeography Society, West Virginia, USA.

November 2004. *Poster.* **Longitudinal patterns of Beta diversity patterns of terrestrials vertebrates: implication in conservation.** VIII Mesoamerican conference for biology and conservation. Managua, Nicaragua. **Poster awarded.**

November 2004. *Oral presentation.* **Analyses of the Centres of Endemism in Mexican Herpetofauna.** VII National herpetology meeting. Villahermosa, Tabasco, Mexico.

Junio 2004. *Oral presentation.* **Áreas de endemismo de la herpetofauna Mexicana encontradas mediante PAE, un enfoque a futuro.** Primera Reunión Mexicana de Biología Filogenética, Xalapa, <http://www.filogenetica.org/resumenes.pdf>

August 2002. *Poster.* Description of the Anuran reproductive dynamic in Oxtankah: preliminary results. VII National herpetology meeting. Guanajuato, Guanajuato, Mexico.

TEACHING EXPERIENCE

➤ Courses as teacher

December 2009. **Species distribution modelling, useful approaches to Climate Change.** Autonomous University of Puebla (BUAP), Puebla, Mexico.

September 2009. **Species distribution modelling: GARP and MaxEnt.** ECOSUR. San Cristóbal de las Casas. Mexico.

February-June 2008. **Amphibians and reptiles.** Faculty of Sciences. UNAM, Mexico.

November 2007. **Areas of endemism and their importance in conservation.** Diploma in Herpetology. Mexican Society of Herpetology. University of Querétaro, Qro. Mexico.

June 2007. **GIS in diversity studies.** Diploma in Geographical Information Systems. Faculty of Sciences, UNAM. Mexico.

June 2007. **Species distribution modelling: GARP and MaxEnt.** Universidad Autónoma de Guerrero, Chilpancingo, Gro.

January- June 2007. **GIS and database management.** Faculty of Sciences, UNAM.

December 2006. **GIS in diversity studies.** Diploma in Geographical Information Systems. Faculty of Sciences, UNAM. Mexico.

August-December 2005. **Deuterostomates.** Assistant Teacher. Faculty of Sciences, UNAM.

August-December 2004. **Deuterostomates.** Assistant Teacher. Faculty of Science, UNAM.

➤ **Graduated Students**

Manuel Aranda Coello. Undergraduated. Thesis “Evaluación de algunos efectos de la Extracción tradicional de bromelias sobre la herpetofauna de los bosques de Chanal, Chiapas” **August 2011.**

Yocoyani Meza Parral. Masters. Ensamblés de anfibios en una región montañosa con alta diversidad de especies, endemismos y especies en peligro de extinción. Instituto Nacional de Ecología. *Current.*

ATTENDANCE AT COURSES AND WORKSHOPS

June 2010. **Critically endangered amphibians.** Chiapas, Mexico.

January 2009. **Evolution in space and Time.** The 4th biennial conference of International Biogeography Society. Mérida, Yucatán, Mexico.

October 2007. **Geostatistics and 3D modelling.** International conference GIS in Geology. Querétaro, Qro. Mexico.

January 2007. **Spatial Analysis in Macroecology.** The 3rd biennial conference of International Biogeography Society. Tenerife, Spain.

January 11th- February 22nd 2006. **Tropical Ecology and Conservation.** Organization of Tropical Studies. OTS. Costa Rica.

April 2004. **Data management: Biotica.** CONABIO. Mexico, D. F.

November 2003.V **School of Biology and Mathematics.** Zacatecas, Zac. Mexico.

September 2003. **Zoological Nomenclature.** Faculty of Sciences, UNAM.

November 2002. **Bioacoustic workshop.** National Ornithology Conference. Morelia, Michoacán, Mexico.

February –March 2002. **Concepts and Strategies to analyze and estimate Biodiversity.** Iberoamerican course. Pachuca, Hidalgo, Mexico.

September 2001. **ArcView 3.1.** Computation Metropolitan Centre. Mexico, D.F.

August 1997. **Mathematics and physics workshop,** Mathematics Research Centre (CIMAT). Guanajuato, Guanajuato, Mexico.

JOB EXPERIENCE

June 2011. Consultancy for Global Intelligence Water Management. Oxford, UK

April 2007- September 2008. Conservation Information Manager II. SIG Analyst of diversity. **The Nature Conservancy, Mexico.**

September 2005-March 2006. Technician. GAP Analysis in the conservation of Mexican amphibians and reptiles. Supported by **CONABIO.**

January- June 2005, Technician. Databases actualization, CNAR, IB-UNAM. Supported by **CONABIO.**

2003-2004, Technician. HerpNet project. Supported by the **US National Science Foundation.**

SCHOLARSHIPS AND DISTINCTIONS

- January 2012- December 2012. Complementary scholarship SEP. 12 months.
- October 2011. Full scholarship for doctorate studies. CONACyT Mexican Government. Extension for 10 months
- June 2011. Runner up of the Digital photograph competition. University of Oxford
- August 2008- September 2011. Full scholarship for doctorate studies. CONACyT Mexican Government.
- October 2010- September 2011. Complementary scholarship SEP.
- June 2010. Winner of the Digital photograph competition. University of Oxford
- January 2007, Third International Conference of the IBS. Tenerife, Spain.
- January-February 2006, Tropical Ecology and Conservation. OTS. Costa Rica.
- August 2004- July 2006, Master degree studies. CONACyT. Mexican Government, and DGEP, UNAM.
- January 2003 – June 2003, Bachelor's degree thesis, Probetel, UNAM.

FIELD EXPERIENCE

2009-2010 Doctoral project. Amphibian meta-communities structure. 10 months.

2004-2005. Field Assistant. Deuterostomates course (amphibian and reptiles parts). Faculty of Science, UNAM.

2003 Field Assistant. Mate selection in *Fregata magnificens* Isabel Island, Nay., Mexico. Two months.

2002 Field work with communities of amphibians. Chetumal, Qroo., Mexico. Four and a half months.

SOFTWARE MANAGEMENT

Very proficient in:

- Access access Excel for data management.
- ArcView 3.x, Arc GIS, and ArcInfo for spatial analyses.
- GARP, MaxEnt and BIOMOD for niche modeling.
- JMP and SPSS for statistical analyses.

Familiar with:

- R for statistical analyses, but becoming more proficient every day.
- Geoda and DivaGis spatial analyses.
- Matlab, SAM and EstimateS.
- Marxan for detecting priorities areas for conservation.
- WinClada for taxonomic and parsimony analyses.
- ResNet and Cplex for detecting priorities areas for conservation.

Hobbies

Read, travel, movies. Ran Paris Marathon 2010. Currently training for a triathlon.