

LAÍS PETRI

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Michigan State University
Plant Biology Department
242 Plant Biology Laboratories
East Lansing, MI 48824

Education **University of Michigan - School for Environment and Sustainability** (Ann Arbor, MI)
Ph.D., Environment & Sustainability, August 2023.
Dissertation: Plant invasion in forests understories: A native community perspective and implications for management
Advisor: Prof. Inés Ibáñez

Instituto de Botânica - IBt (São Paulo, BR)
M.A., Plant Biodiversity and Environment, minor in Vascular Plants in Environmental Analyzes, April 2017
Thesis: Exotic plants in an urban Atlantic Forest Reserve
Advisor: Dr. Eduardo Pereira Cabral Gomes

Universidade Federal de São Carlos (Sorocaba, BR)
B.A., Biological Sciences, Mar 2013

Appointments **Michigan State University – Department of Plant Biology** (East Lansing, MI)
Research Associate, September 2023 - current.
Supervisor: Assistant Professor Lauren Sullivan

Publications Peer-Reviewed:

[Google Scholar](#)

Total Citations: 154

h-index: 7

12. **Petri, L.**, & Ibáñez, I. 2023. “Assessing the mechanisms and impacts of shrub invasion in forests: A meta-analysis”. *Journal of Applied Ecology*, 00, 1–13.
<https://doi.org/10.1111/1365-2664.14496>

11. Beaury, E. M., Sofaer, H. R., Early, R., Pearse, I. S., Blumenthal, D. M., Corbin, J. D., Diez, J., Dukes, J. S., Barnett, D. T., Ibáñez, I., **Petri, L.**, Vilà, M., & Bradley, B. A. 2023. “Macroscale analyses suggest invasive plant impacts depend more on the composition of invading plants than on environmental context”. *Global Ecology and Biogeography*, 00, 1–13.
<https://doi.org/10.1111/geb.13749>

10. Ibáñez, I., **Petri, L.**, Barnett, D., Beaury, E., Blumenthal, D., Corbin, J., Diez, J., Dukes, J., Early, R., Pearse, I., Sorte, C., Vilà, M., Bradley, B. 2023. "Combining local, landscape, and regional geographies to assess plant community vulnerability to invasion impact" *Ecological Applications*. e2821. <https://doi.org/10.1002/eap.2821>.

9. **Petri, L.**, Beaury, Evelyn M., Corbin, Jeffrey, Peach, Kristen, Sofaer, Helen, Pearse, Ian S.,

- Early, Regan, et al. 2023. "SPCIS: Standardized Plant Community with Introduced Status Database." *Ecology* e3947. <https://doi.org/10.1002/ecy.3947>
8. Nagy, R. C., [...], **Petri, L.**, et al.. 2021. Harnessing the NEON data revolution to advance open environmental science with a diverse and data-capable community. *Ecosphere* 12(12):e03833. 10.1002/ecs2.3833
7. Gill, N. S., Mahood, A. L., Meier, C. L., Muthukrishnan, R., Nagy, R. C., Stricker, E., Duffy, K. A., **Petri, L.**, and Morisette, J. T.. (2021). Six central questions about biological invasions to which NEON data science is poised to contribute. *Ecosphere* 12(9):e03728. 10.1002/ecs2.3728
6. Ibáñez, I., Liu, G., **Petri, L.**, Schaffer-Morrison, S., & Schueller, S. (2021). Assessing vulnerability and resistance to plant invasions: A native community perspective. *Invasive Plant Science and Management*, 14(2), 64-74. doi:10.1017/inp.2021.15
5. **L Petri**, S Aragaki, E P C Gomes (2018). Management priorities for exotic plants in an urban Atlantic Forest reserve. <http://dx.doi.org/10.1590/0102-33062017abb0317>
4. K de Mello, **L Petri**, E C Leite, R H Toppa (2014). Environmental scenarios for land planning of permanent preservation areas in Sorocaba, SP. <http://dx.doi.org/10.1590/S0100-67622014000200011>
3. **L Petri**, B H S Prado, A Z Antunes, B C Oliveira (2013). King Vulture *Sarcoramphus papa* (Linnaeus, 1758) (Aves, Cathartidae) nesting in a manmade structure. *Biota Neotropica*. <http://dx.doi.org/10.1590/S1676-06032013000200040>
2. M L Moraes, **L Petri**, V Oliveira, C A Olivati, M C F de Oliveira, F V Paulovich, O N F Oliveira, M Ferreira (2012). Detection of glucose and triglycerides using information visualization methods to process impedance spectroscopy data. <https://doi.org/10.1016/j.snb.2012.02.046>
1. **L Petri**, M Ferreira, M L Moraes (2011). Toward Preserving the Structure of the Antigenic Peptide p17-1 from the HIV-1 p17 Protein in Nanostructured Films. <https://doi.org/10.1166/jnn.2011.4216>

Submitted:

2. B Bradley, A Evans, M Vilà, D Barnett, E Beaury, D Blumenthal, J Corbin, J Dukes, R Early, I Ibáñez, I Pearse, **L Petri**, H Sofaer, C Sorte. A quantitative classification of the geography of non-native flora in the U.S. Submitted to *Global Ecology and Biogeography* (GEB-2023-0459).
1. S Schaffer-Morrison, I Ibáñez, M Weemstra, **L Petri**, N Umaña. Intraspecific trait variation in seedling species reveals independence between leaf and root traits but a lack of an independent "collaboration axis" belowground. Submitted to *Journal of Ecology* (JEcol-2023-0713).

In preparation:

2. **L Petri**, I Ibáñez. Successful Recovery of Native Plants After Invasive Removal in Forest Understories is Driven by Native Richness, High SLA Species, and Low Drought Stress, Rather Than Restoration Treatments. To be submitted to *Ecological Applications*.
1. **L Petri**, I Ibáñez. Functional Changes in Understory Forest Community After Invasion Are Driven by Complementarity Rather Than Displacement. To be submitted to *Frontiers in Ecology and Evolution*.

Educational:

2. **L Petri**, B H S Prado. Biodiversidade em quadrinhos: nem tudo é o que parece ser (2016). 3rd volume. (Environmental Education Resource) ISBN: 978-85-64808-12-6

1. B H S Prado, **L Petri**, F O Garcia (2015). Management Plan of Angatuba Ecological Station: executive summary. ISBN: 978-85-8191-044-0

Working groups NCEAS [working group](#), “The Other Side of Invasibility: Vulnerability of Recipient Ecosystems”, led by Bethany A. Bradley and Inés Ibáñez. Duration: November 2019 – May 2021. As of now, publications #9, #10 and #11 above are a result of this collaborative work.

Powell Center [working group](#), “Developing a macroecological understanding of invasive plant impacts based on abundance and trait data (Invasive Plant Impacts)”, led by Helen Sofaer, Ian Pearse and Bethany Bradley. Duration: June 2022 to July 2024. Submitted paper #2 above is a result of this meeting, with another manuscript under preparation and several other projects undergoing.

Awards, Grants & Fellowships **Charles Lathrop Pack Foundation Award**, School for Environment and Sustainability, University of Michigan – Michigan, USA, 2023 \$1,150

Samuel A. Graham Award, School for Environment and Sustainability, University of Michigan – Michigan, USA, 2023 \$1,000

Samuel A. Graham Award, School for Environment and Sustainability, University of Michigan – Michigan, USA, 2022 \$1,000

Winifred Chase Award, Matthaei Botanical Gardens, University of Michigan – Michigan, USA, 2022 \$2,000

Rackham International Travel Grant, Rackham Graduate School, University of Michigan – Michigan, USA, 2022 \$1150

SEAS travel Grant, School for Environment and Sustainability, University of Michigan – Michigan, USA, 2022 \$250

WSSA [Weed Science Society of America] "Outstanding Paper in Invasive Plant Science and Management" Award for 2022 for the following publication: Ibanez et al. (2021) Assessing vulnerability and resistance to plant invasions: a native community perspective. IPSM 14:64-74.

Chase Fellowship Award, Matthaei Botanical Gardens, University of Michigan – Michigan, USA, 2021 \$2,000

Schrank Family Student Scholarship, Summer Funding, University of Michigan – Michigan, USA, 2021

SEAS travel Grant, School for Environment and Sustainability, University of Michigan – Michigan, USA, 2021 \$200

Charles Lathrop Pack Foundation Award (PhD), University of Michigan – Michigan, USA, 2020 \$2,000

Michigan Garden Clubs Scholarship, Michigan Garden Clubs, Inc., Michigan, USA, 2020, \$1,000

William D. Drake Prize, Matthaei Botanical Gardens, University of Michigan – Michigan, USA, 2020 \$1,500

SEAS travel Grant, School for Environment and Sustainability, University of Michigan – Michigan, USA, 2020 \$250

Student Conservation Research Award, Matthaei Botanical Gardens and Nichols Arboretum, University of Michigan – Michigan, USA, 2019 \$2,000

Rackham Conference Travel Grant, Rackham Graduate School, University of Michigan – Michigan, USA, 2019 \$800

SEAS travel Grant, School for Environment and Sustainability, University of Michigan – Michigan, USA, 2019 \$200

Master scholarship, CAPES Foundation, 2015 – 2017

Undergraduate internship scholarship, Fundap, 2011 – 2013

Jovem Cientista Award, 1st place, I Jornada Científica da Universidade Federal de São Carlos – Sorocaba, São Paulo, Brazil, 2010

Undergraduate research project scholarship, CNPq, 2009 – 2011

Mentorship **Helena Vallicrosa** now a postdoc at MIT; she was my mentee in 2016.

Te’Yah Wright from Doris Duke Conservation Scholars Program during 10 weeks in Summer 2019

Neal Evan Harbaugh from Undergraduate Research Opportunity Program during Academic year 2019-2021.

Keely Justine Cox from Undergraduate Research Opportunity Program during academic year 2019-2020.

Research Experience **Research Center in Ecology/Instituto de Botânica** São Paulo, BR

Master’s Thesis Research, Feb 2015 – April 2017
Areas of research included: invasion by exotic plant species; comparative exotic richness and abundance sample among three different levels of disturbed areas; the influence of the distance from the Botanical Garden (JBSP) in promoting the presence of exotic plants in the natural forest.

Angatuba Ecological Station/Instituto Florestal do Estado de São Paulo Angatuba, São Paulo, BR

Undergraduate Intern, Sep 2011 – Mar 2013
Investigated the natural regeneration of Brazilian Savannas in areas with recent clearcut of *Pinus* spp. invasion.

Laboratory of Nanostructured and Characterization of Materials/Universidade Federal de São Carlos Sorocaba, São Paulo, BR

Undergraduate Intern, Mar 2009 – April 2011

Development of an immunosensors for HIV from the antigenic peptide p17-1 from the HIV-1 p17 protein using layer-by-layer techniques.

Professional Experience Graduate Student Instructor (TA), University of Michigan (Michigan, USA)

Aug 2020 – Dec 2020; Jan 2021 – April 2021; Aug 2021 – Dec 2021; Jan 2022 – April 2022.
Per semester, I taught two lab sessions with 20 students each for the course EAS 538 “Natural Resource Statistics”. The lab sessions covered statistical principles while the students learned how to program in R to perform statistical analysis.

Graduate Student Research Assistant at Professor Ibáñez Lab, University of Michigan (Michigan, USA)

Aug 2019 – April 2020.

Florestal Atlântica Comércio e Serviços Ambientais LTDA. (São Bernardo do Campo, SP, BR)

Environmental Analyst, May 2013 – Feb 2015

Preparation of restoration reports, birdlife studies, elaboration and implementation of landscape projects, besides technical consulting in botany and ecology.

Instituto Florestal do Estado de São Paulo (Angatuba, SP, BR)

Undergraduate internship, Sep 2011 – Mar 2013

Developed assistance activities in management routine of a protected area, articulating bimonthly meetings of the Advisory Board, promoting firefighting course, organizing Research and Monitoring Program Workshop. Research projects developed: (i) evaluation of the natural regeneration of Brazilian Savannas in areas with *Pinus* spp. invasion; (ii) analyzed of the Permanent Preservation Areas of the Angatuba Ecological Station (a protected area) surroundings.

MBM herbarium (Curitiba, PR, BR)

Undergraduate internship, July 2012 – July 2012

Activities of collection techniques for exsiccate preparation, field labeling, botanical identification (taxonomy), the inclusion of data collected on the final label, inclusion of specimens in the herbarium, herbarium management, and environmental education actions.

IAC herbarium (Campinas, SP, BR)

Undergraduate internship, July 2011 – Aug 2011

The activities developed included botanical identification (taxonomy), the inclusion of specimens in the herbarium, and herbarium management.

Universidade Federal de São Carlos (Sorocaba, SP, BR)

Undergraduate research project internship, Mar 2009 – April 2011

The routine in the laboratory intended for the fabrication of nanostructured films of materials of biological interest for applications in biosensors. Specifically, the preparation of an immunosensor for HIV from the antigenic peptide p17-1 from the HIV-1 p17 protein using layer-by-layer techniques.

- Field Experience** **Michigan, US:** Mar – Oct 2019/2020/2021/2022 (dissertation field research)
- Boituva, SP, BR:** Mar – Jun 2018 (vegetation structure identification and conservation index application, Semideciduous Forest)
- São Paulo, SP, BR:** Sep 2015 – Oct 2016 (thesis field research)
- Angatuba, SP, BR:** Jan – Oct 2012 (natural regeneration of Brazilian Savannas field research); Sep 2012 – Feb 2013 (vegetation forest investigation of Semideciduous Forest)
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- Conference Presentations** **L Petri, I Ibáñez (2022).** *Forest restoration: assessing the role of priority effects as a mechanism for resistance to plant invasion.* Contributed Talk, Ecological Society of America & CSEE Joint Meeting, Montreal, Canada.
- L Petri, I Ibáñez (2021).** *The importance of priority effects in restoring temperate forests understories after invasion.* Inspire Talk, Ecological Society of America, Remote.
- L Petri, S A Z Schaffer-Morrison, G Liu, S K Schueller, I Ibáñez. (2020)** *Characterizing the resistance and the vulnerability of terrestrial plant communities to biological invasions: A meta-analysis to inform management.* Ecological Society of America, Remote.
- L Petri, I Ibáñez (2019).** *Identifying features of resistance to biological invasions in forest ecosystems.* Ecological Society of America, Kentucky, USA.
- L Petri, E P C Gomes (2016).** *Which exotic plant species are in the native vegetation of the Fontes do Ipiranga State Park, São Paulo - SP?* 23^a Annual Meeting of Institute of Botany, São Paulo, Brazil.
- L Petri, E P C Gomes (2016).** *Plant exotic species in a reserve of rain forest in an urban area.* 67^o National Congresso of Botany, Espírito Santo, Brazil.
- L Petri, A C Dias, B H S Prado (2015).** *Evaluation of natural regeneration in Cerrado areas after clear cut of *Pinus elliottii* Engelm.* 22^a Annual Meeting of Institute of Botany, São Paulo, Brazil.
- L Petri, J C Coelho, M A Nalon, R H Toppa, B H S Prado (2012).** *Delimitation of APP around the Angatuba Ecological Station: adequacy of law and ecological corridors.* International Association for Landscape Ecology (IALE) – Brazil, Bahia, Brazil.
- B H S Prado, C H B Monteiro, L Petri (2012).** *A supressão do *Pinus elliottii* na Estação Ecológica de Angatuba e a mudança da paisagem.* International Association for Landscape Ecology (IALE) – Brazil, Bahia, Brazil.
- L Petri, M Ferreira, M L Moraes (2010).** *Immobilization and incorporation of antigenic peptide p17-1 from HIV-1 p17 protein in nanostructured films.* In: Biophysical Society 54th Annual Meeting, San Francisco, United States.
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- Invited Presentations** *Exotic Plants, Biological Invasion and Protected Areas.* Department of Environmental Science (DCA), Universidade Federal de São Carlos campus Sorocaba, São Paulo, BR, 17 April 2018
- The Vegetation of Angatuba Ecological Station.* Angatuba Ecological Station, Angatuba, São Paulo, BR, 07 Mar 18
- Pinus at Angatuba Ecological Station at Scientific Research And Environment Monitoring Program.* Angatuba Ecological Station, Angatuba, São Paulo, BR, 28 Nov 12
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**Language &
Computer
Skills**

Native **Portuguese**-speaker
Fluent **English**

Technical skills in Bayesian statistics, Plant Identification, R, Past, ArcGIS, QGIS, MapInfo Professional, CorelDRAW; and Microsoft Office. Fluent in Microsoft Windows environment.