

## CURRICULUM VITAE

# LUISINA MARTA CARBONELL SILLETTA

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**Nationality:** Argentinian

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### Work experience

2016-2017 and 2018. Assistant of 1° with simple dedication in chair of General and Cellular Biology, Departamento de Biología y Ambiente, Facultad de Ciencias Naturales y Ciencias de la Salud. Universidad Nacional de la Patagonia San Juan Bosco, Comodoro Rivadavia, Chubut, Argentina.

### Education

2015-Current. PhD Student in Biological Sciences, Facultad de Ciencias Naturales y Ciencias de la Salud, Universidad Nacional de la Patagonia San Juan Bosco (UNPSJB), Comodoro Rivadavia, Chubut, Argentina. Thesis: Effects of the experimental increase in the field of water and nutrients on ecological and physiological processes of the vegetation of the Patagonian steppe. Director: Dr. Fabián G. Scholz, Co-Director: Dr. Sandra J. Bucci.

2014. Bachelor of Biological Sciences, Facultad de Ciencias Exactas y Naturales, Universidad Nacional de La Pampa (UNLPam), Santa Rosa, La Pampa, Argentina.

### Scholarships

2015-2020. Internal Doctoral Scholarship awarded by Comisión Nacional de Investigaciones Científicas y Técnicas (CONICET).

2013-2014. Initiation Scholarship in Research, Universidad Nacional de La Pampa. Resolution No. 003/13. Title of the Work Plan: Prediction of phenological events

and growth dynamics of deciduous trees and evergreen shrubs of the dry forest of central Argentina.

2012. International Student Mobility Program. Financial Aid Scholarship Resolution No. 170/12. Exchange with the Universidad de Valparaíso, Valparaíso, Chile, 2nd semester of 2012.

2011-2012. Scholarship for the Promotion of Scientific Vocations, Consejo Interuniversitario Nacional (CIN). Resolution P. No. 97/11. Title of the Work Plan: Relations of the temperature and rainfall with events of the annual cycle of growth and development of deciduous and evergreen woody plants of the "caldén" forest.

### **Postgraduate courses**

2018. Special topics in generalized linear models. Instituto de Biología de la Altura, Universidad Nacional de Jujuy, Jujuy, Argentina. Workload: 40 hs.

2017. Generalized and mixed linear models with R. Facultad de Ciencias Naturales, Universidad Nacional de la Patagonia San Juan Bosco y Centro Nacional Patagónico (CENPAT-CONICET), Puerto Madryn, Argentina. Workload: 40 hs.

2017. Physiology and anatomy of vegetables under saline and hydric stress. Facultad de Ciencias Forestales, Universidad Nacional de Santiago del Estero (UNSE), Santiago del Estero, Argentina. Workload: 40 hs.

2017. Introduction to data management and analysis with R. Facultad de Ciencias Naturales y Ciencias de la Salud, UNPSJB, Comodoro Rivadavia, Argentina. Workload: 60 hs.

2017. Introduction to ethical aspects in scientific research. Facultad de Ciencias Naturales, Universidad Nacional de la Patagonia San Juan Bosco, Comodoro Rivadavia, Argentina. Workload: 40 hs.

2017. Advanced statistical methods in Ecology and Evolution. Facultad de Ciencias, Universidad de la República Uruguay, Maldonado, Uruguay. Workload: 60 hs.

2016. Resistance to environmental stress in woody species with emphasis on the functional and adaptive role of wood. Facultad de Ciencias Agrarias y Forestales, Universidad Nacional de la Plata, Tandil, Argentina. Workload: 60 hs.

2016. Foundations of R. Facultad de Ciencias Naturales, Universidad Nacional de la Patagonia San Juan Bosco y Centro Nacional Patagónico (CENPAT-CONICET), Puerto Madryn, Argentina. Workload: 40 hs.

2016. Economics of carbon and water in plants and ecosystems: an ecophysiological approach. Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Buenos Aires, Argentina. Workload: 70 hs.

2015. Models and Data in Ecology (Maximum Likelihood and Bayes). Centro Regional Universitario Bariloche, Universidad Nacional del Comahue, Bariloche, Argentina. Workload: 40 hs.
2015. The Argumentation in the Factual Sciences. Facultad de Ciencias Naturales, Universidad Nacional de la Patagonia San Juan Bosco, Comodoro Rivadavia, Argentina. Workload: 60 hs.
2014. Physical and biological bases of remote sensing applied to the analysis of ecosystem processes: integration of different spatio-temporal scales. Facultad de Ciencias Naturales, Universidad Nacional de la Patagonia San Juan Bosco, Comodoro Rivadavia, Argentina Workload: 40 hs.

### **Degree courses**

2014. Photosynthesis, effects of relevant factors in Global Change scenarios. Facultad de Ciencias Exactas y Naturales, UNLPam, Santa Rosa, Argentina. Workload: 40 hs.
2013. Writing of scientific works. Facultad de Ciencias Exactas y Naturales, UNLPam, Santa Rosa, Argentina. Workload: 96 hs.
2009. Reading-comprehension of scientific and academic texts in English. Facultad de Ciencias Exactas y Naturales, UNLPam, Santa Rosa, Argentina. Workload: 30 hs.

### **Scientific Research**

- 2016-Current Member of Project: "CO<sub>2</sub> flows in Patagonian arid ecosystems". PICT 2016-3019. Fondo para la Investigación Científica y Tecnológica (FONCYT).
- 2015-Current Member of Project: "Impact of edaphic and atmospheric moisture sources on the water use efficiency of plants of the Patagonian steppe: determination from the use of stable isotopes of H and C and methods eco-hydrological and physiological". PICT 2013-2426. Fondo para la Investigación Científica y Tecnológica (FONCYT).
- 2015-2018 Member of Project: "A desert with water: Why vegetation in the Patagonian Steppe does not use the available water resources in depth?". PICT 2010-0960. Fondo para la Investigación Científica y Tecnológica (FONCYT).
- 2011-2014 Member of Project: "Influence of temperature, rainfall and habitat fragmentation on growth and development stages of deciduous and evergreen woody semiarid forests of central Argentina." Departamento de Ciencias Naturales, Facultad de Ciencias Exactas y Naturales, UNLPam, Santa Rosa, Argentina. (Project No. 233; Resolution CD N° 194/11, N° 115/13).
- 2010-2011 Member of Project: "Morphology and anatomy of insect-induced gills in *Prosopis caldenia* Burkart (Fabaceae)". Departamento de Ciencias Naturales,

Facultad de Ciencias Exactas y Naturales, UNLPam, Santa Rosa, Argentina.  
(Project No. 213; Resolution CD No. 187/10).

### Publication

2014. Corró Molas BM, Martínez JJ, **Carbonell Silletta LM**, Gallia MC, Alfonso GL. Morphological modifications induced by Tetradiplois panghitruz Martínez (Diptera: Cecidomyiidae) in stems of *Prosopis caldenia* Burkart (Fabaceae). *Revista del Museo Argentino de Ciencias Naturales* 16(1): 1-12.

### Presentations at scientific conferences

2016. Garré A, Arias NS, Agrelo JL, **Carbonell Silletta LM**, Cavallaro A, Buzzi MA, Goldstein G, Bucci SJ, Scholz FG. Resistance to low temperatures in four species of evergreen trees of the Andean Patagonian Forests. VI Reunión Binacional de Ecología. Puerto Iguazú, Misiones, Argentina. Book of abstracts p. 221.
2016. Garré A, Arias NS, Agrelo JL, **Carbonell Silletta LM**, Cavallaro A, Buzzi MA, Goldstein G, Bucci SJ, Scholz FG. Morpho-physiological responses to drought and low temperatures of the cactus *Pterocactus* sp. in the austral limit of its distribution. VI Reunión Binacional de Ecología. Puerto Iguazú, Misiones, Argentina. Book of abstracts p. 221.
2016. Cavallaro A, **Carbonell Silletta LM**, Arias NS, Buzzi MA, Garré A, Agrelo JL, Goldstein G, Bucci SJ, Scholz FG. Variation in water absorption of *Berberis microphylla* in response to increased water and nutrient availability. VI Reunión Binacional de Ecología. Puerto Iguazú, Misiones, Argentina. Book of abstracts p. 169.
2016. **Carbonell Silletta LM**, Agrelo JL, Garré A, Arias NS, Cavallaro A, Buzzi MA, Goldstein G, Bucci SJ, Scholz FG. CO<sub>2</sub> flows from the ground in response to the increase in water and nutrient availability in the Patagonian Steppe. VI Reunión Binacional de Ecología. Puerto Iguazú, Misiones, Argentina. Book of abstracts p. 162.
2016. Agrelo JL, Garré A, Pereyra D, **Carbonell Silletta LM**, Arias NS, Buzzi MA, Cavallaro A, Goldstein G, Bucci SJ, Scholz FG. Interaction between the vegetation and the depth of the water table in the Patagonian Steppe. VI Reunión Binacional de Ecología. Puerto Iguazú, Misiones, Argentina. Book of abstracts p. 115.
2016. Agrelo JL, Garré A, Pereyra D, Arias NS, **Carbonell Silletta LM**, Cavallaro A, Buzzi MA, Goldstein G, Bucci SJ, Scholz FG. Influence of the calcareous horizon on the water content in the soil and the distribution of roots in the Patagonian Steppe. VI Reunión Binacional de Ecología. Puerto Iguazú, Misiones, Argentina. Book of abstracts p. 114.

2015. Garré A, Arias NS, **Carbonell Silletta LM**, Agrelo JL, Bucci SJ, Scholz FG, Goldstein G. Seasonal changes in water relations and gas exchange in *Olea europaea* L. Reunión Anual de la Sociedad de Ecología de Chile. Olmué, Chile. Book of abstracts p. 145.
2015. **Carbonell Silletta LM**, Garré A, Agrelo JL, Arias NS, Goldstein G, Bucci SJ, Scholz FG. Effects of fertilization and irrigation on soil respiration in the Patagonian steppe. Annual Meeting of the Ecology Society of Chile. Olmué, Chile. Book of abstracts p. 92.
2015. **Carbonell Silletta LM**, Arias NS, Garré A, Agrelo JL, Goldstein G, Bucci SJ, Scholz FG. Resistance to low temperatures of *Pappostipa* sp. in response to the increased availability of water and nutrients. XXII Annual Meeting of the Ecology Society of Chile. Olmué, Chile. Book of abstracts p. 84.
2015. Agrelo JL, **Carbonell Silletta LM**, Garré A, Goldstein G, Arias NS, Bucci SJ, Scholz FG, Pereyra D. Impact of the phreatic level on vegetation cover and evapotranspiration in the Patagonian steppe. XXII Annual Meeting of the Ecology Society of Chile. Olmué, Chile. Book of abstracts p. 59.
2014. **Carbonell Silletta LM**, Lerner PD. Foliation patterns, foliar traits and growth of three woody plants and their relationship with climatic variables in a forest area of central Argentina. XXVI Argentine Meeting of Ecology RAE 2014, Comodoro Rivadavia, Chubut, Argentina. Book of abstracts p. 182.
2013. Lerner PD, **Carbonell Silletta LM**, Gallia MC, Dornes, PF. Phenology and growth of evergreen and deciduous woody plants in central Argentina, contrasting responses to climate variability? V Biological Meeting of Ecology, XX Meeting of the Ecology Society of Chile, Puerto Varas, Chile. Book of abstracts p. 97.
2013. Lerner PD, Gallia MC, **Carbonell Silletta LM**, Dornes PF. Impact of factors of environmental change on woody deciduous and evergreen of the dry forest of the center of Argentina. V Biological Meeting of Ecology, XX Meeting of the Ecology Society of Chile, Puerto Varas, Chile. Book of abstracts p. 208.
2013. Gallia MC, Lerner PD, **Carbonell Silletta LM**, Pérez MS. Does the fragmentation of the forest reduce the reproductive success and the germinative capacity of caldén (*Prosopis caldenia* Burkart)? XI Pampean Days of Natural Sciences, Santa Rosa, La Pampa, Argentina. Book of abstracts p. 25.
2012. Lerner PD, Dornes PF, Gallia MC, **Carbonell Silletta LM**, Pérez MS. Influence of temperature, rainfall and habitat fragmentation on the growth and development stages of deciduous and evergreen woody plants of the semi-arid forest of central Argentina. Science and Technology Day 2012 Project and Communicate: strategies for research in the UNLPam. Santa Rosa: Universidad Nacional de La Pampa, E-Book ISBN 978-950-863-178-7.

2012. Lerner PD, Dornes PF, **Carbonell Silletta LM**, Gallia MC. Contrasting answers in phenology and growth of evergreen shrubs and deciduous trees of the dry forests of central Argentina. 25th Argentine Meeting of Ecology, Luján, Buenos Aires, Argentina. Book of abstracts p. 46.
2012. Lerner PD, Dornes PF, **Carbonell Silletta LM**, Gallia MC. Phenology and growth responses of evergreen shrubs and deciduous trees in the dry forest of central Argentina. Phenology 2012 Conference: Future Climate and the Living Earth, Milwaukee, Wisconsin, EE.UU. Book of abstracts p. 49.
2012. Lerner PD, Dornes PF, **Carbonell Silletta LM**, Gallia MC. Phenology and woody growth with contrasting life strategies of the dry forests of central Argentina. XI Conference of Natural Sciences of the Litoral. III Argentine Meeting of Natural Sciences, Córdoba, Córdoba, Argentina. Book of abstracts p. 97.
2011. Corró Molas BM, **Carbonell Silletta LM**, Gallia MC, Plana LI, Martínez JJ y Alfonso GL. Morphoanatomical observations of the galls induced by *Tetradiplosis* (Diptera: Cecidomyiidae) in the inflorescences of *Prosopis caldenia* Burkart (Fabaceae). XXXIII Argentine Conference of Botany, Posadas, Misiones, Argentina. Boletín de la Sociedad Argentina de Botánica, 46 (Supl.), p. 91.
2011. Corró Molas BM, Gallia MC, **Carbonell Silletta LM**, Plana LI, Martínez JJ, Alfonso GL. Morphoanatomy of galls induced by *Tetradiplosis* (Diptera: Cecidomyiidae) in stems of *Prosopis caldenia* Burkart (Fabaceae). XXXIII Argentine Conference of Botany, Posadas, Misiones, Argentina. Boletín de la Sociedad Argentina de Botánica, 46 (Supl.), p. 91.

#### **Other antecedents**

2018. Short stay of investigation. Topic: Training for the preparation, encapsulation and weighing of plant samples for isotopic measurement. Laboratorio de Isótopos Estables en Ciencias Ambientales (IANIGLA & UTN FRSR), San Rafael, Mendoza.
2017. Theoretical-practical training on Operation and Management of Portable Systems for Photosynthesis and Fluorescence Measurement. The LI-6800 and its comparison with the LI-6400. INSTRUMENTALIA S.A., Buenos Aires.
2016. Assistance to the workshop "Problems of the tutorials", carried out within the project belonging to the University Volunteer Program "Strategies for the retention and training of students of the careers of Pharmacy and Biochemistry". Secretaría de Bienestar Universitario, Universidad Nacional de la Patagonia San Juan Bosco.
2015. Extension activity: Collaborator of the "Immersed in the Biored" Conference. Facultad de Ciencias Naturales, Universidad Nacional de la Patagonia San Juan Bosco.

2014. Peer Tutoring Program for Entrants. UNLPam. Resolución N° 066/14.

2011-2013. Internship not rented in Chair of Physiology II, Departamento de Ciencias Naturales, Facultad de Ciencias Exactas y Naturales. UNLPam. (Resolution CD 321/11 y 360/12).