



Native Vegetation

Project Fact Sheet 10:

CSES

A national framework for landscape classification

Principal Investigators:

Dr Sue McIntyre (email:sue.mcintyre@cse.csiro.au ph: 07 3214 2391)

Dr Richard Hobbs (email:rhobbs@essun1.murdoch.edu.au ph: 08 9360 2191)

Host Organisation:

CSIRO Sustainable Ecosystems, Murdoch University, WA

Duration of project:

August 2001 to July 2003

Project Summary

There is a pressing need for information on managing native vegetation at the landscape scale. Such information will be based on what we already know about managing native vegetation at a finer scale and needs to contain robust generalizations. We need to know the limits to these generalizations and make adjustments for particular types of landscapes.

The project will develop a framework that classifies landscapes across Australia on the basis of simple indicators. The framework could be used for both research planning and communication, and encompasses the range of landscapes occurring nationally. This classification is based on indicators that describe biophysical and human alteration states relevant to landscape ecology and vegetation management.

Project Objectives

The overall objective of the project is to develop a conceptual classification of Australian landscapes that will be used to enhance communication in the landscape planning and management arena.

The project has four objectives:

- to develop a framework which broadly classifies landscapes across Australia;
- to review this framework in consultation with experts across the regions;
- to set boundaries for the generalisation of management principles using the framework; and
- to communicate the usefulness of the framework to a range of stakeholders.

Approach and Methods:

The project is essentially a desktop exercise, involving the development of a series of two-way tables (matrices) representing various combinations of biophysical classes and human alteration states relevant to landscapes. The approach will be to identify the minimum set of variables, and levels within variables, that are most meaningful from the perspective of Australian landscapes and their management.

The project does not involve primary data collection. It is an exercise in conceptual modelling, attempting to identify important variation in the complex environment that is the Australian landscape. The landscape comprises a nested set of ecological systems (biotic communities, species, populations, and individuals) and landscapes, and therefore presents particular conceptual challenges for researchers and managers alike. We need to address this variation in order to have reference points for effective communication. Although the approach requires knowledge of the scientific literature, the final product is essentially a creative product derived from a synthetic understanding of natural systems and their interactions with people.

The main project stages are:

1. identification of the key environmental and management variables, and the development of a proposed set of matrices involving various combinations of the variables;
2. consultation with stakeholders and subsequent review and refinement of the matrices;

3. application of examples to test the matrices for usefulness; and
4. publication and dissemination of the framework.

Review of the matrices will include consultation with people who have wide knowledge of regions and different parts of the matrix.

Further testing of the matrices may include:

- identifying the importance and distribution of different cells (combinations of states);
- setting boundaries for the generalization of principles and thresholds (including salinity management principles);
- identifying hypotheses for important sub-sets of the matrix; and
- other applications as identified by the program members.

Benefits

The framework could be used for both research planning and communication, for example in:


- setting a suitable context for discussion that explicitly addresses landscape variability;
- comparing existing landscape design principles and identifying which ones can be generalized and for what locations;
- identifying environments in which information gaps exist, and where priorities in research or management might lie; and
- tailoring management strategies for different landscape types.


The core output will be material submitted for publication. Although the project will investigate possible classifications using a high level of detail, it is essential that the final project output is simple and accurate, as this will provide the best chance of adoption. Oral presentations would also be part of the project outputs.

The desired outcome would be to have a simple landscape classification widely accepted by researchers, R & D managers and institutions as a useful way of communicating ideas about landscape relating to research, management, policy development and administration. The specific aim of the classification is to take into account the variation in landscapes at the national scale, and for this reason the work will have relevance to all people working in natural resources management in Australia.


Program Contacts


Jann Williams, Program Coordinator

 (03) 9925 1014



 jann.williams@lwa.gov.au



Gill Whiting, Program Officer

 (02) 6263 6001

 gill.whiting@lwa.gov.au

Fact Sheets and other Program publications available from CanPrint Communications:

 freecall 1800 776616  P.O. Box 7456, Canberra Mail Centre, ACT 2610

 lwa@canprint.com.au or via the website  www.lwa.gov.au/native_vegetation

