

Frontiers in Historical Ecology

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<http://www.iufro.org/science/divisions/division-9/90000/90300/90303/activities/>

Human activities are important drivers of landscape development and ecosystem change. Consequently, the relevance of considering human impacts has become increasingly popular in ecology over the past several decades. Historical ecology has been promoted as an integrative approach for the study of human impacts on ecosystems and landscapes over time and as a prerequisite to understand current day ecosystems and landscapes.

The conference on “Frontiers in Historical Ecology” from August 30 – September 2, 2011, at WSL Birmensdorf, Switzerland involved IUFRO 9.03.00 and 9.03.03 and brought together some 90 participants from 21 countries. Discussions focused on four major topics:



Relevance of historical information in times of global change

Landscapes and ecosystems worldwide are affected by various effects of global change and more and accelerated changes are expected for the near future. In this situation, information about the past land use, land cover, and ecosystem state are urgently needed to understand the dynamics and trajectories of the systems under study and the main responsible driving factors. Such information forms the basis for projections about potential future developments.

Beyond case studies in historical ecology - the search for general patterns of ecosystem change

There is a need for relevant insights beyond the case study boundaries. Comparative approaches and meta-analyses enable to go in this direction. This must be considered in the study design and documentation, which has to include information on all relevant parameters to set the case study in context and in perspective.

Historical ecology and ecosystem modeling

Historical ecology and ecosystem modeling can greatly profit from each other. Ecological modeling requires data from historical ecology to calibrate the models and to validate the results. In return, ecosystem modeling can help historical ecologists to extrapolate their findings to areas with little or no sources available. However, both sides have to consider the requirements and limitations of historical data and ecological models.

Problems and possibilities on the border between historical ecology and environmental history/archaeology

Successful interdisciplinary collaboration often starts with a common question. Whereas hybrid scientists, i.e., people

specializing in different disciplines, might work very successfully on interdisciplinary topics, working in teams involving different disciplines might be more promising for larger projects. In this case, all scientists involved should have an interest in and some basic understanding of the other disciplines and respect the existing differences in scientific cultures. The core methodological approach in historical sciences, i.e., source criticism, is often not known to ecologists and should be explained better by historians and/or historical ecologists.

Throughout the conference it became very obvious that historical ecology is a vibrant and relevant field for interdisciplinary collaboration. Because of their longevity and good sources in the field as well as in the archives, forests are a prime ecosystem for historical ecology. The conference certainly helped to gain a good overview on where the field stands and what the potential of this approach is in the near future.

Host organizations and sponsors:

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