

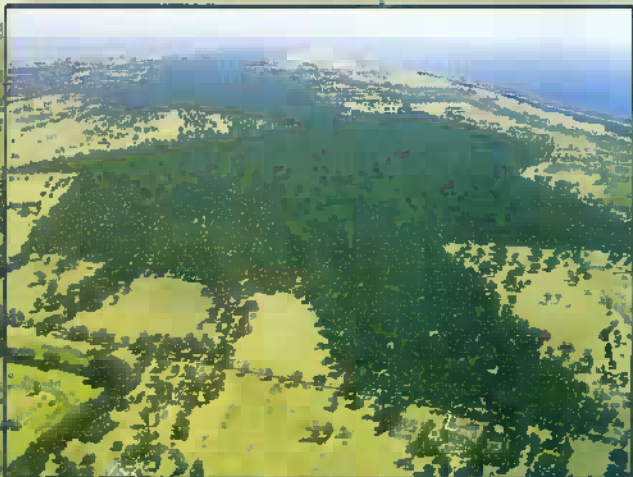
Unique World Heritage

The unique natural qualities of the Ludlow Tuart Forest and its connection with the adjacent internationally recognised, Ramsar listed, Vasse-Wonnerup wetlands have led to it being placed on the Register of the National Estate as a place of national significance. The area has also been classified by the National Trust on heritage and environmental grounds.

An Uncertain Future

When visiting the Ludlow Tuart Forest you will see that few Tuart seedlings are growing. The reasons for this are varied and complicated. Logging practices and grazing by cattle hampered regeneration. Logging ceased in 1972 and grazing ended in 1996. The frequency of fire is known to play a significant role in the ecosystem and its effect on Tuart regeneration is still being studied. WA's Centre of Excellence for Climate Change, Woodland and Forest Health is investigating the causes of the observed decline in Tuart health and is also researching Tuart restoration and regeneration.

The forest's narrow, elongated shape makes it extremely vulnerable to weeds and feral animals. The National Trust of Australia (WA) listed the Ludlow-Wonnerup Forest and Wetlands as an Endangered Place In 2002 due to its declining health and the potential risks of industrial activities.



A view from the air - a rare ecosystem (see map)

An Icon of the South West

The unique natural and human values associated with the Ludlow Tuart Forest have been recognised for a long time. People have lived there for millennia and today it is highly valued by locals and visitors alike.

To experience this special place is to appreciate a precious heritage. A visit to the South West is not complete without experiencing the majestic tall Tuarts of Ludlow.



This publication is an initiative of the Busselton-Dunsborough Environment Centre in conjunction with The Friends of the Tuart Forest, with appreciation to the local Noongar community for their assistance.

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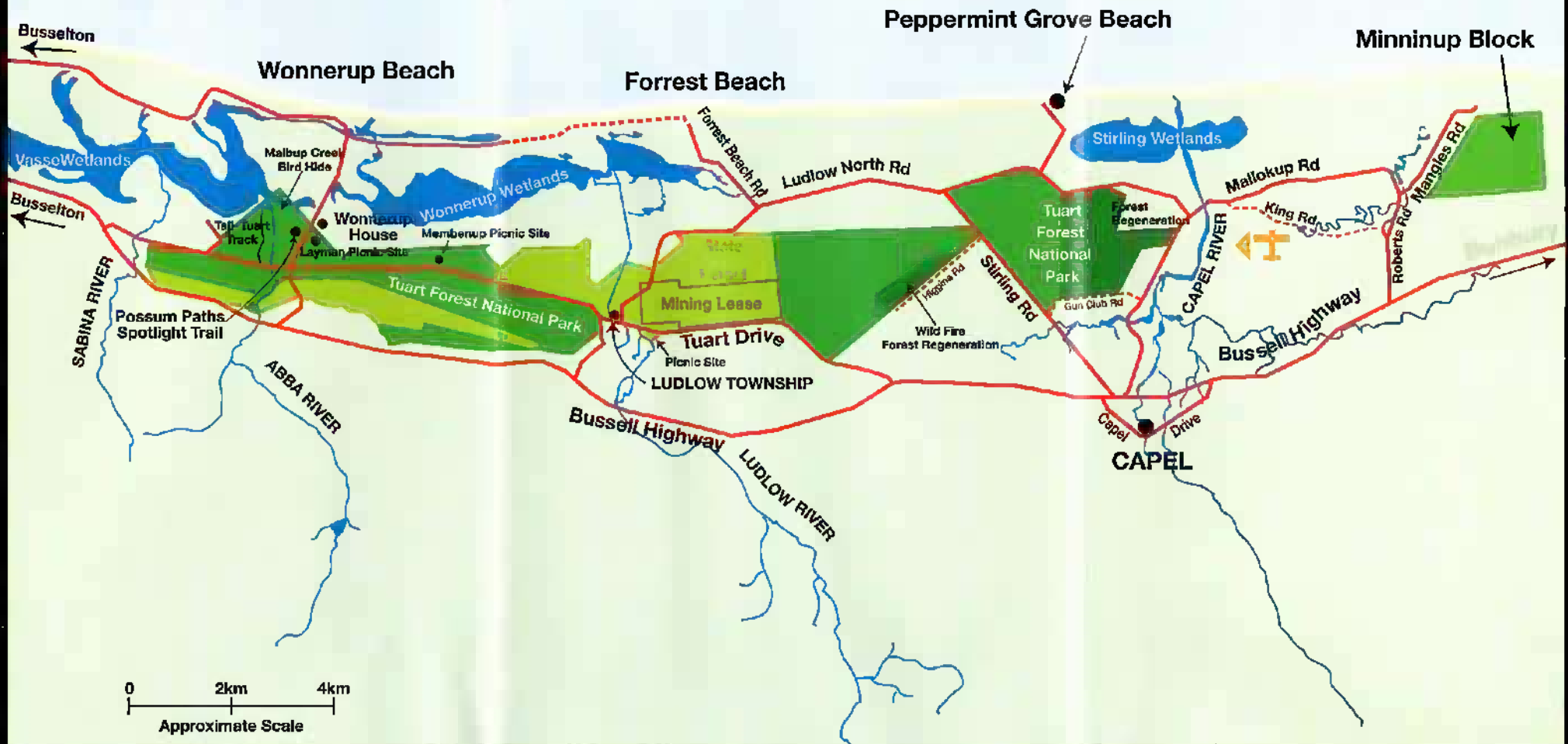
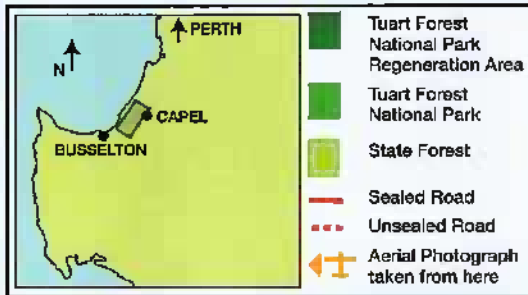
Experience the Ludlow Tuart Forest



The World's Tallest Tuarts

Ludlow Tuart Forest Location Map

Geographe Bay



Fauna of the Tuart Forest

Many animals which live in the Tuart forest depend on the large, mature tree hollows for breeding purposes. All 3 species of tree dwelling marsupials which occur in the South West of WA—the Nguaren (Western Ringtail Possum), the Coomal (Brushtail Possum) and the Wambenger (Brushtail Phascogale) depend on or use these hollows. They are nocturnal and a good place to see them is on the Possum Paths Spotlight Trail opposite the Layman picnic site.



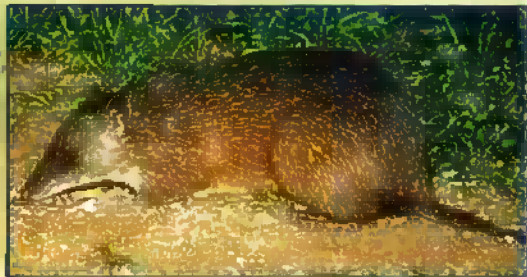
Nguaren – *Pseudocheirus occidentalis*

its length, which it uses to climb and carry twigs and leaves for its nest, known as a drey.

The Coomal (*Trichosurus vulpecula*) is more common than the Nguaren with the densest population in WA occurring in the Tuart forest. They spend the day in tree hollows or fallen logs. Listen for their deep guttural coughs and sharp hisses when out in the Tuart forest.

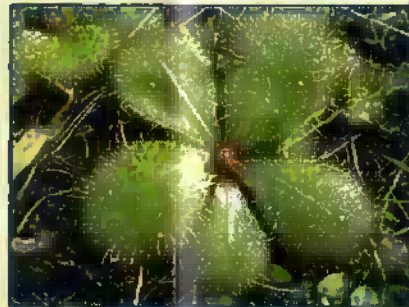
The Wambenger (*Phascogale tapoatafa*) is a small, squirrel-like, carnivorous marsupial and is easily recognised by its large, black, brush-like tail. It is an agile hunter that rarely feeds on the ground.

The Quenda (*Isodon obesulus*) or Southern Brown Bandicoot is nocturnal and feeds on earthworms, insects and fungi. During the day it sleeps in a nest of grass, twigs and soil. Land clearing, particularly of dense vegetation, along with predation by feral animals, has led to a

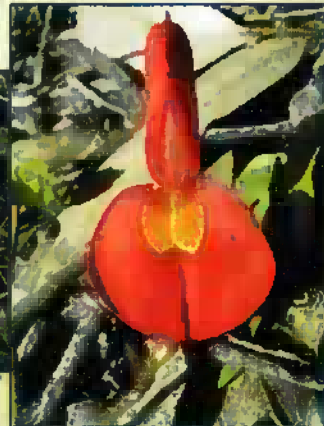


Quenda – *Isodon obesulus*

The Nguaren (*Pseudocheirus occidentalis*) is a threatened herbivorous marsupial at risk of becoming extinct. Its most striking feature is a long tapering tail, white for half



Sundew – *Drosera*



Running Postman - *Kennedia prostrata*

decline in numbers. Look for the conical holes it digs in the ground.

Mobs of Youngur or Western Grey Kangaroo (*Macropus fuliginosus*) frequent the Tuart forest. They are attracted to young, fresh shoots of grass. They usually rest in the shade during the day. Look for their trails criss-crossing the forest.

The White-striped Freetail Bat (*Tadarida australis*) roosts in tree hollows and can be seen in the beam of a torch at night, flying past looking for a meal of moths. It weighs up to 40 grams and is chocolate brown with a white stripe between the wings and body. It is one of the few microbats that can be heard by humans. It sometimes descends to the ground for food.



Cowslip Orchid – *Caladenia flava*

The tall Tuarts and the nearby wetlands provide ideal feeding, nesting and roosting sites for 11 species of birds of prey. Large eagles' nests can be seen high up in some of the old trees.

The Australian Shelducks (*Tadorna tadornoides*) nest high up in tree hollows. Their young are vulnerable to predation by cats, foxes, crows and birds of prey when leaving the nest heading for open water.

Ngoorlak or Carnaby's Black-Cockatoos (*Calyptorhynchus latirostris*) are often seen feeding in noisy groups in the Ludlow Tuart Forest. They are listed as an endangered species due to habitat clearing. The Ngoorlak need large trees with hollows to nest in.

Flora of the Ludlow Tuart Forest

There is a diverse range of plants in the Ludlow Tuart

forest which is the largest remnant of tall Tuart on the Swan Coastal Plain. There are 543 species of native plants recorded in the reserve.



Purple Tassels – *Sowerbaea laxiflora*

The most prominent of plants is the Tuart itself. It is a beautiful tree with a rough, light grey to white bark. Botanist James Drummond measured trees up to 13 metres in circumference north of Busselton in 1843.

A complex of understorey species, including over 50 different types of orchid and an unknown number of fungi, live in the Tuart forest.

The Cowslip Orchid (*Caladenia flava*), Western Australia's most common orchid, is one of many species which occur in the Tuart Forest. A close look at a clump of flowers reveals similar markings on each plant as each one is a clone of the original seedling.

The Wannang or W.A. Peppermint's (*Agonis flexuosa*) name is derived from the scent of its leaves. It is a common tree along the Swan Coastal Plain and is

a favourite food and habitat of the Nguaren. It forms a dense understorey in the Tuart Forest and is thought to prevent the regeneration of Tuart in some areas.

Fungi play an important role in recycling nutrients in the Tuart forest. 98 species have been identified so far. 5 truffle-like fungi found under the Tuart have yet to be scientifically named. These truffle-like fungi are frequently found close to Quenda diggings which suggests that they are eaten as well as spread by these animals.



Tuart Forest Fungi



The Limestone Track – Ludlow Tuart Forest

The Ludlow Tuart Forest

The majestic Tuart (*Eucalyptus gomphocephala*) grows only on coastal limestone in Western Australia (WA). Its range extends 420 kilometres from Busselton to Jurien Bay. The world's only tall Tuarts grow at Ludlow and are up to 40 metres tall. There are now less than 2000 hectares of tall Tuart left, which makes it one of the rarest forests in the world. The area is rich in ecological, cultural and social history—a fascinating place to explore.

The Wardandi

The South West of Western Australia is an area of diverse landscapes which has been occupied by humans for millennia. The first people, the Noongars, were a number of distinct groups who relied on their natural surroundings to provide all their physical, social and spiritual needs.

The Noongars of the Ludlow area are known as the Wardandi and they refer to the tall trees which grow at Ludlow as “Tooarts”. Traditionally, during certain times of the year, hundreds of Noongar people would gather to share the harvest of food in places such as the Abba River where traps would provide plentiful supplies of fish. Today the forest and surrounding wetlands remain important, although access to traditional resources is limited.

The Europeans

The French were the first documented Europeans to visit the area during Captain Nicholas Baudin's cartographic survey of the Australian coast in 1801. A specimen collected at the Vasse River was classified botanically as *Eucalyptus gomphocephala*, a Greek reference to the appearance of the club shaped flower cap of the Tuart.

English colonists arrived in the early 1830's and settled the area which they found ideal for grazing their cattle. One of the first white settlements in the Tuart forest was Wonnerup House. Conflict over the appropriation of Aboriginal tribal lands and resources eventually led to the domination of European farming practices and dispossession for the Wardandi people. In 1841 a significant number of Wardandi people were massacred in a reprisal attack after settler George Layman was speared at Wonnerup House by local Wardandi Tribal Elder, Gaywar. It is believed Gaywar's restless spirit continues to haunt the Tuart forest.

From Exploitation to Conservation

The early colonists quickly realised the value of the Tuart for timber and exploited its strength and durability on a large scale. In order to preserve this rapidly disappearing species, in 1919 Charles Lane Poole, Conservator of Forests for WA, dedicated 542 hectares of Tuart forest in Ludlow as State Forest No 1, the first in WA. More surrounding Tuart country was purchased by the government such was the concern about its demise. This and further acquisitions now form the 2,880 hectare Tuart Forest Reserve of which 2049 hectares was declared as the Tuart Forest National Park in 1987.



Wonnerup House – National Trust of Australia (W.A.)