The Vegetation of the Australian Tropical Savannas

I. D. Fox, V. J. Neldner, G. W. Wilson and P. J. Bannink, 2001.
Environmental Protection Agency, Queensland Government.
Map and accompanying technical report.
Pp. xii and 329.

MARK HEWITT[1]

THE publication is a CD containing 1:2 000 000 scale maps in three sheets and an accompanying technical report produced by members of the Queensland Herbarium. It is the result of a collaboration of State, Territory and Federal agencies and researchers. The full list of authors include Fox, I. D., Neldner, V. J., Wilson, G. W., Bannink, P. J., Wilson, B. A., Brocklehurst, P. S., Clark, M. J., Dickinson, K. J. M., Beard, P. S., Hopkins, A. J. M., Beeston, G. R., Harvey, J. M., Thompson, E. J., Ryan, T. S., Thompson, S. L., Butler, S. W., Cartan, H., Addicott, E. P., Bailey, L. P., Cumming, R. J., Johnson, S. C., Schmeider, M., Stephens, K. M. and Bean, A. R.

The maps produced represent the undisturbed vegetation (predominantly classed as Tropical Savannahs), of the north of the Australian continent. It attempts to synthesize data that have been compiled from 1954 to 2000 as well as to integrate knowledge of landforms and evolutionary processes that have given shape to the current form of this region.

The vision of the project is daunting in scope — to integrate generations of disparate data, to attempt meaningful unity and to then plot it on to one integrated map that accurately represents distinct vegetation and land-zone units. The problems of scale (190 million hectares), differing systems of source data collection and technical issues in integrating the data using GIS system software have been principal problems for the project.

The publication is intended as a definitive reference tool for researchers, conservation planning and land-users at a national scale.

Its specific contribution is two-fold: 1. To definitively describe vegetation and land-zone types across the entire north of the continent. 2. To establish an in-depth understanding of processes which have given rise to the current form of vegetation cover. The reader is shown how the continent of Australia was built out of different sub-continental blocks, fused together in the shaping of the Gondwana super-continent and then subjected to various regimes of climate and finally fire, before arriving at its present spatial position as a continent and form of vegetation cover. This expansionary analysis reaches its culmination when viewing the produced maps.

Some sense of the complexities at play and the immensity of forces that have resulted in the major categories of vegetation and land-zone are imparted from this work. From this point of view it is a success. It is also important as it provides a tool that helps to understand human impact upon the environment.

The maps show original vegetation cover. It does not show what has been removed through land-clearing. It is left to others to build this understanding using the maps as a reference tool. Preliminary estimates in the publication indicate 4.61% of the total area has been cleared (an area equivalent to the Australian State of Tasmania, Maine in the USA and the country of Scotland in the UK).

The organization of the material is adequate. More information on the fusing of Australia's Physiographic Structure would have been revealing. The CD's accessibility of files could be more user-friendly. The photographic recording of examples of Map Units lends accessibility to the work.

In conclusion, this is a very important work which builds upon a great deal of knowledge and establishes a very important tool for the next generation of understanding. It will undoubtedly be invaluable in the establishment of effective management systems in protecting and sensibly utilizing this area of extraordinary diversity and uniqueness.

[1]School of Natural Sciences, Edith Cowan University, Joondalup, Western Australia, Australia 6027.