

Should We Lead Them Two by Two?

The search for authority in assisted migration

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Background

- Assisted migration is the intentional translocation or movement of species outside of their historic ranges in order to mitigate actual or anticipated biodiversity losses caused by anthropogenic climate change.
- Since the origins of organized conservation efforts in the U.S., conservationists have been beholden to the notion of “historical baselines,” or the goal of trying to hold or restore an ecosystem to pre-Columbian conditions. Assisted migration directly challenges historical baselines by intentionally moving species past their historic native ranges.
- There is currently a lively debate underway among scholars in which they grapple with these complications as well as contemplate what assisted migration ought to look like and how it should, if at all, be put into practice.

Methodology

1. Coded for prescriptive language within academic articles about assisted migration to find common concerns and priorities among scholars.
2. Used these scholars’ “prescriptions” to evaluate current, real-life, assisted migration projects and used differences and similarities to inform the connections between the scientific/conservation community and real world application.

Thesis Statement

Among the top three most common prescriptions scholars have for assisted migration is an imbedded tension that pits extreme caution, trumpeting a lack of certainty and risk aversion, against a strong sense of urgency. These prescriptions reflect a profound unease with the notion of human beings as the ultimate managers of ecosystems and a desire to give deference to some higher, non-human entity, be it the idea of the “pristine,” pre-human ecosystem, or even the institution of science.

“Imagine a pika sweating it out at the top of a peak in California, looking longingly north. The animal could never migrate on its own; the trip down to the lowlands to get to the next mountain would kill it. But what if a concerned human with a refrigerated crate were to come along?”

- Emma Marris,
Rambunctious Garden

Prescriptions	Total Combined Score	Case Studies		
		Dixon National Tallgrass Prairie Seed Bank	Assisted Migration Adaptation Trial	Torrey Guardians
Preliminary risk assessment/impact study	6.23	✓	✗	✗
Further research of ecosystem dynamics	3.90	✗	✗	✗
Carry out A.M. sooner rather than later	3.42	✗	✓	✓
Prioritization of “at risk” species or ecosystem	2.91	✓	✗	✓
Oversight of A.M. process from a higher authority	2.30	✓	✓	✗
Interdisciplinary approach	1.80	✗	✗	✗
Use A.M. only after less extreme measures	1.64	✓	✗	✗
System to prioritize species and ecosystems	1.54	✓	✓	✗
Better modeling and technological applications	1.50	✓	✓	✗
Systematic approach with coherent, concrete policy	1.38	✓	✓	✗
Flexible A.M. process on case-by-case basis	1.29	✗	✗	✓
Precautionary action	0.86	✓	✗	✗
Intergovernmental collaboration	0.33	✗	✓	✗

Dixon National Tallgrass Prairie Seed Bank

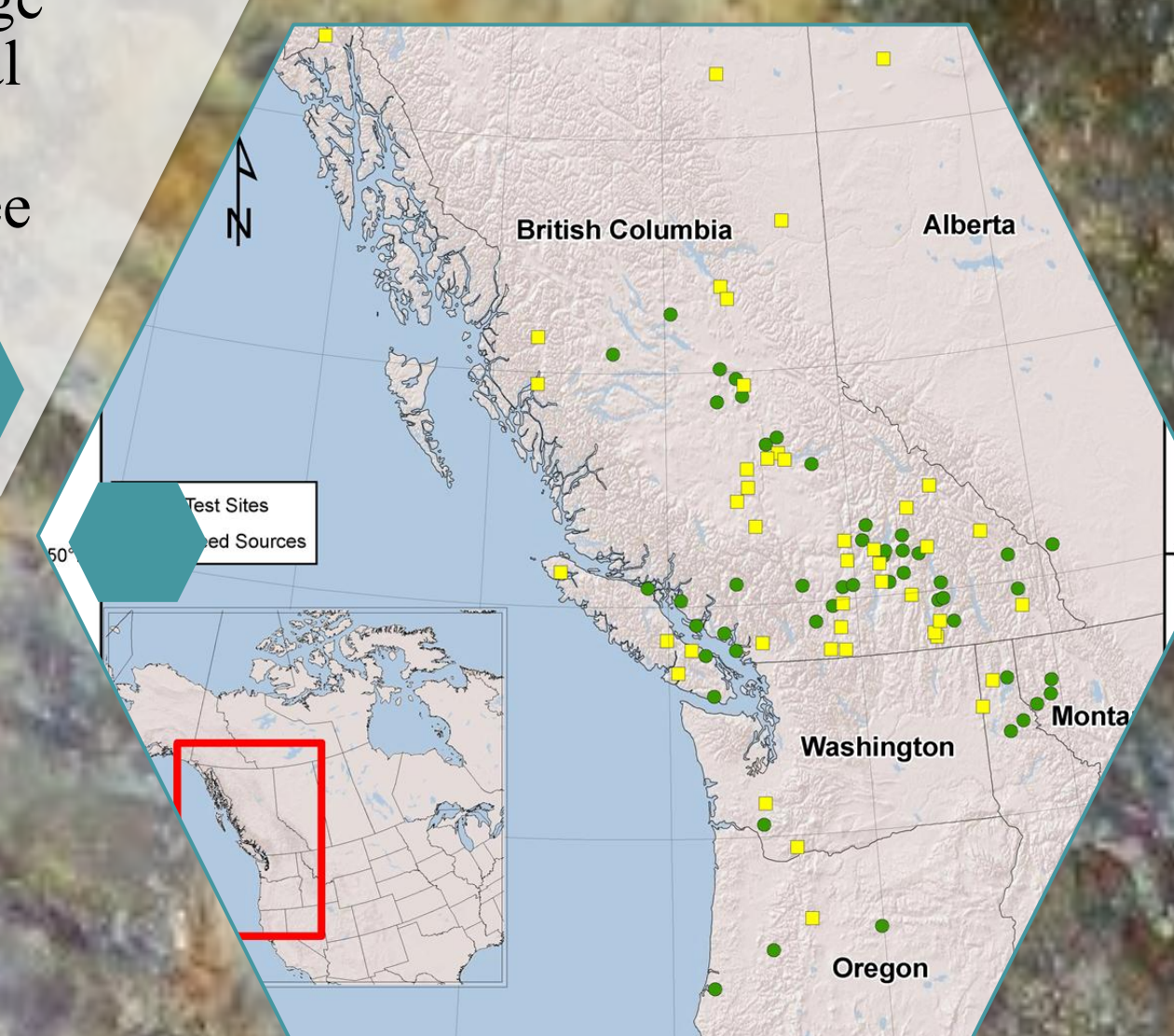
Project run out of the Chicago Botanic Garden that attempts to collect and preserve, by storing, native plant species from threatened tallgrass prairie ecosystems.

Assisted Migration Adaptation Trial

Long term study commissioned by British Columbia’s Ministry of Forest and Range that explores potential ideal future climates for BC’s commercially important tree species.

Torrey Guardians

Self-organized group of citizen naturalists dedicated to saving the tree species *Torrey taxifolia*, or stinking cedar, by assisting its migration past its native range in Florida north to North Carolina.



Implications

There is a common contradiction in the top priorities of scholars regarding assisted migration. On one hand there is a heavy emphasis on setting up infrastructure, oversight, systematic policy and risk assessment, not to mention many who also demand further research. On the other hand, within the top three prescriptions is the recommendation that assisted migration be started sooner rather than later, which leaves little time for these time-consuming other recommendations. This preoccupation with developing a systematic procedure, despite a full awareness that time is running out, reflects an uneasiness within the conservation community with the notion of humans as authorities over ecosystems. That conservationists are still so uncomfortable with the notion of human-changed ecosystems harkens back to the idea that there is a certain way that ecosystems are “supposed” to be, one that relies on historical baselines unreflective of their dynamic, ever-changing nature. It indicates a recurrent desire to be hands off, to yield to some higher authority we assume to know better, even with a practice like assisted migration, which is inherently hands on.

References

- Marris, Emma. *Rambunctious Garden: Saving nature in a post-wild world*. New York: Bloomsbury, 2011.
 Hewitt, N., et al. “Taking Stock of the Assisted Migration Debate.” *Biological Conservation* 144, no. 11 (November 2011): 2560–2572.
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