

## KNOWLEDGE, REGULATION AND INCENTIVES IN PROTECTING TEMPERATE GRASSY WOODLANDS: SIX LESSONS FROM NEW SOUTH WALES

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1. Document the resource through biological survey, classification and mapping.
2. Complete targeted research on threatening processes such as fragmentation, weed invasion and native species recruitment.
3. Enact laws and regulations for establishing public reserves and secure property agreements as a conservation core.
4. Implement assessment tools that allow scientifically credible decisions on land use or incentive payments using criteria such as habitat rarity/threat/condition.
5. Protect travelling stock routes, roadside remnants and other public land.
6. Support local community information networks and learn from adaptive management.

### Introduction

More than three decades of ecological research and dealing with environmental policy in the State of New South Wales (NSW) in south-eastern Australia have provided me with insight into the information, regulations and education programs that are effective in protecting biodiversity in a variety of landscapes. This understanding inspired my main current research to classify and assess the threat and protected area status of plant communities over the 80 million hectares of NSW into the NSW Vegetation Classification and Assessment database (Benson 2006; Benson *et al.* 2006; Benson 2008; see summary of the project at: [http://www.rbg Syd.nsw.gov.au/science/Evolutionary-Ecology-Rresearch/vegetation\\_of\\_nsw](http://www.rbg Syd.nsw.gov.au/science/Evolutionary-Ecology-Rresearch/vegetation_of_nsw)). It is anticipated that about 1400 plant communities will eventually be described across NSW, of which at least 100 will be grassy woodland types. My work in grassy woodlands and native grasslands has mainly involved botanical surveys on the NSW southern tablelands, north coast, northern tablelands, western slopes and the eastern section of the western plains (see map on next page). Additionally, I have collated hundreds of botanical surveys and mapping projects to populate the 90 information fields in the NSWVCA database.