A ROOM AT THE TOP

by Roger Underwood

Since the early 1970s, fire detection in our forests has been carried out by light aircraft using 'high tech' systems - but it wasn't always so.

For a 30-year period in Western Australia's history, a select band of men and women earned their living spotting bushfires from tiny cabins bolted into the tops of karri trees. CALM's Roger Underwood tells of the foresters who conceived and built the world-famous lookout trees of the karri country.

ALTHOUGH the great lookouts of the karri forest are famous throughout the world, they certainly weren't the first lookouts to be built on trees. According to forestry legend, the first tree lookouts were constructed in Europe for military reasons. In Western Australia, the first treetop lookout was built in a tuart tree in Kings Park, but its purpose was not to spot bushfires. In the days before telegraph and telephone, the Kings Park tree was used to spot ships coming into Fremantle, and the job of the spotter was to make sure that news of this significant event was passed on as quickly as possible to the colonists in the fledgling settlement of Perth, who were always hungry for news of the outside world.

Soon after the turn of the century, when bushfire spotting became an imperative for early foresters and settlers, the first tree lookouts were constructed in the tuart forest at Ludlow and on powderbark ridges in the Dryandra State Forest. One of the latter (the Lol Grey Tree) still exists, and was recently restored by volunteer enthusiasts.

But if you mention tree lookout towers to Western Australians, they will immediately conjure up an image of the Gloucester Tree near Pemberton, the Diamond Tree near Manjimup or the Boorara Tree near Northcliffe. These are the world-famous lookouts of the karri country.

Wildfire in the Walpole-Nornalup National Park.
Photo - Gerard Van Didden ▲

The aftermath of a fierce forest fire.
Photo - Wade Hughes / Lochman Transparencies ▶

Previous page: Dick Sprogue lopping off the crown of a tree selected as a fire-observation tower.
Photo - Published in *Walkabout*, July 1948, photographer unknown. All reasonable steps have been taken to trace the copyright owner.

LOOKING FOR FIRE

Fire is a good servant, but it makes a bad enemy. Fire provides warmth and cooks our food; it tempers metals and allows us to make tools and machines; it can be used to clear the bush for crops or pasture, and to regenerate forests. But in the wrong place, fire can kill, destroy, maim or disfigure.

The Aboriginal people of Western Australia used fire to fashion the environment to their advantage. To the first settlers and to early Western Australian foresters, however, fire was basically seen as an enemy. The strategy was one of 'find and destroy'.

But finding a forest fire is not as easy as it sounds, especially if you want to have a good chance to put it out while it is still small. Firefighters have the best chance of success if they can get to a fire in its early stages. 'A little fire is quickly trodden out,' as Shakespeare says, 'which, being suffer'd, rivers cannot quench.' This is why bushfire lookout systems have been designed to spot the first telltale wisp of smoke above the tree tops.

When foresters first began to install a network of fire lookouts across the forests of the South West, they began in the northern jarrah forest, in the hills east of Perth. Here they found a series of outstanding peaks from which there was a commanding view over the forest. There was no need to climb trees, or construct tall towers. All that was needed was a short wooden structure to support a cabin from which the lookoutman or woman could survey the countryside. Lookouts quickly sprang up on Mt Gungin, Mt Dale, Mt Solus, Mt Wells and many others across the northern jarrah forest.

Down in the karri country, things were a bit different. There were no dominating hills, and karri trees are more than twice as tall as northern jarrah. Besides, climbing karri trees, whose huge trunks soared up to 40 metres before the first branches, was a rather different kettle of fish to climbing tuarts or powderbark wandoo trees. It was a problem that defied solution for many years.

But the bigger the problem, the better the people who tackle and eventually solve it. Four outstanding men emerged in the karri country in the 1930s, and it was thanks to their vision, skill and courage that the the karri lookout trees came about. The men were Dick Sprogue, Jack Watson, Don Stewart and George Reynolds.

DICK SPROGUE

Sprogue was an immigrant timber worker, famous as an axeman and a dare-devil. He was the first to scale to the top of a living karri, which he did by driving in a series of short, pointed wooden stakes to form a crude ladderway straight up the side of the trunk. Once up in the crown he would hoist up his axe and set about lopping off the top of the tree. The purpose of this was often to make the tree easier to fell, or to try to ensure that

when it did fall it did not damage some valued asset in the forest such as a bridge or railway line. Another purpose, perhaps, was to provide an outlet for Sprogue's unique fearlessness and axemanship. Maybe he was also something of a showman ... all the photographs of his exploits show a throng of bushmen watching on!

Sprogue not only showed that it was possible to get to the top of the giant karri trees; he also reported on the stupendous view from up there. The word didn't take long to reach the ears of foresters Watson and Stewart.

JACK WATSON AND DON STEWART

Sometime in the mid-1930s, presumably after a chat with Dick Sprogue and probably after a trip up one of his pegged trees, Jack Watson (a field forester) and Don Stewart (a professional forester not long out of university) conceived the idea of the karri tree lookouts. They put the idea to the test immediately. As a pilot project, a tall marri tree on a ridge west of Manjimup was pegged and a 'crow's nest' built in the branches. According to Stewart, 'the view exceeded all expectations'. The search for tall karri trees as a basis for a lookout network began.

But pegging trees is a long and arduous process. Many days' work could come to naught if the tree was pegged by the Dick Sprogue method, scaled, and then found to be unsatisfactory. So Watson came up with the idea of climbing-irons and ropes. With sharp spikes strapped to the instep of his boots and ropes around his waist and the tree trunk, Watson was able to 'walk' up the tallest tree and then scramble about in the branches checking its suitability for a lookout. Stewart also mastered this remarkable feat and, between the two of them, dozens of trees were scaled. Eventually those to be converted into lookouts were selected.

GEORGE REYNOLDS

After Watson and Stewart had selected the trees, it became George Reynolds' job to build the lookouts. Reynolds was a forestry worker and an experienced bushman. Like Sprogue, he was a fearless and highly skilled axeman. In a manner far removed from that of the safety-conscious foresters of today, Reynolds could be found swinging his axe high in the top of the karri trees. He disdained the use of safety belts, and his songs and

The modern lookout tower of the Dryandra State Forest, in Western Australia's Wheatbelt.
Photo - Marie Lochman ▼

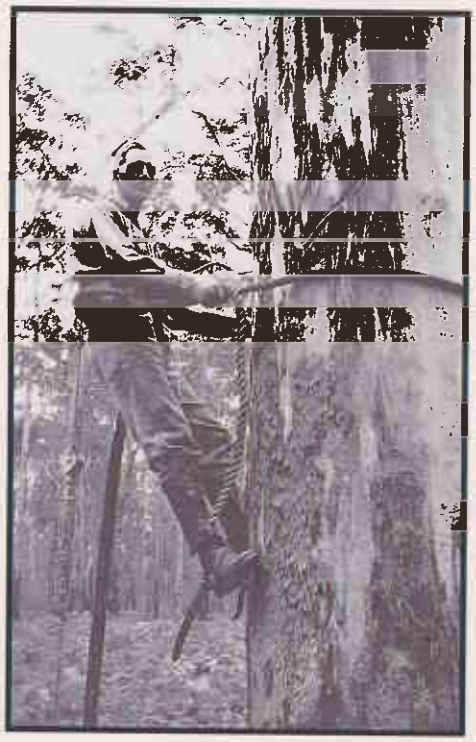
The Boorara Tree lookout was constructed in 1952 and is now a tourist attraction.
Photo - Jiri Lochman ▼

The famous Gloucester Tree, photographed in the early 1950s, is still visited by some 200 000 people each year.
Photo - CALM ▶

• TREE-TOP VISITORS •

By J. E. Watson

F. DINNEEN'S story last Saturday of the parakeets heralding the flowering of the karri awakens a memory. Some years ago two foresters traversing the karri country seeking likely heights for the construction of forest fire look-out towers arrived in the East Brook area, close to Pemberton. In the early days of saw-milling, it had been too difficult for bullock teams to haul logs from here, so the virgin karri rose majestically from 10 feet high bracken and hazel to reach leafy arms 200 feet up and more towards blue skies.



It was a place of natural loveliness and peace where stirring leaves only murmured, so far aloft were they, and bird talk was not of earth but made ethereal music.

Searching for a tree that might answer all their requirements they at last found one specimen, more magnificent than its fellows, rising from its native earth, as only karri can - a clean bole to 113 feet, 26 feet in girth, perhaps 250 feet high.

Using a tree-climbing technique he had mastered, one of the foresters commenced the ascent of this tree in order to make observations from its crown and so determine whether or not the site was suitable for the construction of a look-out tower.

As the climber proceeded higher and higher, the tremendous physical effort needed brought out beads of perspiration. This moisture attracted bees, which settled on his arms but did not sting, being intent on other business.

The climber was now well amongst the foliage and here were the parakeets, as the tree was in full flower. Their low chatter, almost inaudible from the ground, was incessant, with an occasional louder note from the odd twenty-eight parrot.

At 190 feet the climber stopped and made the observations necessary for fire detection. Here, with parakeets within a few feet of him, he noticed that this bird, perhaps because of the shape of its beak, almost invariably appeared to use its weight to bend the fragile blossoms over so that both they and the parakeet were hanging upside down as it sought the nectar from each flower.

Bees in myriads competed with parakeets and the bull-ant crawled his restless way even at this great height, while scratch marks on the limbs indicated than an opossum had passed that way.

Today this noble tree, shorn of its leafy crown, supports in its huge lopped-off branches a look-out cabin 200 feet from the ground, but its neighbours still have for visitors in the flowering season the parakeets and the bees, while bull-ants and opossums pursue their way up and down smooth karri trunks.

Jack Watson was more than a brave and innovative man - like all foresters, he loved the bush, as this story published in the *West Australian*, c. 1949, shows. Photo - CALM

Reproduced courtesy of the *West Australian*

Sunrise over the karri forest, taken from the Mt Frankland lookout.
Photo - Jiri Lochman ▲

humorous comments would ring out through the forest as he worked.

Reynolds would construct a lookout as follows. Firstly, he would study the configuration of the branches way above and, working backwards, he would calculate where to install the first peg at ground level. Next, using a two-inch augur he would start hand-drilling holes deep into the tree, and into each hole he would hammer a wooden peg. Clambering up onto the peg, he would drill the next hole and bang in another peg, and so on up the tree. Each peg would be offset so as to make a spiral ladderway up and around the tree's bole. Once the branches were reached, Reynolds would call for his razor-sharp Plumb axe, and prune off the great limbs. Once, during the construction of the Gloucester Tree, a falling limb swept out 15 metres of pegs on the tree bole. Unperturbed, Reynolds camped in the tree crown for several hours while an assistant repegged the damaged section.

The ladderway completed, Reynolds and his mate would rig up a flying fox to hoist up timbers, bolts, roofing iron, nails and windows and build the cabin, bolting the whole structure firmly into the topmost forks.

Between 1939 and 1952, eight karri tree lookouts were constructed: Big Tree, Gardner Tree One, Gardner Tree Two, Diamond Tree, Pemberton Tree, Gloucester Tree, Beard Tree and Boorara Tree. Eventually the Big Tree, Gardner One and Pemberton Tree were abandoned. The others operated each summer, providing a unique bushfire spotting service for the karri country, until the advent of spotter aircraft in the early 1970s.

THE TREES TODAY

Of the eight original karri tree towers, only three survive - the Gloucester Tree, Boorara Tree and Diamond Tree. Maintenance work has been recommended for the Diamond and Boorara Trees, to preserve as long as possible these features of the forest. Of the three, however, only the Gloucester Tree is still safe to climb.

The Beard Tree became so rotten and dangerous it had to be felled. The Pemberton Tree was also dangerous (it stood at the back door of the old forestry office in Pemberton), and after several efforts to maintain it, it too had to be felled. The Big Tree, by tragic irony, was burnt down in a bushfire some years after it had been abandoned. The Gardner One and Gardner Two Trees both still stand, but the tops were snapped off during severe storms.

The Gloucester Tree was a tourist attraction from the start. Originally called East Tree, it was renamed after a visit to the construction site by the then Governor General of Australia, the Duke of Gloucester. It is still climbed each year by hundreds of intrepid forest visitors. Just as importantly, the tree is still used for fire spotting, as a back-up to the aircraft under certain weather conditions.

There is, however, a brand new lookout tree in the karri country. During 1988, CALM constructed the Bicentennial Tree in the Warren National Park, just south of Pemberton. This superb lookout was constructed using a technique quite different from that of George Reynolds. Instead of lopping off the tree's crown, the cabin has been built into the branches in such a way as to minimise damage to the tree. It is expected that this will prolong the life of the lookout indefinitely, thus providing a fire detection platform in one of our most famous karri forest parks, and a special point of interest for forest visitors. ◘

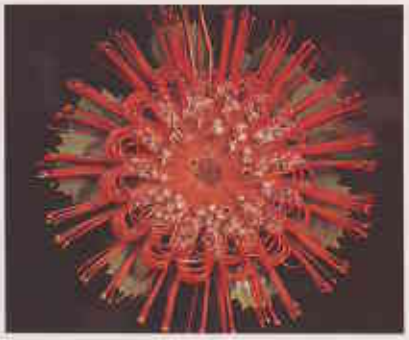
Roger Underwood worked as a forester in the karri forest for many years, including a stint as a lookoutman on the Gardner Tree.

In the central Kimberley, a screw-pine-surrounded creek - just one of the threatened areas in this fragile frontier. Turn to page 22.

Until 1984 more was known about what was underneath the Nullarbor than what was on top. But with such a vast area to study, where do we start? See page 16.

LANDSCOPE

VOLUME SIX NO. 1 - SPRING EDITION 1990



Public awareness and involvement is vital in the conservation of WA's rare and endangered flora. Page 49.

Ten WA mammal species have become extinct in the last 200 years. What can be done to ensure no more are lost forever? Page 28.

Forests protect our environment. They also provide timber. How do we strike a balance? Turn to page 35.

FEATURES

REGULARS

SPECIALS

COVER

Dolphins and whales are perhaps the best-known inhabitants of Western Australia's coastal waters. But this unique area is also home to an astonishing range of marine flora and fauna, from sea-turtles and coral reefs in the north to sea-grass banks and great white sharks in the south. See page 10.

Illustrated by Martin Thompson.

Managing Editor: Ron Kawalilak
Editor: Ray Bailey
Designers: Louise Burch/Robyn Mundy/Stacey Strickland
Production: Sandra Mitchell
Advertising: Estelle de San Miguel ☎ (09) 389 8644 Fax: 389 8296
Illustrations: Martin Thompson, Yeon Hee Kim
Colour Separation by Prepress Services
Printed in Western Australia by Kaleidoscope

© ISSN 0815-4465 All material copyright No part of the contents of the publication may be reproduced without the consent of the publishers

Published by Dr S Shea, Executive Director
Department of Conservation and Land Management,
50 Hayman Road, Como, Western Australia 6152.