Journal of
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Editorial

JPE Best Paper awards (2020)

Journal of Plant Ecology (*JPE*) decided to establish awards of *JPE* Best Papers, in order to thank and encourage authors to submit their valuable research to *JPE*. This award will be given annually to the first author(s) of 2–5 papers selected by the editors, according to the citation data as well as the impact in the field of plant ecology. We will place extra emphasis on authors who had completed graduate studies not more than 5 years before submission of the paper, to encourage more early-career scientists to submit their work to *JPE*. It will come with a '*JPE* Best Paper' certificate, as well as a price money of Chinese RMB 5000.

This year, we selected the best papers from all the articles published in the year of 2020. Here, we are delighted to announce the three winners of a '*JPE* Best Paper' award and highlight the significance of these papers below.

Spatiotemporal variation in leaf size and shape in response to climate (Li *et al.* 2020)

Based on a study of >6000 herbarium specimens of seven plant species collected from 1910 to 2008 in China, the authors could show that intraspecific variation in leaf size (length, width, length × width product) was positively correlated with precipitation while variation in leaf shape (length/width ratio) was more strongly correlated with temperature. These climatic effects explained within-species changes in leaf size and shape across geographical regions and over time.

Effects of warming on soil respiration during the non-growing seasons in a semiarid temperate steppe (Miao *et al.* 2020)

In a grassland field experiment with 10 paired control and warming plots, the authors measured soil respiration, soil temperature and soil moisture from November to April in two subsequent non-growing seasons. The warming treatment increased soil respiration by more than 40%; and in the second non-growing season, it increased microbial biomass carbon and nitrogen by around 20%. These findings suggest that climate warming may affect soil carbon dynamics in grassland ecosystems even during times when plant do not grow.

In the beginning, there was only bare regolith—then some plants arrived and changed the regolith (Zhou *et al.* 2020)

The authors discuss how plants may dissolve rock during early stages of primary succession. They propose experimental designs to distinguish between plant species (such as sedges without mycorrhizal fungi) that release carboxylates to mobilize phosphorus bound to soil particles for plant acquisition, which also facilitates other plant species in the community. The proposed designs can support ecological research and applications in habitat with low P availability.

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Miao Y, Liu M, Xuan J, *et al.* (2020) Effects of warming on soil respiration during the non-growing seasons in a semiarid temperate steppe. *J Plant Ecol* **13**:288–294.

Zhou J, Zúñiga-Feest A, Lambers H (2020) In the beginning, there was only bare regolith—then some plants arrived and changed the regolith. *J Plant Ecol* **13**:511–516.

BRIEF INTRODUCTION OF THE FIRST AUTHORS

Yaoqi Li

Dr. Li is now an assistant professor at Xi'an Jiaotong-Liverpool University. Her research locates in the field of functional biogeography, exploring geographic patterns, ecological determinants and ecosystem effects of plant functional traits, trait trade-offs and functional diversity. She currently works on the relationship between biodiversity and ecosystem functioning under climate change via functional traits. She obtained her PhD degree in Ecology from Peking University (PKU) in 2019 and then worked as a postdoc of the PKU-IIASA international programme.

Jun Zhou

Dr. Zhou is now an associate professor at the Institute of Mountain Hazards and Environment, Chinese Academy of Sciences. He studies biogeochemical cycling of phosphorus (P) in mountain ecosystems, focusing on roles of plant nutrient-acquisition strategies in P cycling. He is also interested in biological mechanisms on weathering of minerals and pedogenesis during the initial stage of succession. He obtained his PhD degree in Physical Geography from the University of the Chinese Academy of Sciences in 2014.

Yuan Miao

Dr. Miao is now an associate professor at Henan University. His research located in a typical subtropical to warm temperate transition zone, to examine the relationships of soil respiration with fine root turnover and microbial community structure under changing precipitation timing quantifying lag effect of changing precipitation timing on soil respiration peak, and its contribution to annual soil carbon emissions. He obtained his PhD degree in Ecology from Henan University in 2017.