Curriculum Vitae

María Fernanda Checa
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Department of Biology
Museum QCAZ of Invertebrates
Pontifical Catholic University of Ecuador

Education:

2017 **PhD degree**, Department of Entomology, University of Florida (UF).
Certificate in Tropical Conservation and Development (UF)
PhD Dissertation: The role of climate in the seasonality patterns and community assembly of Neotropical butterflies along an environmental gradient

2015 **MDP degree,** Master of Sustainable Development Practice, University of Florida.
Field Practicum: Feasibility of a butterfly farming initiative in Western Ecuador as a viable tool for sustainable development

2008-2010 **Master in Science**, UF, Department of Entomology,
Thesis: The relationship between climate, habitat and butterfly community structure in an Ecuadorian dry forest

2006 **Bachelor** degree, Pontifical Catholic University of Ecuador (PUCE)
Biological Sciences
Thesis: Diversity, population fluctuations and climatic correlations of butterfly communities (Lepidoptera: Nymphalidae) in the Yasuni Scientific Station.

Four languages: Spanish (native), English (95%) French (80%) and Italian (50%).

Academic Positions:

2019 Co-leader to organize and initiate the Master Program of Management of Natural Resources in PUCE.

2017-present Curator, Museum QCAZ of Invertebrates. Pontifical Catholic University of Ecuador (PUCE).

2013-present Professor and Researcher, Department of Biology, Pontifical Catholic University of Ecuador

2008-2016 Research Assistant at the Florida Museum of Natural History, McGuire Center for Lepidoptera and Biodiversity.

2011-2013 Teaching Assistant, Department of Entomology, University of Florida.

2006-2008, 2011 Professor and Researcher, Department of Biology, Pontifical Catholic University of Ecuador

Awards

2018 Austin Award for Graduate Student Excellence in Natural Science Research at the Florida Museum of Natural History. University of Florida.
2015 AAW Emerging Scholar Award Finalist. Association for Academic Women/University of Florida.
2013 Schmink Award for Innovation in Tropical Conservation and Development. Center for Latin American Studies, University of Florida.
2009 Second prize for the best poster in the 10th Student Conference on Science Conservation, University of Cambridge, United Kingdom.

Scholarships and assistantships

2015-2017 A.S. Herlong Scholarship, College of Agricultural and Life Sciences, UF.
2015 Tropical Conservation and Development Program (TCD, UF) and McGuire Center Book Scholarship. University of Florida.
2014 William C. and Bertha M. Cornett Scholarship. University of Florida.
2010 Doris Lowe and Verna Lowe Scholarship from College of Agricultural and Life Sciences, UF (not received because of a delay in registration for PhD program).
2015 TCD Assistantship. TCD Program, Center for Latin American Studies, University of Florida to continue PhD Program.
2015 Florida Museum of Natural History (McGuire Center) Research Assistantship to continue PhD Program.
2011 Research Assistantship (4-year) to pursue a PhD program in UF, granted by the Florida Museum of Natural History (McGuire Center) and Department of Entomology (University of Florida).
2011 Research Assistantship (4-year) to pursue a PhD program, University of Texas Austin, Section of Integrative Zoology, potential advisor Tim Keitt (rejected to attend UF).
2010 Fellowship from National Secretariat of Higher Education, Science and Technology (SENESCYT), Ecuador to pursue the PhD program.
2008 Research Assistantship (2-year) to pursue a Master's program in UF, provided by the McGuire Center (FLMNH).
2005 Scholarship granted by Organization for Tropical Studies for the course in the Peruvian Amazonia: "Ecology of Amazonian ecosystems, OET 2005-13".
2000- 2003 Four fellowships granted by Pontifical Catholic University of Ecuador to pursue the Bachelor program, 2000-2003.

Publications

Books:

2013 *Hadas haladas del Yasuni* (Winged fairies from Yasuni). Trama Press and PUCE, Quito, 263 pp
2008 Checa, María F. *Mariposas de Canandé: sus amenazas, potencial y futuro* (Butterflies from Canandé: their threats, potential and future). Editorial Trama and PUCE, Quito, Ecuador. Pp 72. Review of this book: Willmott, K. 2009. Tropical Lepidoptera 19 (1): 60

Book chapter

2014. Checa, M. F., K. Willmott. Diversidad e importancia ecológica de mariposas del Ecuador. En: García, M. y D. Parra (Eds.) Ecuador: país de la Biodiversidad. Fundación Botánica de Los Andes/Ministerio del Ambiente/Fundación Ecofondo. Quito, Ecuador

Peer-reviewed:

Mena S, Kozak KM, Cárdenas RE, Checa MF. 2020 Forest stratification shapes allometry and flight morphology of tropical butterflies. Proc. R. Soc. B 287: 20201071.

Zacca, T, M. Casagrande, H. H. Mielke, B. Huertas, E. P. Barbosa, A. Freitas, G. Lamas, M. Espeland, C. Brévignon, S. Nakahara, M F. Checa, K R. Willmott. 2020. Systematics of the Neotropical butter y genus Paryphthimoides Forster, 1964 (Lepidoptera: Nymphalidae: Satyrinae), with descriptions of seven new taxa. Insect Systematics & Evolution. DOI 10.1163/1876312X-00001027.

Checa, M.F., Torres, K. 2019. Notes on the life history of some Nymphalid species from the Ecuadorian dry forest. Tropical Lepidoptera Research 29(1): 56-61.

Checa, M.F., Donoso, D., J. Rodriguez, E. Levy, A. Warren and K. Willmott. 2018. Combining sampling techniques aids monitoring of tropical butterflies. Insect Conservation and Diversity. doi: 10.1111/icad.12328.

Checa, M. F. (2015). Feasibility of a butterfly farming initiative in Western Ecuador as a viable tool for sustainable development. Proceedings of the Second Conference on Sustainable Development Practice. New York. http://ic-sd.org/2015/04/19/proceedings-from-icsd-2014/

Checa, M. F., J. Rodriguez, K. Willmot and B. Liger. 2014. Microclimate variability significantly affects the composition, abundance and phenology of butterfly communities in a highly threatened Neotropical dry forest. Florida Entomologist 97: 1-13.

Checa, M. F., N. Velasco. 2010. New records of butterfly species (Lepidoptera: Nymphalidae) for Ecuador and Chocó Region. Tropical Lepidoptera Research 20: 16-20.

Checa, M. F., A. Barragán, J. Rodríguez, M. Christman. 2009. Temporal abundance patterns of butterfly communities (Lepidoptera: Nymphalidae) in the Ecuadorian Amazonia and their relationship with climate. Annales de la Société Entomologique de France 45(4): 470-486.

Others :

Checa, F. F. 2014. El intrincado y fabuloso mundo de las mariposas. Terra Incognita. Agosto.

Checa, M. F. 2013 Vida inspirada en el bosque y su diversidad. Ecuador Infinito.

Checa, M. F., Castro, M. C., Freile, J. F., Menendez, P., Morelos, C., Moscoso, P., Peck, M., Tirira, D., Zapata, G. 2012. Llamado de acción para la protección del área del Canandé. Informe presentado a Ministerio del Ambiente, MAE Quito.

Checa, M. F. Series of posters of Ecuadorian butterflies "Salva nuestros bosques (Save our forests)". 3 posters published: Butterflies from Quito, Yasuni and Manabi

Checa, M. F. 2009. *Esmeraldas: una riqueza natural en peligro* (Esmeraldas: a natural treasure in danger). Nuestra Ciencia, Nº 11, Ecuador.

Checa, M. F., Velasco, N., Mogollón, H. 2008. Análisis preliminar del estado de conservación de las especies de mariposas carroñeras (Lepidoptera: Nymphalidae) en la Reserva del Río Canandé, Chocó ecuatoriano. Informe entregado a Ecociencia, Quito Ecuador.

Checa, M. F. 2005. *Hadas aladas* (Winged Fairies) In: "Sapos, mariposas y orquídeas en la mitad del mundo", by Juan Diego Pérez. Trama, Ecuador.

Checa, M. F. 2004. Photo-report: The World of Butterflies from Yasuní" published in "Desafío Nº8, FUNDACYT, Quito-Ecuador.

Presentations in Conferences:

Talks

2017 Trampas y redes: metodologías para el studio de mariposas tropicales. Simposio sobre Mariposas Tropicales, INABIO. Quito-Ecuador.

2015 Quantitative analysis of methodological bias associated with different bait types in Neotropical butterfly research. Conference of the Association for Tropical Lepidoptera, University of Florida, US.

2015 Butterfly farming initiatives as a viable tool for sustainable development. Día del Ecuador, University of Florida, US.

2014 Feasibility of a butterfly farming initiative in Western Ecuador as a viable tool for sustainable development. International Conference on Sustainable Development Practice. Columbia University, New York.

2014 Butterfly farming: a successful approach to achieve conservation and development in Western Ecuador. Conference of the Association for Tropical Lepidoptera, University of Florida, US.

2012 Ecological aspects of bait-attracted butterflies from Ecuador and their implications for butterfly conservation. Conference of the Association for Tropical Lepidoptera, FLMNH

2012 Microhabitat significantly affects the composition and structure of butterfly assemblages in an Ecuadorian dry forest. Encuentro de Lepidopteros Neotropicales (ELEN IV), Montevideo, Uruguay.

2011 Effects of season and microhabitat on butterfly communities in a Neotropical dry forest. Conference of the Association for Tropical Lepidoptera, FLMNH.

2009 "Butterfly communities from the west Ecuador biodiversity hotspot: their ecology and conservation". Southern Lepidopterists' Society and Association for Tropical Lepidotera, McGuire Center FLMNH, Gainesville Fl.

2005 Correlaciones climáticas de comunidades de mariposas carroñeras en épocas seca y lluviosa en la Estación Científica Yasuní. XXIX Jornadas Ecuatorianas de Biología (XXIX Ecuadorian Symposium of Biology). Manta, Ecuador.

2000 Comunidades de mariposas carroñeras (Lepidoptera: Nymphalidae) de diferentes estratos en un bosque de tierra firme de la amazonía ecuatoriana. XXVII Jornadas Ecuatorianas de Biología (XXVII Ecuadorian Symposium of Biology). Quito, Ecuador.

Posters

2015 F. Checa. A butterfly farming initiative in Western Ecuador as a tool for sustainable development. Conference of the Tropical and Conservation Development Program, University of Florida: Envisioning a sustainable tropics. Gainesville, Fl.

2014 K. Willmott. F. Checa. Microclimate variability significantly affects the composition, abundance and phenology of butterfly communities in a highly threatened Neotropical dry forest. 7th International Conference on the Biology of Butterflies. University of Turku, Finland.

2010 Dynamics of Ecuadorian Amazon butterflies: implications for conserving the world's richest fauna**.** 11th Student Conference on Conservation Science, University of Cambridge, UK.

2010 "Devastation and poverty in the west Ecuador hotspot of diversity: how can butterflies help?" Bridging Conservation and Development Conference, University of Florida, USA.

2009 "Devastation and poverty in the west Ecuador hotspot of diversity: how can butterflies help?" 10th Student Conference on Conservation Science, University of Cambridge, UK.

Grants

2018- present Grant for the project: Capacity building Program of local people for butterfly monitoring in the Yasuni National Park, Ecuadorian Amazonia

2014 Research Grant for the project: Effects of climatic variability on butterfly communities from Western Ecuador, granted by Pontifical Catholic University of Ecuador.
2014 The Florida Biodiversity Foundation Grant to publish: Microclimate variability significantly affects the composition, abundance and phenology of butterfly communities in a highly threatened Neotropical dry forest. Florida Entomologist 97: 1-13.
2014 Travel grant from Center for Latin American Studies (UF) to attend International Conference on Sustainable Development Practice. Columbia University, New York.
2013 Trama Press/ Pontifical Catholic University of Ecuador Grant to publish the book 'Winged fairies from Yasuni'.
2013 Research Grant for the project: Effects of climatic variability on butterfly communities from Western Ecuador, granted by Pontifical Catholic University of Ecuador.
2012 Research Grant for the project: Feasibility of a butterfly farming initiative in Western Ecuador as a viable tool for sustainable development. Center for Latin American Studies, University of Florida.
2012 Research grant for PhD Dissertation fieldwork from the Tropical Conservation and Development (TCD) Program, University of Florida.
2012 The Florida Biodiversity Foundation travel grant to attend ELEN IV Conference in Uruguay.
2012 IFAS (University of Florida) travel grant to attend ELEN IV Conference in Uruguay
2012 Student Government travel grant (UF) to attend ELEN IV Conference in Uruguay
2010 Sigma Xi Research Grant to fund Master's Thesis research
2010 Student Government travel grant (UF) to attend 11th Student Conference on Science Conservation, University of Cambridge, UK.
2009 IFAS travel grant from University of Florida to attend 10th Student Conference on Conservation Science, University of Cambridge, UK.
2008 Trama Press/Pontifical Catholic University of Ecuador grant to publish the book 'Butterflies from Canandé'.
2006 Research Grant for the project: "Discovering butterflies from Quito: a useful tool for environmental education", from Pontifical Catholic University of Ecuador.
2006 Research Grant for the project: "Preliminary analysis of the conservation status of butterflies (Lepidoptera: Nymphalidae) in the Reserve Canandé river, Ecuadorian Chocó". Ecociencia

Work Experience

2019-2010 Bichos al parque

2018- present Project Director: Capacity building Program of local people for butterfly monitoring in the Yasuni National Park, Ecuadorian Amazonia

2014-2016 Researcher in the project: Genomic and Biological Collections from protected areas in Ecuador. US 1'000.000 granted by National Secretariat of Higher Education, Science and Technology, Ecuador.
2014-2015 Project Director: Effects of climatic variability on butterfly communities from Western Ecuador. PUCE 2014. Duration 2 years
2010 Researcher: Dynamics of butterfly populations from Western Ecuador and their relationship with climate. Duration 3 years. Florida Museum of Natural History/PUCE.

2008 Project Director: "Discovering butterflies from Quito: a useful tool for environmental education". Duration: 6 months. PUCE.
2007 Consultant in "Butterflies from Yasuní". Duration: 2 months. PUCE
Coordinator: "Systematization and database process of butterfly collection in the Museum QCAZ of Invertebrates, PUCE. Duration: 5 months
2006-2007 Researcher in charge: "Preliminary analysis of the conservation status of butterflies (Lepidoptera: Nymphalidae) in the Reserve Canandé river, Ecuadorian Chocó". Duration: 14 months. PUCE
2003 Instructor of Entomology: Field Entomology Course, University British Columbia, in Jatun-Sacha, Ecuador. Duration: 5 days

Academic Service

Reviewer of the following peer-reviewed journals:

2018-2019 Editor, REMCB

2019-2020 Neotropical Diversity
2015 Tropical Conservation Science Journal
2014 Biotropica
2014 Tropical Lepidoptera Research
2010 Journal of Insect Behavior
2010 The International Journal of Tropical Biology
2009 Tropical Lepidoptera Research

Thesis Advisor in the Department of Biology at Pontifical Catholic University of Ecuador of the following Bachelor students:

2018	Evolutionary advantages related to gregarism in *Methona* butterflies. Janeth Rentería.
2015-present	Temporal and spatial niche partitioning in butterfly communities from Western Ecuador. Natalia Artieda, Sofía Nogales
2013	Stratification patterns of a butterfly community from Northwestern Ecuador. Gabriela Irazábal.
2013	Efficiency of rotting banana and shrimp as baits at different spatial and temporal scales in a dry forest butterfly community. Camila Rodríguez
2013	Hilltopping behavior in Nymphalid species from Western Ecuador. Erika Páez
2010-2013 wet	"Diversity and phenological patterns of butterfly communities from a tropical forest in Western Ecuador" Student: Elisa Levy
2008-2010	"Phenotype plasticity and wing colour patterns of *Temenis laothoe laothoe* and their relationship with climate", Jackie Rodríguez.
2006-2008	"Diversity patterns of nymphalid communities (Lepidoptera: Nymphalidae) in the Ecuadorian Chocó in primary and secondary Forests" Nina Velasco

Consultant for grant-holders in the Research Grant Program for Biodiversity Conservation in Ecuador. Ecociencia Organization.http://www.ecobecas.org/asesores-beta.html

2014 Sebastián Padrón, project: "Historia evolutiva de la enigmática y altamente endémica mariposa ecuatoriana, la misteriosa Catasticta rosea Joicey y Rosenberg, 1915 y del genero Catasticta."