global change and particularly their impact on the conservation of biodiversity. The major change of policy direction has seen the dedication of new and/or expanded reserves. A considerable amount of time and energy has consequently been expended in the development of scientific approaches to reserve selection and design. Most of the traditional approaches have been based on aesthetic and or wilderness considerations, with a lesser number of reserves being designated for the conservation of individual species. More recent allocations have been advocated and/or selected using the variation in vegetation or in environmental domains as surrogates for other values. Together with new models for predicting species ocurrence, likely global change scenarios, the viability of populations and estimation of the distribution of genetic diversity, these techniques offer a powerful set of tools for analysing reservation needs. However the needs for the majority of the biodiversity, ie the non-vascular plants and invertebrate fauna have scarcely been considered. There have been relatively few resources allocated towards conservation management either within the proliferating reserve system or in areas outside of reserves where sympathetic and complementary management is a stated aim.

131. Conservation of fungal communities.

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The clearing or modification of large tracts of natural vegetation for agricultural, pastoral, forestry or urban developments and the introduction of a diversity of plants and animals has greatly modified the landscape over much of Australia. The extent of the possible reduction in diversity of the indigenous mycoflora brought about by these developments and still being caused by these changes is not known; no fungus species is known to have become extinct.

In Europe, acid rain and addition of large quantities of nitrogenous fertilisers seem to be the principal causes of decline of macro fungal communities. In Australia the effects of the addition of phosphate and nitrogen fertilisers on the indigenous mycoflora are not well known.

Paucity of competent fungal taxonomists and the large number of fungi in Australia still to be described makes conventional strategies for conservation difficult to implement. The result is that for the present the conservation of mycoflora is predicated on conservation of phanerogam communities.

132. Disease and Nature Conservation.

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Perceptions of just what constitutes nature conservation are diverse enough; perceptions of the place of disease in natural ecosystems are even more remarkable. They have varied from (i) the quasi religious Arcadian view of stability and perfection in nature, through (ii) the view centred in some German schools, that disease is the consequence of accidental colonisation of unsuitable habitat; (iii) the modern fashion that it is the consequence of disturbance of the delicate ecological balances innate in natural systems; (iv) a perhaps more realistic view that it can also be a natural function in ecosystem dynamics and; (v) that even damage, catastrophic by some measures, is a part of natural processes. These notions will be discussed with examples from Australian experience.

The powerful effects of fragmentation of community distribution by land clearing and the invasion of temperate ecosystems by Phytophthora cinnamomi, will be noted.

The need for a greater genetic and ecological focus as opposed to a mycological emphasis is indicated. Finally a case is put for the profession to champion reservation of examples of vital disease processes for their educational and heritage values.

* Australian colleagues too numerous to list, but especially, Jack Simpson, Mick Brown, Syd Shea, Glen Kile, Jim Armstrong, Neville Marchant and David Coates.

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9TH BIENNIAL CONFERENCE AUSTRALASIAN PLANT PATHOLOGY SOCIETY

APPS

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CONFERENCE PROGRAM AND ABSTRACTS