ENDANGERED ECOLOGICAL COMMUNITY INFORMATION

Sydney Coastal River Flat Forest

J. Howell

Conservation Status

Sydney Coastal River Flat Forest is listed as an endangered ecological community under the *Threatened Species Conservation Act* 1995.

Description

In the NPWS vegetation mapping of the Cumberland Plain, two main forms of Sydney Coastal River Flat Forest have been identified — Riparian Forest and Alluvial Woodland.

Riparian Forest is a tall open forest community on alluvial soils adjacent to main river channels, with emergent trees, such as broad leaf apple (*Angophora subvelutina*), cabbage gum (*Eucalyptus amplifolia*), bangalay (*E. botryoides*) and river peppermint (*E. elata*). The small tree layer often includes wattles, such as white Sally (*Acacia floribunda*) and coast myall (*A. binervia*). Originally, the understorey would have had occasional dense pockets of low rainforest vegetation, such as grey myrtle (*Backhousia myrtifolia*) and a grassy shrub layer with blackthorn (*Bursaria spinosa*).

Alluvial Woodland occurs along minor watercourses and on terraces adjacent to riparian forest and commonly includes trees such as cabbage gum (*E. amplifolia*) forest red gum (*E. tereticornis*) and dense stands of Swamp Oak (*Casuarina glauca*).

Distribution

Sydney Coastal River Flat Forest occurs along the extensive riverbanks and floodplains of the Cumberland Plain, particularly along the Hawkesbury-Nepean river system. Sydney Coastal River Flat Forest is now reduced to 5446 ha which is 13.9% of its original distribution (NPWS 2002a, NPWS 2002b). Sydney Coastal River Flat Forest occurs in the Auburn, Bankstown, Baulkham Hills, Blacktown, Camden, Campbelltown, Fairfield, Hawkesbury, Holroyd, Hurstville, Liverpool, Parramatta, Penrith, Sutherland and Wollondilly local government areas.

Examples to see

Good examples of Sydney Coastal River Flat Forest can be seen at Bents Basin State Recreation Area, Mulgoa Nature Reserve and Western Sydney Regional Park.

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Ecology

Sydney Coastal River Flat Forest occurs on floodplain sites. Some plant species only occur on riverbanks with deep alluvial soils close to the water table. Sydney Coastal River Flat Forest has an important role in maintaining aquatic ecosystems and riverbank stability. The plants are well adapted to flood, which disperses the seeds of some species. Sydney Coastal River Flat Forest is highly significant as a wildlife corridor and includes threatened species, such as Camden white gum (*E. benthamii*).

Threats

Early European settlers were quick to clear the highly fertile riverine soils for agriculture. Now, the small and scattered remnants are under threat from woody weeds, such as privet (*Ligustrum spp*). Other threats include sand/soil mining, clearing, grazing, mowing, rubbish dumping and physical damage from recreational activities.

Recovery and management

The recovery of this ecological community is being addressed as part of the Cumberland Plain Endangered Ecological Communities Recovery Plan, which is currently being drafted.

Because the original extent of Sydney Coastal River Flat Forest has been greatly reduced, high conservation value remnants will be identified in the recovery plan and recommended for protection through a range of mechanisms including reservation, environmental protection zoning and development control processes. Other protection measures can be through plans of management and voluntary conservation agreements. These measures will enable the remnants to be better managed for conservation and vegetation corridors to be formed. Regeneration is constrained by agriculture activities and the presence of woody weeds, which prevent canopy trees re-establishing. Remnants of high conservation value need bush regeneration plans to be developed and implemented. Canopy trees (grown from locally collected seed) can be replanted on cleared land or where the understorey has been degraded by weeds. Rehabilitation of some sites is urgently required to restore riverbank stability.

For further information contact

Central Threatened Species Unit, NSW Department of Environment and Conservation, PO Box 1967, Hurstville NSW 2220 Phone 02 9585 6678. www.nationalparks.nsw.gov.au

References

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NPWS (2002b) Interpretation Guidelines for the Native Vegetation Maps of the Cumberland Plain, Western Sydney, Final Edition, NPWS, Sydney.

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