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People as ecological participants in ecological restoration

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Abstract

Ecological restoration is becoming increasingly more important as the global population finally awakens to an important realisation – that our planet is not one of endless abundance. It is a planet of limited resources, one where over-extraction and over-pollution have detrimental and often irreversible environmental consequences. As we look for new technological ways to circumnavigate environmental problems so that the real ethical challenge (population growth) need not be addressed, ecological restoration is one of the few solutions that actually seeks to repair the planet.

Fixing atmospheric carbon, stabilising land, and increasing biodiversity are among just some of the environmental benefits of ecological restoration and as people are the catalysts of the restoration process, there are often social benefits to their involvement such as increased mental and physical wellbeing.

However, if ecological restoration is so important, why then is the science behind it (restoration ecology) so poorly defined? Some have even questioned whether restoration is even indeed a science (Halle 2007).

This thesis examines this issue and aims to investigate the place of ecology in restoration ecology. The methods used to explore this topic include (a) an examination of the current treatment of ecological theory in restoration guidance available for practitioners, and also its application in New Zealand restoration case examples; (b) a review of historical ecological theory to identify an ecological model that might represent the practice and process of development embodied in restoration, and; (c) focus group research with New Zealand restoration practitioners to test the theoretical and practical value of a conceptual ecological model (Odum 1969) as a form of theoretical guidance for restoration practitioners.

While this thesis has primarily involved researching restoration ecology in New Zealand, many of the principles, challenges and outcomes are broadly applicable to the global restoration context.

The key finding in this study was the recognition that while ecological theory provides a substantial basis for understanding restoration ecology, it does not capture one very important feature of restoration – the involvement of people. Ecological theory encompasses ecology in the absence of humans. Restoration, by its very nature, involves people interacting with ecology. Ecological theory does not recognise how people are ecological participants in the restoration, ‘assisting’ trophic trajectories in desirable directions, nor does it recognise the complexity of social factors that govern restoration objectives.

This thesis gives rise to a new scientific paradigm in researching restoration ecology – one that seeks to understand the mutually beneficial interactions that are achievable between people and ecology.

“A land ethic changes the role of Homo sapiens from conqueror of the land community to plain member and citizen of it. It implies respect for his fellow-members and also respect for the community as such.”

- Aldo Leopold, 1968

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