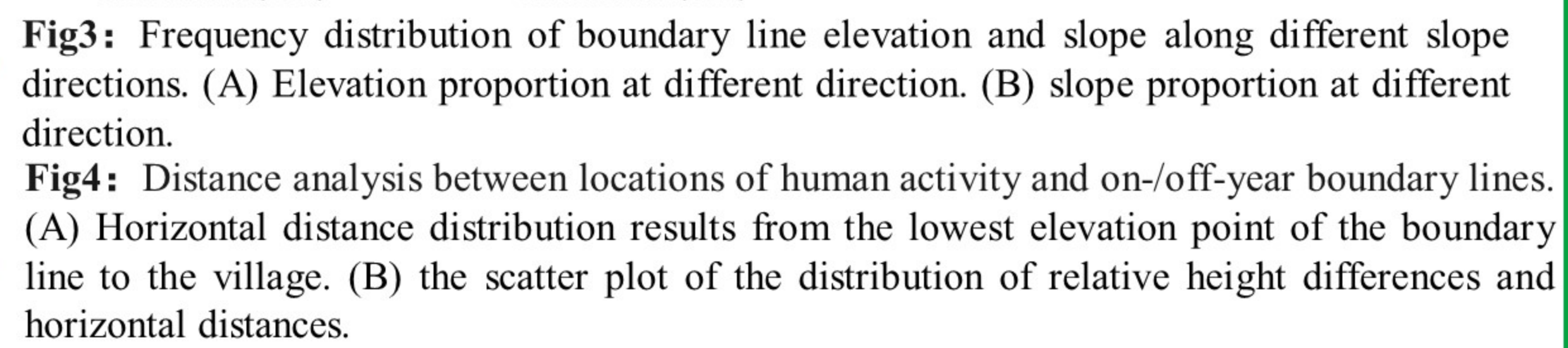
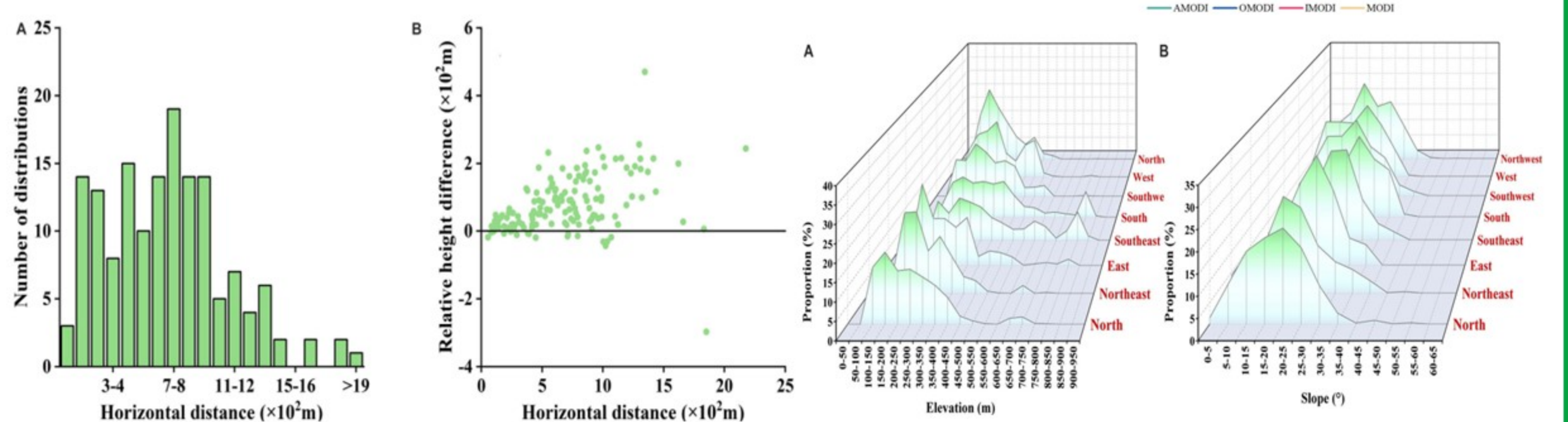
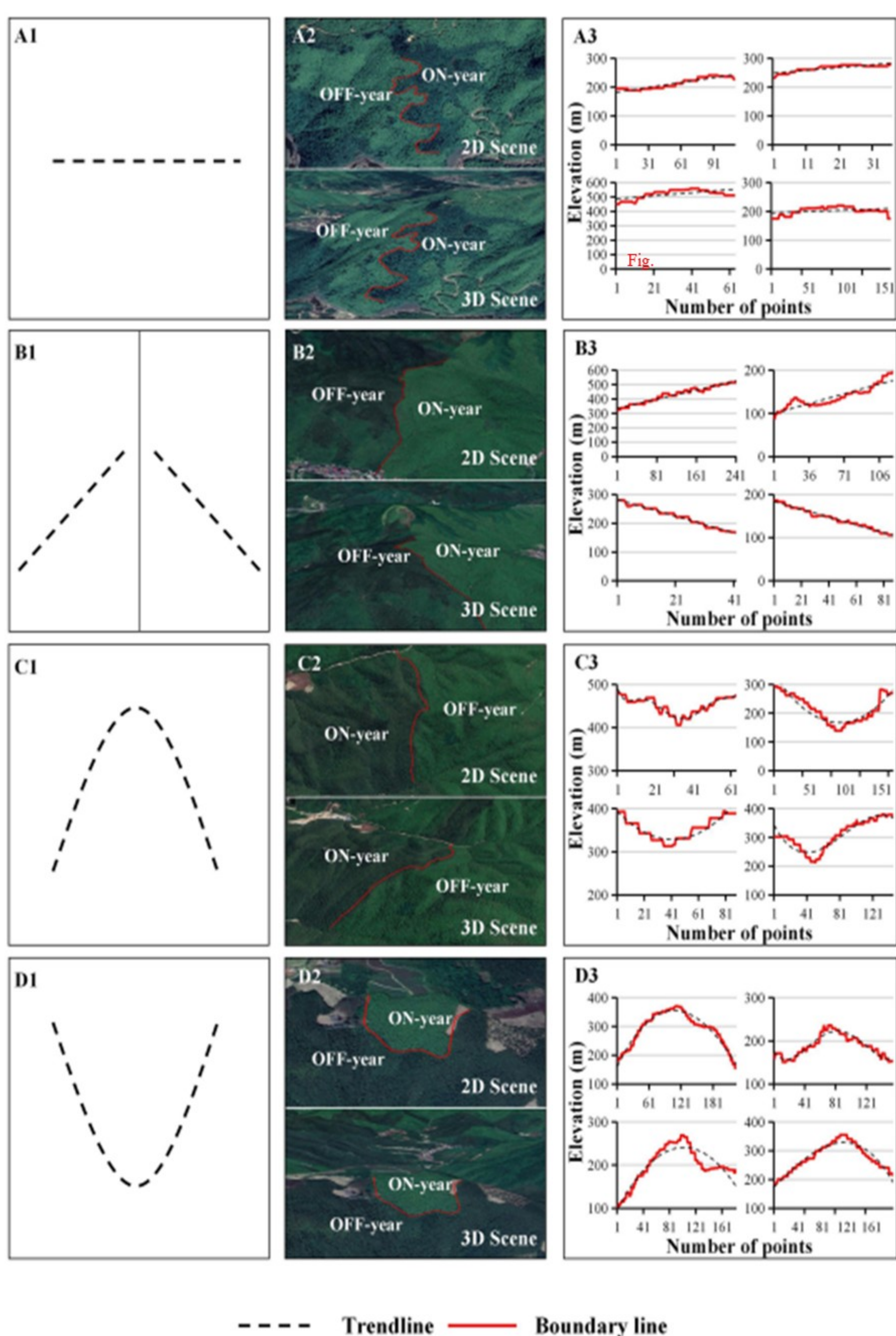
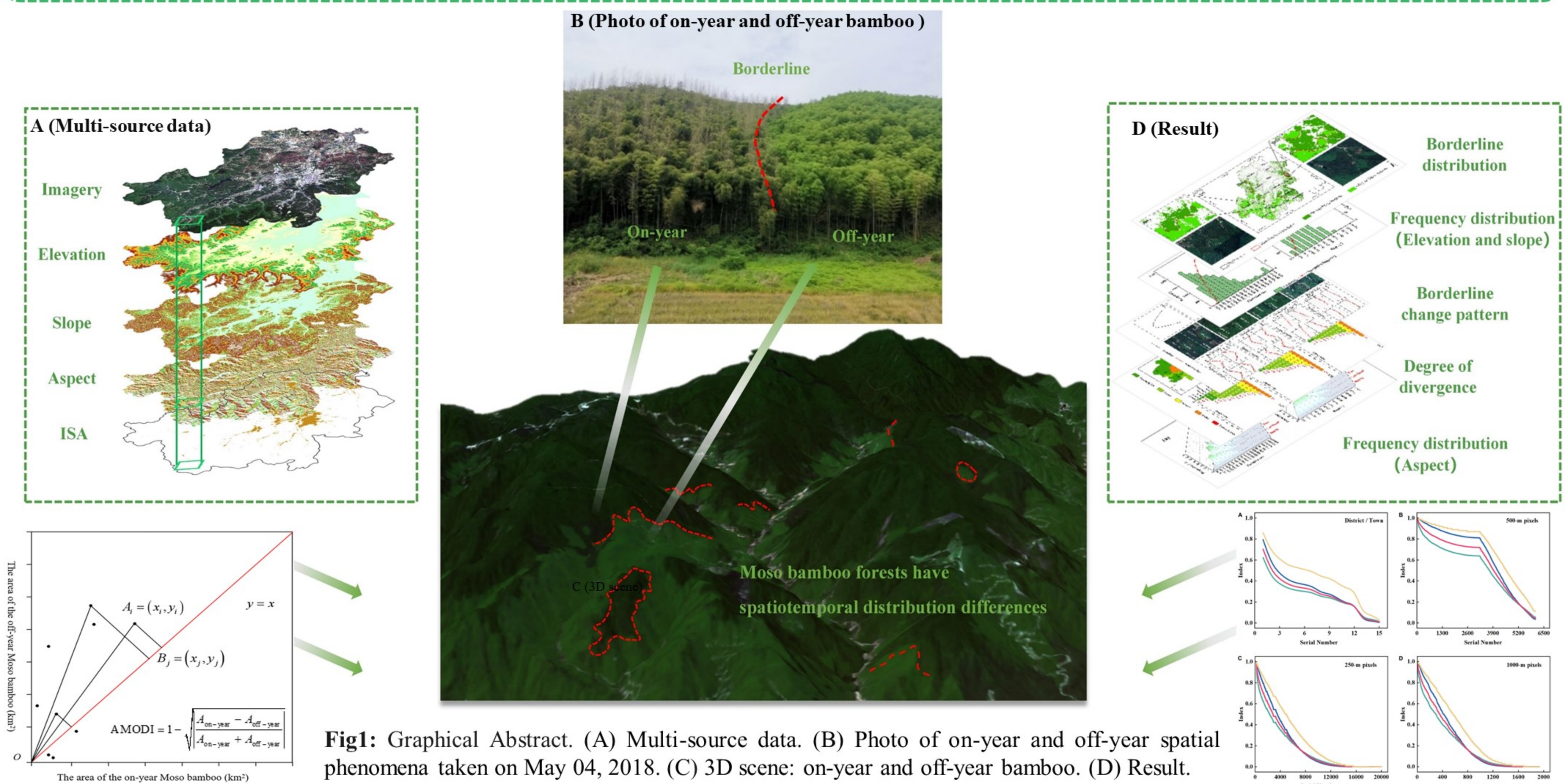


New landscape perspective exploration of Moso bamboo forests under on/off-year phenomenon and human activities

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Abstract: On-year and off-year phenomena is an unique spatiotemporal characteristics of Moso bamboo forests (MBFs), the combination of multiple sources data to assess the impact of on-/off-year phenomena and human activities is a new perspective to better understand MBFs. In this paper, Anji County, with a large MBF area, was selected as the study area. Based on Sentinel-2 time-series data, topography and impermeability data, the on-year/off-year status and boundary lines of MBFs were determined, and the Integrated Moso bamboo On-off year Differentiation Index (IMODI) was proposed to evaluate spatial differentiation. The results of this paper provide a new perspective to understand landscape of MBFs and the integrated management of carbon sequestration and sinks.



Conclusion:

- (1) Under the interaction of human activities and nature evolution, onyear and off-year MBFs boundaries showed obvious spatial patterns and spatial differentiation.
- (2) The on-year and off-year exploration provide a new perspective to understand landscape of MBFs and the integrated management of carbon sequestration and sinks.
- (3) High intensity of human management in this study area cause the variability of on-year and off-year, it is need to fully consider local management policies and phenological differences in other region, to better quantify the on-year and off-year phenomenon.

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