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Wrestling with Restoration: How We Can Restore an Ever-Changing Planet

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Wrestling with Restoration: How We Can Restore an Ever-Changing Planet Anna Arensmeyer

(This abstract is a placeholder for a project to be submitted for publication elsewhere.)

Abstract

The discipline of ecological restoration has operated under several assumptions that have ultimately hindered the effectiveness of restoration projects. With our knowledge about the inevitability of both natural and anthropogenic change on the planet and its ecosystems, we have begun to shift our assumptions about how and why we do restoration. In acknowledging that ecosystems are naturally dynamic and ever-changing, we can abandon the idea of pristine wilderness and dispel the notion of restoring areas to a historical baseline. Additionally, we must stop demonizing every species outside of its historic range. We have only recently labeled species migration as a negative phenomenon, and we have used a large amount of resources to eradicate harmless species. Changing our perspective to embrace novel ecosystems and concentrate our efforts on only those exotic species that are truly harmful allows restoration ecologists to more efficiently and effectively restore an area using the species assemblages already present. This new paradigm multiplies the possibilities for restoration, allowing projects to restore an area to maximize certain ecosystem functions rather than to a predetermined "pristine" state with only native species. In the abandonment of historical baselines, the pristine wilderness model, and our attitudes surrounding invasive species, we have begun to shift the widely held belief that all anthropogenic influences on the environment are negative. Ecological restoration must continue to move away from these assumptions and instead conduct projects in a goal-oriented manner and on a case-by-case basis with the aim to restore an area's important functions.