

Paul Szejner Sigal

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EDUCATION

- [2013 –present] University of Arizona. School of Natural Resources and Environment, PhD student in Watershed management and ecohydrology.
- [2009 –2011] Georg-August-Universität Göttingen. Faculty of Forest Sciences and Forest Ecology, Master of Science in Forest Sciences and Forest Ecology
- [2004 –2007] Universidad Austral de Chile, Valdivia. Faculty of Forestry, Graduated of Forest Engineer “Cumlaude”.
- [2006 – 2007] Centre for Environmental Studies (CEAM). Universidad Austral de Chile. Honour’s Program in Environmental Studies and Sustainable Human Development.

AWARDS

- [2014] Award from the Inter-university Training for Continental-scale Ecology (ITCE) Research-in-Residence, “Seasonal tree-ring cellulose $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ and patterns of drought in the winter and summer precipitation regimes of Southwestern Ponderosa forests,” \$7,369 funded
- [2009-2011] DAAD scholarship for Master’s studies in Georg-August-Universität Göttingen.
- [2008] Best student award of the 2007 forestry cohort, at the Universidad Austral de Chile
- [2006-2007] Juan Gomez Millas Scholarship for Foreigners: awarded with 47% of the tuition fees.

PUBLICATIONS

- 2015 González, M.E, Donoso Pablo., **Paul Szejner**, **Tree-fall gaps and patterns of tree recruitment and growth in Andean old-growth forests in south-central Chile** *BOSQUE (accepted)*
- 2015 Mauro E González , **Paul Szejner** , Pablo J Donoso and Christian Salas. **Fire, logging and establishment patterns of second-growth forests in south-central Chile: 2 implications for their management and restoration** *Ciencia e Investigación Agraria (accepted)*
- 2014 Flurin Babst, M. Ross Alexander, **Paul Szejner**, Olivier Bouriaud, Stefan Klesse, John Roden, Philippe Ciais, Benjamin Poulter, David Frank, David J. P. Moore, Valerie Trouet. **A tree-ring perspective on the terrestrial carbon cycle**. *Oecologia*, October 2014, Volume 176, Issue 2, pp 307-322.
- 2013 **Paul Szejner**, Augusto Cuq, Alejandra Bahamondez, Alvaro Gonzalez-Reyes. **Precipitation and river-flow reconstruction in the Choapa watershed**. Conference Proceeding at Environmine 2013 in Santiago de Chile. https://www.researchgate.net/profile/Paul_Szejner/contributions/?ev=prf_act

- 2011** Paul Szejner. Master of Science Thesis, **Tropical Dendrochronology: exploring tree rings of *Pinus oocarpa* in Eastern Guatemala.**
- 2011** Paul Szejner, Le Quesne, C.; González, M.E.; Christie, D.A. **Recovery of *Pilgerodendron uviferum* forest after anthropogenic disturbance in the Valdivian costal range, Chile** *Gayana Botanica* 68(2): 196-206. (ISI)
- 2009** Michelle C. Moorman, David B. Eggleston, Christopher B. Anderson, Andres Mansilla, and Paul Szejner. **The implications of Beaver *Castor Canadensis* and Trout invasion on native fish in the Cape Horn Biosphere Reserve, Chile.** *Transactions of the American Fisheries Society* (138):306–313. (ISI)
- 2008** Ivan Arismendi, Paul Szejner, Antonio Lara, Mauro González. **Impact of beaver in the structure of riparian forests of Lenga in Tierra del Fuego, Chile.** *Bosque* (20) 2: 146 -152.

PROFESSIONAL EXPERIENCE

- 2013** Research assistant. National Science Foundation (NSF) Project #1065790 “COLLABORATIVE RESEARCH: Processes and Patterns in The North American Monsoon Macrosystem” directed by PhD. Russell K Monson.
- 2013** Principal researcher. Reconstruction of the Precipitations and stream flow of the Choapa basin, based on *Kagenekia Angustifolia* tree-ring chronologies.
- 2012** Collaborating researcher at Centro de Estudios Ambientales y Cambio Global (CEAM) in the Universidad Austral de Chile. Formulating projects in the frame of Ecosystem and community Based Adaptation to Climate Change.
- 2012** Invited professor for the course “Dendrocronología básica aplicada al manejo forestal” organized by the Universidad de Córdoba in Spain in collaboration with the Universidad Autonoma Gabriel Rene Moreno in Santa Cruz Bolivia.
- 2012** Collaborating researcher in the Project FONDECYT #1121106 "High Resolution Hydro climate Variability in the Central Andes of Chile and Argentina during the Last Millennium: a Tree-Ring and Modelling Perspective" under the direction of Carlos Le Quesne Geier. In charge of the elaboration of tree ring width chronologies and training new technicians in cross-dating.
- 2012** Collaborating researcher in the Project “Forest fire under climate, social and economic changes in Europe, the Mediterranean and other fire-affected areas of the world (FUME). Seventh Research Framework Programme (FP7)”. In charge of building the fire chronologies and in charge of few field Works.
- 2012** Collaborating researcher in the project FONDECYT-CONICYT # 1110744. Silviculture to promote old-growth forest attributes: effects of ecological thinning on second-growth forests in south-central Chile. In charge of the identification of the forest Fire frequency and post disturbance establishment of the secondary forest of Roble, Coihue Canelo y Siempre verde.
- 2011** Georg-August-Universität Göttingen (**Germany**), International Tree Ring Laboratory for Tree Ring Research in the Tropics and Subtropics Faculty of Agriculture. Activity undertaken: Tree ring classification and microphotography of the tropical wood collection.

- 2011** Forest Management Plan of Gunung Walat Educational Forest (**Java Indonesia**) Third Semester Project “Development of a Forest Region” of the MSc programme “Tropical and International Forestry” of the Georg-August-Universität Goettingen, in cooperation with the Bogor Agricultural University (IPB).
- 2010** Field Assistant of a National Science Foundation (NSF) “Project # 0753399” Mesoamerican Dendroclimatology: Climate Dynamics and Socioeconomic Applications. Principal Investigator David Stahle (**USA, Mexico and Guatemala**).
- 2009** Collaborative watershed and forest management in the Llancahue watershed in Valdivia, (**Chile**), the objective was to conduct a stakeholder analysis of local and regional stakeholders and provide an extension plan to improve collaborative efforts, we conducted household interviews with the farmers in the Lomas del Sol community in order to characterize their past year’s activities and their perspective on the Llancahue project.

TEACHING EXPERIENCE

- 2015** **Guatemala:** Invited participant/instructor at the Central American Dendroecological fieldweek CADEF. Assisting the participants in cross-dating and interpretation of tree ring anatomy.
 - 2012** **Bolivia:** Workshop on Applied dendrochronology in Tropical species, “Steps and tools to develop tree ring chronologies in the Tropics” (Spanish).
 - 2011** **Bolivia:** Workshop on Applied dendrochronology in Tropical species, “Methodological considerations in the analysis of forest dynamics and disturbances” (Spanish).
- Guatemala:** Universidad del Valle de Guatemala. “Introduction to dendrochronology and its applications in Guatemala and the world”(Spanish).

ORAL PRESENTATIONS AND LECTURES

- 2015** **USA:** Talk at the Earth week plenary oral session at the University of Arizona. The importance of the monsoon rainfall for Ponderosa pine growth throughout the US Southwest.
- 2014** **USA:** Lecture on Carbon cycling Climate and Tree-ring stable isotopes (part of the Fire ecology workshop for high school teachers.)
- 2013** **Chile:** Environmine 2013 conference. Reconstruction of the Precipitations and stream flow of the Choapa basin, based on *Kagenekia Angustifolia* tree-ring chronologies.
- 2012** **Germany:** Göttinger tropentag, “Assesing the dendrochronological potential of *Pinus oocarpa* in Eastern Guatemala” (English).
- 2008** **Chile:** Paul Szejner and Sebastián Köber (BIOAGFO & GRENER) “Biomass – Energy in Chile: Concepts, Challenges and Examples” DAAD, Universidad de Talca, International Summer School 2008, “ Water and energy – Complementary Aspects of Resource Management in the context of the Climate Change” “Presentation” (English).

JOURNAL REVIEWS.

- 2013 Tree-ring research
- 2014 Oecologia
- 2014 Journal of Tropical Forest Science

PRESENTATIONS (posters)

- 2013** Paul Szejner, José Villanueva, Julián Cerano Paredes and Martin Worbes. False rings of *Pinus oocarpa* and their relations with climate events in Eastern Guatemala. AmeriDendro 2013, Tucson.
- 2009** Mauro Gonzalez, Ariel Munoz, Michelle Szejner, Paul Szejner, Jorge Silva Post-fire passive restoration in Andean Araucaria-Nothofagus forests: fire severity and species recovery, 19th Conference of the Society for Ecological Restoration International. Perth, Western Australia, Australia
- 2007** Szejner, P.; Le Quesne, C.; González, M.E.; Christie, D.A.; Bustos-Schindler, C. 2007. Conservation state of *Pilgerodendron uviferum* forests in Valdivia National Reserve Valdivia. "III Encuentro binacional de Ecología Aplicada" Septiembre 2007.
- 2006** Moorman, M.C., C.B. Anderson, P. Szejner and R. Charlin. 2006. The influence of introduced beaver on native stream ecosystems in the Cape Horn Biosphere Reserve, Chile. NWQMC Conference. April, San José, California.

SKILLS / CERTIFICATIONS

- Experienced with statistical software in "R"
- **English**, advanced level.

PERSONAL DATA

- Date of birth: July 4, 1983
- Nationality: Guatemalan "Resident in Chile since 2004"