

Gabriel Atticciati Prata, Ph.D



University of Florida
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Spatial Ecology and Conservation Lab
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EDUCATION

University of Florida - School of Forest Resources and Conservation Oct 2019 – Oct 2021

Post-doctoral associate in the Spatial Ecology and Conservation (SPEC) Lab

Supervisor: Prof. Eben Broadbent

Remote sensing using GatorEye Unmanned Flying Laboratory data and fusion with satellites and others sensors for forest ecological assessment.

University of São Paulo – “Luiz de Queiroz” College of Agriculture –ESALQ 2015- May 2019

Ph.D., Forest Resources with emphasis on silviculture and forest management

Advisor: Prof. Luiz Carlos Estraviz Rodriguez

Dissertation: “Fire risk and fire scars using remote sensing technologies to support forest management”

University of São Paulo – “Luiz de Queiroz” College of Agriculture –ESALQ 2009 - 2012

MSc., Forest Resources with emphasis on silviculture and forest management

Advisor: Prof. Luiz Carlos Estraviz Rodriguez

Thesis: “Estimation of risk and forest value for insurance in Brazil”

University of São Paulo – “Luiz de Queiroz” College of Agriculture –ESALQ 2001- 2005

BS, Forest Engineering

ACADEMIC & PROFESSIONAL EXPERIENCE

USDA Forest Service - Rocky Mountain Research Station (RMRS) Aug. 2018 – Oct. 2018

Research group of Dr. Andrew T. Hudak.

Project: Fuels characterization from LiDAR

LiDAR Technology Research Group - GetLiDAR Aug. 2015 – present

Research group of Prof. Luiz Carlos Estraviz Rodriguez.

Project: Ph.D thesis

Prata Florestal Aug. 2009 – present

Forestry consultancy firm (owner).

Activities: Forest insurance field surveys, forestry hazards reviews, economic valuation of forests, forest inventory, forest management plans, economical valuation of lands and agriculture crops.

Mapfre Insurance Company

Dec. 2006 – Jul. 2009

Forest Insurance Underwriter

Activities: Forest risks underwriting, field surveys, forestry hazards reviews, economic valuation of forests.

Suzano Pulp and Paper Company

Aug. 2005 – Jul. 2006

Silviculture and Harvest

Activities: Harvester's costs and consumptions study; elaboration of "procedures manuals" for silviculture and harvesting activities.

PUBLICATIONS

2020

1. Hudak, A.T., Kato, A., Bright, B.C., Loudermilk, E.L., Hawlyy, C., Restaino, J.Ottmar, R.D., **Prata, G.A.**, Cabo, C., Prichard, S.J., Rowell, E.M., Weise, D.R. Towards spatially explicit quantification of pre- and post-fire fuels and fuel consumption from traditional and point cloud measurements. **Forest Science**. 2020. <https://doi.org/10.1093/forsci/fxz085>

2018

2. Casselli, V., **Prata, G.A.**, Seixas, F. Operating performance and economic viability in the eucalyptus stump harvest in two alternative extraction systems. *Scientia Forestalis/Forest Sciences*, v. 46, n. 117, 1 mar. 2018.

2014

3. **Prata, G. A.**, Rodriguez, L. C.E. A forest value calculation model for insurance purposes and its application on two-rotation Eucalyptus spp. forests. **Revista Brasileira de Risco e Seguro**, v. 9, n. 17, p. 47–78, 2014.

PUBLISHED CONFERENCE PROCEEDINGS

1. Rodriguez, L. C. E. , Seixas, F. , **Prata, G.A.** , Nobre, S. R. . Caracterização da história recente de Incêndios em plantações industriais no Brasil.. In: V Simpósio sul-americano sobre Controle de Incêndios Florestais, 2011, Campinas. Simpósio Sulamericano Sobre Controle De Incêndios Florestais, 5. Curitiba: UFPR, 2011. v. CD-ROM.
2. Silva Filho, D.F., **Prata, G.A.**, et al., VIII Congresso Brasileiro de Arborização Urbana. In: VIII Congresso Brasileiro de Arborização Urbana, 2004, São Paulo. VIII Congresso Brasileiro de Arborização Urbana, 2004.
3. **Prata, G.A.** Produtividade de Plantios Consorciados de eucalyptus spp e acacia mangium em neossolo quartzarênico do Estado de São Paulo. In: Simpósio Internacional de Iniciação Científica da USP, 2003, PIRACICABA. XI Simpósio Internacional de Iniciação Científica da USP, 2003.
4. **Prata, G.A.**, Galata, R. F. Revegetação da Mata Ciliar do Córrego Monte Olimpo. In: Simpósio Internacional de Iniciação Científica da USP, 2003, PIRACICABA. XI Simpósio Internacional de Iniciação Científica da USP, 2003.

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PUBLISHED CONFERENCE ABSTRACTS

1. **Prata, G.A.**, Hamamura, C., de Conto, T, Rodriguez, L.C.E. Use of Terrestrial Laser Scanning to assess fuel consumption in Amazon Rainforests. Silvilaser 2019. Iguazu Falls, Brazil.
2. **Prata, G.A.**, de Conto, T, Rodriguez, L.C.E. Modelling Annual Fire Occurrence Probability with Machine Learning algorithms. XXV IUFRO Congress, Curitiba, Brazil.
3. de Conto, T., **Prata, G.A.**, Rodriguez, L.C.E. Detecting burnt forest through applied machine learning techniques on combined high resolution remote sensing data. ForestSAT, College Park, Maryland. 2018

CONFERENCE TALKS AND PRESENTATIONS

1. IUFRO Congress. Curitiba/PR, Brazil. “Modelling Annual Fire Occurrence Probability with Machine Learning algorithms” **2019**
2. ForestSAT. College Park, Maryland. “Detecting burnt forest through applied machine learning techniques on combined high resolution remote sensing data” **2018**
3. VII Workshop Internacional De Mogno Africano. São Paulo/SP. “Forest Insurance” **2017**
4. V Workshop Internacional De Mogno Africano. São Paulo/SP. “Forest Insurance” **2016**
5. IV Workshop Internacional De Mogno Africano. São Paulo/SP. “Forest Insurance” **2016**
6. Sustainable Landscapes Brazil. 2nd Meeting, Bragança Paulista/SP “Mapping forest fire risk with LiDAR: a proposal for studies in Brazil” **2016**
7. VIII Simpósio Técnicas de Plantio e Manejo de Eucalipto Para Usos Múltiplos. Piracicaba/SP. “Forest Insurance” **2014**
8. VII Simpósio Técnicas de Plantio e Manejo de Eucalipto Para Usos Múltiplos. Piracicaba/SP. “Forest Insurance” **2013**

TEACHING EXPERIENCE

- Forest Managers Preparation Program (Programa de Preparação de Gestores Florestais – PPGF). “Forest Economy” **Jan. 2017**
- Substitute teacher for Dr. Luiz Carlos Estraviz Rodriguez: “Quantitative Methods for Forest Management”, University of São Paulo – “Luiz de Queiroz” college of Agriculture –ESALQ. Department of Forest Science **Oct. 2017**

COMPLEMENTARY TRAINING

- Environmental Evaluations. (course load: 32h). Desenvolvimento Ambiental, EDUTECH, São Paulo/SP, Brazil. **2013**

TECHNICAL REPORTING

- **Judicial Expert Assessment - Forensic Reports**
Prata, G.A. Mining administrative easement. Land and crop value. Process n° 1010533-21.2014.8.26.0451. Piracicaba/SP. Brazil. 2017
Prata, G.A. Partially divergent report. Environmental adequacy of property. Process n° 879/2010. São Paulo/SP. Brazil. 2013
- **Consultancy in Forestry**
- Swiss Re Group – 2017/2018
Forest insurance basic concepts and Brazilian legal framework.
Guidelines for hazards assessment.

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- Allianz SE – 2014-present

> 30 hazards fields surveys reports

- Mapfre Insurance Company – 2009 - 2017

> 250 fields surveys reports (hazards and previews assessments)

Development of an automatic “forest insurance quote spreadsheet”

- Private Land Owners – 2006 - 2007

Value appraisals and forest species composition of privately owned properties in different municipalities in the State of Sao Paulo

COMPUTER SKILLS

R, ArcGIS, QGIS, Excel and point cloud data processing software (QT Modeler, Cloud Compare, FUSION and LAStools).

SOFTWARE DEVELOPMENT

- FIW (Forest Inventory Worksheet) – a complete set of tools for processing and reporting data collected on forest inventory sample plots. Uses MS Excel as a frontend to the backend core algorithms written in VBA. **2013 - present**
- FMW (Forest Management Worksheet) – a complete set of tools to control a forest implantation project, including budget and cash flow analysis. Uses MS Excel as a frontend to the backend core algorithms written in VBA. **2015**