



Vascular Adaptation of *Rhododendron* Species to Safety and Its Implication to Root, Leaf and Reproductive Variation

Guest Editors:

Prof. Dr. Erik T. Nilsen

Department of Biological
Sciences, Virginia Tech,
Blacksburg, VA 24060, USA
enilsen@vt.edu

Dr. Juliana Medeiros

Holden Forests & Gardens,
Kirtland, OH 44094, USA
jmedeiros@holdenfg.org

Deadline for manuscript
submissions:

closed (30 June 2022)

Message from the Guest Editors

Rhododendron is a monophyletic and diverse genus containing species that grow in arctic to tropical and sea level to alpine habitats. Growth forms vary from ground cover to canopy tree and epiphytes. Leaf size varies from less than 1 cm² to 2.5 m², some of which are deciduous and many of which are evergreen. Yet, vascular trait variation is constrained to relatively small vessels. The characteristically small vessels suggest adaptation against freeze-induced damage and promotes safety over efficiency. Vascular safety is adaptive for temperate and alpine shrubs, but hydraulic flow is constrained, limiting growth and promoting drought. The goal of this Special Issue is to increase the understanding of the *Rhododendron* vascular system and the mechanisms by which important adaptive variation in root dynamics, leaf physiology, leaf form, growth form, and reproductive traits can occur when associated with an inflexible hydraulic system.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science,
University of Manitoba, Winnipeg,
MB R3T 2N2, Canada

Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Author Benefits

Open Access:— free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [PMC](#), [PubAg](#), [AGRIS](#), [CAPlus / SciFinder](#), and other databases.

Journal Rank: [JCR - Q1 \(Plant Sciences\)](#) / [CiteScore - Q2 \(Plant Science\)](#)

Contact Us

Plants
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/plants
plants@mdpi.com
[@Plants_MDPI](https://twitter.com/Plants_MDPI)