

Tarin Toledo Aceves

EDUCATION

- 2002-2006 **PhD. Plant Science.** University of Aberdeen, UK.
- 1998-2001 **MSc. Ecology and Management of Natural Resources.** Instituto de Ecología A.C.
- 1992-1995 **BSc. Honours Biology.** Universidad Nacional Autónoma de México. Honourable mention.

EMPLOYMENT

- 2010-present **Senior Research Scientist.** Department of Functional Ecology, INECOL A.C., Mexico.
- 2008 - 2009 **Postdoctoral position** Instituto de Ciencias Sociales, UNAM, Mexico. Potential for non-wood forest products management in cloud forest, Veracruz, Mexico.
- 2007-2008 **Project Coordinador ARK 2010.** CONABIO, Mexico. Development of a diagnostic for tropical montane cloud forest in Mexico. Design of a monitoring program for cloud forest.
- 2006-2007 **Postdoctoral position** Institute of Ecology A.C. Experimental analysis of the re-colonization of vascular epiphytes in shaded coffee plantations in Veracruz, Mexico.
- 2006-2007 **Field coordinator for the evaluation of tree regeneration in Selva Maya** People and Plants International / Sociedad de Productores Forestales y Ejidales de Quintana Roo.
- 2001 - 2002 **Consultant for forest certification** SMART WOOD/ CCMSS. Certification assessment of managed forests in communities, Mexico.
- 2001- 2002 **Research assistant** Instituto de Ecología A.C.
- 1997- 1998 **Research assistant** El Colegio de la Frontera Sur.

PUBLICATIONS

Peer-reviewed Scientific papers

1. **Toledo-Aceves T**, Trujillo-Miranda AL, López-Barrera F. 2021. Tree regeneration in active and passive cloud forest restoration: Functional groups and timber species. *Forest Ecology and Management*, 489, 119050.
2. Trujillo-Miranda AL, **Toledo-Aceves T**, López-Barrera F, Günter S. 2021. Tree diversity and timber productivity in planted forests: *Pinus patula* versus mixed cloud forest species. *New Forests* 52: 177-195
doi.org/10.1007/s11056-020-09787-1
3. Cudney-Valenzuela SJ, Arroyo-Rodríguez V, Andresen E, **Toledo-Aceves T**, Mora-Ardila F, Andrade-Ponce G, & Mandujano S. 2021. Does patch quality drive arboreal mammal assemblages in fragmented rainforests?. *Perspectives in Ecology and Conservation*, 19(1), 61-68.
4. García-Hernández MA, **Toledo-Aceves T**. 2020. Is there potential

- in elevational assisted migration for the endangered *Magnolia vovidesii*?. *Journal for Nature Conservation* 53: 125782. doi.org/10.1016/j.jnc.2019.125782
5. Díaz-García JM, López-Barrera F, Pineda E, **Toledo-Aceves T**, Andresen E (2020). Comparing the success of active and passive restoration in a tropical cloud forest landscape: A multi-taxa fauna approach. *Plos one*, 15(11), e0242020.
 6. Díaz-García JM, López-Barrera F, **Toledo-Aceves T**, Andresen E, Pineda, E. (2020). Does forest restoration assist the recovery of threatened species? A study of cloud forest amphibian communities. *Biological Conservation* 242: 108400.
 7. Morales-Linares J, García-Franco J G, Flores-Palacios A, Krömer T, **Toledo-Aceves T**. 2020. The role of shaded cocoa plantations in the maintenance of epiphytic orchids and their interactions with phorophytes. *Journal of Plant Ecology* 13: 27-35. doi.org/10.1093/jpe/rtz052
 8. **Toledo-Aceves T**, de los Ángeles García-Hernández M, Paz H. 2019. Leaf functional traits predict cloud forest tree seedling survival along an elevation gradient. *Annals of Forest Science*, 76(4), 111. doi.org/10.1007/s13595-019-0900-5
 9. MA García-hernández, **T Toledo-Aceves**, F López-Barrera, V Sosa, H Paz. 2019. Effects of environmental filters on early establishment of cloud forest trees along elevation gradients: implications for assisted migration. *Forest Ecology and Management* 432: 427-435. doi.org/10.1016/j.foreco.2018.09.042.
 10. Mendoza-Hernández M, Gerez-Fernández P, Purata-Velarde S & **Toledo-Aceves T**. 2019. Growth rates of valuable tree species in secondary tropical montane cloud forests in Mexico: influence of tree size, crown position and competition. *Madera y Bosques*, 25(3).
 11. S Landero-Lozada, **T Toledo-Aceves**, F López-Barrera, V Sosa, N Ramírez-Marcial. 2019. Early establishment of endangered and valuable tree species in cloud forest restoration plantings. *Revista Mexicana de Biodiversidad* 90: e902550. doi.org/10.22201/ib.20078706e.2019.90.2550
 12. E Francisco-Ventura, RA. Menchaca-García, **T Toledo-Aceves**, Thorsten Krömer. 2018. Potencial de aprovechamiento de epífitas vasculares caídas en un bosque mesófilo de montaña de Los Tuxtlas, Veracruz, México. *Revista Mexicana de Biodiversidad* 89: 1263-1279. doi.org/10.22201/ib.20078706e.2018.4.2390
 13. AL Trujillo-Miranda, **T Toledo-Aceves**, F López-Barrera, Patricia Gerez-Fernández. 2018. Active versus passive restoration: Recovery of cloud forest structure, diversity and soil condition in abandoned pastures. *Ecological Engineering* 117: 50-61. doi.org/10.1016/j.ecoleng.2018.03.011
 14. M Acuña-Tarazona, E Huamán-Melo, **T Toledo-Aceves**, K Mehlreter. 2018. *Cyathea leoniae* (Cyatheaceae), a new pinnate-pinnatifid tree fern species from Northern Peru. *Phytotaxa*

- 344: 191–197. DOI: 10.11646/phytotaxa.344.2.8
15. **T Toledo-Aceves**. 2017. Germination rate of endangered cloud forest trees: potential for ex situ propagation. *Journal of Forest Research* 22: 61-64. DOI: 10.1080/13416979.2016.1273083
16. **T Toledo-Aceves**, J García-Franco, A Flores-Palacios. 2017. Do cloud forest tree species differ in their suitability as a substrate for epiphytic bromeliads? *Plant Ecology* 218: 541-546. DOI: 10.1007/s11258-017-0709-y
17. **T Toledo-Aceves**, López-Barrera F, Vasquez V. 2017. Preliminary analysis of functional traits in cloud forest tree seedlings. *TREES* 31: 1253-1262. DOI: 10.1007/s00468-017-1543-5
18. Ortiz-Colín P, **T Toledo-Aceves**, López-Barrera F, Gerez P. 2017. Can traditional selective logging secure tree regeneration in cloud forest? *Iforest* 10: 369-375. DOI: 10.3832/ifor1937-009
19. **T Toledo-Aceves**, Hernández-Apolinar M. 2016. Population dynamics of the epiphytic bromeliad *Tillandsia butzii* in cloud forest. *Acta Oecologica* 71: 47-51.
20. M Acuña-Tarazona, **T Toledo-Aceves**, A Flores-Palacios, V Soza, M Martínez. 2015. Recolonization of vascular epiphytes poststripping in cloud forest. *Journal of Tropical Ecology* 31: 499-508.
21. J Morales-Linares, **T Toledo-Aceves**, A Flores-Palacios, T Krömer, JG García-Franco. 2015. New records of Orchidaceae for the state of Tabasco, Mexico. *Revista Mexicana de Biodiversidad* 86: 1083–1088.
22. **T Toledo-Aceves**, García-Franco J, López-Barrera F. 2014. Bromeliad rain: An opportunity for cloud forest management. *Forest Ecology and Management* 329: 129-136.
23. **T Toledo-Aceves**, Hernández-Apolinar M, Valverde T. 2014. Potential impact of harvesting on the population dynamics of two epiphytic bromeliads. *Acta Oecologica* 59: 52-61.
24. **T Toledo-Aceves**, J García Franco, G Williams-Linera, K MacMillan, C Gallardo. 2014. Significance of remnant cloud forest fragments as reservoirs of tree and epiphytic bromeliad diversity. *Tropical Conservation Science* 7: 230-243.
25. **T Toledo-Aceves**, K Mehlreter, J García Franco, A Hernández-Rojas, V Sosa. 2013. Benefits and costs of epiphyte management in shaded coffee plantations. *Agriculture, Ecosystems and the Environment* 181: 149-156.
26. **T Toledo-Aceves**, JG. García-Franco, S Landero-Lozada, ML León-Mateos, K MacMillan. 2012. Germination and seedling survivorship of three *Tillandsia* species in the cloud forest canopy. *Journal of Tropical Ecology* 28: 423 -426.
27. **T Toledo Aceves**, JG García-Franco, A Hernández-Rojas, K MacMillan. 2012. Recolonization of vascular epiphytes in a shaded coffee agroecosystem. *Applied Vegetation Science* 15: 99-107.
28. M González-Espinoza, J Meave, N Ramírez-Marcial, **T Toledo-Aceves**, F Lorea-Hernández, G Ibarra-Manríquez. 2012. Los

bosques de niebla de México: conservación y restauración de su componente arbóreo. *Ecosistemas* 21: 36-52.

29. **T Toledo Aceves**, JA Meave, M González-Espinoza, N Ramírez-Marcial. 2011. Tropical montane cloud forests: current threats and opportunities for their conservation and sustainable management in Mexico. *Journal of Environmental Management* 92: 974- 981.
30. **T Toledo Aceves**, S Purata Velarde, Ch Peters. 2009. Regeneration of commercial tree species in a logged forest in Selva Maya, Mexico. *Forest Ecology and Management* 258: 2481-2489.
31. V Rodríguez-Arroyo, **T Toledo Aceves**. 2009. Impact of landscape spatial pattern on liana communities at Los Tuxtlas, Mexico. *Applied Vegetation Science* 12: 340-349.
32. **T Toledo Aceves**, MD Swaine. 2008. Effect of lianas on tree regeneration in canopy gaps and forest understorey in tropical forest in Ghana. *Journal of Vegetation Science* 19: 717-728.
33. **T Toledo Aceves**, MD Swaine. 2008. Above and belowground competition between liana and tree seedlings in contrasting light environments. *Plant Ecology* 196: 233-244.
34. **T Toledo Aceves**, MD Swaine. 2008. Biomass allocation and photosynthetic responses of lianas and light demanding tree seedlings to light. *Acta Oecologica* 34: 38-49.
35. **T Toledo Aceves**, JH Wolf. 2008. Germination and establishment of *Tillandsia eizii* (Bromeliaceae) in the canopy of an oak forest in Chiapas, México. *Biotropica* 40: 246-250.
36. **T Toledo Aceves**, F García-Oliva. 2008. Effect of forest-pasture edge on soil nutrients in a tropical deciduous forest. *Ecological Research* 23: 271 -280.
37. **T Toledo Aceves**, MD Swaine. 2007. Effect of three climbers on the performance of *Ceiba pentandra* seedlings in gaps in a tropical forest in Ghana. *Journal of Tropical Ecology* 23: 45-52.

CONABIO. 2010. El bosque mesófilo de montaña en México: Amenazas y oportunidades para su conservación y manejo sustentable. **T Toledo Aceves** (Ed.). CONABIO. 196 pp. México, D.F., Mexico. ISBN 978-607-7607-35-9

Books

Book chapters

1. Porter-Bolland L, **Toledo-Aceves T**. 2017. El contexto es decisivo: Biodiversidad, pobladores y el uso múltiple de los bosques. Module 2. In: *Hacia una Modernización del Currículo Forestal en el Trópico Americano* CIFOR. In press.
2. **Toledo-Aceves T**. 2015. Above and belowground competition between lianas and trees. In: *Ecology of Lianas*, Schnitzer S, Bongers F, Burnham R, Putz F (Eds.). Wiley-Blackwell. Pp 149-163. ISBN 978-1-118-39249-2
3. Thorsten Krömer, José G. García-Franco, **Toledo-Aceves**. 2014. Epífitas vasculares como bioindicadoras de la calidad forestal: impacto antrópico sobre su diversidad y composición. In: *Bioindicadores: guardianes de nuestro futuro ambiental*.

González Zuarth, C. A., A. Vallarino, J. C. Pérez Jiménez y A. M. Low Pfeng (Eds.). INECC-ECOSUR. México. Pp 605-623. ISBN 978-607-8429-05-9

4. P. Gerez, T. Fuentes, G. Vidriales, **T. Toledo**, K. Pérez. 2011. Características sociales y problemática de la subcuenca. In: Al Filo del Agua: cogestión de la subcuenca del Pixquiac, Veracruz. L. Pare y P. Gerez (Eds.). INE, Juan Pablos Ed. Méx. Pp 135- 189. ISBN 978-607-7908-89-0
5. T. Fuentes, P. Gerez, L. Paré, G. Vidriales, **T. Toledo**, K. Pérez, M. Mendoza, M. Muñiz Castro. 2011. Acciones hacia la cogestión de la subcuenca y la consolidación del sujeto social. In: Al Filo del Agua: cogestión de la subcuenca del Pixquiac, Veracruz. L. Pare y P. Gerez (Eds.). INE, Juan Pablos Ed. Méx. Pp. 219- 258. ISBN 978-607-7908-89-0
6. JG. García-Franco, **T. Toledo Aceves**. 2008. Epífitas vasculares (bromelias y orquídeas). In: Agroecosistemas cafetaleros de Veracruz: Biodiversidad, Manejo y Conservación. RH. Manson, V. Hernández-Ortiz, S. Gallina y K. Mehltreter (Eds.) INE/ INECOL AC, México. pp 69 - 93. ISBN 970-709-112-6
7. MD Swaine, WD Hawthorne, F Bongers, **M. Toledo Aceves**. 2005. Climbing plants in Ghanaian forests. En: Forest climbers of West Africa. F Bongers, MPE Parren & D Traore (Eds.) CABI, United Kingdom. pp 93-108. ISBN 0 85199 914 X

Manuals

Toledo Aceves T, García Franco J. 2016. Los techos en los árboles. En: Guevara-Sada S, Moreno-casasola P, Escamilla B, Lazos A. (eds.) Manual de buenas prácticas rurales. ITTO/INECOL/CONAFOR/INECC. pp. 17-18. ISBN 978-607-7579-63-2.

Díaz-Toribio MH, **Toledo Aceves T**, Mata Rosas M, Mehltreter K, Hernández-Rojas A, Mejía Alemán J, García-Franco JG. 2013. Manual de cultivo de orquídeas, bromelias y helechos en cafetales de sombra. 119 pp.

Public science

Tarin Toledo-Aceves, Fabiola López-Barrera, Martha Bonilla-Moheno, Guadalupe Williams-Linera. 2020. Restauración del bosque de niebla. CCMSS.

Tarin Toledo-Aceves, Patricia Gerez Fernández, Luciana Porter Bolland. 2019. ¿Qué se necesita para avanzar hacia el manejo de los bosques de niebla secundarios en México?. CCMSS.

Tarin Toledo-Aceves, Luciana Porter-Bolland. 2017. Manejo de uso múltiple de bosques tropicales. Ciencia y Desarrollo 288: 20-24.

Tarin Toledo-Aceves. 2017. Regiones prioritarias para la conservación del bosque mesófilo de montaña. Agroproductividad 10: 10- 13. ISSN: 2448-7546. ISSN: 2448-7546

López-Barrera F, Bonilla Moheno M, **Toledo-Aceves T**. 2017. Restauración del bosque de niebla con un enfoque de paisaje. Agroproductividad 10: 29-36. ISSN: 2448-7546

Sosa-Fernández V, López-Morgado R, **Toledo-Aceves T**, Bárcenas-Pazos

- G. 2017. Oportunidades de conservación del bosque de niebla a través del manejo alternativo: los agroecosistemas cafetaleros. *Agroproductividad* 10: 62-67. ISSN: 2448-7546
- Tarin Toledo.** 2016. Las bromelias epífitas. *Ciencias* 120-121.
- Tarin Toledo.** 2014. Lluvia de bromelias en el bosque de niebla. *Biodiversitas* 117: 1-5.
- Jiménez-Ovando D. 2013. El mágico bosque de niebla. **Toledo-Aceves T y Vidriales G** (eds.). CONABIO/INECOL. Códice. 19 pp.
- Tarin Toledo.** 2012. Epiphyte management? The answer is yes. *FAO Non-wood news* 24: 9-10.
- M González-Espinoza, J Meave, N Ramírez-Marcial, **T. Toledo-Aceves**, F Lorea-Hernández, G Ibarra-Manríquez. 2012. Los bosques de niebla de México: conservación y restauración de su componente arbóreo. *Ecosistemas* 21: 36-52.
- Tarin Toledo.** 2011. Los bosques de niebla. *Tesoro Mexicano. Mexicanismo* 36: 46- 49.
- Tarin Toledo.** 2010. Lianas: El impacto de las plantas trepadoras en la dinámica de los bosques tropicales. *Ciencias* 98: 14-20.
- Tarin Toledo.** Escasea la flor de tenchos por utilización desmedida y por destrucción de bosques. *La Jornada de Veracruz*. 25/04/2010
- Tarin Toledo.** 2009. El Bosque de Niebla. *Biodiversitas* 83: 1-6.
- Tarin Toledo.** 2008. Bosque de Niebla: Importancia crítica. La jornada del campo. *La jornada*. 11/03/08

Project coordination

- | | |
|------------|---|
| 2018-2021 | "Secondary tropical cloud forests: assessing their potential for multiple use management" National Geographic Society. USD 29,694 |
| 2018 | "Assisting the regeneration of <i>Quercus insignis</i> and <i>Juglans pyriformis</i> , endangered cloud forest tree species" The Morton Arboretum. USD 9,171 |
| 2015-2019 | "Tree species functional traits for the restoration of cloud forest in central Veracruz, Mexico" CONACYT 2014 (no. 238831). USD 76,344 |
| 2016-2017 | "Diversity, endemism and conservation of orchids in the Tropical Andes, Peru" American Orchid Society |
| 2016-2017 | "Secondary Cloud Forest Management" Rufford Grants |
| 2014-2015 | Project coordinator "Seed Trees for Cloud Forest Restoration" Rufford Small Grants. http://www.rufford.org/projects/tarin_toledo Project coordinator "Seed trees for cloud forest restoration" Rufford Grants. |
| 2010-2012 | Project participant "Multiple use of epiphytes within shaded coffee plantations" FORDECYT/CONACYT. |
| 2009- 2011 | Kleinhans Fellowship / Rain Forest Alliance.
http://www.rainforest-alliance.org/kleinhans.cfm?id=current |
| 2009- 2014 | "Management of epiphytic bromeliads in the tropical montane cloud forest of Central Veracruz, Mexico". CONABIO. |
| 2009 | "Evaluation of the potential for use of non-wood forest products in the ejido of San Pedro Buenavista, Veracruz". PROCYMAF-VER-EST-006/2009, CONAFOR. |

2007-2008 "Diagnostic of Cloud Forest and Data Base of Long-term Monitoring Studies in Mexico". Microsoft Research (MSRC-ERO).

THESES SUPERVISION

- 2020 M. Acuña Tarazona. Diversity patterns of orchids and ferns along an altitudinal gradient, Andes, Peru. PhD. Instituto de Ecología A.C.
- 2017 M.A. García Hernández. Tree seedlings functional traits for cloud forest restoration. M.Sc. Instituto de Ecología A.C.
- 2017 S. Landero Lozada. Enrichment plantations in tropical montane cloud forest along an elevation gradient. M.Sc. Instituto de Ecología A.C.
- 2017 AL. Trujillo Miranda. Evaluation of active and passive restoration of cloud forest. M.Sc. Instituto de Ecología A.C.
- 2015 P. Ortiz Colín. Evaluation of tree regeneration in cloud forest with traditional selective logging, Veracruz, Mexico. M.Sc. Instituto de Ecología A.C.
- 2014 M. Acuña Tarazona. Recolonization of vascular epiphytes post-stripping in tropical montane cloud forest, Veracruz, Mexico. M.Sc. Instituto de Ecología A.C.
- 2011 S. Landero Lozada. Abundance and population structure of *Tillandsia multicaulis* Steudel. and *T. punctulata* Schldl. & Cham., Veracruz, Mexico. BSc. Thesis. Universidad Veracruzana. Mexico
- 2011 ML. León Mateos. Abundance, population structure and early establishment of epiphytic bromeliad *Tillandsia butzii* Mez. in cloud forest of Veracruz, Mexico. BSc. Thesis. Universidad Veracruzana. Mexico
- 2012 P Ortiz-Colín. Effect of light on epiphytic bromeliads growth. BSc. Thesis. Universidad Veracruzana. Mexico

WEBSITES

https://www.researchgate.net/profile/Tarin_Toledo-Aceves

<https://scholar.google.com/citations?user=uQs5t1sAAAAJ>

<http://www.inecol.mx/personal/index.php/funcional/86-mariana-tarin-toledo-aceves>