

Ecological restoration and environmental change: Transforming ecosystems, transforming ourselves

By Stuart K. Allison

My seminar will begin by introducing my work and me to the ISAS community. I will summarize some of my past work that led me to develop the research project I carried out last year as a guest at Cranfield University funded by the Fulbright Commission. My goal was to produce a synthesis of the approaches to ecological restoration undertaken around the world with the objective of providing a better framework from which restorationists can plan and implement restoration work of both ecological and cultural value. By developing a better understanding of ecological restoration as it is practiced worldwide, I hoped to articulate the relationship between ecological value and human needs so that we can pursue a more global approach to planning and discussing restorations with all stakeholders. I performed a meta-analysis of restoration ecology papers published from 2006 to 2010 that provided a description of a restoration project. I also conducted an on-line survey of restorationists to determine their attitudes towards and goals for ecological restoration.

Today the development of novel ecosystems (ecosystems highly modified by local habitat destruction, the presence of non-native invasive species and the effects of global climate change) is causing restorationists to reassess what it means to do good ecological restoration. When ecological restoration was first practiced there was frequently a focus on re-establishing historic ecosystems (this was especially true in North America and Australia). Today restorationists are beginning to focus more on restoring biodiversity and valuable ecosystem functions. Some are even talking about future oriented restoration with a goal of planning restoration to match expected future conditions. Planning restoration projects has become a more contentious process due to changes in attitudes and approaches.

In the end, good ecological restoration practice must produce restoration projects that have both ecological value and human meaning. The more explicitly we address both properties, the more successful we will be as restorationists and the more benefit there will be for the entire planet as we work together to repair the damages that have resulted from some human activities and on-going environmental change.

Biographical information: Stuart Allison is a native of western Illinois, where he now lives after following a circuitous path to gain his higher education. He earned a bachelor's degree in biology at the University of Puget Sound, a master's in oceanography at the University of Rhode Island and a Ph.D. in biology at the University of California, Berkeley. He did postdoctoral studies in ecology at Rutgers University. He has been at Knox College for 14 years where he is a professor in the biology department and director of the Green Oaks Field Research Station. He specializes in ecological restoration.

He recently completed a Fulbright Fellowship at Cranfield University, UK, in which he conducted a comparative study of ecological restoration practices worldwide with the objective of providing a framework which restorationists can use to plan and implement restoration work of both ecological and cultural value. His book, Ecological Restoration and Environmental Change (Earthscan/Taylor and Francis Publishers), is in production and will be out later this year.