

# How Should We Talk about Our Work?

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Ecological restoration is a kind of history lesson. We aim to replicate the past, sometimes by species composition and sometimes by ecological function. When we urge the public or clients to support a project, we invoke former landscape structure to support a healthier and more sustainable future. In many projects we select a moment from the past that we wish to replicate. We know the future will be different, climate change and other human-based stresses are barreling towards us, but that future is not yet well defined.

What moment from the past should we use as an historical model? We have various sources of information from 50 or 100 years ago for many habitats. However, we know that the landscapes of this continent have changed enormously by human actions since the first settlements after the Ice Age and more rapidly since European colonization. We aim for scientific clarity and authority. But the study of history, either ecological or of our civilization, is not an objective gathering of facts, as if we were using a mass spectrometer to catalog the chemicals in a laboratory beaker. History is explored and then explained for many reasons, mostly to satisfy the perspective and goals of the writer. In each of our ecological projects we make subjective decisions about the ecological model we will mimic, the moment from the past that will be the foundation for our restored habitats' future.

Recently a critique of historical writing was published that catalogs the subjectivity that accompanies the writing of human history (Menard 2022). That author's list of motivations for historical work rings true as a surrogate for the decisions we must make when we explain ecological restoration actions to our public.

**To indoctrinate.** Few members of the general public or of government agencies are trained in ecological science, although numbers are slowly growing as the environment degrades and concerns grow. We usually justify our restoration projects by explaining the importance of ecological services to our communities. Speaking with the press or with government officials may be more effective by sharing compelling stories of ecology grounded in fact. Long charts of numbers or species lists rarely get translated into

enthusiasm. Indoctrination, in the best sense, is necessary to increase support and understanding of restoration's goals and value.

**To entertain.** Many people find joy in nature. The goals of restoration projects often include descriptions of the pleasure that the new habitat will offer visitors. Discussion of activities in public green spaces usually stress the beauty, relaxation, stress reduction, and interpersonal joy that moments in restored landscape can bring. The entertainment value of restoration should not be discounted as it entrains the public to appreciate our ecological actions. Including the local community, "citizen scientists," in the installation of plants and in monitoring the results is both stewardship and socializing which can fairly be termed entertainment.

**To warn.** In many of our projects we add back habitat as a remedy for environmental degradation. Restoration plantings are visual warnings that so much of our landscape lacks ecological function and is on a descending ecological trajectory. A restoration plan is effectively a warning that what we have now is not good enough. It may become worse. The canard that nature heals itself must be challenged in a world where additional human-caused stresses, more than sea levels!, keep rising.

**To justify.** We spend time and money killing non-native invasive species. This looks awful to people who equate any greenery with nature, oblivious to "biotic pollution," the biodiversity threat of aggressive species. Once we were cutting and spraying a large *Phragmites australis* stand and a neighbor ran up screaming, just screaming, that we could not do that. God put those plants here, they howled, we had no right to kill them. Flustered, embarrassed, we didn't know where to start with an ecological justification. So we cowardly fell into the easy response. "You'll have to talk to the local parks department." We passed the explanatory buck.

In a more relaxed setting a long-winded story of vegetation change, colonization by invasive species, and the need for historic biodiversity could be explained, the historical past being the dream for an improved landscape. Our justification for big projects sometimes rests on ecological nostalgia, although we know the ecological past should not be confused with the yet-undetermined future.

**To condemn.** Knowledge of the former, richer ecological landscape can be used to paint the current conditions as damaged and faulty. We can point our muddy fingers

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at actions and inactions that have destroyed ecological function. If we can show the current landscape as a crime scene, we can win advocates for ecological restoration improvements. The now lost, once healthy, environment becomes evidence to condemn current degradation as a threat to our human communities and a reason to invest in biodiversity improvement.

Each of these justifications for ecological restoration is useful and can complement a carefully honed scientific rationale for restoration projects. Each of these arguments is subjective and emotional and only part of the rich story of environmental change. However, communication of our environment's history to build a better future must rely on effective storytelling. Statistical tests, Latin binomials, and experimental replications are part of our work, but

historical storytelling may be more effective to convince and embrace our neighbors as the allies to our goals.

### Recommended Reading

- Allison, S.R. 2012. *Ecological Restoration and Environmental Change: Renewing Damaged Ecosystems*. New York: Routledge.
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- Szabó, P. 2010. Why history matters in ecology: An interdisciplinary perspective. *Environmental Conservation* 37:380–387.



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