ABSTRACT

Achieving desired conservation outcomes across human-dominated landscapes requires an understanding of the social and ecological factors driving these outcomes. The majority of existing studies linking the distribution of conservation outcomes to social and ecological factors have examined temporally static patterns. Such studies may be limited in their interpretability, however, because there may be different social and ecological processes driving increases and decreases in conservation outcomes that are only revealed through temporal analysis. Through a case study of the invasion of *Falcataria moluccana* in Hawai‘i, I demonstrate that social factors (e.g., landowner wealth, homeownership, etc) were differentially associated with increases and decreases in invader distributions over time and space. Specifically, over a 7-year study period, rates of invader decrease varied substantially by landownership characteristics, while rates of increase varied only slightly by such characteristics. These findings suggest that links between landownership characteristics and invasion in the study system may be driven more by landowners controlling existing invasive species, rather than landowners preventing the spread of invasive species. I suggest spatially-explicit, time-dependent analyses can enable a more nuanced understanding of the way in which social factors influence conservation outcomes, which can better inform conservation planning.

BIO

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