Spatial prioritization of biodiversity and ecosystem services to environmental changes: a case of adaptive management of land use for Japan

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[Abstract]

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The aim of this project is to visualize biodiversity features across Japan and evaluate the impact of land use on the pattern of biodiversity and ecosystem function in space and time. This study investigated various spatial layer data including species distributions of multiple-taxa (vascular plants, mammals, birds, amphibians, reptiles, freshwater fishes, etc.) and socioeconomic distribution (human population, land use, etc.) in an integrated manner, based on the concept and algorithm of spatial conservation prioritization. Specifically, we focused on some major conservation issues in Japan, such as the spatial planning of protected areas (PAs) related to the PA expansion and environmental changes, management of Satoyama related to OECM in the context of 30by30, deer population management, rare species conservation, and invasive species management, and then proposed comprehensive conservation planning.

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