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To the Editorial Board,

Would you please consider the enclosed manuscript, "Habitat Connectivity and Ecosystem Productivity: Implications from a Simple Model", for publication as an Article in *The American Naturalist*? The manuscript comprises 22 pages of text, including five figures. The manuscript presents original research results that are not being considered for publication elsewhere and have not appeared in any form of electronic publication.

Ecologists are actively engaged in research to understand how the movement of individuals and genomes across spatially variable landscapes builds communities and sustains populations. This research is relevant to our incomplete conceptual understanding of how complex biological systems evolve, and it also has relevance to our goal of sustaining biodiversity as ecosystems become progressively more fragmented. Much of the ongoing research is directed to understand how the openness of ecosystems sustains populations or communities. But the transport of energy and resources across spatially-variable landscapes is an equally important process that constrains emergent ecosystem properties such as rates of production and nutrient cycling. In this paper I use simulations with a simple nutrient-producer-consumer model to address a fundamental question that is largely unexplored in the literature: does overall ecosystem productivity and nutrient cycling efficiency vary with the strength of connectivity between functionally-variable habitats? This question is one key to understanding the biophysical constraints on building and maintaining complex biological systems, with important implications for strategies to sustain diverse communities through habitat restoration.

The following researchers would be highly qualified to review this manuscript:

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Thank you for your consideration of this submission to *The American Naturalist*.

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