

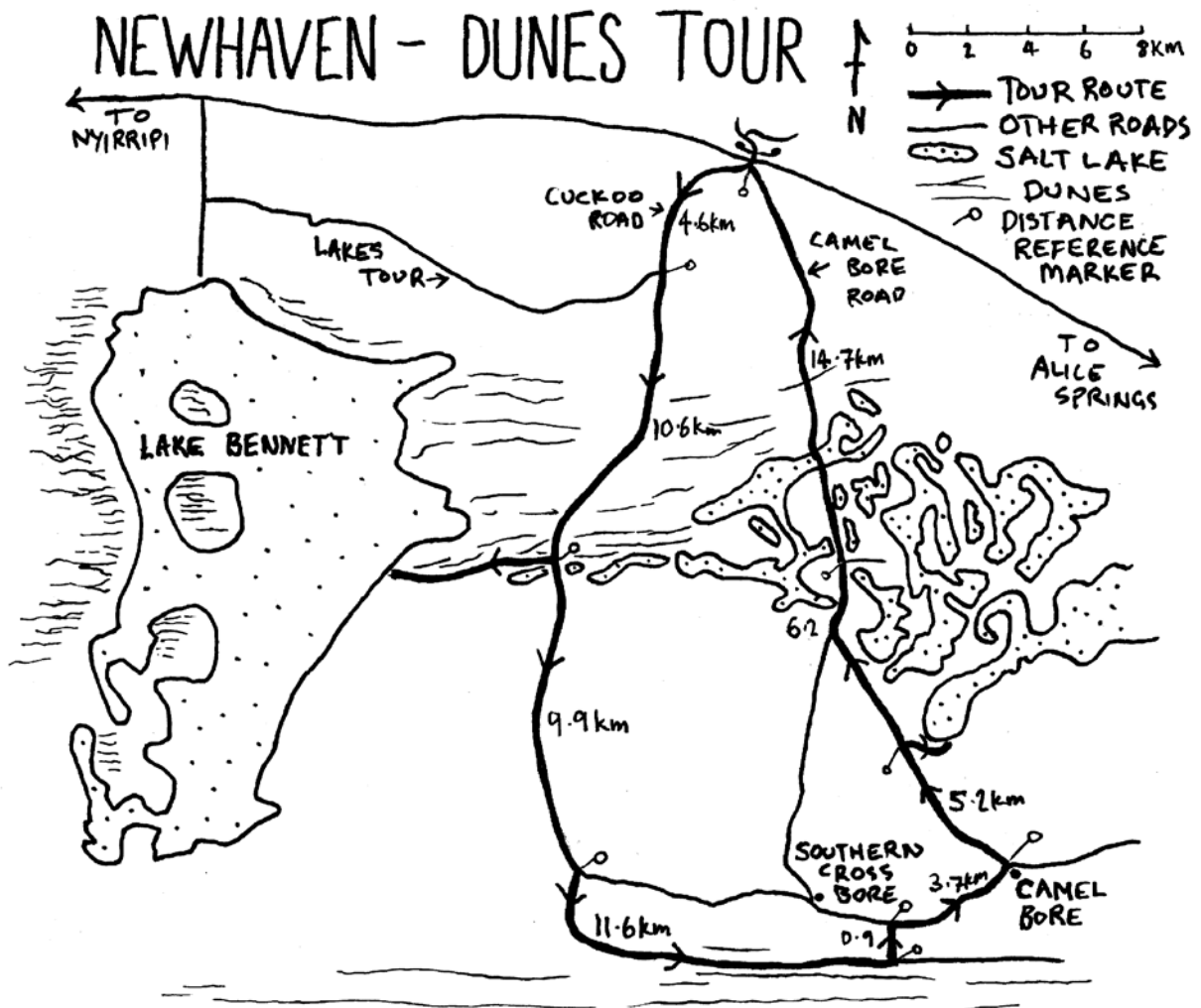
# Newhaven Wildlife Sanctuary

## Dunes Tour

**Please Note:** Newhaven Sanctuary has a vast number of tracks and firebreaks. Not all of these are open to the public. For safety please keep to designated tracks. Always carry plenty of drinking water. Parts of this tour are very sandy, please use 4WD. While on Newhaven please use UHF channel 3 Duplex.

### Dunes Tour Summary

This tour is a circuit into the southern parts of Newhaven. It encompasses desert oak dune fields, vast semi saline spinifex plains, numerous salt crusted lakes and grassy calcrete plains. It provides an opportunity to visit the eastern edge of Lake Bennett, the sand dunes that become more extensive towards the southern boundary and the central east-west lakes system. Bird drive offers an interesting short side detour. This tour is approximately 80km in length; it is one of the longer tours and takes about 4 - 5 hours.



## Tour Notes

### 0.0 km - Bird Box:

This Tour begins at, and is distance-referenced from, the Registration/Information Shelter ('Bird Box'). Start from here after noting the odometer or resetting the trip meter. Begin by heading south.

### 0.3 km - Y Junction:

Drive to the intersection with the main road, cross this road. Here the road divides. Take the right fork following the **DUNES TOUR** sign, this is Cuckoo road. You now head into a patch of mulga woodland.

### 1.9 - Airstrip:

The airstrip is on the right hand side. Continue straight ahead.

### 4.9 km - Lakes Tour turnoff:

Continue south past this turn off. For the next few kilometres the vegetation community you are travelling through is semi-saline spinifex plains. This wide spread habitat occupies 13% of Newhaven and is typically dominated by needlebush (*Hakea leucoptera*) over spinifex (*Triodia pungens*) and a daisy sub-shrub (*Pluchea ferdinandi-muelleri*).

The term semi-saline refers to salinity features obvious in the soil, that are muted in comparison with the saline landscapes fringing the salt lakes and the hypersaline salt lakes themselves. As you continue south you may notice a slowly increasing gradient of salinity in the country.

### 12.9km - Desert Oak Dunefield:

This is a good spot to stop and explore both the dunefield and the Desert Oak (*Allocasuarina decaisneana*) stands. The sand of these dunes is very red like that of the surrounding spinifex sandplain. In profile, the dunes are 3-5m high and symmetrically shaped. If you look along the dune crest, its long axis is far from straight, snaking around invisible obstacles. The dunes here are not very long, perhaps 2-3km before they break. In the dunefield on the southern boundary of Newhaven, individual dunes of more than 10km long and 10m high are common.

Here the desert oaks, and the understorey shrubs, show signs of fire. Desert Oaks are fire tolerant. With a corky bark to protect their trunk only sick and old trees are killed by fire. The degree of scorching and charring of the bark of mature trees is astonishing, yet the tree continues to live. Their woody fruits can form a thick carpet under a female tree.

Desert Oak communities occupy about 6% of the reserve. Like Blue Mallee, the Desert Oak vegetation communities appear to be intruding into and mingling with other communities. To remain in a healthy state, desert oaks appear to require relatively frequent fires.

A search for tracks usually reveals plenty of activity. If the weather is warm enough small lizard tracks or diggings may be present, along with the lace-like patterns of beetle meanderings. The biggest tracks you are likely to find belong to feral camels.

The Thorny Devil (*Moloch horridus*) leaves a delicate track without any tail drag. If close to nests of small black ants you may be able to spot a Thorny Devil as the small black ants are their staple diet.



### **15.5 km - Lake Bennett turn off:**

Turning off to the right hand side is a 5 km track to the eastern shore of Lake Bennett that meanders parallel to the dunes. Here you will pass through thick stands of young Desert Oak. These young Desert Oaks have already had to withstand wildfire, however, they are re-sprouting vigorously.

You will return to Cuckoo road via this track.

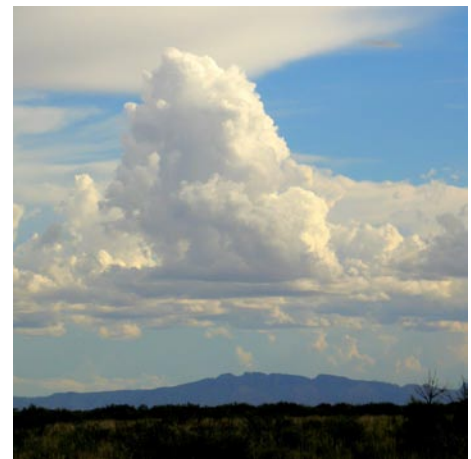
### **20.5 km - Lake Bennett:**

The dune offers views of Lake Bennett to the north and west and the Andrew Young Hills to the west. The lake edge is just a short walk through the dunes or along the drainage line to the south west of the car park.

Lake Bennett was named after a pilot who was part of a search team looking for a plane crash within the Andrew Young Hills. The Aboriginal name for Lake Bennett is Yankanjinni, it remains an important site for Traditional Owners.

### **25.5 km – T Junction**

Turning right (south) to remain on Cuckoo road. The track continues through grassy calcrete plains. This plant community occurs across 9.4% of Newhaven, predominately to the south of the central lakes system. Non-spinifex grass communities on Newhaven occur mainly on calcrete and gypsum substrates. They are dominated by various acacias, most of which are fire sensitive.



### **27.3 km - Old Track:**

There is an old track on the right hand side. Please do not use.

As you head south, look for a treeless horizon to get a glimpse of Mount Liebig, which is approximately 50km away. Mount Liebig is the highest point in the Amunurunga Range rising to 1267m above sea level.

### **35.4 km - Y junction:**

Take the right hand road signed **DUNES TOUR**, and veer to the left. The road continues south through blue mallee sandplain for a few kilometres before turning east to run parallel with the old boundary fence.

Here begins the northern edge of a very large linear dunefield that stretches about 20km south to Mount Liebig and about 60km from its eastern to western edges.

### **36.4 km - Camel Damage:**

On the left hand side is a Black Gidgee (*Acacia pruinocarpa*). You will notice that camels have heavily grazed this particular gidgee.

The results of a twelve year study on camels conducted by German biologist Dr Birgit Dorges and Dr Jurgen Heucke at Newhaven showed that camels eat more than 80% of available plant species in central Australia, including some which are rare or endangered. Camels graze preferentially. This means they target particular species more so than others. Curly-pod Wattle (*Acacia sessiliceps*), Batwinged Coral Bean Tree (*Erythrina vespertilio*) and Quandong (*Santalum acuminatum*) are heavily impacted by camel browsing.

### **37km - Blue Mallee Sand Plain:**

Blue mallee sandplain is the most common occurring vegetation type at Newhaven, comprising 15.9% of the total area of the reserve. This community both intrudes into, and mingles with, other vegetation communities. Blue Mallee can be found on most sandy habitats on Newhaven.

### **37.6km - Old Y Junction:**

Here an old track veers off to the right hand side. Stay to the left, the track swings round and heads east.

### **40.6 km - Dune Corridor:**

For the next 5 or so kilometres the track runs through a dune corridor (known as a "swale") with long parallel dunes on either side. These dunes are spinifex dominated, with blue mallee being the dominant species in the swales.

Most of this country was burnt in extensive wildfires over 2001 – 2002. Dotted throughout this fire scar are a few small remnant patches of long unburnt vegetation. Here you should notice one such patch of blue mallee (*Eucalyptus gamophylla*) that remains unburnt since the 80's.



#### **42km - Bloodwood Sandplain**

This is the beginning of an extensive Bloodwood sandplain that continues beyond Newhaven's eastern boundary. Although Bloodwood is present in many different vegetation communities, here it is generally the dominant tree species.

#### **45.1km - Desert Heath Myrtle:**

As you come around the end of this dune you can see a patch of Desert Heath Myrtle also known as *Thryptomene (Aluta maisonneuvei)*. This is a spreading shrub, which grows to 1.5m in height. It has small leaves (1-2.5mm) lining its branches. The Desert Heath Myrtle is often covered in a mass of tiny five petalled pink or white flowers. The presence of this species indicates that fire frequency has been relatively low. However here it is just a small remnant patch.

#### **45.3 km - Mature spinifex habitat:**

Within this area the spinifex plants are matured. Both the Desert Mouse (*Pseudomys desertor*) and Wongai Ningai (*Ningai ridei*) prefer mature spinifex habitats.

#### **47km - Turn off:**

Here the tour leaves the southern boundary fence. Turn left towards the north.

#### **47.9km - T Junction:**

Here the track meets with the Southern Cross Bore and Camel Bore road. Turn right and head towards Camel Bore

#### **50km - Mulga Woodlands:**

About here there are clear examples of unburnt and burnt mulga woodland . Long unburnt mulga woodland supports a variety of plant species including bloodwood, desert fuchsia (*Eremophila gilesii*) and a variety of cassias. In contrast, further along the road, the mulga has been killed by fire with bloodwoods being reduced to mallee form (many small stems from the ground). Some recruitment of mulga has occurred through seed germination, however, fire will need to be excluded from this community for at least 15 years to replenish seed stocks in the soil.

#### **51.6km - Camel Bore:**

Veer to the left and head north along the western edge of the old stockyards.

**Buffel grass, an introduced grass, is well established at Camel Bore. To prevent further spread of this weed, please to not drive or walk amongst it.**

Buffel grass thrives in central Australia and can withstand long periods of drought and frequent fires. As well as displacing native grasses and significantly reducing biodiversity it is also capable of changing fire regimes by increasing the intensity and frequency of wildfires.

Buffel Grass was actively sown throughout Newhaven for cattle feed. As a result it is common within the calcrete areas south of the lake and well established at most of the bores in the.

The very first feral camels to be seen on Newhaven were sighted at Camel Bore in 1962, hence its name.

It is also the place where a pair of Night Parrots were seen in 1996. It was this exciting sighting and the additional knowledge that Newhaven was also known to contain nine species of birds listed in the National Bird Action Plan (Garnett & Crowley 2000), that consequently lead to the purchase of Newhaven by Birds Australia in December 2000.

#### **51.8 - Y Junction:**

Veer to the left and continue along Camel Bore road.

#### **57km - Bird Drive:**

Turn right here. This short detour offers an interesting side tour with salt lakes old growth tea tree, and vast views of the northern ranges.

#### **57.9 km - Seasonal Swamp:**

Seasonal swamps are not common on Newhaven and have been degraded by past grazing pressure. This particular seasonal swamp is lined with Lignum (*Muehlenbeckia florulenta*) on its eastern edge; it is an uncommon plant species on Newhaven.



#### **58.1km - Y Junction:**

Keeping to the left here takes you to a U-turn bay at the salt lakes edge. Here you are at the southern most lip of the central lakes system. The salt lake is fringed with old growth tea tree on the lower slopes with mallee on the upper slopes.

Return to Camel Bore road.



#### **59.5km - Camel Bore road:**

Turn right here and head north. The track continues through spinifex calcrete plains before it begins to meander through the western edge of the central salt lakes system. You will skirt around many small salt lakes that join to form a chain of lakes that stretches beyond Newhaven's eastern boundary. These form part of an ancient drainage system that terminates at Lake Bennett. These ephemeral wetlands become an important water bird habitat when they fill during periods of high rainfall.

**65.7km - Turn off:**

On your right is Fairy Wren drive. This track is closed. Please continue north.

**65.8km – Gypsum rise and Ironwood:**

Gypsum soils and outcrops and associated vegetation can be found throughout the central salt lake system east of Lake Bennett. This vegetation unit occupies just 1.6% of the total area of Newhaven. In areas where there is a sand layer over gypsum, stands of Ironwood (*Acacia estrophiolata*) are dominant.

This is the only known stand of Ironwood on Newhaven sanctuary. Ironwood is one of Australia's largest wattles, growing to a height of at least 15m. Unfortunately this plant community is being threatened by wildfire. Strategic fire management is necessary for the survival of this plant community.

**68.5 - Burnt Ironwood:**

Here to the left you will notice many Ironwoods have been burn by wildfire. Fortunately most have regenerated. An interesting feature of this species is the difference in appearance of its young plants. Adults have relatively long leaves which hang down, whereas juveniles have short stiff, prickly leaves only changing form when the plants reach a height of about 2 meters.

**73km - Great Desert Skink Habitat:**

A very significant population of Great Desert Skink (*Egernia kintorei*) occurs at Newhaven. Active warrens of Great Desert Skink have been recorded from this area, however, larger numbers occur within the north west corner of the sanctuary.

The Great Desert Skink has been classified as Vulnerable to extinction under the Environment Protection and Biodiversity Conservation Act (1999), due to apparent contraction in its range. Changed fire regime is regarded as the main threat to its survival.

Great Desert Skinks prefer spinifex habitat in the early to mid stages of regeneration following fire. Indicator species for the habitat include soft spinifex (*Triodia pungens*) with inland tea tree (melaleuca glomerate), desert broombush (*Templetonia egena*) and a daisy bush (*Pluchea ferdinandi-muelleri*).

**79.1 km - Old Bore:**

One the right hand side is the location of the first bore on Newhaven. Little evidence remains of this old bore site, which was sunk in 1958, with just a shallow depression and buffel grass present.

**80.4km - T Junction:**

This is the main road. Continue straight to return to Newhaven homestead and campgrounds.

*We hope that you have enjoyed this tour.*