



The Vertebrate Fauna of North-western Wollemi National Park

Project funded under the Central Branch Parks and Wildlife Division
Biodiversity Survey Priorities Program

Information and Assessment Section
Metropolitan Branch
Environmental Protection and Regulation Division
Department of Environment and Conservation (NSW)
June 2006

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FINAL REPORT

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All photographs are held by DEC. To obtain a copy please contact the Bioregional Data Group Coordinator, DEC Hurstville

Cover Photos

All photos by Narawan Williams except feature photo by Elizabeth Magarey.

Front cover

Feature Photo, Widden Valley escarpment
Treefern
Large Forest Bat
Rock outcrop in Widden Valley
Lace Monitor

Back cover

Stuttering Frog
Grassy Woodland on Gaspers Mountain
Wedge-tailed Eagle
Grass Tree

Formatting

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OVERVIEW

North-western Wollemi National Park comprises almost 185 000 hectares of land within the catchments of the Goulburn, Capertee and Cudgong Rivers. The diversity of animals located therein is one of the most impressive of all the national park areas in NSW. This is not surprising, given the large number of environments that fall within its boundary, and the convergence of a number of regional and environmental influences. The study area supports species typical of the Sydney sandstone hinterland, central western slopes and central tablelands. In no other location in NSW are so many fauna species from all three of these regions found within one conservation reserve.

The recent systematic surveys have identified numerous threatened species in the study area and greatly improved the understanding of species distribution, status and conservation priorities. Of the 40 threatened species for which the study area provides habitat, two species in particular, the Stuttering Frog and Brush-tailed Rock-wallaby are of extremely high conservation concern due to their continued decline in numbers and distribution in recent years. These species will require active management to ensure their survival in the long term. Furthermore, twelve threatened species are partly or wholly dependent on woodland and forest habitats within the dry fertile lower slopes and valleys that follow the northern, north-western and south-western boundaries of the park. These habitats comprise the 'Upper Goulburn Valleys and Escarpment' and 'Sydney Basin Western Escarpment' Mitchell Landscapes, which together constitute a unit of very high conservation importance. A large number of threatening processes operate within these high priority landscapes, which should be the focus of key management actions. Pest species were found to be widespread across the study area, including within the high priority Landscapes. Of these, Foxes and Wild Dogs are likely to pose the greatest immediate threat to native wildlife, while Feral Goat and Feral Deer have the potential to cause significant impact in the future if not further monitored and controlled.

This report compiles and reviews Atlas of NSW Wildlife data on terrestrial vertebrate fauna and documents the extensive systematic surveys undertaken by the Department of Environment and Conservation between 1997 and 2006. A total of 394 systematic survey sites have sampled the birds, frogs, bats, reptiles, arboreal and terrestrial mammals. This is the first time that a thorough inventory of all vertebrate fauna known and likely to occur within the study area has been compiled. Some of the key findings are summarised below.

- Three hundred and fifteen (315) species of native terrestrial vertebrate fauna are known to inhabit north-western Wollemi National Park. This is made up of 18 species of frog, 52 reptile species, 198 bird species, nine species of arboreal mammal, 17 ground mammal species and 21 bat species. In addition, 16 species of introduced fauna have been recorded in the study area, including 13 ground mammals and three birds.
- Thirty-six species listed on the NSW Threatened Species Conservation Act (1995) are known to occur in the study area, and a further three are considered highly likely to occur. Seventeen of the threatened species primarily occur on the deeply incised sandstone plateaux that occupy the majority of the study area, while at least twelve rely on habitats within the dry fertile lower slopes and valleys below the escarpment. Habitats such as the latter have been extensively cleared in the Goulburn, Capertee and Hunter Valleys and remain under considerable pressure. The preservation of these habitats in north-western Wollemi National Park therefore has high regional and state-wide conservation significance.
- The endangered Stuttering Frog was discovered in two locations in December 2005, which is the first time it has been recorded in almost one million hectares of the northern Blue Mountains and Yengo reserves. This large frog appears to be close to extinction from the southern half of its former range, and the records constitute one of only a few known extant populations south of the Hunter Valley. Fresh evidence of the endangered Brush-tailed Rock-wallaby was sighted at two locations, including the observation of five individuals in May 2006. These sightings confirm that colonies persist within the study area but are currently small and patchily distributed, requiring management action to ensure their survival. Other highly significant threatened species sightings made during surveys include that of Broad-headed Snake, Regent Honeyeater, Eastern Cave Bat and Spotted-tailed Quoll.
- A number of threatened species were found to be widespread and relatively abundant across the study area and are considered to currently be secure in the reserve. This list includes Red-crowned Toadlet, Gang-gang Cockatoo, Glossy Black-cockatoo, Powerful Owl and Yellow-bellied Glider.
- Numerous species reach the north-westerly limit of their range within the area, including Red-crowned Toadlet, Giant Burrowing Frog, Crescent Honeyeater and Leaf-tailed Gecko. Other species that are more common in central western NSW approach their eastern limits in the area, including Inland Broad-nosed Bat and Diamond Dove. Yet other species that are common in moist coastal forests were recorded for the first time so far from the coast, including Emerald Dove and Golden-crowned Snake. Furthermore, a handful of species more typical of the north approach their southern limit in the study area, such as Robust Velvet Gecko and Leaden Delma. The Blotched Blue-tongue reaches the very north of its known range within the study area, and was yet another unexpected find. These examples demonstrate the importance of Wollemi National Park in its conservation of such a wide range of juxtaposing environments.

The surveys and inventory have contributed greatly to knowledge of the current composition and distribution of wildlife across the study area. The project has identified fauna habitat associations, highlighted threatened species issues, identified priority areas for threat abatement and future land acquisition, and provided key recommendations for further targeted survey and monitoring. This information will be vital to future successful management of fauna in the reserve. The data collected for this project will later be used to model habitat preferences for threatened species across the region. Meanwhile the surveys provide baseline information that will enable a reliable assessment of the importance of the reserve to the protection of biodiversity attributes at a local, regional and state-wide level.