
Using land use change scenarios to inform the monitoring of species' conservation statuses

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Abstract

Human land use change is a major threat to freshwater biodiversity worldwide. Considering land use change scenarios can contribute to and facilitate more proactive conservation and decision making. Drawing on three projections for 2051 we evaluated how land use could change within freshwater fish species ranges in the United States. Using an existing area based threshold, we identified both range-restricted and threatened species that are most likely to be impacted by land use change. We set our analyses within the context of species' status on the International Union for Conservation of Nature's Red List and United States' Endangered Species Act, and discuss the potential implications of our findings for informing species' conservation status assessments. We reflect on how these analyses could be further integrated with information on other human threats, such as dams, to further inform national and international assessments such as the Convention on Biological Diversity.

Keywords: freshwater, decision, making, land use change

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