FACT SHEET 5

Landcare Australia

FAUNA

The Bundanon Trust properties are home to a diverse range of fauna species. From beautiful birds to aboreal mammals and marsupials. Surveys have also located the presence of endangered and vulnerable species which need protection from feral fauna.

Image: Eastern Yellow Robin, Bundanon

WILDLIFE CORRIDORS

Bundanon is a significant bushland link along the Northern bank of the Shoalhaven River. The vegetation on the Southern Bank of the river opposite Bundanon has been cleared where it is flat, and it has been isolated by a regional road where the topography is steep. Small birds and mammals that would historically have moved along the rivers southern bank are considerably disadvantaged by this loss of vegetation cover and food resources. Consequently, Bundanon's narrow strip riparian vegetation is of great ecological importance and should be weeded, broadened, and species enriched to replace the habitat that has been lost due to agricultural clearing along both banks of the river. Riversdale has contiguous bushland to the east which links rural properties along the northern bank of the Shoalhaven River.

Wildlife Corridors and Forestry

Planting trees along the river banks at Bundanon has significant ecological benefits through its creation of much needed Wildlife Corridors as has been discussed earlier. The current accepted philosophy regarding the planting of wildlife corridors is that species from all strata should be planted at the outset of the revegetation program. This is a prohibitively expensive approach that cannot be applied readily to large scale revegetation programs by farmers who have limited resources. This philosophy also does not harness the natural successional process of bushland regeneration after catastrophic events like flood or a cliff collapse. An innovative program such as the one suggested below should provide an example that can be applied to all of the small creek lines on dairy farms along the east coast of NSW.

Map showing Vegetation and highighting wildlife corridor significance of the Bundanon Trust properties

Native animals do not generally restrict themselves to a single floristic assemblage but rather they have a preference for distinctive floristic structures, for example a low-heath, tall-forest, or ecotone therefore, they will have a 'range' which might include several ecological communities. Fauna need a variety of habitats that intergrade between each other (Ecotones) to provide them with all their shelter, breeding and feeding requirements. Healthy bushland, agricultural lands, and even general rubbish will provide habitat that is favoured by some species. The Wombat and Macropod populations on site are obvious examples of how some native animals preferentially use man made landscapes.

The single greatest threat to animal habitat is weed infestation. Although some weeds provide habitat, like Lantana and Blackberry for small birds, they do reduce habitat complexity and overall will reduce bio-diversity.

Fauna surveys were conducted as part of the LMP. Other sources include Atlas data base 5km search, Daly and Leonard 1996 surveys The Daly survey 1995 and Leonard Survey 1996 was used as a spatial and temporal reference point to which the LMP survey could be compared.

FAUNA SURVEYS

Summary of the 1995-1996 surveys

- 195 species of fauna were recorded a total of 13 of these species were threatened species listed on the TSC Act and/or the EPBC Act. Of these:
- 15 species were reptiles, including the Broad Headed Snake (*Hoplocephalus bungaroides*) which is listed on Schedule 1 of the TSC Act as endangered;
- 7 species were amphibians including the Giant Burrowing Frog (*Heleioporus australiasicus*) which is listed on Schedule 2 of the TSC Act as vulnerable;
- 79 species of birds including the: Sooty owl *(Tyto tenebricosa*), Masked Owl (*Tyto novaehollandiae*), Powerful Owl (*Ninox strenua*). Gang-Gang Cockatoo (*Callocephalon fimbriatum*), Glossy Black Cockatoo (*Calyptorhynchus lathami)* , which are listed on Schedule 2 of the TSC Act as vulnerable.
- 13 species of Terrestrial and Arboreal Mammals including: White Footed Dunnart (*Sminthopsis leucopus*), Yellow Bellied Glider (*Petaurus australis*), which are listed on Schedule 2 of the TSC Act as vulnerable.
- 7 bat species: Three listed species including Grey-headed Flying Fox (*Pteropus poliocephalus*), Large-eared Pied Bat (*Chalinolobus dwyeri*), Eastern Bent-wing Bat (*Miniopterus schreibersii oceanensis*), and Large Footed Myotis (*Myotis mac ropus*) have been located on site. The Large Pied Bat (*Chalinolobus dwyeri*) was a significant recording in that it extended its known range by 40km to the south east.

2013 Surveys

A Preliminary survey in April 2013 by NSW National Parks and Wildlife Service staff found recent scats of Brush Tailed Rock Wallaby. A Fauna Survey of the work site in the vicinity of Haunted Point was conducted by a local ecologist - Garry Daly. Overall the report concluded that Haunted Point is very important native habitat. The report also provide recommendations for planting species to provide winter feed habitat for threatened species. The report found evidence of the following threatened species:

- Glossy Black Cockatoo
- Rosenberg's Goanna
- Broad-headed Snake
- Brush Tailed Rock Wallaby

THREATENED SPECIES

Glossy Black Cockatoo

The Glossy Black-Cockatoo, *Calyptorhynchus lathami,* is one of the more threatened species of cockatoo in Australia and is listed as vulnerable under QLD and NSW legislation.

Glossy Black-Cockatoo have a very restricted diet, feeding only on the seeds in cones of she-oaks (Casuarina and Allocasuarina) and only on selected individual trees. They are one of the friendliest birds and are not easily disturbed when feeding. They will sit quietly and the only noise you will hear is the soft sound of cracking cones, people often do not even realise they are there.

They will return to the same food tree time and time again, often ignoring nearby trees that are full of cones, but these patterns of feeding are poorly understood. *They can fly more than 10km to feeding areas.*

Breeding occurs every two years with a single egg being laid in late January to early June with a longer nestling period then any other cockatoos (up to 90 days). The young are dependent on the parents for at least 12 months.

Large hollow bearing trees are needed for breeding, emphazising the need to retain remnant vegetation in these areas just as much as food trees. Glossy Black-Cockatoo are known to have a life span that can exceed 30 years.

Images: Glossy Black Cockatoo, Photo Ralph Dixon

Rosenberg's Goanna

Rosenberg's goanna, *Varanus rosenbergi*, is a monitor lizard. In recent years it has been popularly known as "heath" monitor. This name is erroneous as this species occupies at least 30 habitats in addition to heath. Rosenberg's is the Australian goanna that has been studied in the most detail.

Rosenberg's was once common across the southern coast of Australia. Today there are small isolated populations of Rosenberg's Goanna in SW Western Australia, coastal regions of SA, Victoria, Canberra and the sandstone country of NSW.

Rosenberg's goannas are territorial. Within an individual territory, home ranges can vary between 80 to 1000 hectares. Rosenberg's is the monitor species that has adapted well to living in cooler climates. Males and females are solitary living except during the courtship/breeding period. It takes two days for the female to excavate a suitable egg chamber within a termite mound. Eggs remain in the termite mound through the winter months.

While living in the mound, the young feed on termites. Young Rosenberg's begin to actively emerge from the mound when the mound surface temperature equals that of the internal temperature. One young in thirteen is likely to survive the first 12 months of life. Native birds and feral cats are major predators of hatchlings.

Rosenberg's Goanna,

Broad-headed Snake

The Broad-headed Snake, Hoplocephalus bungaroides, is black above with numerous bright yellow scales forming a series of irregular, narrow cross-bands. The belly is grey to grey-black, sometimes with yellow blotches. The head also has yellow blotches and the labials are barred yellow. It grows to a maximum length of 90 cm, however its average length is 60 cm.

The Broad-headed Snake is restricted to the sandstone ranges in the Sydney Basin and within a radius of approximately 200 km of Sydney. Numbers have declined in recent years however historical evidence suggests that the species has long been confined to a small geographic range. The species was once common in rocky coastal areas near Sydney.

The current distribution of this species extends from Wollemi National Park in the north, the Clyde River catchment in ranges south-west of Nowra in the south, east to the Royal National Park and near Illawarra, and west to the upper Blue Mountains at Blackheath and Newnes.

The Broad-headed Snake is often found in rocky outcrops and adjacent sclerophyll forest and woodland . Snakes often spend long periods of inactivity in a retreat site, such as under rocks or in crevices.

Broad-headed Snake

Brush-tailed rock-wallaby

These acrobats of the marsupial world leap and bound their way around rocky outcrops and cliff ledges in rugged and steep country near the east coast of Australia. Of the 15 species of rock wallaby in Australia, most have disappeared from their original range and are now considered threatened. In NSW, the Brush-tailed Rock-wallaby is listed as endangered.

The brush-tailed rock wallabies' most notable feature, as their name implies, is the distinctively bushy tail. They are medium-sized wallabies with the adults ranging from six to eight kilograms. They are very agile, moving confidently and swiftly around their rocky habitat using their long, thickly furred tail for balance and padded feet for grip. Brush-tailed Rock-wallabies have very distinctive facial markings with a white cheek stripe and a black stripe from the eye to the back of the head. Their bodies are brown with grey shoulders and darker feet. This allows them to camouflage themselves well in their habitat and they are often hard to spot.

The Brush-tailed Rock-wallaby can be found in fragmented populations roughly following the Great Dividing Range from south-east Queensland to Western Victoria's Grampians. They live on rocky escarpments, granite outcrops and cliffs, which have caves and ledges for shelter and face north for warmth. They graze on native grasses found in surrounding habitat at dawn and dusk. They also feed on the foliage and fruits of shrubs and trees as well as roots and bark. Brush-tailed Rock-wallabies are highly territorial over their home range, which is about 15 hectares. They are social wallabies and live in family groups consisting of two to five adults with juveniles and joeys.

Life is tough for Brush-tailed Rock-wallabies. They have been deprived of available habitat due to a combination of factors including clearing of native vegetation, exotic plant invasion and changed patterns of fire across the landscape. Impacts, such as these, on their habitat have caused the brushtailed rock-wallaby to disappear from much of the southern and western part of its range.

The Brush-tailed Rock-wallaby must also cope with introduced predators and competition with feral goats, sheep and rabbits. This competition forces them to search for food outside their natural ranges. In the past Brush-tailed Rock-wallabies were considered pests and were hunted for their skins, also contributing to a massive decline in numbers.

Source: http://www.environment.gov.au/biodiversity/threatened/publications/brush-tailed-rock-wallaby-petrogale-penicillata

Information about the Brush-tailed Rock-wallaby can be found on the website of the Friends of the Brush-tailed Rock-wallaby here:

http://www.rockwallaby.org.au

Bundanon Trust supports the efforts of Friends of the Brush-tailed Rock-wallaby and NSW National Parks and Wildlife Service to rid the landscape of feral animals such as foxes, cats and dogs who may harm the colonies in the area. Regular baiting to kill foxes and other control methods are used.

Image: **Friends of the Brush-tailed Rock-wallaby**