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## **Functional xylem anatomy: intra and interspecific variation in stems of herbaceous and woody species**

Chacon Dória, L.

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**Author:** Chacon Dória L.

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# CURRICULUM VITAE

**Larissa Chacon Dória** was born on January 13th, 1988, in João Pessoa, Paraíba, Brazil. She completed her 4 years bachelor's degree in Biological Sciences in 2011 at Universidade Federal da Paraíba, Brazil. During her undergraduate course, she received scholarships from the Brazilian Government funding agency Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) for developing research on ecological wood anatomy of plants from the caatinga of Paraíba state, Brazil. She continued her interest in this scientific field performing a Master's degree in Botany, investigating wood anatomy strategies of plants in two seasonally dry Brazilian vegetations, cerrado and caatinga, at the Universidade Estadual Paulista, São Paulo, Brazil. During her Master's period she received funding from the Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP), and graduated in 2014. All over the period of her bachelor's and master's degree, she presented the results of her research in several scientific meetings, mainly organized by the Botanical Society of Brazil. She was awarded for the best undergraduate poster presentation during the meeting of the International Association of Wood Anatomists (IAWA), in Recife, Brazil, in 2012. Later, in 2015, she was selected by the CNPq funding agency to carry out her 4 year PhD at Leiden University and Naturalis Biodiversity Center, in the Netherlands. The PhD project was focused on functional xylem anatomy of herbaceous and woody species, under the supervision of Dr. Frederic Lens and Prof. Dr. Erik Smets. During the PhD, the candidate performed field work on Tenerife, Canary Islands, as well as in the cerrado (São Paulo state) and in the caatinga (Paraíba state) of Brazil. Additionally, she visited several times the lab of Dr. Sylvain Delzon, in the University of Bordeaux (France) to perform hydraulic measurements in stems of herbaceous and woody species. She also attended several international scientific meetings to present the results of her research, such as the Island Biology Meeting in the Azores, the Xylem International Meeting in France and the Botanical Society of America Meeting in the United States. The scientific findings of her PhD project are compiled in this thesis, and resulted in 4 scientific papers as first authors in renowned peer-reviewed scientific journals. Additionally, scientific collaborations during her PhD resulted in 4 co-authorship papers .



# List of publications

## Articles in peer-reviewed journals

**Dória LC**, Podadera DS, Batalha, MA, Lima, RS, Marcati, CR. 2016. Do woody plants of the Caatinga show a higher degree of xeromorphism than in the Cerrado? *Flora* 224: 244 - 251.

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Lens F, Picon-Cochard C, Delmas CEL, Signarbieux C, Buttler A, Cochard H, Jansen S, Chauvin T, **Dória LC**, del Arco M, Delzon S. 2016. Herbaceous angiosperms are not more vulnerable to drought-induced embolism than angiosperm trees. *Plant Physiology* 172: 661 - 667.

Pfautsch S, Aspinwall MJ, Drake JE, **Dória LC**, Langelaan RJA, Tissue DT, Tjoelker MG, Lens F. 2018. Traits and trade-offs in whole-tree hydraulic architecture along the vertical axis of *Eucalyptus grandis*. *Annals of Botany* 121: 129 - 141.

**Dória LC**, Podadera DS, del Arco M, Chauvin T, Smets E, Delzon S, Lens F. 2018. Insular woody daisies (*Argyranthemum*, Asteraceae) are more resistant to drought-induced hydraulic failure than their herbaceous relatives. *Functional Ecology* 32: 1467 - 1478.

Volaire F, Lens F, Cochard H, Xu H, **Dória LC**, Bristiel P, Balachowski J, Rowe N, Violle C, Picon-Cochard C. 2018. Embolism and mechanical resistances play a key role in dehydration tolerance of a perennial grass *Dactylis glomerata* L. *Annals of Botany* 22: 325 - 336.

**Dória LC**, Meijs C, Podadera DS, del Arco M, Smets E, Delzon S, Lens F. 2019. Embolism resistance in stems of herbaceous Brassicaceae and Asteraceae is linked with differences in woodiness and precipitation. *Annals of Botany* 124: 1 - 14.

**Dória LC**, Podadera DS, Lima RS, Lens F, Marcati CR. 2019. Axial sampling height outperforms site as predictor of wood trait variation. *IAWA Journal* 40: 191 - 214.

## Abstracts

**Dória LC**, Motta NA, Lima RS. 2010 Tendências ecológicas do lenho de espécies da caatinga. XXXIII Reunião Nordestina de Botânica, Aracaju, SE, Brazil, 30 June - 03 July 2010. (poster presentation)

**Dória LC**, Bo DD, Cop JG, Motta NA, Lima RS. 2010. Anatomia comparada do lenho de espécies da caatinga e da restinga com relação à condução de água. 61° Congresso Nacional de Botânica, Manaus, AM, Brazil, 05-10 September 2010. (poster presentation)

**Dória LC**, Diniz EL, Pellegrino NS, Cop JG, Lima RS. 2011. Estudo da anatomia ecológica da folha e do lenho de *Aspidosperma pyriforme* Mart. (Apocynaceae) ocorrente na caatinga paraibana. 62° Congresso Nacional de Botânica, Fortaleza, CE, Brazil, 7-12 Agosto 2011. (poster presentation)

**Dória LC**, Diniz EL, Lima RS. 2012. Wood anatomy of nine species of Fabaceae from caatinga of Paraíba State. IAWA Pan-American Meeting, Recife, PE, Brazil, 01-05 October 2012. (poster presentation)

**Dória LC**, Lima RS, Marcati CR. 2013. Alguns aspectos da estrutura e da anatomia caulinar de *Tabebuia aurea* (Bignoniaceae) ocorrente no cerrado e na caatinga. 64° Congresso Nacional de Botânica, Belo Horizonte, MG, Brazil, 10-15 November 2013. (poster presentation)

**Dória LC**, del Arco M, Delzon S, Lens F. 2016. Is insular woodiness in the genus *Argyranthemum* (Asteraceae) driven by drought? Island Biology Meeting. Terceira Island, the Azores, Portugal, 18-22 July 2016. (oral presentation)

**Dória LC**, Delzon S, Lens F. 2017. Insular woody daisies (*Argyranthemum*, Asteraceae) are more embolism resistant than their herbaceous continental relatives. Xylem International Meeting. Bordeaux, France, 27-29 September 2017. (oral presentation)

**Dória LC**, Delzon S, Lens F. 2018. Insular woody daisies (*Argyranthemum*, Asteraceae) are more embolism resistant than their herbaceous continental relatives. Botanical Society of America Meeting, Rochester, MN, United States, 21-25 July 2018. (oral presentation)