

A diverse ecosystem

Gunbower Forest is a large River Red Gum Forest of international significance that has suffered a serious decline in condition in recent years from lack of water. Through The Living Murray's Gunbower Forest project, works will be undertaken to provide water to protect and improve the forest's health.

Gunbower Forest supports a diverse range of aquatic and terrestrial ecosystems that contain many hidden treasures. These include waterways, wetlands, forests and woodlands, each with unique characteristics.

Creeks and anabranches

Naturally intermittent waterways weave through Gunbower Forest, distributing water in and out of the Forest during times of flood. They creating an intricate network that feeds low lying wetlands and provides passage for fauna species such as the Murray Spiny Cray (*Euastacus armatus*), Gudgeon fish (*Philypnodon spp.* and *Hypseleotris spp.*) and turtles. The fringing River Red Gums and dense stands of reeds also offer shelter to birds like the Azure Kingfisher (*Alcedo azurea*) and Little Bittern (*Ixobrychus minutus*). When dry, these areas are colonised by annual herbs including the native Carpet Weed (*Glinus spp.*) – an essential food plant for the endangered Spotted Grass Blue Butterfly (*Zizeeria karsandra*).



Photo: Australian Ecosystems

Wetlands

Following flooding, a vast complex of wetlands and lagoons emerge in Gunbower Forest, revealing subtle topography and cutting off tracks. These ecosystems can house thousands of migratory water birds and over 50 native aquatic flora species, the significance of which are recognised nationally and internationally.



Photo: Australian Ecosystems

Wetlands depend on wetting and drying. In their dry phase, while the soils replenish in oxygen, they can appear nothing more than a dust pan with scattered hardy herbs. Yet in the warmer months following flooding, they sprout all sorts of weird and wonderful aquatic flora which provide food, habitat and breeding grounds for countless invertebrates, fish, frogs, reptiles, mammals and birds.

The Gunbower Forest project is delivered by the North Central Catchment Management Authority (CMA) in partnership with Goulburn–Murray Water, and Parks Victoria, and coordinated at a state level by the Department of Sustainability and Environment. It is part of The Living Murray program, a joint initiative of the New South Wales, Victorian, South Australian, Australian Capital Territory and the Commonwealth governments, coordinated by the Murray–Darling Basin Authority. Together with Koondrook–Perricoota Forest in NSW, Gunbower Forest is one of The Living Murray's six icon sites.

As wetlands dry, aquatic seeds bury in the mud, and plants wither back to underground stems, giving way to a new suite of opportunistic herbs on the mud flats.

Floodplain woodland and forest

Forest (dense stands of tall trees) and woodland (open stands of stouter trees) are the most widespread vegetation type in Gunbower Forest. There are three main eucalypt species: River Red Gum (*Eucalyptus camaldulensis*), Black Box (*E. largiflorens*) and Grey Box (*E. microcarpa*). Each has different water needs and supports a distinct group of shrubs and ground flora.

In the forest's northwest, River Red Gums are associated with semi-aquatic understorey plants of high conservation significance that die back to leaf litter in dry times.

In elevated southeastern areas, Grey Box woodlands prevail, with patches of dense shrubs and soil crust, made up of a diverse and colourful combination of lichens and mosses.

Gunbower Forest supports one of the largest intact patches of the endangered Grey Box woodlands in Victoria, which in turn provide habitat for a rare woodland bird community including threatened species such as Diamond Firetail (*Stagonopleura guttata*), Grey-crowned Babbler (*Pomatostomus temporalis*) and Hooded Robin (*Melanodryas cucullata*).

Black Box woodlands are often situated between these ecosystems and can support elements from each, typically with an array of small saltbush shrubs and annual daisies. The riverine Black Box woodlands also have very high conservation value and are listed as vulnerable.

Riparian woodland

Fringing the Murray River and major creeks in Gunbower Forest is another type of River Red Gum woodland with majestic trees, Wattles (*Acacia spp.*), Pale-fruit Ballart (*Exocarpos strictus*) and many native grasses, sedges and rushes. In secluded patches of this riparian woodland, the Yellow-footed Antechinus (*Antechinus flavipes*) and Carpet Python (*Morelia spilota metcalfei*) can be seen hunting. Unfortunately, unrestricted camping along the river banks has damaged large areas of this woodland's understorey and introduced noxious weeds. It has also reduced the presence of woody debris, meaning that sightings of species such as the Carpet Python are now very rare.



Photo: North Central CMA

The threatened Diamond Firetail finds habitat in Gunbower Forest's Grey Box woodlands.

CONTACT

This fact sheet is one of a series providing information on the Gunbower Forest project. Further fact sheets and other project information are available from the North Central CMA on 03 5448 7124 or by visiting www.nccma.vic.gov.au.

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