

## **Environmental values of the Southern Sydney Metropolitan Catchment Management Areas**

**By Tomas Kelly \***

Along with maintaining Sydney's vital freshwater supplies, the Southern Sydney Metropolitan Catchment Management Areas (CMAs) contain some of the region's most pristine parcels of native bushland which are home to some 80 threatened fauna and flora species (DEH, 2005). The Woronora, Cataract and Cordeaux CMAs form a near-continuous network of vegetated lands extending from Southern Sydney in the north, to Wollondilly in the south. The environmental values of these lands present important conservation considerations, particularly in the context of increasing human demands on the natural resources of Southern Sydney.

Coastal Upland swamp, heath and sedge-land environments are key habitats for many threatened species found in the Woronora, Cataract and Cordeaux CMAs and are some of only few remaining sites in the greater Sydney region. No less than 12 Threatened vertebrates are recorded for these habitats for the Greater Southern Sydney Area including the Giant Burrowing Frog and the Beautiful firetail that may depend on places like the Woronora Special Area as an intermediate stopover point for migration between known habitats in Royal National Park and Dharawal State Conservation Area and Nature Reserve (DECC, 2007). These environments play a vital role not only as primary habitat sources for these species, but also as filtration and recharge zones for the greater catchment (DECCW, 2011; Young, 1982). The functioning of these environments ensures the preservation of ecosystem health, as well as the purification of Sydney's freshwater supplies. Southern Sydney's CMAs are therefore areas of high conservation value due to their role in maintaining the well-being of both human and natural resources.

The natural corridors and dispersal routes formed by the Woronora, Cataract and Cordeaux CMAs adds further to the conservation values of these areas. Expansive nature corridors have been shown to provide an array of ecological benefits including increasing genetic diversity and natural resilience to ecosystem and external pressures (Parker et al, 2008). The three CMAs mentioned above form an ideal north-south dispersal route which may become increasingly important due the potential impacts of climate change and continued urban sprawl.

Maintenance of the corridors formed by the Southern Sydney CMAs could be implemented to provide linkages between fragmented native land parcels and existing protected lands such as the Garrawarra, Dharawal and Illawarra Escarpment State Conservation Areas. NPA believes that the natural qualities of these so called "Special Areas" will be compromised if development, (and even exploration in several cases) of coal seam gas deposits is allowed to occur here. It is not hard to imagine Nature Reserve quality lands being replaced by a 20 x 12 km gas wasteland with severely compromised ground and surface water if the NSW government fails to hear the united call of Southern Sydney's and Northern Illawarra's residents to exclude Coal Seam Gas mining from these water catchment areas...and from all National Park estate lands and linking green corridors. Such exclusions would mark a significant step towards the sustainable protection of Southern Sydney's natural resources.

Continued awareness concerning the conservational importance of Southern Sydney's CMAs can help ensure that these areas maintain their value as vital systems for both human and natural functioning.

## References

- DECCW (2011). *NSW Wildlife Data Atlas*. Spatial Data Unit, NSW Office of Environment and Heritage.
- DEH (2005). *Assets of National Environmental Significance*. Sydney Metropolitan Catchment Management Authority. <http://www.sydney.cma.nsw.gov.au/the-catchment/assets-of-national-environmental-significance.html>.
- DECC (2007) Threatened and Pest Animals of Greater Southern Sydney
- Parker, K., Head, L., Chisholm, L and Feneley, N (2008). A conceptual model of ecological connectivity in the Shellharbour Local Government Area, New South Wales, Australia. *Landscape and Urban Planning*, 86(1): 47-59.
- Young, A (1982). *Upland swamps (dells) on the Woronora Plateau, NSW*. PhD Thesis, School of Geography, University of Wollongong.

\*Tomas is final year student of environmental studies at Wollongong University. He is also Southern Sydney Branch of National Park Association's newly elected "Project Officer" who has joined the Association as the bushland of Souther Sydney faces one of its largest threats.