

of south-western Queensland

Isolated claypans and canegrass swamps

Landform and water regime

This wetland type mainly occurs in basins that usually are hundreds of metres wide, exceptionally several kilometres wide. The basins typically are flat floored, oval shaped and hydrologically isolated (unconnected, discrete) from other wetlands. Soils are usually clays that form a hard pan when the wetland is dry.

Water supply is from heavy local rain-storms and runoff from adjacent areas. In the area between Charleville, Bollon and Cunnamulla, many claypans also receive

water from artificial bore drains.

Inundation is temporary and some claypans are dry for many months or years. Water normally is less than 0.5 m deep but may be more than a metre deep in exceptionally wet years. Water is fresh (non-saline) and highly turbid.

Typical vegetation

This wetland type is characterised by sparse to dense tussock grassland of swamp canegrass *Eragrostis australasica*. Under favourable conditions the tussocks may be more than 2 m high with dense tangled stems in the centre. Extent of canegrass may vary with time. Many claypans are bare.

Associated wetland types

- Temporary freshwater lakes without grassland.
- Eucalypt wooded swamps.

Distribution in south-western Queensland

In south-western Queensland this wetland type mainly occurs in the Channel Country and Mulga Lands biogeographic regions. It is most prevalent on undulating sandplains.

Prominent examples of this type

- Many examples occur in the Wyandra-Cunnamulla area (between Charleville, Bollon and Cunnamulla).
- Moonda Lake (south-west of Betoota) includes large areas of canegrass swamp.

Occurrence in protected areas

This wetland type occurs in only four national parks in south-western Queensland, notably Currawinya National Park where it is widespread. None of the (above) prominent examples are in protected areas.

Principal conservation values

- Support a high diversity of invertebrate species many of which are characteristic of, if not restricted to, this type.
- (In at least one location) Provide habitat for grey grasswren *Amytornis barbatus*, a gazetted rare species in Queensland.

Characteristic plant species

Plants that occur with canegrass or at claypan edges:

Trees and shrubs:

poplar box *Eucalyptus populnea*

coolibah *Eucalyptus coolabah*

black box *Eucalyptus largiflorens*

yapunya *Eucalyptus ochrophloia*

Grasses, sedges and forbs:

pale spike rush *Eleocharis pallens*

common nardoo *Marsilea drummondii*

Aponogeton queenslandicus (VQ)

stoneworts *Chara* spp., *Nitella* spp.

(VQ = Vulnerable species under Queensland legislation)



Claypan with canegrass, near Wyandra
(R. Jaensch, Wetlands International)

of south-western Queensland

Isolated claypans and canegrass swamps *cont...*

Characteristic waterbird species

Rare species under Queensland legislation (RQ):

grey grasswren *Amytornis barbatus* (RQ)

(at a few localities)

painted snipe *Rostratula benghalensis* (RQ)

Breeding species:

brilga *Grus rubicunda*

black-fronted dotterel *Elseya melanops*

red-kneed dotterel *Erythronyx cinctus*

masked lapwing *Vanellus miles*

whiskered tern *Chlidonias hybrida*

Migratory shorebirds:

common greenshank *Tringa nebularia*

sharp-tailed sandpiper *Calidris acuminata*

Some other species that occur:

grey teal *Anas gracilis*

white-necked heron *Ardea pacifica*

yellow-billed spoonbill *Platalea flavipes*

black-winged stilt *Himantopus himantopus*

black-tailed native-hen *Gallinula ventralis*

Australian spotted crake *Porzana fluminea*

Other fauna

Due to their isolation from rivers and temporary inundation, canegrass swamps are not prime habitat for fishes. Small mammals such as *Planigale* and *Sminthopsis* spp. have been recorded. Frogs known from this wetland type include *Cyclorana platycephala*, *C. novaehollandiae*, *Neobatrachus sudellii*, *Uperoleia rugosa*, *Notaden bennetti* and three *Limnodynastes* spp.

Invertebrates are diverse and abundant and include many phyllopods (eg. shield shrimps *Triops australiensis*, *Branchinella* spp., *Cyzicus* sp.) and insects (eg. *Eretes australis*); also copepods (eg. *Calamoecia* spp.), cladocerans (eg. *Daphnia* spp.), ostracods (eg. *Bennelongia barangaroo*) and molluscs (eg. *Isidorella newcombi*).

Threats to the conservation values

- Changes to water supply (increase or decrease) due to introduction or removal of inflow from bore drains and road embankments.
- Potential introductions of exotic fish and plant species via bore drains.
- The cumulative effect, over many years, of excessive grazing of livestock on claypan vegetation especially during droughts.

Management responses required

- Manage flows from artesian bores into bore drains to ensure that changes to canegrass swamps are minimal and that most swamps have only a natural water supply.
- Manage grazing in canegrass swamps to ensure long-term viability of tussock grassland.
- 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 has been studied in some detail at Currawinya National Park. Knowledge of the hydrology and biodiversity of claypans in other areas (eg. Wyandra) is inadequate.



Shield shrimps
(R. Jaensch,
Wetlands
International)

Further reading

Timms, BV. 1999. Local runoff, Paroo floods and water extraction impacts on the wetlands of Currawinya National Park. In, Kingsford RT. ed., *A free-flowing river: the ecology of the Paroo River*. NSW National Parks and Wildlife Service, Hurstville.

Blackman, JG. et al. 1996. Queensland. In, ANCA. *A Directory of Important Wetlands in Australia*, 2nd edition. Australian Nature Conservation Agency, Canberra. Site account prepared by G. Ford for Moonda Lake (p. 229).

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.