

Wetlands

of south-western Queensland

Eucalypt wooded swamps



*Eucalypt wooded swamp, Lochern National Park
(R. Jaensch, Wetlands International)*

Landform and water regime

Eucalypt wooded swamps mainly occur in basins, occasionally in channels and on flats such as the swales between sand dunes. Usually the swamps are small, perhaps only hundreds of metres wide, but sometimes up to 1–2 kilometres wide or long. Soils are varied but in many cases are deep-cracking clays with hummocks and potholes.

Water supply is from local rain-storms, runoff from adjacent areas or small creeks. In the area between Charleville, Bollon and Cunnamulla, some eucalypt wooded swamps receive water also from artificial bore drains. In the far west, some eucalypt wooded swamps may become inundated by river floods during exceptionally wet years.

Inundation is temporary and many wooded swamps are dry for several years. Water usually is less than 0.1–0.2 m deep but may be more than 0.5 m deep in exceptionally wet years. Water in wooded swamps normally is fresh (non-saline) and moderately to slightly turbid.

Typical vegetation

This wetland type is characterised by open to very open woodland of *Eucalyptus* species. The characteristic eucalypt varies across south-western Queensland: normally one species dominates at any one location.

Trees may be more than 10 m high in some swamps. Mature trees may contain hollows that provide shelter and breeding sites for mammals, frogs, reptiles and birds.

Associated wetland types

- Wooded watercourses.
- Isolated claypans and canegrass swamps.
- Lignum swamps.
- Cooba shrubby swamps.
- Acacia/belah wooded swamps.

Distribution in south-western Queensland

This wetland type is widespread in south-western Queensland. It is most prevalent in the Mulga Lands biogeographic region.

Prominent examples of this type:

- Northern part of Lake Dartmouth (west of Charleville).
- Many occur in the Wyandra-Cunnamulla area (between Charleville, Bollon and Cunnamulla).

Occurrence in protected areas

This wetland type occurs in only five national parks in south-western Queensland, notably Currawinya National Park which includes several examples (eg. Ten Mile Waterhole). None of the (above) prominent examples are in protected areas.

Principal conservation values

- An important and distinctive habitat for species (plants, frogs) that favour briefly inundated wetland that has extensive tree cover.
- An important vegetation community where the landscape, particularly in the Mulga Lands, is dominated by dryland woodland.
- Possibly an important habitat for the gazetted rare painted snipe *Rostratula benghalensis*.

Characteristic plant species

More than one eucalypt species may occur in an example of this type. However, poplar box *Eucalyptus populnea* is dominant in the east and coolibah *E. coolabah* in the west. Black box *E. largiflorens* may occur throughout. Yapunyah *E. ochrophloia* may dominate examples in the Bulloo and Paroo drainages.

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Associated plant species are:

Trees and shrubs:

gidgee *Acacia cambagei*

river cooba *Acacia stenophylla*

lignum *Muehlenbeckia florulenta*

Grasses, sedges and forbs:

budda pea *Aeschynomene indica*

native millet *Panicum decompositum*

Mitchell grass *Astrebla* spp.

neverfail *Eragrostis setifolia*

rat's tail couch *Sporobolus mitchellii*

cup grass *Eriochloa* spp.

Warrego grass *Paspalidium jubiflorum*

millet/lovegrass *Echinochloa* spp.

sedges *Cyperus* spp.

spike rush *Eleocharis* spp.

burr/poverty bush *Sclerolaena* spp.

joyweed *Alternanthera* spp.

common nardoo *Marsilea drummondii*

Characteristic waterbird species

Rare species under Queensland legislation (RQ):

painted snipe *Rostratula benghalensis* (RQ)

Breeding species:

Australian wood duck *Chenonetta jubata*

Pacific black duck *Anas superciliosa*

grey teal *Anas gracilis*

little pied cormorant *Phalacrocorax melanoleucos*

white-necked heron *Ardea pacifica*

white-faced heron *Ardea novaehollandiae*

Other species that occur:

pink-eared duck *Malacorhynchus membranaceus*

great egret *Ardea alba*

nankeen night heron *Nycticorax caledonicus*

Australian white ibis *Threskiornis molucca*

brilga *Grus rubicundus*

black-fronted dotterel *Elsayornis melanops*

Other fauna

Little is known about other fauna but species that do occur include some fishes (possibly Australian smelt *Retropinna semoni*), several frogs (eg. *Litoria latopalmata*, *Crinia* spp.) and invertebrates such as freshwater crab *Holthuisiana transversa* and insects (eg. dragonflies Odonata).

Threats to the conservation values

- Removal of trees in wooded swamps that occur within areas cleared for grazing or cropping purposes.
- Increased inundation, leading eventually to tree deaths, due to clearing of catchments.



Litoria latopalmata (Environmental Protection Agency)

- Excessive grazing of livestock on swamp vegetation, including tree seedlings, may result in loss of some characteristic plant species.
- Lack of public awareness of the existence of this type and of its conservation values.

Management responses required

- Retain trees in wooded swamps and adequate buffer zones around swamps, in planning for property development.
- Manage grazing in wooded swamps to ensure long-term viability of the swamp vegetation.
- Improve public awareness of wooded swamps and their conservation values.
- Establish and implement voluntary conservation agreements between landholders and government to increase the area of representative examples under protection.

Gaps in knowledge

This wetland type is among the least well known in south-western Queensland. Knowledge of hydrology, ecological processes and occurrence of wetland species (fishes, frogs, invertebrates) is inadequate.

Further reading

Ford, G.I. 1996. Inventory of wetlands, Mulga Lands biogeographic region, south-western Queensland. Unpublished report to Dept of Environment and Heritage, Toowoomba, Queensland. Site account for Lake Dartmouth.

Kingsford RT. ed. 1999. *A free-flowing river: the ecology of the Paroo River*. NSW National Parks and Wildlife Service, Hurstville. p. 26.

For further information, contact:

Environmental Protection Agency, 160 Ann Street, Brisbane (Tel: 07-3227-8186), or regional offices of the Queensland Parks and Wildlife Service in Toowoomba and Rockhampton.