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European-wide ecosystem responses and their vulnerability to intensive drought

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Citation

Chen, Q. (2024, September 4). *European-wide ecosystem responses and their vulnerability to intensive drought*. Retrieved from <https://hdl.handle.net/1887/4054699>

Version: Publisher's Version

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List of Publications

Publications in peer-reviewed Journals (English):

1. **Chen, Q.**, Timmermans, J., Wen, W., & van Bodegom, P. M. (2023). Ecosystems threatened by intensified drought with divergent vulnerability. *Remote Sensing of Environment*, 289, 113512. <https://doi.org/10.1016/J.RSE.2023.113512>
2. **Chen, Q.**, Timmermans, J., Wen, W., & van Bodegom, P. M. (2022). A multi-metric assessment of drought vulnerability across different vegetation types using high resolution remote sensing. *Science of the Total Environment*, 832, 154970. <https://doi.org/10.1016/J.SCITOTENV.2022.154970>
3. **Chen, Q.**, Yu, R., Hao, Y., Wu, L., Zhang, W., Zhang, Q., & Bu, X. (2018). A new method for mapping aquatic vegetation especially underwater vegetation in Lake Ulansuhai using GF-1 satellite data. *Remote Sensing*, 10, 1279. <https://doi.org/10.3390/RS10081279>
4. Wen, W., Timmermans, J., **Chen, Q.**, & van Bodegom, P. M. (2023). Evaluating crop-specific responses to salinity and drought stress from remote sensing. *International Journal of Applied Earth Observation and Geoinformation*, 122, 103438. <https://doi.org/10.1016/j.jag.2023.103438>
5. Wen, W., Timmermans, J., **Chen, Q.**, & van Bodegom, P. M. (2022). Monitoring the combined effects of drought and salinity stress on crops using remote sensing. *Hydrology and Earth System Sciences Discussions*, 26, 4537-4552. <https://doi.org/10.5194/hess-26-4537-2022>
6. Wen, W., Timmermans, J., **Chen, Q.**, & van Bodegom, P. M. (2020). A review of remote sensing challenges for food security with respect to salinity and drought threats. *Remote Sensing*, 13, 6. <https://doi.org/10.3390/rs13010006>

In review/revision:

1. **Chen, Q.**, Timmermans, J. & van Bodegom, P. M. European-wide variations in ecosystem-scale vegetation drought strategies.
2. **Chen, Q.**, Timmermans, J. & van Bodegom, P. M. Dissecting tree mortality based on different drought regulation strategies across European forests.

Publications in peer-reviewed Journals (Chinese):

1. Zeng, Y., Li, G., **Chen, Q.**, Wang, L., Yu, X., and Li, B. (2015). Study on Dynamic Changes and Driving Force of Wetland Landscape Pattern in the Eastern part of Shandong Peninsula. *Yellow River*, 37, 78-82. <https://doi.org/10.3969/j.issn.1000-1379.2015.08.020>

2. Zhang, Yu., Yu, R., Zhang, X., **Chen, Q.**, Li, L. and Hao, Y. (2016). Spatio-temporal variability of drought characteristics in the entering lake watershed in Inner Mongolia during the past 30 years. *Journal of Water Resources and Water Engineering*, 27, 232-238. <https://doi.org/10.11705/j.issn.1672-643X.2016.06.42>

Acknowledgements

I would like to express my deep gratitude to my supervisor Prof. Peter van Bodegom. His endless patient supervision, along with his unwavering support and affirmation have guided me step by step to who I am today. His humanistic concern and profound thoughts have also inspired my reflections on life. In both academics and life, he is like a mountain—deep and steadfast, capable of lifting you closer to the sky. He is the embodiment of my ideal professor. His teachings permeate every aspect of my growth and will accompany me for the rest of my life.

I also would like to express my deep appreciation to my co-supervisor Dr. Joris Timmermans for his tremendous help with my research and technical challenges I have encountered. His boundless enthusiasm for both research and education has been truly inspiring. It is thanks to his enthusiastic support that I found the opportunity to pursue my studies at Leiden University. His zest for life has also been contagious, involving and motivating me to actively engage in various activities. I am very grateful for his support and assistance in every facet of my life.

Thanks to Wen Wen for our valuable exchanges and discussions, and for her support in my research. Special appreciation goes to Xiaoyang Zhong for his insightful discussions and assistance with my article writing. Whether as a reliable friend or a trustworthy colleague, he has helped and taught me a lot. Thanks to Chen Li and Joeri Morpurgo for their discussions and assistance with statistical methods. Furthermore, special thanks to Joeri Morpurgo and Kaixuan Pan for standing by my side as my paranymphs. I also want to express my appreciation to my fellow remote sensing colleagues for their engaging and delightful discussions. In addition, I am grateful to the CSC-Leiden University joint scholarship program for the financial support.

Thanks to all my wonderful friends and colleagues. To keep it concise, I won't write down your names individually, but you know you are one of them. Every moment we've shared—whether traveling, exercising, dining together, or simply chatting aimlessly—is a cherished memory. These memories of our time together will continue to shine brightly, regardless of the passage of time.

At last, I would like to express my sincere gratitude to my parents for their unconditional love and support, always serving as my strongest pillars.

I am so lucky to have you all in my story.

Curriculum Vitae

Qi Chen was born in Binzhou, China on the 26th of December, 1992. She studied Geographic Information System and obtained her bachelor's degree at Ludong University in 2015. There she participated in a project that applied remote sensing to the dynamic changes in wetland landscape patterns. This sparked her interest in the application of remote sensing in ecological environments. After graduation, Qi started her remote sensing ecology study in the Key Laboratory of River and Lake Ecology, Inner Mongolia University. She finished her MSc thesis on aquatic vegetation identification and the response mechanism of phytoplankton to climate change in Lake Ulansuhai based on remote sensing under the supervision of Prof. Ruihong Yu in 2018. Later that year, Qi joined the Institute of Environmental Sciences (CML) at Leiden University for her PhD study. Her research focuses on European ecosystem responses and vulnerability to drought based on remote sensing supervised by Prof. Peter van Bodegom and Dr. Joris Timmermans. Before finishing her PhD, Qi also conducted postdoctoral research at CML about the circular transition of agriculture considering important ecosystem services. After completing her PhD, Qi will continue her research on ecosystem response to climate change.