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Perspective

Conceptualizing ecosystem degradation using mangrove forests as a model system



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ABSTRACT

The status and potential degradation of an ecosystem is often difficult to identify, quantify, and characterize. Multiple, concurrent drivers of degradation may interact and have cumulative and confounding effects, making mitigation and rehabilitation actions challenging to achieve. Ecosystem status assessments generally emphasize areal change (gains/losses) as a primary indicator; however, this over-simplifies complex ecosystem dynamics and ignores metrics that would better assess ecosystem quality. Consideration of multiple indicators is necessary to characterize and/or anticipate ecosystem degradation and appropriately identify factors causing changes. We utilize mangrove forests as a model system due to their distribution across a wide range of geographic settings,

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