



Representation of ecosystem services by tiered conservation strategies

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- Abstract
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Abstract

In human-dominated regions, protected areas are complemented by other conservation strategies (e.g., restrictive zoning, incentive payments) to maintain biodiversity and other ecosystem services. These strategies are often not mutually exclusive, with many areas covered by multiple (tiered) management strategies. However, it is not known whether tiering increases (or decreases) representation of ecosystem services. Here, we compare the representation of four ecosystem services by areas protected by both tiered and single conservation strategies (protected areas, restrictive zoning, and incentive payments to landowners) in a human-dominated region (England). Tiering always coincided with the highest levels of stored carbon, sometimes coincided with high biodiversity and agricultural production, but never coincided with high recreational value. We also show that tiering is common in England and biased towards upland areas. Future evaluations of the effectiveness of conservation strategies should consider the degree of overlap of the different strategies fully to understand which are most effective.

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