CV

Santiago José Elías Velazco
17/11/2026

I graduated in Forest Engineering from the National University of Misiones, Argentina (2010), and a Master's and Doctorate in Forest Engineering from the Federal University of Paraná, Brazil (2014, 2018). I was a postdoctoral researcher at the Institute of Subtropical Biology, Argentina (UNaM-CONICET, 2018-2021), and the University of California, Riverside, United States of America (2021-2022). Currently, I work as a Researcher at the Institute of Subtropical Biology (UNaM-CONICET, Argentina) and as a Research Scientist at the Center for Open Geographical Science (San Diego State University, USA). I have experience in conservation ecology, conservation biogeography, and spatial models. I have supervised students and taught courses in different graduate programs in Argentina and Brazil.

Nationality: Argentinean
Current Work Address: Center for Open Geographical Science, Department of Geography, San Diego State University, California, United States of America
Email: sjevelazco@gmail.com

Employment History (dd-mm-yyyy):

19-08-2024 - present: Research Scientist
Institution: Center for Open Geographical Science (COGS), San Diego State University (SDSU), San Diego, California, United States of America (https://cogs.sdsu.edu/people/)

01-07-2022 - present: Assistant Researcher
Institution: Subtropical Biology Institute (IBS), National Scientific and Technical Research Council (CONICET) – National University of Misiones (UNaM), Iguazú, Misiones, Argentina (https://ibs.conicet.gov.ar/velazco-santiago/)

30-11-2021 – 01-08-2025: Affiliate Professor
Institution: Postgraduate Program in Neotropical Biodiversity (PPGBN), Federal University of Latin American Integration (UNILA), Foz do Iguaçu, Paraná, Brazil (https://portal.unila.edu.br/mestrado/biodiversidade-neotropical/espanol/programa/cuerpo-docente)

01-02-2021 – 30-06-2022: Postdoctoral researcher
Institution: University of California, Riverside (UCR), Riverside, California, United States of America
Supervisor: Janet Franklin
Fellowship: National Science Foundation (NSF)

01-04-2018 – 31-01-2021: Postdoctoral researcher
Institution: Subtropical Biology Institute (IBS), National Scientific and Technical Research Council (CONICET) – National University of Misiones (UNaM), Iguazú, Misiones, Argentina
Supervisor: Paulo De Marco Jr.

Second supervisor: Héctor Alejandro Keller
Fellowship: National Scientific and Technical Research Council (CONICET)

***Ad honorem* professional activities (dd-mm-yyyy)**

09-03-2023 - present: Co-leader
Institution: EcoCode working group on biodiversity modelling.
(https://geobon.org/ecocode-modelling-life-on-earth/)

2014 – present: Full member
Institution: Sociedade Chauá
(https://www.sociedadechaua.org/en/quem-somos).

University education:

2014 - 2018: Ph.D. in Forestry Engineering (nature conservation research line)
Institution: Federal University of Paraná (UFPR), Curitiba, Paraná, Brazil
Project title: Cerrado beyond borders: present and future patterns of diversity and threats to its flora in Bolivia, Brazil, and Paraguay.
Advisor: Franklin Galvão
Co-advisors: Paulo De Marco Jr. and Fabricio Villalobos
Fellowship: Coordination for the Improvement of Higher Education Personnel (CAPES-Brazil)

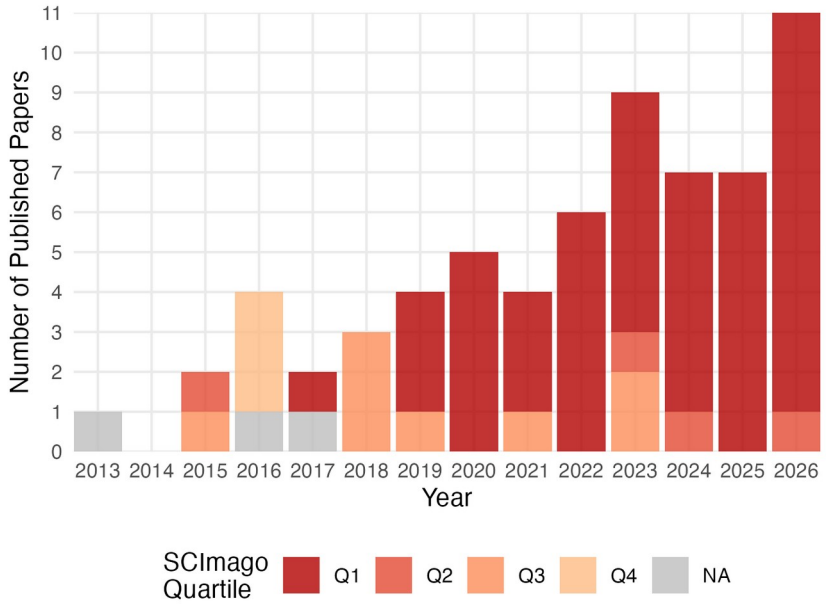
2012 - 2014: Master's in Forestry Engineering (nature conservation research line)
Institution: Federal University of Paraná (UFPR), Curitiba, Paraná, Brazil
Project title: Floristic and phytosociological study of three plant communities in San Ignacio, province of Misiones, Argentina.
Advisor: Franklin Galvão
Co-advisor: Héctor Alejandro Keller
Fellowship: Coordination for the Improvement of Higher Education Personnel (CAPES-Brazil)

2003 - 2010: Forestry Engineering.
Institution: Faculty of Forestry Science, National University of Misiones (UNaM), Argentina
Project title: In vitro establishment and multiplication of nodal segments of Cordia trichotoma (Vell.) Arráb. ex Steud. (Boraginaceae)
Advisors: Patricia Rocha and Fernando Niella

Languages:

Spanish - primary language
English
Portuguese

Articles published in peer-reviewed journals:



2026

1. Amaro, G.C., do Nascimento, V.G., Evaristo, A.B., **Velazco, S.J.E.**, da Silva, R.S., Lorestani, N., Shabani, F. (2026). Impact of Climate Change on the Potential Distribution of Macaúba (Acrocomia aculeata, Acrocomia totai, Acrocomia intumescens) in Brazil. *GCB Bioenergy* 18, e70152. https://doi.org/10.1111/gcbb.70152

2. Backus, G.A., Rose, M.B., **Velazco, S.J.E.**, Franklin, J., Regan, H.M., (2026). Substitute oaks: Modeling human-assisted dispersal of climate-threatened foundation species. *Biological Conservation* 324, 112150. https://doi.org/10.1016/j.biocon.2026.112150

3. Bedrij, N.A., Montti, L., Keller, H.A., López, L.N., **Velazco, S.J.E.** (2026). Beyond protected areas: The synergistic role of forest territorial planning in safeguarding tree diversity. *Biological Conservation* 321, 111982. https://doi.org/10.1016/j.biocon.2026.111982

4. Gomes, L.B., De Moraes, K.F., Almeida, S.M., Martins, L.G., **Velazco, S.J.E.**, Lima, M.G.M., (2026). Climate change and habitat loss threaten taxonomic and functional diversity of endemic primates in South America. *Journal of Biogeography* 53, e70409. https://doi.org/10.1111/jbi.70409

5. Lawton, P.J., Backus, G.A., Rose, M.B., Franklin, J., **Velazco, S.J.E.**, Syphard, A.D., Regan, H.M. (2026). Robust allocation of fire management resources towards threatened species conservation under uncertainty. *Ecological Modelling* 517, 111582. https://doi.org/10.1016/j.ecolmodel.2026.111582

6. Montti, L., Gasparri, N.I., Trumper, A., Amicone, C., Anticoli, A., Burns, S.L., Casertano, S., Eleuterio, A., Gennerich, M.-J., Giessen, L., González, M.V., Santos Silva, M., Vázquez, F., **Velazco, S.J.E.**, Yanosky, A., Zurita, G.A., Piquer-Rodríguez, M., (2026). Disentangling conservation asymmetries through socio-economic transboundary factors across the Alto Paraná Atlantic Forest of South America. *People and Nature* 8, 1328–1348.

https://doi.org/10.1002/pan3.70291

7. Nunes Soares, I.M., De Oliveira Junior, A.C., Antonio, A.I., Nogueira, D.S., **Velazco, S.J.E.**, (2026). Diversity, floral visitation pattern, and conservation of stingless bees (Apidae: Meliponini) in the Brazilian Legal Amazon. *Journal for Nature Conservation* 89, 127120. https://doi.org/10.1016/j.jnc.2025.127120

8. Rose, M.B., **Velazco, S.J.E.**, Regan, H.M., Thorne, J.H., Franklin, J., (2026). Species-specific responses to multiple climatic variables predict diverging locations of future climate change refugia. *Diversity and Distributions* 32, e70158. https://doi.org/10.1111/ddi.70158

9. Szinwelski, N., Prasniewski, V.M., Vendruscolo, L.S.N., Da Costa, M.K.M., Zefa, E., Sobral-Souza, T., De Lima, G.C., Roncaglio, J.P.M., Brocardo, C.R., **Velazco, S.J.E.** (2026). Spatial distribution, habitat suitability, and threat status of Diponthus crassus (Orthoptera: Romaleidae: Romaleini). *Journal of Insect Conservation* 30, 57. https://doi.org/10.1007/s10841-026-00790-z

10. Urban, M.C., Zurell, D., Bocedi, G., Gonzalez, A., **Velazco, S.J.E.**, Bezeng, B.S., Briscoe, N.J., Brotons, L., Buckley, L.B., De Oliveira Junior, A.C., Cooke, R., Da Cunha Godoy, L., De Marco Júnior, P., Eddy, T.D., Ferrier, S., Guillera-Arroita, G., Isaac, N.J.B., Krug, C.B., Lundquist, C.J., Mamede, M., Metzger, J.P., Millette, K.L., Ortega-Cisneros, K., Purvis, A., Sarmento Cabral, J., Settele, J., Travis, J.M.J., Villalobos, F., Winter, M., Xu, H. (2026). A global research coordination programme is urgently needed for biodiversity. *Nature Ecology and Evolution*. https://doi.org/10.1038/s41559-026-03123-0

11. Zurell, D., Albert, C.H., Bocedi, G., Briscoe, N.J., Buckley, L.B., Gascoigne, S.J.L., Gonzalez, A., Guillera-Arroita, G., Isaac, N.J.B., Karger, D.N., Lundquist, C.J., Merow, C., Cabral, J.S., Schifferle, K., **Velazco, S.J.E.**, Urban, M.C., (2026). Biodiversity science and policy need more model intercomparisons. *Nature Reviews Biodiversity*. https://doi.org/10.1038/s44358-026-00134-4

2025

12. Antonio, A.I., de Oliveira Junior, A., Villalobos, F., **Velazco, S.J.E.** (2025). Environmental heterogeneity as a determinant of bee diversity patterns in the Atlantic Forest. *Frontiers of Biogeography* 18, e142410. https://doi.org/10.21425/fob.18.142410

13. Backus, G.A., Rose, M.B., **Velazco, S.J.E.**, Franklin, J., Syphard, A.D., Regan, H.M., (2025). Population decline for plants in the California Floristic Province: Does demography or geography determine climate change vulnerability? *Diversity and Distributions* 31, e70067. https://doi.org/10.1111/ddi.70067

14. de Oliveira Junior, A.C., **Velazco, S.J.E.**, (2025). adm: An R package for constructing abundance-based species distribution models. *Methods in Ecology and Evolution* 16, 1404–1412. https://doi.org/10.1111/2041-210X.70074

15. Nascimento, E.L.M.d., **Velazco, S.J.E.**, Ramos, F.M., Ramos, R.G., Soterroni, A.C., Tessarolo, G., (2025). Climate change and feeble governance threaten the endangered endemic Cerrado flora in Brazil. *Perspectives in Ecology and Conservation*. https://doi.org/10.1016/j.pecon.2025.08.007

16. Rey Pulido, K.G., **Velazco, S.J.E.** (2025). On protected areas and other effective area-based conservation measures to conserve biodiversity. Exploring their contribution to Colombian snakes. *Perspectives in Ecology and Conservation*. https://doi.org/10.1016/j.pecon.2025.04.002

17. Sampaio, A.C.F., Hoffmann, P.M., Gurski, E.M., Bizarro, O.R., **Velazco, S.J.E.**, Carlucci, M.B., Borgo, M., Ferreira, M.M., Angelo, A.C., Blum, C.T. (2025). Filling knowledge gaps: A methodological approach for the rapid investigation of species with restricted populations. *Perspectives in Ecology and Conservation*. https://doi.org/10.1016/j.pecon.2025.04.003

18. Zurell, D., Bocedi, G., **Velazco, S.J.E.**, Gonzalez, A., Purvis, A., Wintle, B., Merow, C., Lundquist, C., Guillera-Arroita, G., Settele, J., Serra-Diaz, J.M., Cabral, J.S., Travis, J.M.J., Schifferle, K., Buckley, L., Briscoe, N.J., Isaac, N.J.B., Peres-Neto, P.R., Keuth, R., Gascoigne, S.J.L., Ferrier, S., Urban, M.C., (2025). Predicting the way forward for the Global *Biodiversity Framework. Proceedings of the National Academy of Science*s 122, e2501695122. https://doi.org/10.1073/pnas.2501695122

2024

19. Bedrij, N.A., Mac Donagh, P.M., Putz, F.E., **Velazco, S.J.E.**, Gatti, M.G. (2024). Spatial patterns of damage and tree mortality in a selectively logged Atlantic Forest. *Forest Ecology and Management* 572, 122294. https://doi.org/10.1016/j.foreco.2024.122294

20. Gomes L.B., Gonçalves G.R., **Velazco S.J.E.**, et al (2024) Conservation challenges for Brazilian primates and the role of protected areas in a changing climate. *Scientific Reports* 14:31356. https://doi.org/10.1038/s41598-024-82717-9

21. Kass J.M., Smith A.B., Warren D.L., et al (2024) Achieving higher standards in species distribution modeling by leveraging the diversity of available software. *Ecography* e07346. https://doi.org/10.1111/ecog.07346

22. Pereira, L.M., Barbosa, F.M., Chagas, K.P.T., **Velazco, S.J.E.**, Montagna, T., Carlucci, M.B., Blum, C.T., (2024). Influência de Hedychium coronarium J. Koenig na sucessão secundária de um remanescente de Floresta Ombrófila Mista Aluvial. *Ciência Florestal* 34, e74054.

23. Rodriguez, C.S., Rose, M.B., **Velazco, S.J.E.**, Franklin, J., Larios, L. (2024). High potential for Brassica tournefortii spread in North American introduced range, despite highly conserved niche. *Biological Invasions* 26, 337–351. https://doi.org/10.1007/s10530-023-03176-3

24. Rose, M. B., **Velazco, S. J. E.**, Regan, H. M., Flint, A. L., Flint, L. E., Thorne, J. H., & Franklin, J. (2024). Uncertainty in consensus predictions of plant species' vulnerability to climate change. *Diversity and Distributions*, *30*, e13898. https://doi.org/10.1111/ddi.13898

25. Syphard, A.D., Velazco, S.J.E., Brooke, M.R., Franklin, J., Regan, H.M. (2024) The importance of geography in forecasting future fire patterns under climate change. Proceedings of the National Academy of Sciences, 121(32), e2310076121. https://doi.org/10.1073/pnas.2310076121

2023

26. Andrella, G.C., Koch, I., **Velazco, S.J.E.**, (2023). Considering spatial constraints to identify areas for new species sampling: A species-specific prioritization approach. *Biological Conservation*. https://doi.org/10.1016/j.biocon.2023.110379

27. Backus, G.A., Rose, M.B., **Velazco, S.J.E.**, Franklin, J., Syphard, A.D., Regan, H.M., (2023). Modeling the effects of spatially explicit patterns of climate and fire on future populations of a fire-dependent plant. Frontiers in Ecology and Evolution. 11, 1149509. https://doi.org/10.3389/fevo.2023.1149509

28. Dorey, J.B., Fischer, E.E., Chesshire, P.R., Nava-Bolaños, A., O'Reilly, R.L., Bossert, S., Collins, S.M., Lichtenberg, E.M., Tucker, E.M., Smith-Pardo, A., Falcon-Brindis, A., Guevara, D.A., Ribeiro, B., De Pedro, D., Pickering, J., Hung, K.-L.J., Parys, K.A., McCabe, L.M., Rogan, M.S., Minckley, R.L., **Velazco, S.J.E.**, Griswold, T., Zarrillo, T.A., Jetz, W., Sica, Y.V., Orr, M.C., Guzman, L.M., Ascher, J.S., Hughes, A.C., Cobb, N.S., (2023). A globally synthesised and flagged bee occurrence dataset and cleaning workflow. *Scientific Data* 10. https://doi.org/10.1038/s41597-023-02626-w

29. Gurski, E., Melo Hoffmann, P., Cesar Furlaneto Sampaio, A., Thomas Blum, C., Bergmann Carlucci, M., Camargo Angelo, A., Borgo, M., **Velazco, S.J.E.**, (2023). The fertilization, pruning and controlled fires on the growth of Feijoa sellowiana (O. Berg) O. Berg. *Comunicata Scientiae* 14, e3951. https://doi.org/10.14295/cs.v14.3951

30. Pinto, M.B., **Velazco, S.J.E.**, Chagas, K.P.T., Barbosa, F.M., Carlucci, M.B., Montagna, T., Blum, C.T., (2023). Demography and spatial distribution of a threatened species from the Atlantic Forest in southern Brazil: differences between urban and rural remnants. *Brazilian Journal of Biology* 83, e270740. https://doi.org/10.1590/1519-6984.270740

31. Rose, M.B., **Velazco, S.J.E.**, Regan, H.M., Franklin, J., (2023). Rarity, geography, and plant exposure to global change in the California Floristic Province. *Global Ecology and Biogeography* 32, 218–232. https://doi.org/10.1111/geb.13618

32. Sampaio, A.C.F., Gurski, E.M., Hoffmann, P.M., Bizarro, O.M.R., **Velazco, S.J.E.**, Blum, C.T., (2023). Paraná state's strategic areas for biodiversity conservation and restoration include the majority of threatened plant species in the most degraded phytogeographic units. *Rodriguésia* 74, e00762022. https://doi.org/10.1590/2175-7860202374045

33. **Velazco, S.J.E.,** Villalobos, F., Galvão, F., De Marco Jr., P., (2023). Transboundary conservation opportunities for Cerrado's plant species. *Biological Conservation* 284, 110194. https://doi.org/10.1016/j.biocon.2023.110194

34. **Velazco, S.J.E.**, Brooke, M.R., De Marco Jr., P., Regan, H.M., Franklin, J., (2023). How far can I extrapolate my species distribution model? Exploring Shape, a novel method. *Ecography* e06992. https://doi.org/10.1111/ecog.06992

2022

35. Agostini, I., **Velazco, S. J. E.**, Insaurralde, J. A., Pavé, R., Holzmann, I., Fernández-Duque, E., Tujague, M. P., Peker, S., Kowalewski, M. M., & Bitetti, M. S. D. (2022). Prioritizing areas for primate conservation in Argentina. *Diversity*, 14, 982. https://doi.org/10.3390/d14110982

36. Peng, S., Hu, R., **Velazco, S.J.E.**, Luo, Y., Lyu, T., Zhang, X., Zhang, J., Wang, Z., (2022). Preserving the woody plant tree of life in China under future climate and land-cover changes. *Proceedings of the Royal Society B: Biological Sciences* 289, 20221497. https://doi.org/10.1098/rspb.2022.1497

37. Ribeiro, B. R., Guidoni-Martins, K., Tessarolo, G., **Velazco, S. J. E.**, Jardim, L., Bachman, S. P., & Loyola, R. (2022). Issues with species occurrence data and their impact on extinction risk assessments. *Biological Conservation*, *273*, 109674. https://doi.org/10.1016/j.biocon.2022.109674

38. Ribeiro, B. R., **Velazco, S. J. E.**, Guidoni-Martins, K., Tessarolo, G., Jardim, L., Bachman, S. P., & Loyola, R. (2022). *bdc*: A toolkit for standardizing, integrating and cleaning biodiversity data. *Methods in Ecology and Evolution*, 2041-210X.13868.

https://doi.org/10.1111/2041-210X.13868

39. **Velazco, S. J. E.**, Bedrij, N. A., Rojas, José Lucas, Keller, H. A., Ribeiro, B. R., & De Marco, P. (2022). Quantifying the role of protected areas for safeguarding the uses of biodiversity. *Biological Conservation*, 268, 8. https://doi.org/10.1016/j.biocon.2022.109525

40. **Velazco, S. J. E.**, Rose, M. B., Andrade, A. F. A., Minoli, I., & Franklin, J. (2022). flexsdm: An R package for supporting a comprehensive and flexible species distribution modelling workflow. *Methods in Ecology and Evolution*, 2041-210X.13874. https://doi.org/10.1111/2041-210X.13874

2021

41. Calambás-Trochez, L.F., **Velazco, S.J.E.**, Hoffmann, P.M., Brum, F.T., Carlucci, M.B., (2021). Climate and land-use changes coupled with low coverage of protected areas threaten palm species in South Brazilian grasslands. *Perspectives in Ecology and Conservation* 9. https://doi.org/10.1016/j.pecon.2021.03.010

42. Liebsch, D., **Velazco, S. J. E.**, Mikich, S. B., Marques, M. C. M., & Galvão, F. (2021). Effects of selective logging, fragmentation, and dominance of bamboos on the structure and diversity of Araucaria Forest fragments. *Forest Ecology and Management*, *487*, 118961. https://doi.org/10.1016/j.foreco.2021.118961

43. Montti, L., **Velazco, S. J. E.**, Travis, J. M. J., & Grau, H. R. (2021). Predicting current and future global distribution of invasive *Ligustrum lucidum* W.T. Aiton: Assessing emerging risks to biodiversity hotspots. *Diversity and Distributions*, *27*(8), 1568–1583. https://doi.org/10.1111/ddi.13303

44. Pinto, M. B., **Velazco, S. J. E.**, Barbosa, F. M., Chagas, K. P. T. das, & Blum, C. T. (2021). Phenological patterns of Oreopanax fulvus (Araliaceae) in remnants of Araucaria Rainforest in Paraná, Brazil. *Rodriguésia*, *72*, e01092020. https://doi.org/10.1590/2175-7860202172124

2020

45. Andrade, A.F.A.; **Velazco, S.J.E.**; De Marco Jr., P. (2020). ENMTML: An R package for a straightforward construction of complex ecological niche models. *Environmental Modelling & Software*:104615. https://doi.org/10.1016/j.envsoft.2019.104615

46. Giménez Gómez, V. C., Verdú, J. R., **Velazco, S. J. E.**, & Zurita, G. A. (2020). Dung beetle trophic ecology: Are we misunderstanding resources attraction? *Ecological Entomology*, een.13001. https://doi.org/10.1111/een.13001

47. Mendes, P., **Velazco, S. J. E.**, Andrade, A. F. A. de, & De Marco, P. (2020). Dealing with overprediction in species distribution models: How adding distance constraints can improve model accuracy. *Ecological Modelling*, *431*, 109180. https://doi.org/10.1016/j.ecolmodel.2020.109180

48. **Velazco, S. J. E.**, Ribeiro, B. R., Laureto, L. M. O., & De Marco Júnior, P. (2020). Overprediction of species distribution models in conservation planning: A still neglected issue with strong effects. *Biological Conservation*, *252*, 108822. https://doi.org/10.1016/j.biocon.2020.108822

49. **Velazco, S. J. E.**, Svenning, J.-C., Ribeiro, B. R., & Laureto, L. M. O. (2020). On opportunities and threats to conserve the phylogenetic diversity of Neotropical palms. *Diversity and Distributions*, *27*, 512–523. https://doi.org/10.1111/ddi.13215

2019

50. Andrade, A.F.A.; **Velazco, S.J.E.**; De Marco Jr, Paulo. (2019) Niche mismatches can impair our ability to predict potential invasions. *Biological Invasions*. 21(10): 3135-3150. https://doi.org/10.1007/s10530-019-02037-2

51. Mac Donagh, P.; Botta, G.; Schlichter T.; **Velazco, S.J.E.**; Cubbage F. (2019) Logging Contractors' Growth in the Southern Cone: An Analysis of Contractor Business Strategies, Innovation, and Mechanization. *Forests* 10(69), 1-12. https://doi.org/10.3390/f10010069

52. Secco, R*****; Blum, T.C.; **Velazco, S.J.E. (**2019**)** Influence of Pinus taeda L. planting on the seed bank in an Araucaria Rainforest region. *Rodriguésia.* 70: e03212017. https://doi.org/10.1590/2175-7860201970092

53. **Velazco, S.J.E.**; Villalobos, F.; Galvão, F.; De Marco Jr, Paulo. (2019) A dark scenario for Cerrado plant species: effects of future climate, land-use, and inefficiency of protected areas. *Diversity and Distributions*. 25(4): 660-673. https://doi.org/10.1111/ddi.12886

2018

54. **Velazco, S.J.E**.; Blum C.T.; Hoffmann P.M. (2018) Germination and seedlings development of the threatened species Quillaja brasiliensis, *Cerne.* 24(2): 90-97. http://dx.doi.org/10.1590/01047760201824022530

55. **Velazco, S.J.E.**; Galvão F.; Keller H.A. (2018) Small but important: the structure and flora of the woody vegetation on the sandstone outcrops of Teyú Cuaré. *Sociedad Argentina de Botánica.* 53(3): 421-433. https://doi.org/10.31055/1851.2372.v53.n3.21315

56. **Velazco, S.J.E.**; Galvão, F.; Keller, H; Bedrij, N. (2018) Cerrados in Argentina? Structure, diversity, and biogeography of the woody component of a savanna in the Misiones Province. *Rodriguésia*, 69(2): 335-349. http://dx.doi.org/10.1590/2175-7860201869206

2017

57. Bedrij, N.A.; Rizzi, N.E.; **Velazco, S.J.E**. (2017) Zoneamento da bacia hidrográfica do rio Piray Miní Misiones, Argentina, e sua implicâncias com a legislação. *Revista de la Facultad de Agronomía*, 116 (1): 117-127

58. **Velazco, S.J.E.**; Galvão, F.; Villalobos F.; De Marco Junior, P. (2017) Using worldwide edaphic data to model plant species niches: an assessment at a continental extent. *PlosOne*, 12(10). https://doi.org/10.1371/journal.pone.0186025

2016

59. Carvalho, J.; **Velazco, S. J. E.**; Pereira, T. K.; Galvão, F. (2016) Natural regeneration under reforestation of Araucaria angustifolia and Pinus sp. in Tunas do Paraná, PR, Brazil. *Pesquisa Florestal Brasileira*. 36: 9-16. (https://doi.org/10.4336/2016.pfb.36.85.892)
60. Carvalho, J.; Galvão, F.; Rios, R. C.; **Velazco, S. J. E.** (2016) Monospecific dominance in an Alluvial Mixed Ombrophyllous Forest in Southern Brazil. *Australian Journal of Basic and Applied Sciences*. 10(10): 38-44. (http://ajbasweb.com/old/ajbas/2016/June/38-44.pdf)

61. Keller H.A.; **Velazco, S.J.E.**; Krauczuk, E.R. (2016) Regeneration of woody plants under isolated shrubs in a sector of the Iberá marshlands, Corrientes Province, Argentina,

ethnoecological implications. *Bonplandia*, 25(2): 103-114. (http://dx.doi.org/10.30972/bon.2521260)

62. Pinto, M. B.; Grabias, J.; Hoffmann, P. M.; **Velazco, S. J. E.**; Blum, C. T. (2016) Morphological characterization of fruits, seeds, seedlings and germination of Oreopanax fulvus Marchal. *Agrária*. 11: 111-116. (http://doi.org/10.5039/agraria.v11i2a5366)

63. Silva, A.R. Da; Andrade, A.L.P. De; **Velazco, S.J.E.**; Galvão, F.; Carmo, M.R.B. (2016) Floristic and phytosociology of three different grassland physiognomies of Southern Brazil. *Hoehnea*. 43: 325-347. (http://dx.doi.org/10.1590/2236-8906-96/2015)

2015

64. Hoffmann, P. M.; Blum, C. T.; **Velazco, S. J. E.**; Gill, D. J. C.; Borgo, M. (2015) Identifying target species and seed sources for the restoration of threatened trees in southern Brazil. *Oryx* (Oxford. Print). 50, 1-6. (https://doi.org/10.1017/S0030605314001069)

65. **Velazco, S. J. E.**; Galvão, F.; Keller, H. A.; Bedrij, N. A. (2015) Floristic, and Phytosociology in a Semideciduous Seasonal Forest – Osununú Private Reserve, Misiones, Argentina. *FLORAM - Revista Floresta e Ambiente*. 22: 1-12. (https://doi.org/10.1590/2179-8087.038513)

2013

66. Niella, F.; Rocha, P.; Eibl, B.; Radins, M.; Flor, D.; Facio, S.; **Velazco, S. J. E.**; Britez, D. (2013) Development of clonal propagation techniques for domestication of Jatropha curcas L. in Misiones (Argentina). *Yvyraretá*. 19: 29-37.

Manuscripts under review

1. **Velazco, S.J.E.**, Briscoe, N., Buckley, L., Cabral, J.S., Cervantes Peralta, F., Cooke, R., De Oliveira Junior, A.C., Ferrier, S., Gascoigne, S.J.L., Godoy, L.D.C., Guillera-Arroita, G., Isaac, N.J.B., Karger, D.N., Keuth, R., Lundquist, C.J., Merow, C., Purvis, A., Schifferle, K., Semple, A.E., Serra-Diaz, J.M., Travis, J.M.J., Wintle, B.A., Zurell, D., Urban, M.C., Bocedi, G., *Geoscientific Model Development*. A protocol for the biodiversity model intercomparison project: BMIP 1.0. https://doi.org/10.5194/egusphere-2026-5033

2. Narayan, S.S.; Visheshni, C.; **Velazco, S.J.E.**, Projected climate-driven habitat suitability loss and extinction risk of Fiji's endemic national flower, *Medinilla waterhousei* (Tagimoucia). *Ecology and Evolution.*

3. De Oliveira Junior, A.C.; **Velazco, S.J.E.** Host-specialist dependency can reshape future climate suitability projections. *Ecology and Evolution.* (Major revision).

4. De Oliveira Junior, A.C.; **Velazco, S.J.E.** Are deep neural networks worth the effort for abundance-based species distribution models? *Ecological Informatics* (Major revision).

5. Leão, C; Rose, M.B.; Lima, M.; **Velazco, S.J.E.** Choices or time? How algorithms, ensembles, and temporal extent of data shape species distribution models. *Journal of Biogeography* (Major revision).

6. Leão, C.L.F.; Vieira, B.T.; **Velazco, S.J.E.** Temporal alignment affects species distribution models from environmental relationships to spatial predictions. *Diversity and Distributions*

7. Backus, G.A.; Kim, S.Y.; Rose, M.R.; **Velazco, S.J.E.**; Franklin, J; Regan, H.M. Modeling elevational differences in monkeyflower populations under climate change. *Oecologia*

8. Rocabado, C.; Corcoran, D.; Bilde, T.; Gascoigne, S.; Normand, S.; Saastamoinen, M.; **Velazco, S.J.E.;** Zurell, D.; Henry, R.; Bocedi, G. Beyond static species distribution models: temporally dynamic, spatially nested species distribution models reduce extrapolation for future projections. *Ecography*.

9. Thonis, A., Cavalieri, C.N., Morelli, T.L., Ashraf, U., Lee, A.K.C., Jiménez-Valverde, A., Zarzo-Arias, A., Ascanio, A., Kramer, A.M., Smith, A.M., Naimi, B., Rose, M.B., Ramirez-Reyes, C., Milburn, C., Zurell, D., Warren, D., Nemer, D., Wilkinson, D.P., Arlé, E., Lim, F.K.S., Owens, H.L., Ondo, I., Dahan, I., Kass, J.M., Franklin, J., Bracken, J., Svenning, J.-C., Belmaker, J., Serra-Diaz, J.M., White, J.D.M., Zhu, K., Farleigh, K., Ash, L.V., Aguirre-Lopez, L.J., Pertierra, L.R., Ledger, M.J., Fitzpatrick, M.C., Nobis, M.P., Zimmermann, N.E., Hepner Ucko, O., Peña-Aguilera, P.O., Title, P., Aragón, P., Jinga, P., Brun, P., Valavi, R.M., Chefaoui, R.M., Mateo, R.G., Pienaar, R., Pironon, S., **Velazco, S.J.E.,** Volkel, S., Leão, T., Jezkova, T., Bonebrake, T.C., Feng, X., Chen, X., Song, Y., Smith, A.B. Is species distribution modeling converging as a field? Consensus and divergence among teams in a blinded experiment. *Global Change Biology*

Developed software

pyflexsdm: https://github.com/sjevelazco/pyflexsdm (closed repository - under development)

flexsdm: https://github.com/sjevelazco/flexsdm

bdc: https://github.com/brunobrr/bdc

ENMTML: https://github.com/andrefaa/ENMTML

MSDM: https://github.com/sjevelazco/MSDM/

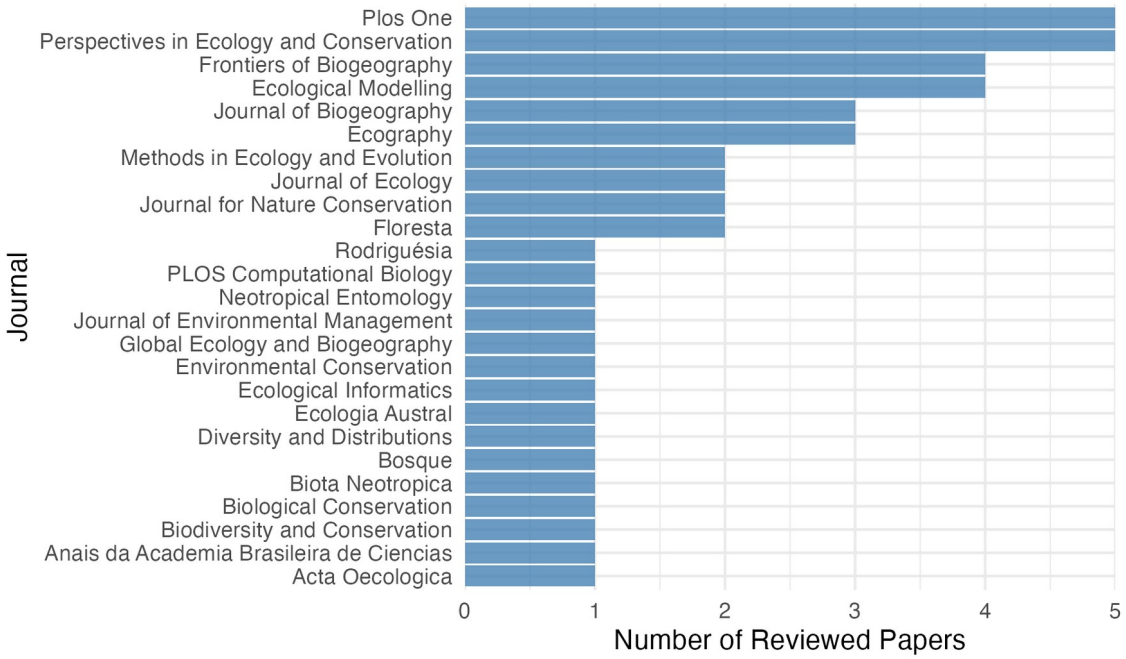
Awards and distinctions

Award: 2022 GBIF Ebbe Nielsen Challenge

Distinctions: Outstanding Graduate of the Faculty of Forestry Sciences, National University of Misiones

Journal reviews:

https://www.webofscience.com/wos/author/record/1938011



TEACHING

Graduate courses taught:

1. **Theoretical and practical aspects of ecological niche models**. *Year*: 2023. *Hours*: 40. Institution: University of Buenos Aires (UBA). *Place*: Buenos Aires, Argentina.
2. **Ecological niches and species distribution models**. *Year*: 2023. *Hours*: 40. Institution: Federal University of Pará (UFPA), Graduate Program in Ecology. *Place*: Belém, Pará, Brazil.
3. **Theoretical and practical aspects of ecological niche models**. *Year*: 2022. *Hours*: 40. Institution: National University of Mar del Plata (UNMDP), Faculty of Exact and Natural Sciences. *Place*: Mar del Plata, Buenos Aires, Argentina.
4. **Ecological niche and species distribution models**. *Year*: 2022. *Hours*: 40. *Institution*: University of Latin American Integration (UNILA), Graduate Program in Neotropical Biodiversity. *Place*: Foz do Iguaçu, Paraná, Brazil.
5. **Ecological niche and species distribution models**. *Year*: 2022. *Hours*: 40. *Institution*: State University of Campinas (UNICAMP), Institute of Biology, Graduate Program in Plant Biology. *Place*: Campinas, São Paulo, Brazil.
6. **Ecological niche and species distribution models**. *Year*: 2020. *Hours*: 35. *Institution*: Federal University of Pará (UFPA) campus Altamira, Institute of Biology, Graduate Program in Biodiversity and Conservation. Location: Altamira, Pará, Brazil.
7. **Ecological niche and species distribution models**. *Year*: 2020. *Hours*: 40. *Institution*: Federal University of Pará (UFPA), Institute of Biology, Graduate Program in Biodiversity and Conservation. Location: Altamira, Pará, Brazil.
8. **Ecological niche and species distribution modeling**. *Year*: 2019. *Hours*: 35. *Institution*: Federal University of Pará (UFPA), Institute of Biology, Postgraduate Program in Ecology. *Place*: Belém, Pará, Brazil.
9. **Ecological niche and species distribution modeling**. *Year*: 2019. *Hours*: 35. *Institution: State University of Campinas (UNICAMP)*, Institute of Biology, Postgraduate Program in Plant Biology. *Place*: Campinas, São Paulo, Brazil.
10. **Introduction to R programming**. *Year*: 2019. *Hours*: 48. *Institution*: Faculty of Forestry Sciences (FCF-UNaM), Postgraduate Program in Forestry Engineering. *Place*: Eldorado, Misiones, Argentina.
11. **Introduction to R programming**. *Year*: 2019. *Hours*: 48. *Institution*: Federal University of Latin American Integration (UNILA), Postgraduate Program in Neotropical Biodiversity. *Place*: Puerto Iguazú, Paraná, Brazil.
12. **Ecological niche and species distribution modeling**. *Year*: 2018. *Hours*: 35. *Institution*: University of Campinas (UNICAMP), Institute of Biology, Postgraduate Program in Plant Biology. *Place*: Campinas, São Paulo, Brazil.
13. **Introduction to R programming**. *Year*: 2018. *Hours*: 40. *Institution*: Faculty of Forestry Sciences (FCF-UNaM), Postgraduate Program in Forestry Engineering. *Place*: Eldorado, Misiones, Argentina.
14. **Introduction to R programming**. *Year*: 2017. *Hours*: 40. *Institution*: Subtropical Biology Institute (CONICET-UNaM). *Place*: Puerto Iguazú, Misiones, Argentina
15. **Introduction to R programming**. *Year*: 2017. *Hours*: 32. *Institution*: Federal University of Paraná (UFPR). *Place*: Curitiba, Paraná, Brazil.
16. **Introduction to R programming**. *Year*: 2016. *Hours*: 40. *Institution*: Faculty of Forestry Sciences (FCF-UNaM), Postgraduate Program in Forestry Engineering. *Place*: Eldorado, Misiones, Argentina.
17. **Introduction to R programming**. *Year*: 2016. *Hours*: 40. *Institution*: Faculty of Forestry Sciences (FCF-UNaM), Postgraduate Program in Forestry Engineering. *Place*: Eldorado, Misiones, Argentina.

Workshops and short courses:

1. **Flexible species distribution models based on presences or abundances with *flexsdm* and *adm* R packages**. *Year*: 2026. *Hours*: 4. Association of Tropical Biology and Conservation. *Place*: Xishuangbanna, Yunnan, China.

2. **Introduction to adm, a new R package for constructing abundance-based distribution models**. *Year*: 2025. *Hours*: 1. Ecological Society of America Annual Meeting. *Place*: Baltimore, Maryland, USA.

3. **Developing a flexible species distribution modeling workflow: an introduction to the R package flexsdm**. *Year*: 2025. *Hours*: 1. Ecological Society of America Annual Meeting. *Place*: Baltimore, Maryland, USA.

4. **Introduction to the R package flexsdm for simple and flexible modeling of species distributions**. *Year*: 2022. *Hours*: 4. XXXIII Jornadas Argentinas de Mastozoología. *Place*: Puerto Iguazú, Misiones, Argentina.

5. **Introductory analysis of data from agricultural experiments**. *Year*: 2017. *Hours*: 16. *Institution*: Faculty of Forestry Sciences (FCF-UNaM). *Place*: Eldorado, Misiones, Argentina.

6. **Tools to produce quality scientific work**. *Year*: 2016. *Hours*: **24**. *Institution*: Sociedade Chauá. *Place*: Campo Largo, Paraná, Brazil.

7. **Marking of mother trees, seed harvesting, and native forest nursery**. *Year*: 2013. *Hours*: **10**. *Institution*: Sociedade Chauá. *Place*: Campo Largo, Paraná, Brazil.

8. **Forest Restoration and Nursery of Native Species of the Araucaria Forest**. *Year*: 2013. *Hours*: **16**. *Institution*: Sociedade Chauá. *Place*: Campo Largo, Paraná, Brazil.

MENTORING in graduate *stricto sensu* programs

Undergraduate Student Mentoring

1. Rüssel, Juan Carlos. Forestry Engineer, Faculty of Forestry Science, National University of Misiones (Argentina). **Advisor (2017)**

2. Rafael, Livia Mainardes. Bachelor of Biological Science, Universidade Estadual de Ponta Grossa (Brazil). **Co-advisor (2016)**

Graduate Student Mentoring (*Master*)

1. Admir Cesar De Oliveira Junior. Federal University of Latin American Integration (UNILA), Graduate Program in Neotropical Biodiversity (Brazil). **Advisor (2023-2025)**

2. Anderson Igomar Antonio. Federal University of Latin American Integration (UNILA), Graduate Program in Neotropical Biodiversity (Brazil). **Advisor (2024-2024)**

3. Iracy Maiany Nunes Soares. Federal University of Latin American Integration (UNILA), Graduate Program in Neotropical Biodiversity (Brazil). **Advisor (2023-2024)**

4. Karina Gisell Rey Pulido. Federal University of Latin American Integration (UNILA),

Graduate Program in Neotropical Biodiversity (Brazil). **Advisor (2022-2024)**

5. Shiloh Sylvia Narayan. College of Engineering, Science & Technology, Fiji National University (Fiji). **Co-advisor (2023-2025)**

6. Emilly Layne Martins do Nascimento. State University of Goiás (UEG). Graduate Program in Natural Resources of the Cerrado (Brazil). **Co-advisor (2020-2023)**

7. Osvaldo Pimentel Marques Neto. Federal University of Pará (UFPA), Graduate Program in Ecology (Brazil). **Co-advisor (2020-2022)**

8. Elivelton Marcos Gurski. Federal University of Paraná (UFPR), Graduate Program in Forestry Engineering (Brazil). **Co-advisor (2020-2023)**

9. Jasmim Felipe de Oliveira. State University of Campinas (UNICAMP), Graduate Program in Ecology (Brazil). **Co-advisor (2018-2020)**

10. Secco, Rubia. Federal University of Paraná (UFPR), Graduate Program in Forestry Engineering (Brazil). **Co-advisor (2017-2019)**

11. Pinto, Marcelo Bosco. Federal University of Paraná (UFPR), Graduate Program in Forestry Engineering (Brazil). **Co-advisor (2016-2018)**

Graduate Student Mentoring (*PhD*)

1. George Correa Amaro. Federal University of Vales do Jequitinhonha e Mucuri (UFVJM), Graduate Program in Plant Production, **Co-advisor (2025-Present)**

2. André Cesar Furlaneto Sampaio, Federal University of Paraná (UFPR), Graduate Program in Forestry Engineering (Brazil). Co-advisor **(2024-Present)**

3. Camila Ferreira Leão. Federal University of Pará (UFPA), Graduate Program in Ecology (Brazil), **Co-advisor (2023-Present)**

4. Ana Paula Araujo Correa de Lima, Federal University of Paraná (UFPR), Graduate Program in Forestry Engineering (Brazil). **Co-advisor (2022-Present)**

5. Letícia Braga Gomes. Federal University of Pará (UFPA), Graduate Program in Ecology (Brazil), **Co-advisor (2022-2026)**

6. Giovani Carlos Andrella. State University of Campinas (UNICAMP), Graduate Program in Plant Biology (Brazil**). Co-advisor (2020-2026)**

7. Rafael Costa Bastos. Federal University of Pará (UFPA), Graduate Program in Ecology (Brazil), **Co-advisor (2022-2025)**

8. Pablo Melo Hoffmann. Federal University of Paraná (UFPR), Graduate Program in Forestry Engineering (Brazil). **Co-advisor (2020-2024)**

9. Felipe Manzoni Barbosa. Federal University of Paraná (UFPR), Graduate Program in Forestry Engineering (Brazil). **Co-advisor (2019-2023)**

10. Kyvia Pontes Teixeira das Chagas. Federal University of Paraná (UFPR), Graduate Program in Forestry Engineering (Brazil). **Co-advisor (2019-2023)**

Project membership

1. Efficiency of the Territorial Land-use Planning of Native Forests and Natural Protected Areas for the conservation of Argentina's biodiversity. *Period*: 2024-2026 **(Principal Investigator)**.
2. sModelProBio: Modelling the way forward for protecting biodiversity during climate change. Synthesis Centre of iDiv (Germany). 2025-2027. (Researcher)
3. RAMFA. Argentine Network for the Monitoring of Roadkill. *Period*: 2023-2025
4. Integrated environmental monitoring and potentials of Brazil's largest remnant of Atlantic Forest in interior Brazil - Iguaçu National Park. *Period*: 2025-2028. (Researcher)
5. Dynamic models as tools for real biodiversity conservation problems. *Period*: 2023-2026. (Researcher)
6. Debarking of pine trees in forest plantations in Misiones by caí monkeys (Sapajus nigritus): causes of the problem, risk prediction, and mitigation measures. *Period*: 2021-2024. (**Co-Principal Investigator**)
7. Living space for biodiversity: applying Liebig's Law of the Minimum to the biogeography of global change. *Period*: 2020 – 2022 (Researcher)
8. Endemic palm trees of the altitude fields of Southern Brazil: Models of occurrences and emergency actions for their conservation. *Period*: 2018 – 2021 (Researcher)
9. Methodologies for the conservation and domestication of native species of forest and industrial interest in the province of Misiones: Propagation techniques, establishment of field trials, and mini-clonal gardens of provenance and progenies. *Period*: 2018 – 2019 (Researcher)
10. Climate adaptation and conservation of Brazilian biodiversity based on regional climate models. *Period*: 2017 – 2021 (Researcher)
11. Conservation of rare and endangered species of Araucaria Forest: record of mother trees. *Period*: 2012 – 2014 (Researcher)
12. Option for a sustainable and efficient development of Biofuels in the Misiones province: Clonal propagation of local varieties of Jatropha curcas. *Period*: 2008 – 2009 (Researcher)
13. Establishment and in vitro multiplication of three broad-leaved species native to the Paraná Forest. *Period*: 2007 – 2010 (Researcher)
14. Development of in vitro - ex vitro propagation techniques for woody hardwood species native to the Misiones province. *Period*: 2006 – 2010 (Researcher)
15. Rescue, conservation, and multiplication of orchids and medicinal plants native to the Misiones province. *Period*: 2006 – 2009 (Researcher)
16. Development of in vitro and ex vitro propagation techniques for Araucaria angustifolia. *Period*: 2006 - 2009. (Researcher)
17. Initial production of plantlets (organogenesis - in vitro multiplication) of Pinus taeda. *Period*: 2006 – 2008 (Researcher)
18. Initial production of hybrid Pinus seedlings for DKM company. *Period*: 2006 – 2008 (Researcher)

Congress participation – oral presentation and symposium organizer

1. Invited to participate in the session: ***Open-Source Spatial Data Science: Research***. 2026 AAG Annual Meeting - American Association of Geographers, San Francisco (USA). 2026.

2. Session organizer: ***Overcoming challenges in biodiversity modelling***. Living Data 2025, Bogotá (Colombia). 2025.

3. Oral presentation: ***Empowering abundance-based species distribution models with adm***. Living Data 2025. Bogotá (Colombia). 2025.

4. Oral presentation: ***Leveraging abundance-based distribution models with the adm R package***. 61st Annual Meeting of the Association for Tropical Biology and Conservation. Oaxaca (Mexico). 2025.

5. Oral presentation: ***Leveraging abundance-based distribution models with the adm R package***. International Association for Landscape Ecology (IALE–North America) Annual Meeting. Raleigh (USA). 2025.

6. Symposium organizer: ***Advances in Biodiversity Modeling from Monitoring to Mitigation***. **GEO BON** 2023, Montreal (Canada). 2023.

7. Oral presentation: ***How far can I extrapolate my species distribution model? Comparing established and novel methods***. International Biogeography Society, 10th Biennial Meeting. Vancouver (Canada). 2022.

8. Oral presentation: ***Olhando além das fronteiras: diversidade da flora do cerrado entre limites nacionais e as áreas prioritárias para a sua conservação***. 71 Congresso Nacional de Botânica – XIII Encontro de botânicos do Centro-Oeste. Goiânia (Brasil). 2021.

9. Oral presentation: ***¿Conservación local o transnacional? Expansión de áreas protegidas para la protección de la flora del Cerrado***. XVII Jornadas técnicas forestales y ambientales, Eldorado (Argentina). 2019.