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**Multiscale analysis of landscape data sets from northern Ghana:
Wavelets and pattern metrics**

A fundamental characteristic of all landscapes is spatial heterogeneity, which is scale-dependent. To understand how spatial heterogeneity of landscapes in the Volta River Basin varies with scale, wavelet and pattern metric analyses were employed. The results of the wavelet analysis suggest that the normalized difference vegetation index and the fields of the digital elevation model are statistically self-similar and contribute to the basis for understanding how to assimilate landscape data into coarser resolution models. The results of the pattern metric analysis suggest that there is no optimal scale for characterizing spatial heterogeneity, and comparisons between landscape metrics must be based on the same spatial resolutions and extents. In addition, the results may provide practical guidelines for scaling spatial patterns.