


Editorial

# Special Issue on Dynamics of the Global Savanna and Grasslands Biomes

Hannah Victoria Herrero <sup>1,\*</sup>  and Jane Southworth <sup>2</sup>

<sup>1</sup> Department of Geography, University of Tennessee, 1000 Philip Fulmer Way, Room 315, Knoxville, TN 37996-0925, USA

<sup>2</sup> Department of Geography, University of Florida, 3141 Turlington Hall, Gainesville, FL 32611, USA; jsouthwo@ufl.edu

\* Correspondence: hherrero@utk.edu; Tel.: +1-865-974-6043

Received: 9 October 2020; Accepted: 11 November 2020; Published: 13 November 2020



## 1. Summation

Savanna and grassland biomes cover more of the earth's surface than any other biome type, and yet they are still largely understudied. In recent decades, global savanna and grassland ecosystems have become more prominent in the literature focused on global change dynamics. Savanna and grasslands represent unique biomes with their own challenges, both in terms of their study and in terms of their complexity, leading to many contradictory and often controversial findings. The global threats to these systems are potentially significant—from climate change impacts to human management challenges, from possible degradation to complete desertification, and looking across varied disturbance regime shifts.

This Special Issue of *Applied Sciences*, “Dynamics of Global Savanna and Grassland Biomes”, is intended for a wide and interdisciplinary audience, and covers recent advances around the themes of drivers of vegetation dynamics, further understanding carbon interactions in these critical landscapes, advances in modeling both current and future system states, tipping points in savanna systems, human-environment interactions and challenges for management, and biodiversity and ecosystem services.

This Special Issue includes five published papers with novel insights that span a number of specific topics: modeling effects of climate change on the productivity of rangelands in Zimbabwe [1], understanding the health of savanna vegetation in and around national parks in Southern Africa and Belize over time [2,3], a long-term field study assessing the effects of restoration efforts on degraded meadow steppes in northern China [4], and commentary on socio-environmental dynamics of alpine grasslands in western China [5].

**Acknowledgments:** This issue would not be possible without the contributions of various talented authors, hardworking and professional reviewers, and dedicated editorial team of *Applied Sciences*. Congratulations to all authors—no matter what the final decisions of the submitted manuscripts were, the feedback, comments, and suggestions from the reviewers and editors helped the authors to improve their papers. We would like to take this opportunity to record our sincere gratefulness to all reviewers. Finally, we place on record our gratitude to the editorial team of *Applied Sciences*, and special thanks to Carla Gao.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. Senda, T.S.; Kiker, G.A.; Masikati, P.; Chirima, A.; van Niekerk, J. Modeling Climate Change Impacts on Rangeland Productivity and Livestock Population Dynamics in Nkayi District, Zimbabwe. *Appl. Sci.* **2020**, *10*, 2330. [[CrossRef](#)]

2. Herrero, H.; Southworth, J.; Muir, C.; Khatami, R.; Bunting, E.; Child, B. An Evaluation of Vegetation Health in and around Southern African National Parks during the 21st Century (2000–2016). *Appl. Sci.* **2020**, *10*, 2366. [[CrossRef](#)]
3. Blentlinger, L.; Herrero, H.V. A Tale of Grass and Trees: Characterizing Vegetation Change in Payne’s Creek National Park, Belize from 1975 to 2019. *Appl. Sci.* **2020**, *10*, 4356. [[CrossRef](#)]
4. Xu, L.; Nie, Y.; Chen, B.; Xin, X.; Yang, G.; Xu, D.; Ye, L. Effects of Fence Enclosure on Vegetation Community Characteristics and Productivity of a Degraded Temperate Meadow Steppe in Northern China. *Appl. Sci.* **2020**, *10*, 2952. [[CrossRef](#)]
5. Feng, H.; Squires, V.R. Socio-Environmental Dynamics of Alpine Grasslands, Steppes and Meadows of the Qinghai–Tibetan Plateau, China: A Commentary. *Appl. Sci.* **2020**, *10*, 6488. [[CrossRef](#)]

**Publisher’s Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).