



# KANGAROO HILLS TIMBER RESERVE

Kangaroo Hills Timber Reserve in the Goldfields is a living museum of goldmining history that stretches over a century. Still affected by mining tenements and operations today, and recommended for gazettal as a State forest, Kangaroo Hills has a special place in the conservation estate with its undulating greenstone hills and enduring native flora and fauna.

by Andy Chapman & Rob Thomas

**T**he Kangaroo Hills - home to their namesake, euros and red and grey kangaroos - were named by surveyor C.C. Hunt in 1864. Other early European visitors included prospectors as they began to surge from Coolgardie after the 1892 rush in search of gold (this year marks Coolgardie's centenary). One of the early prospectors credited with finding gold in the greenstone hills was J.E. Burbanks, who discovered gold about eight kilometres south-west of Coolgardie; the Birthday Gift lease was subsequently pegged in 1893. Other important leases were the Main Lode and Lady Robinson. All three are now contained within the reserve, and just to the east of it lie the remnants of the town of Burbanks, which sprang up as a result of these finds.

Another mine, the Londonderry (or, as it was first known, the Golden Hole), began life in the Kangaroo Hills in 1894 as six men returned from an unsuccessful prospecting trip south-east of Coolgardie. The men set up camp about 16 km south of the town and decided to have a last prospect. One of the men stumbled over a quartz reef with visible gold in it. A one-metre deep and two-metre-long hole produced about 8 000 ounces of gold for the prospectors, which in today's terms would be valued at nearly \$4 million. (This equates to 190 000 grams of gold to the tonne of dirt moved; in comparison, Kalgoorlie-Boulder's Superpit has a grade of about 2.64 grams to the tonne.)

This find brought a flood of prospectors and entrepreneurs to the



**Red kangaroo (*Macropus rufus*).**  
Photo - Jiri Lochman



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Londonderry area. A number of companies vying for the mine firstly wanted to blast the bottom of the hole to see if the gold persisted at depth. It was not until an English lord, Lord Fingall, came along that a purchaser was found who would consent to the prospectors' condition not to blast the hole prior to purchase.

**Previous page:**  
Grey gum (*Eucalyptus griffithsii*) is a Goldfields mallee found in flat saline areas and rock slopes.  
Photo - Allan Padgett

**Above right:**  
The remains of old miners' camps are scattered throughout the Goldfields.  
Photo - Andy Chapman

The gold mine was then listed on the London stock exchange to raise capital, while the hole was secured with cement, iron and a fence. There was an initial rush for shares which pushed the price high. Lord Fingall ordered work to commence, but after three days it became apparent that the gold had all but dried up. Twenty centimetres below the hole was barren quartz. The share prices collapsed as a result, and the Londonderry gold boom was over. It was not until more than 30 years later that suspicions arose regarding the



**Some miners' camps, left to weather, are a fine example of crude bush architecture.**  
Photo - Andy Chapman

**Far right:**  
Biologists found nine native mammal species on the reserve during a survey funded by Kalgoorlie Resources.  
Photo - Andy Chapman

**Right:**  
Silver gimlet (*Eucalyptus campaspe*) is a mallee of restricted distribution in the central Goldfields, and favours stony rises.  
Photo - Allan Padgett





*Eucalyptus clelandii*. But it is also a hive of mining activity. The reserve is of particular interest because the greenstone landform, due to its potential for mineral exploitation, is poorly represented in the conservation estate. Today about 167 existing and pending mining tenements occupy 80 per cent of the reserve, which is managed by the Department of Conservation and Land Management (CALM). These include 56 mining leases, 104 prospecting licences, one exploration licence, six miscellaneous licences (water and power lines), and a gravel lease. In managing the reserve, CALM has an ongoing liaison role with mining companies. This offers an opportunity for both CALM and the mining industry to be involved with each other's operations and better understand each other's point of view.

prospectors' knowledge of the gold not persisting at depth. It was claimed that the prospectors had sunk a shaft with a drive off it to just below the hole, then backfilled the shaft and built their camp over it.

Today all that remains of these sites are piles of rubble, some rubbish and more recent haphazard developments which do not fairly reflect the area's historical significance.

## FIREWOOD

At the turn of the century pastoralism spread to the Goldfields, bringing sheep to Kangaroo Hills, and there was a huge demand for wood for fuel and mining timber - a demand which continued until 1950. Even before 1903 when the Goldfields Pipeline was completed, the

Coolgardie condenser alone used 100 tonnes of firewood a day.

Through the work of local foresters to conserve local tree species, Kangaroo Hills Timber Reserve, covering 6 600 hectares, was one of four timber reserves established in the Goldfields in 1975. It is situated between three and 16 kilometres south of Coolgardie and is bounded by Nepean and Victoria Rock roads. The reserve was resurrected from 243 000 hectares of State forests in the Goldfields that had been relinquished in the 1960s when the then Forests Department decided it could not accept responsibility for fire control in such remote areas.

Kangaroo Hills Timber Reserve was gazetted to conserve the locally restricted trees, the silver gimlet, *Eucalyptus campaspe*, and Cleland's blackbutt,

The Goldfield's mining legacy has not aided management of the reserve. Examples of this include unfilled exploration trenches and drill holes, inappropriately sited grid lines, and the usual rubbish and junk that used to accompany mining operations. In former times miners lived on their leases and many of their old camps still exist; most are just rubbish, though one old camp in particular is a fine example of crude bush architecture, and in another there is an interesting old hand-operated washing machine mounted on bush poles. These examples raise the possibility that the mining heritage might be included in the management of the reserve.







## SURVEY SURPRISE

In 1990 the mining company Kalgoorlie Resources funded a \$35 000 biological survey of Kangaroo Hills as part of a compensation package for excision of 90 hectares to accommodate the Grosmont Joint Venture mining operation. The excision involved a boundary realignment to exclude a degraded portion of the reserve, and Kalgoorlie Resources agreed to fund a survey of the entire reserve rather than just the portion they were interested in.

Biologists Michael Bamford, Stephen Davies and Phillip Ladd spent a week in autumn, one in winter and another in spring on the reserve recording data on the vertebrates present, habitat relationships, and vegetation mapping. Their methods included pit-trapping for animals, bird censusing by quadrat and mist-netting, and recording vegetation using techniques identical to those of previous surveys, so that results would be compatible and could be incorporated into a final Goldfields biogeography database.

The survey recorded nine native mammal species, 70 birds, 32 reptiles, two frogs and 250 taxa of plants. No threatened rare flora or fauna were discovered, but there were some surprises, including the discovery of *Acacia duriuscula* - not recorded in WA since 1902 - and a grass, *Stipa blackii*, previously known only from South Australia. Fauna recorded in the reserve included the mallee fowl, Ride's ningai (a small carnivorous marsupial more at home in central desert areas), and an abundance of Mitchell's hopping mice.

The birds of Kangaroo Hills include 12 species of resident passerines, which elsewhere have been shown to be sensitive to environmental change. There is also a small group of locally



migratory species, including the golden whistler, western gerygone and regent parrot, which move in and out of the south-west. The woodlands of the Goldfields are of considerable importance to these species, whose habitat in the agricultural areas has been substantially altered.

The survey found that the reserve's biota was a blend of south-west and arid zone components with the former predominant; an example of the arid zone element is a mallee/spinifex formation with Ride's ningai and *Hakea francisiana*, which is more to be expected of the Great Victoria Desert.

Future management directions for Kangaroo Hills Timber Reserve, as indicated in CALM's Goldfields Region draft management plan, are its incorporation with the adjacent Calooli Sandalwood Reserve and their joint reclassification as Kangaroo Hills State Forest. This will give both reserves better protection of tenure and purpose without unduly restricting other activities such as mining. □

### Top left and right:

To look at the alluvial geological profile, trenches (or costeans) were often dug. Today, many of these remain throughout the Goldfields and are not only an eyesore, but often contribute to gully erosion and pose a threat to wildlife and stock. CALM actively encourages companies exploring or mining on CALM-managed lands to backfill these trenches and rehabilitate previous disturbances on their leases. Photo - Andy Chapman

### Above:

A small carnivorous marsupial found at Kangaroo Hills is the nocturnal Ride's ningai. Photo - Babs and Bert Wells

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# LANDSCOPE

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Small and shy and quite unlike their exotic, urban cousins, high climbing rodents live throughout the Kimberley. See page 10.



His name is connected with plants and places around Australia. He was interested in everything from Aboriginal customs to the size of trees. Read about A Man of Science on page 16.



Once it was a traditional battleground for Aboriginal people. Today the competition is between sailboarders while families of picnickers look on. See page 23.



The various groups of Aboriginal people around the Swan River lived in harmony with the seasons. See page 28.



Learn about the incredible variety of orchids in the Stirling Range. See page 36.

## FEATURES

**RATS OF THE TREE TOPS**  
GORDON FRIEND, CATH KEMPER AND ANNE KERLE ..... 10

**CUNNINGHAM: A MAN OF SCIENCE**  
SUZANNE CURRY ..... 16

**MATILDA BAY RESERVE**  
JACQUELINE PONTRÉ ..... 23

**HUNTERS AND GATHERERS**  
PETER BINDON AND TREVOR WALLEY ..... 28

**ORCHIDS OF THE STIRLING RANGE**  
ANDREW BROWN ..... 36

**KANGAROO HILLS TIMBER RESERVE**  
ANDY CHAPMAN AND ROB THOMAS ..... 43

**LERPS, BUGS AND GUM-LEAVES**  
JANET FARR ..... 50

## REGULARS

**IN PERSPECTIVE** ..... 4

**BUSH TELEGRAPH** ..... 6

**ENDANGERED SANDHILL DUNNART** ..... 22

**URBAN ANTICS** ..... 54

## SPECIALS

**ARBOR DAY POSTER COMPETITION** ..... 47

## COVER

The many coloured orchid (*Caledonia polychroma*) is well named. Aside from the rich pinks there are clumps of lemon yellow and pure white. The orchid is found in the low areas of the Stirling Range, preferring wandoo and sheoak woodlands. While most years its vibrant flowers can be seen, it flowers best after fire. The illustration is by Phillipa Nikulinsky.



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