Human Dimensions: The Latin America and the Caribbean Chapter of ESA. Embracing Our Diversity During Adverse Times

Felipe N. A. Mello1, Alejandra Martínez-Blancas2, Marcel C. Vaz3, Arona Bender4, and Diogo B. Provete5

1Department of Biological Sciences, Marquette University, P.O. Box 1881, Milwaukee, Wisconsin 53201 USA
2Departamento de Ecología y Recursos Naturales, Facultad de Ciencias, Universidad Nacional Autónoma de México, Coyoacán, Ciudad de México, México
3Department of Ecology and Evolutionary Biology, University of California, Los Angeles, 621 Charles E. Young Drive East, P.O. Box 957246, Los Angeles, California 90095 USA
4Department of Biological Sciences, Hampton University, 130 William R. Harvey Way, Hampton, Virginia 23668 USA
5Instituto de Biociências, Universidade Federal de Mato Grosso do Sul, Campo Grande, Mato Grosso do Sul 79070-900 Brazil

The Latin American Chapter was born in 2015 during the centennial meeting of the Ecological Society of America (ESA) in Baltimore, Maryland, as an initiative of the former Mexican and South American Chapters of ESA to integrate ESA members with interest and/or working on ecological issues in Latin American and Caribbean countries (Cruz Maysonet et al. 2016). In the last general meeting of our chapter, at the first fully online ESA annual meeting in 2020, our members decided to explicitly include the Caribbean region in our chapter’s name, as this region is part of the chapter’s geographic scope. If approved by the ESA’s council, which will take place in August 2021, our chapter will then be called the “Latin America and the Caribbean” (LAC) Chapter of ESA, one more step toward our core objective of embracing our diversity.

Our story

The LAC Chapter of ESA has been constantly growing in number of members since its creation during the centennial ESA Annual Meeting in 2015. The chapter started with 162 members and after five years of existence, the chapter has increased to 318 members from Latin America, the Caribbean, and the United States of America (as of December 2020). The chapter also counts with members from Australia, Canada, Finland, France, Spain, and Switzerland. Since its creation, the LAC Chapter has been present and engaged in activities during the ESA annual meetings. Five business meetings and mixers have been celebrated during annual meetings, where members of the chapter had the opportunity to meet each other, share ideas, discuss issues regarding the chapter, and elect board members. The LAC Chapter has also proposed and organized Symposia, Inspire sessions, and Organized Oral Sessions at several ESA annual meetings since the chapter’s creation.

In 2016, in Fort Lauderdale, Florida, USA, the LAC Chapter organized a Symposium entitled “Generalities and Specificities in Ecosystem Service Trade-Offs and Conservation Strategies: A Focus
in Latin America,” organized by Cristina Portales Reyes, Juan C Ruiz Guajardo, and Diana K Guzmán Colón (Reyes et al. 2016). During the event, the speakers and participants discussed the importance of local stakeholders and governments to achieve a sustainable policy agenda aiming better ecosystem management and conservation of biodiversity in Latin America (Ardilla et al. 2016, Montijo et al. 2016, O’Connell et al. 2016, Quesada et al. 2016, Quijas et al. 2016, Ruiz 2016). After this first event organized by the LAC Chapter, the human dimension of ecology in Latin America and the Caribbean would become a central subject at future events organized by the LAC Chapter.

In 2017, in Portland, Oregon, USA, the LAC Chapter held a business meeting organized by Dr. Daniel E. Stanton (Stanton 2017), where chapter members discussed the idea of organizing an Inspire session for the following ESA annual meeting. In 2018, in New Orleans, Louisiana, USA, Dr. Valeria Souza moderated the Inspire session entitled “Ecology without Borders” (Souza 2018). The focus of this event was to discuss and celebrate the long-term collaborations and scientific exchange between Mexican and US ecologists. The event included the participation of nine speakers from Mexico and the United States (Cavender-Bares et al. 2018; Eguiarte and Souza 2018; González-Rodriguez et al. 2018; Leebens-Mack et al. 2018; Martínez-Yrizar et al. 2018; Montijo et al. 2018; Soberón 2018; Souza et al. 2018; Travisano 2018).

Also during the 2018 ESA Annual Meeting, the LAC Chapter held a mixer and business meeting along with the Scientific Mexican Ecological Society (SCME; acronym from Spanish), organized by Dr. Mauricio Quesada, to discuss common interests and future joint activities. During this meeting, the Latin American scientists Dr. Mauro Galetti and Dr. Michel Faife Cabrera were granted with the ESA’s Whittaker Travel Award, which provides funds for outstanding ecologists in developing countries to attend the ESA annual meetings. Moreover, chapter members had the opportunity to participate in events focused on diversity and inclusion during the 2018 ESA Annual Meeting. The chapter member Stephanie Cruz Maysonet was invited to participate at the Inspire session “Expanding Ecology: Your ESA Sections and Chapters Focused on Diversity, Equity and Inclusion,” organized by Dr. Sarah M. Anderson (Anderson et al. 2018), where Stephanie represented the chapter’s board with an overview of the recently created Latin American Chapter of ESA. Stephanie Cruz Maysonet also represented the LAC Chapter as an invited panelist at the Town Hall-style workshop “Extending the Tent: A New Vision for Membership of the Ecological Society of America,” organized by Dr. Richard Pouyat (Pouyat and Huenneke 2018).

Prior to the 2019 meeting, held in Louisville, Kentucky, USA, the LAC Chapter started offering travel awards to encourage the participation of chapter members at the ESA annual meetings. The travel awards were a tradition of the former Mexican and South American Chapters that we plan to maintain for future meetings. During the 2019 ESA Annual Meeting, the LAC Chapter held a business meeting and a mixer organized by Dr. Mauricio Quesada (Quesada 2019). During the meeting, the travel awards were given to the five members that applied prior to the meeting and the new chapter board was elected, composed by members from Argentina, Brazil, Dominica, Chile, and the United States. The presence of members from the Caribbean region on the LAC Chapter’s board was expanded with the participation of the co-chair Ayanna St. Rose, a graduate student at University of Arkansas from Dominica. It was also the first time the chapter’s board was entirely composed of graduate students. In 2019, the LAC Chapter was also present at the VII Annual Meeting of the Mexican Ecological Society in Querétaro, Mexico.
The LAC Chapter, ESA and SCME organized a joint symposium entitled “Migratory species across north America: natural bridges or artificial political walls.” This Symposium was organized by Dr. Mauricio Quesada, with participation of several speakers from Mexico and the United States (Aguilar-Aguilar et al. 2019, Arizmendi 2019, Fowler 2019, Macip 2019, Peters and Miller 2019, Quesada et al. 2019, Taylor 2019). In addition, the LAC Chapter held a permanent stand at the VII Annual Meeting of the Mexican Ecological Society to promote ESA.

In 2020, the world was surprised by the COVID-19 pandemic, which restricted people’s movement worldwide, making in-person meetings and conferences unviable. The 2020 ESA Annual Meeting, which was initially going to take place in Salt Lake City, Utah, USA, was held online for the first time. The online format of the 2020 ESA meeting allowed for an increase in the number of international attendees, with 20% of non-US based participants at the virtual version of the meeting (Villanueva Almanza 2020). For the 2020 ESA meeting, instead of travel awards, the LAC Chapter offered registration awards aiming to encourage the participation of chapter members at the online version of the meeting. The registration awards were given to six LAC Chapter members that requested the aid. In addition to the registration awards, the chapter offered new awards for posters and talks that were created to promote and recognize LAC chapter members’ research. After voting by a chapter panel, the poster award was given to Alejandra Martínez-Blancas, for the poster “Changes in competition and facilitation along hydric stress and phylogenetic distance gradients in a diverse semiarid grassland” and to Carmen Vazquez Ribera, for the poster “Testing different hypotheses about the effects of grazing on grassland plant diversity: competitive release is the main mechanism,” both members from the Facultad de Ciencias, Universidad Nacional Autónoma de México (Martinez-Blancas and Martorell 2020; Vázquez-Ribera and Martorelli 2020). The talk award was given to Agostina Torres, from the Grupo de Ecología de Invasiones, INIBIOMA, Universidad Nacional del Comahue, CONICET, Argentina, for the talk “Inverse priority effects: towards a framework for understanding the importance of the order and timing of invasive species removal” (Torres et al. 2020).

The LAC Chapter contributed to the 2020 ESA meeting with an Organized Oral Section entitled “Harnessing ecological data under political instability, lessons from Latin America,” organized by Ayanna St. Rose, Marcel Vaz, and Ximena López (St. Rose et al. 2020). The main focus of the Organized Oral Session was to present examples of ecological research in Latin America and the potential effects of political instability and anti-science movements in the region’s scientific funding and job opportunities. The Organized Oral Session included five talks that presented examples of ecological research in Latin America and its connections with environmental public policies and the potential long-term consequences of rising anti-science movements in the region (Bohlman et al. 2020; Bustamante 2020; Lugo 2020; Mello 2020; Quesada et al. 2020). The chapter had the opportunity to discuss the Organized Oral Session presentations during the LAC’s general meeting and to talk about strategies to increase the effectiveness of scientific communication with Latin American and Caribbean citizens and governments. Moreover, the chapter members highlighted the importance to focus on a socio-ecological system approach and diversity inclusion for ecological science in Latin America and the Caribbean, topics that have been guiding the chapter activities since its creation. Finally, the new chapter board was elected during the chapter’s general meeting, with representatives from Brazil, Mexico, and United States/Guyana.
Present activities

Due to the COVID-19 pandemic in 2020, the LAC Chapter had the opportunity to implement a longstanding idea: a public webinar about ecology and biodiversity in Latin America and the Caribbean. We partnered with the Neotropical Chapter of the Association for Tropical Biology and Conservation (ATBC) and organized the webinar titled “The Future of Biodiversity in Latin America and the Caribbean.” Due to the common interest of both LAC/ESA and Neotropical/ATBC chapters on the rich socio-biodiversity of the Latin American and Caribbean region, the webinar included the participation of four invited speakers who are actively involved on issues directly or indirectly related to biodiversity in Latin America and the Caribbean. The Latin America and the Caribbean region is one of the most biodiverse regions of the planet, harboring around sixty percent of the global terrestrial life (UNEP-WCMC 2016). The biodiversity present in Latin American and Caribbean countries is expressed beyond the highly biodiverse flora and fauna; it is also expressed in highly diverse societies, cultures, and values that we tried to bring together for discussion during the webinar.

The guest speakers invited for the webinar were Dr. Ana María Hernández, from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), who presented the talk “The contribution of IPBES to our understanding of biodiversity in the Americas”; Dr. Víctor Arroyo-Rodríguez, from the Universidad Nacional Autónoma de México, with the talk “How to preserve forest species in human-modified landscape”; Dr. Michelle Scobie, from the University of the West Indies at St. Augustine, Trinidad and Tobago, with the talk “Global environmental governance and small states: biodiversity governance in the insular Caribbean”; and finally Dr. Julia Shimbo, from the Amazon Environmental Research Institute (IPAM) and MapBiomas, Brazil, with the talk “MapBiomas initiative: Three decades of land use and land cover changes in the Brazilian biomes.” The event in collaboration with the ATBC Neotropical Chapter reached a broad audience, with a peak of more than 160 attendants that actively participated in the discussion afterward. The discussion resulting from the webinar talks highlighted the importance of coordination among Latin American and Caribbean environmental entities toward common global goals for conservation and sustainable development. Despite challenges, Latin American and Caribbean environmental entities and stakeholders should engage with governments and society to bring the discussion about global policies for biodiversity to the table, guided by global entities for biodiversity, such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

The success of the joint webinar with the ATBC Neotropical opened the door for future collaborations between the two chapters that have overlapping interests in the Latin American and the Caribbean region. After the positive experience in the organization of this first webinar, the LAC Chapter is planning to organize webinars on a regular basis for the year of 2021, with a focus on the science produced by Latin American and Caribbean ecologists. We also plan to continue the “Future of biodiversity in Latin America and the Caribbean” series along with our collaborators.

LAC chapter’s future

The experience of having the first fully online ESA meeting allowed for the participation of many people who otherwise would not have been able to attend the meeting, and we are planning to work together with the ESA council to promote and organize mixed-format meetings in the future that would
allow for the inclusion of more Latin American and Caribbean ecologists at ESA annual meetings. We will also continue to offer registration and travel awards, as well as talk and poster awards, to encourage the participation of LAC Chapter members in future ESA annual meetings. We believe that a hybrid meeting format and the incentive of awards will help to increase the representation of minorities at ESA annual meetings and promote diversity and equality in ecology. With that in mind, for the upcoming 2021 ESA meeting, the LAC Chapter is organizing a Symposium about gender equality in ecology across cultures and generations, and how to overcome gender bias in academia. Because gender biases may compound with other biases, such as those against people of color and immigrants, in this session we are looking to include women from different career stages, ethnicities, and countries to reflect and discuss about the current state of gender equality in ecology. In our effort toward diversity and inclusion, the LAC Chapter also decided for a reformulation of our logo to better reflect the cultures of Latin American and Caribbean countries, including the Latino, Chicano, Hispanic, and West Indies communities. For this purpose, we are currently holding a competition among chapter members for the design of our new logo.

Despite a growing contribution of Latin Americans to ecological research in the last two decades, Latin American publications still account for only ~9% of the total of publications in ecology (Wojciechowski et al. 2017). The LAC Chapter plans to facilitate and promote the participation of Latin American and Caribbean ecologists at ESA annual meetings, to deepen the connections of the region with the ESA and to foster collaborations and potential publications. To that end, the chapter intends to increase its presence at regional events of Latin American and Caribbean ecological societies, like the LAC Chapter/ESA participation at the 2019 meeting of the SCME with a booth. We also plan to engage in the organization of joint events and activities with other Latin American ecological societies that could eventually guide the formulation of LAC proposals for future ESA annual meetings.

The LAC Chapter of ESA is still young; born from two solid former chapters of ESA. As such, we are in a constant search for our chapter’s identity, that since its creation has been related to Latin America’s and the Caribbean’s biggest strength, our socio-biodiversity.

Acknowledgments

We thank Stephanie Cruz Maysonet, Dr. Maurício Quesada, and Enzo Paolo Martelli Moya for comments, suggestions, and revision of the original document. We also thank Dr. Daniel Stanton for information regarding previous LAC Chapter events at ESA annual meetings.

Literature Cited

Aguilar-Aguilar, M. J., M. Quesada, J. A. Lobo, V. Patiño-Conde, U. Olivares-Pinto, F. J. Balvino- Olvera, and G. Ruiz-Guzmán. 2019. Ancestry and migration of Apis mellifera in North America. VII Annual Meeting of the Mexican Ecological Society, Querétaro, Mexico. https://scme.mx/vii-congreso-mexico-de-ecologia/

Anderson, S., A. M. A. Casper, A. Hettinger, and K. F. Rubert-Nason. 2018. Expanding ecology: Your ESA sections and chapters focused on diversity, equity and inclusion [Conference session]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Session/14395
Ardilla, F. M., P. Balvanera, E. García-Frapolli, A. Castillo, D. Cohen, and O. Ugartechea. 2016. Trade-offs between forage production, carbon stocks, and biodiversity conservation in a Mexican tropical dry forest [Conference presentation]. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida, USA. https://eco.confex.com/eco/2016/webprogram/Paper58060.html

Arizmendi, M. C. 2019. Migration of hummingbirds in North America and their nectar migratory routes. VII Annual Meeting of the Mexican Ecological Society, Querétaro, Mexico. https://scme.mx/vii-congreso-mexicano-de-ecologia/

Bohlman, S., et al. 2020. Lessons from the Amazon Dams Network: Adaptive management approach within dammed complex social-ecological systems [Conference presentation]. Ecological Society of America Annual Meeting, virtual meeting. https://eco.confex.com/eco/2020/meetingapp.cgi/Paper/82165

Bustamante, M. 2020. Anti-science movements in Brazil: Potential long-term consequences for the global environment [Conference presentation]. Ecological Society of America Annual Meeting, virtual meeting. https://eco.confex.com/eco/2020/meetingapp.cgi/Paper/82118

Cavender-Bares, J. M., A. Gonzalez-Rodriguez, P. S. Manos, and A. L. Hipp. 2018. Insights on adaptive evolution, diversification and community assembly of the American oaks from the temperate zone to the tropics through long-term transborder collaboration [Conference presentation]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Paper/70689

Cruz Maysonet, S., D. Stanton, J. J. Armesto, and G. Avila Sakar. 2016. A new chapter is born on the Centennial: An introduction to the Latin American chapter of the Ecological Society of America. Bulletin of the Ecological Society of America 97:288–290.

Eguiarte, L. E., and V. Souza. 2018. New perspectives of genomics and ecology [Conference presentation]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Paper/70678

Fowler, N. 2019. Impacts on biodiversity of Texas border walls and fences. VII Annual Meeting of the Mexican Ecological Society, Querétaro, Mexico. https://scme.mx/vii-congreso-mexicano-de-ecologia/

González-Rodriguez, A., J. Avender-Bares, H. Rodriguez-Correa, A. L. Hipp, and K. Oyama. 2018. Oak species phylogeography through the American continent [Conference presentation]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Paper/70676

Leebens-Mack, J., K. Heyduk, M. R. Mckain, and L. E. Eguiarte. 2018. A phylogenomic view of functional diversification among yuccas, agaves, and their relatives [Conference presentation]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Paper/70681

Lugo, A. E. 2020. Environmental public policies under unstable political scenarios: What hurricane María uncovered in Puerto Rico [Conference presentation]. Ecological Society of America Annual Meeting, virtual meeting. https://eco.confex.com/eco/2020/meetingapp.cgi/Paper/82104

Macip, R. 2019. The effects of the border wall in the herpetofauna. VII Annual Meeting of the Mexican Ecological Society, Querétaro, Mexico. https://scme.mx/vii-congreso-mexicano-de-ecologia/

Martinez-Blancas, A., and C. Martorell. 2020. Changes in competition and facilitation along hydric stress and phylogenetic distance gradients in a diverse semiarid grassland [Poster session]. Ecological Society of America Annual Meeting, virtual meeting. https://eco.confex.com/eco/2020/meetingapp.cgi/Paper/82959

Martinez-Yrizar, A., et al. 2018. Extreme events challenge the resilience of arid and semi-arid ecosystems [Conference presentation]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Paper/70683
Mello, F. N. M. 2020. How can ecology support public policy in times of good governance: A case study in Brazil [Conference presentation]. Ecological Society of America Annual Meeting, virtual meeting. https://eco.confex.com/eco/2020/meetingapp.cgi/Paper/88831

Montijo, A. B., et al. 2018. Across the wall to study gentle giants and lesser creatures [Conference presentation]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Paper/70686

Montijo, A. B., E. Bustamante, M. Sanderson, D. Yetman, and D. Copetti. 2016. Columnar cacti: ecology, evolution, uses, and the future of truly Latin American great cacti [Conference presentation]. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida, USA. https://eco.confex.com/eco/2016/webprogram/Paper58064.html

O’Connell, C. S., C. Neill, M. T. Macedo, K. Jankowski, R. Venterea, E. A. Davidson, and P. A. Lefebvre. 2016. How does deforestation for cropland affect moisture, temperature, and trace gas concentrations at depth in Southeastern Amazonian soils? [Conference presentation]. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida, USA. https://eco.confex.com/eco/2016/webprogram/Paper61588.html

Peters, R., and J. Miller. 2019. Socio-political divides to ecological barriers: the US-Mexico border wall, threats to biodiversity and the role of scientist consensus. VII Annual Meeting of the Mexican Ecological Society in Querétaro, Mexico. https://scme.mx/vii-congreso-mexicano-de-ecologia/

Pouyat, R., and L. L. Huenneke. 2018. Extending the tent: A new vision for membership of the Ecological Society of America [Conference session]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Session/14314

Quesada, M. 2019. Latin America chapter mixer. Ecological Society of America Annual Meeting, Louisville, Kentucky, USA. https://eco.confex.com/eco/2019/meetingapp.cgi/Session/16528

Quesada, M., et al. 2020. Pollination ecosystem services, public policy and food security in Latin America [Conference presentation]. Ecological Society of America Annual Meeting, virtual meeting. https://eco.confex.com/eco/2020/meetingapp.cgi/Paper/82119

Quesada, M., O. Delgado-Carrillo, A. Aguirre-Jaimes, F. J. Balvino-Olvera, G. Sanchez-Montoya, E. Rendón, V. Patiño-Conde, U. Olivares-Pinto, and E. J. Fuchs. 2019. Migration of the monarch butterfly and its relationship with the migratory route of nectar: importance of floral resources for its survival. VII Annual Meeting of the Mexican Ecological Society, Querétaro, Mexico. https://scme.mx/vii-congreso-mexicano-de-ecologia/

Quesada, M., M. E. Lopezaraiza-Mikel, E. J. Cristobal-Perez, S. Martén-Rodríguez, and O. Delgado-Carrillo. 2016. Pollination ecosystem services in the wild-natural interface a neotropical dry forest [Conference presentation]. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida, USA. https://eco.confex.com/eco/2016/webprogram/Paper61818.html

Quijas, S., et al. 2016. Biodiversity, ecosystem services and human well-being trade-offs in present and future scenarios of climate change and land use for México and Brazil [Conference presentation]. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida, United States. https://eco.confex.com/eco/2016/webprogram/Paper58061.html

Reyes, C. P., J. C. R. Guajardo, and D. K. G. Colón. 2016. Generalities and specificities in ecosystem service trade-offs and conservation strategies: A focus in Latin America [Conference Symposium]. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida, USA. https://eco.confex.com/eco/2016/webprogram/Session11710.html

Ruiz, C. 2016. Lessons learned from the Natural Capital Project: Limitations and potential of economic valuation of ecosystem services in Latin America [Conference presentation]. Ecological Society of
Contributions

America Annual Meeting, Fort Lauderdale, Florida, USA. https://eco.confex.com/eco/2016/webprogram/Paper58062.html

Soberon, J. 2018. A long history of US-Mexico cooperation [Conference presentation]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Paper/74957

Souza, V. 2018. Ecology without borders [Conference Session]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Session/14394

Souza, V., L. E. Eguiarte, M. Travisano, and G. Olmedo. 2018. Cuatro Cienegas: An ecological experiment [Conference presentation]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Paper/70674

St. Rose, A., M. C. Vaz, and X. L. Zieher. 2020. Harnessing ecological data under political instability: lessons from Latin America [Organized Oral Session]. Ecological Society of America Annual Meeting, virtual meeting. https://eco.confex.com/eco/2020/meetingapp.cgi/Session/17267

Stanton, D. E. 2017. Latin America chapter business meeting. Ecological Society of America Annual Meeting, Portland, Oregon, USA. https://eco.confex.com/eco/2017/webprogram/Session13711.html

Taylor, O. 2019. Monarch population dynamics: development of a stage specific model that predicts population growth. VII Annual Meeting of the Mexican Ecological Society, Querétaro, Mexico. https://scme.mx/vii-congreso-mexicano-de-ecologia/

Torres, A., M. A. Nuñez, and M. A. Rodriguez-Cabal. 2020. Inverse priority effects: towards a framework for understanding the importance of the order and timing of invasive species removal [Poster session]. Ecological Society of America Annual Meeting, virtual meeting. https://eco.confex.com/eco/2020/meetingapp.cgi/Paper/84968

Travisano, M. 2018. Experimental evolution as an ecological tool [Conference presentation]. Ecological Society of America Annual Meeting, New Orleans, Louisiana, USA. https://eco.confex.com/eco/2018/meetingapp.cgi/Paper/70682

UNEP-WCMC. 2016. The State of Biodiversity in Latin America and the Caribbean: A mid-term review of progress towards the Aichi Biodiversity Targets. UNEP-WCMC, Cambridge, UK.

Vázquez-Ribera, C., and C. Martorelli. 2020. Testing different hypotheses about the effects of grazing on grassland plant diversity: competitive release is the main mechanism [Poster session]. Ecological Society of America Annual Meeting, virtual meeting. https://eco.confex.com/eco/2020/meetingapp.cgi/Paper/85351

Villanueva Almanza, L. 2020. Virtual scientific conferences open doors to researchers around the world. Science. https://doi.org/10.1126/science.careedit.abe9591

Wojciechowski, J., F. Ceschin, S. C. Pereto, L. G. Ribas, L. A. Bezerra, J. Dittrich, T. Siqueira, and A. A. Padial. 2017. Latin American scientific contribution to ecology. Anais da Academia Brasileira de Ciências 89:2663–2674.