Queensland Government
Environmental Protection Agency
Queensland Parks and Wildlife Service

of south-western Queensland

Temporary freshwater lakes without grassland

Landform and water regime

This wetland type occurs in basins. The basins may be up to several kilometres wide. Soil tends to be hard-crusting clay rather than deep-cracking clay.

Water supply mainly is from heavy local storms and small creeks. Some examples are connected to floodplains and receive additional inflow from major river floods.

Inundation is temporary. Some examples are dry for many months or several years, though parts of lakes nearest to their inflow creeks may receive at least some water in most years. This type may become full only once in 10 years. Depth of water is commonly less than 0.5 m and wind may shift sheets of shallow water around the partly dry wetland bed.

Water normally is fresh but may become slightly saline as the lake dries out.

Typical vegetation

This wetland type is predominantly bare and is characterised by lack of extensive permanent vegetation. Scattered low shrubs (eg. succulents) or occasional tussocks may occur, but usually there are no substantial areas of tussock grassland. Some examples have prolific short-lived growth of forbs as they dry out.

Associated wetland types

- Wooded watercourses.
- Gibber and inter-dunal claypan aggregations.
- Isolated claypans and canegrass swamps.

Distribution in south-western Queensland

This wetland type is reasonably widespread and common in south-western Queensland.

Prominent examples of this type

- Bilpa Morea Claypan (north-east of Birdsville), which is the largest example (and one of the largest lakes) in Queensland.
- Muncoonie Lakes (north-west of Birdsville)

Occurrence in protected areas

This wetland type occurs in six national parks in south-western Queensland, notably Diamantina National Park. None of the (above) prominent examples are in protected areas.

Freshwater lake with scattered succulents, Bulloo Lake system (R. Jaensch, Wetlands International)

of south-western Queensland

Temporary freshwater lakes without grassland *cont...*

Principal conservation values

- Some large examples are feeding and migration stop-over sites for thousands of waterbirds, especially shorebirds, after extensive inundation.

Characteristic plant species

sparse cover of...
swamp canegrass *Eragrostis australasica.*
rat's tail couch *Sporobolus mitchellii*
pepper grass *Panicum* spp.
ruby saltbush *Enchylaena tomentosa*
samphire *Halosarcia* spp.
saltbush *Atriplex* spp.
extensive cover of...
annual verbine *Psoralea cinerea*
nightshade *Solanum* spp.
groundsels *Senecio* spp.
soft roly poly *Salsola kali*
common joyweed *Alternanthera nodiflora*

Sharp-tailed sandpipers
(R. Jaensch, Wetlands International)

Characteristic waterbird species

Abundant:

grey teal *Anas gracilis*
pink-eared duck *Malacorhynchus membranaceus*
black-winged stilt *Himantopus himantopus*
red-necked avocet *Recurvirostra novaehollandiae*
red-capped plover *Charadrius ruficapillus*
Australian pratincole *Stiltia isabella*
gull-billed tern *Sterna nilotica*
whiskered tern *Chlidonias hybrida*

Migratory shorebirds:

common greenshank *Tringa nebularia*
red-necked stint *Calidris ruficollis*
sharp-tailed sandpiper *Calidris acuminata*
curlew sandpiper *Calidris ferruginea*

Some other species that occur:

black swan *Cygnus atratus*
white-necked heron *Ardea pacifica*
great egret *Ardea alba*
royal spoonbill *Platalea regia*

Other fauna

There is little information about other fauna that use this wetland type. Some fishes such as spangled perch *Leiopotherapon unicolor* probably occur. Frog and invertebrate fauna probably is similar to that of small claypans and therefore may be relatively rich in species.

Threats to the conservation values

- Reduced inundation which may eliminate some wetland processes, reduce habitat diversity and prevent reproduction of wetland plants and animals.
- Excessive grazing of lake bed vegetation could reduce wetland productivity in the long term.

Management responses required

- Community-wide consultation and education to prevent/minimise new water extraction/diversion schemes both upstream and on-site.
- Manage grazing on lake beds to ensure optimal wetland productivity.

Gaps in knowledge

The biodiversity and conservation values of this wetland type are not well known in south-western Queensland. Biological data are available from some of the prominent examples, mainly in regard to occurrence and populations of waterbirds. Improvements are needed in the knowledge of inundation patterns, use of this type by migratory shorebirds, and occurrence of other fauna.

Further reading

Blackman, JG. *et al.* 1996. Queensland. In, ANCA. *A Directory of Important Wetlands in Australia,* 2nd edition. Australian Nature Conservation Agency, Canberra. Site accounts prepared by G. Ford for Muncoonie Lakes Area (p. 230) and Shallow 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.