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Abstract

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Acknowledgements

Reference

Mapping ecosystem services for planning and management

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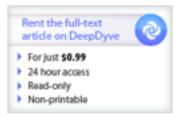
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Abstract

This study mapped the production of five ecosystem services in South Africa; surface water supply, water flow regulation, soil accumulation, soil retention, and carbon storage. The relationship and spatial congruence between services were assessed. The congruence between primary production and these five services was tested to evaluate its value as a surrogate or proxy ecosystem service measure. This study illustrates that (1) most of South Africa's land surface is important for supplying at least one service, (2) there are low levels of congruence between the service ranges and even lower levels between the hotspots for different ecosystem services, and (3) primary production appears to show some potential as a surrogate for ecosystem service distribution. The implications of a heterogeneous landscape for the provision of ecosystem services and their management are highlighted and the potential for managing such services in a country like South Africa is discussed.

Keywords

Conservation biogeography; Conservation planning; Water; Soil; Carbon; Primary productivity