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Introduction to Volume 2: Restoration and Reclamation Techniques

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Restoring an ecosystem requires us to know whether the most effective approach is to intervene in some fashion or to count on natural processes. Even when it is clear that ecosystem recovery is completely reliant on structural changes (e.g. removing artificial drainage, regrading), how best to proceed still depends on comparing various options for a given kind of intervention. Planting, altering hydrology, and amending soil, reintroducing animals each have many different approaches from which to choose when planning a restoration. Little data is reported in the restoration and reclamation literature that compares the performance of one restoration approach to another. Comparative information is challenging to assemble for restorations because each project is a series of decisions on various techniques, from site preparation to plant and animal recolonization.

This year, the Restoration and Reclamation Ecology class at the University of Minnesota (Hort 5015) assembled information on techniques used in restoring drastically altered lands, grasslands, lakeshores, inland wetlands, coastal waters, rivers and streams, and forests. This collection of papers is not meant to be a comprehensive treatment of all pertinent methods. Rather, each paper takes an in-depth look at a particular technique. One topic that is under-represented relative to its importance is invasive species control. The importance of understanding and managing the desired and invasive components of biological communities will only increase as landscapes become more degraded and indigenous biota become more isolated. Most of those involved in restoration have likely acquired a strong interest (and fascination) with weed control after seeing first-hand how critical it is to the recovery of many ecosystems.

Many thanks to those from agencies and organizations who patiently fielded our questions. Look for the next journal volume in spring of 1998. Our theme will be restoration and reclamation programs. We'll compare public and private restoration initiatives: what kinds of ecosystems are included, how do they select and prioritize sites to restore, and how do they evaluate their success.

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