

Aboriginal Australians' contemporary wetland plant use and cultural attitudes to water in the Murrumbidgee Catchment, NSW

Aboriginal peoples, including the Mutthi-Mutthi, Wiradjuri and Nari-Nari, have had a long connection with the wetlands of the mid-Murrumbidgee and Lowbidgee. These wetlands, like others in the Murray-Darling Basin, are now declining with loss of ecological function and biodiversity. Opportunities now exist for watering programs to address this decline and meet not only environmental needs but also support cultural values.

This research used a map of culturally important wetland vegetation in the mid-Murrumbidgee and Lowbidgee as a starting point for conversation with the Mutthi-Mutthi and Wiradjuri about the importance of wetlands and their vegetation, loss of Aboriginal peoples' access to land and water, and the possibilities for cultural renewal that watering programs can offer.

How was the research conducted?

A case study approach was used to explore Indigenous ecological knowledge of wetland plants and perceptions on access to managed water flows. The research involved:

1. A literature review to identify culturally important wetland species in the Murrumbidgee area and on water rights generally.
2. Mapping the current distribution of the seven identified species (see list below) in the mid-Murrumbidgee and Lowbidgee area .
3. One-on-one interviews and focus groups (Involving in total 15 participants) to discuss culturally important plants, attitudes and experiences around water.

Culturally important wetland plants considered in this study

Balywan (W*), **Gamban (M**)**, **Cumbungi** - *Typha domingensis* and *Typha orientalis*

Gubudha (W), **Common Reed** - *Phragmites australis*

Ngarrilli (M), **Water Ribbons** - *Triglochin procerum*

Caustic Weed - *Chamaesyce drummondii*

Common Nardoo - *Marsilea drummondii*

Kurrkuty (M), **Ruby Salt Bush** - *Enchyalena tomentosa*

Old Man Weed - *Centipeda cunninghamii*

*Wiradjuri, **Mutthi-Mutthi

The authors of this report respectfully acknowledge the traditional owners, their Elders past and present, their Nations of the Murray-Darling Basin, and their cultural, social, environmental, spiritual and economic connection to their lands and waters. In particular the Wiradjuri, Nari Nari and Muthi Muthi peoples, traditional owners of the land on which this publication is focused.



Summary results of an honours project undertaken in 2016 by Catherine Conroy

with guidance from Dr Skye Wassens, Associate Professor Catherine Allan, Dr Alexandra Knight - School of Environmental Science, Faculty of Science, Charles Sturt University





“I’m also a strong believer that Aboriginal people and Aboriginal communities need to be able to access and use these environments as well. That’s part of the benefits, that’s part of the flow-on effects that need to occur within communities, so it’s the learning, it’s the teaching, it’s the sharing, it’s the experiencing. It’s all those sorts of things that make these sorts of environments really important.”

“Well if you haven’t been treated with the Old Man Weed through your mother and father, or your grandfather and that, you won’t use it. It’s as simple as that.”

“What’s the point in talking water if you’ve got nowhere you can go and walk country?”

“When you’ve got a native veg or biodiversity value, you’ll always an Aboriginal value.”

Why is this research important?

Increasingly governments are recognising that Aboriginal peoples should be consulted and involved in the current water reform agenda particularly that which is underway in the Murray-Darling Basin.

This recognition provides an opportunity for Aboriginal peoples to advocate for water allocations that they can manage directly for socio-economic and cultural purposes. Water can allow traditional owners and Aboriginal communities to sustainably ‘care for country’ including culturally significant places with emphasis on connections within the landscape.

This research aimed to identify how the values around culturally important plants could be used to advocate for water allocations and explored in detail what opportunities and constraints currently exist for Aboriginal communities in seeking water.

Distribution of culturally important plants in the study area

The plants mapped in this study are wetland plants that are or were used for a variety of reasons including: food, shelter, tool making and medicinal purposes.

Overall, Caustic Weed and Ruby Salt Bush are fairly evenly distributed throughout the study area. Water Ribbons and Common Reed are rare. Cumbungi, Common Nardoo and Common Sneezeweed are locally abundant.

Participants particularly mentioned changes in distribution and abundance of Old Man Weed and Cumbungi.

Issues of concern around plants

Participants were concerned that there was a lack of opportunities for the next generation to learn about culturally important plants and their use due to inability to access ‘country’ and the dramatic ecological changes that have occurred.

The intergenerational transfer of knowledge is seen as mainly requiring teaching by practical use and instruction which can occur while other activities are being undertaken.

Retaining this oral knowledge tradition may involve recording cultural plant knowledge in scientific databases with retained intellectual property rights.

Water quality is an important concern in relation to food plants. While individual plants are important, greater importance was attached to the cultural landscape which is a connected landscape.

Continuing loss of cultural identity

Focussing on individual plant species was seen as a good starting point to explore Aboriginal cultural values. The contemporary view expressed by participants is that all plants have become important and that importance is not just confined to individual plant species which were traditionally important.

The holistic nature of aboriginal worldviews cannot be distilled down to one element of the landscape such as aquatic plants but needs to be viewed as many elements of simultaneous importance.

There was a deep sense of loss surrounding the transformation of the river and wetlands witnessed during participants’ lifetimes. Examples were given about the loss of plants, birdlife, freshwater mussels and native fish.

A profound concern was expressed among all participants that environmental degradation was connected to the continuing loss of cultural identity. People did not want to go down to the river or out on country as it had changed so much.

Environmental and cultural water

The divide between environmental and cultural water allocations was seen as an arbitrary distinction by some participants. Any watering was viewed as having mutual benefits for the cultural landscape.

There is generally limited knowledge on what exactly are the flow requirements to satisfy Aboriginal cultural values and the significant cultural sites requiring watering. This knowledge gap is being addressed by projects such as National Cultural Flows Research, and cultural use and occupancy mapping projects.

Access to land and water

Access was viewed as a major constraint by the Aboriginal people interviewed. Restricted or no access to significant cultural places meant Aboriginal communities were unable to properly care for country and carry out cultural practices and activities.

Private landholders were viewed as being reluctant or likely to refuse access due to the perception that it could lead to native title claims. A corresponding problem was lack of land ownership.

Access to plants is important yet it is constrained by institutional arrangements, and this in turn impacts on their sharing of cultural knowledge. Better access is seen as facilitating opportunities for reconnecting with culture, teaching, employment and wellbeing.

Water managers need to be cognisant of Aboriginal access issues. Aboriginal people living in the catchment want to be involved in water management and, if access is better negotiated, watering has the potential to benefit individual plants and places as well as the wellbeing of Aboriginal communities.

Community consultation and engagement

The input of Aboriginal people is an increasing consideration in the development and implementation of new water policies and plans.

Aboriginal participants stated that community engagement was seen as a complicated process to draw out community views and management inputs and required a wide ranging and sensitive approach.

Some participants advocated that the best approach was to issue an open invitation to community to participate at events such as community days.

It was also viewed as a priority that there should be more consultation between Aboriginal communities and other stakeholders such as farmers to build greater levels of cultural understanding and channels of communication and co-operation.

Consultation was seen as a way to form relationships with landholders that may reap benefits in management of the cultural landscape.

Opportunities from cultural water

Many participants considered that a cultural water licence can do much more than just restore the landscape or culturally important plant.

It is seen as being a more powerful instrument with benefits that can flow to community including contributing to wellbeing, intergenerational knowledge transfer and employment opportunities resulting from having more connections with country.

What laws/government policies exist to advance Aboriginal water rights?

The Water Act 2007 (Cth) stipulates that Aboriginal people's values and aspirations must be taken into account in water resource policy and management directives.

The Water Management Act 2000 (NSW) states that Aboriginal cultural spiritual and heritage values must be considered and used, to inform the water sharing plans that directly influence water decision making.

Current extraction rules have been imposed by the Water Sharing Plan for the Murrumbidgee Regulated River Water Source 2016 under the Water Management Act 2000 (NSW) (NSW Government, 2016).

This updated plan took effect from 1 July 2016 replacing a previous plan that was in effect from 1 July 2004 (NSW Department of Primary Industries: Water, 2016).

Cultural access licence is limited to a maximum of 10 mega litres per year for non-commercial cultural purposes including the gathering of aquatic resources.

There is also a commercial licence but this cannot be issued in the Basin due to the imposed cap on licences.



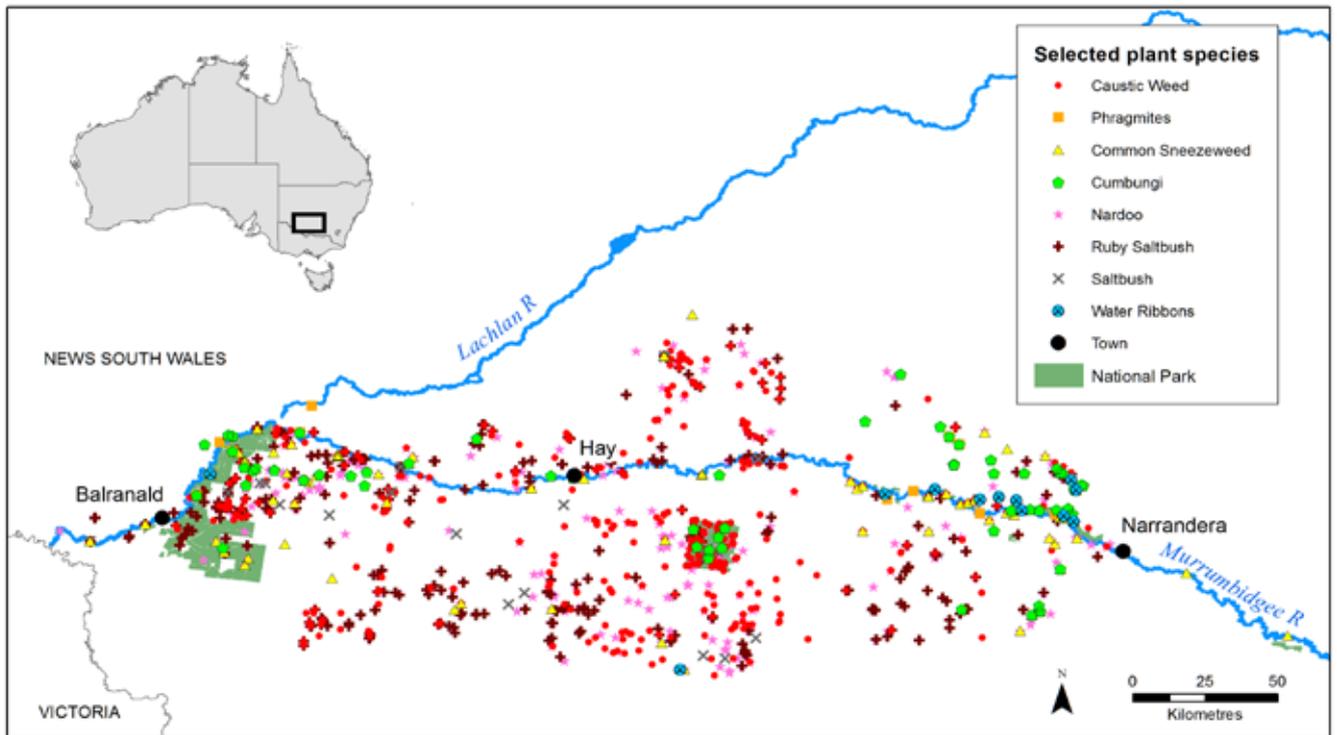


Figure 1- Distribution of selected culturally important wetland plant species in study area. (Map created by D. Duffy, 2016 using data from the LTIM - Murrumbidgee project and Atlas of Living Australia)

Summary of Key Results

- Loss of access to the Aboriginal peoples' traditional lands and waters alongside observed environmental degradation has numerous effects. These include:
 - (a) impacts on wellbeing
 - (b) cultural practices being hindered or prevented
 - (c) limited opportunities to foster intergenerational transfer of cultural knowledge
- To be able to exercise water rights, land ownership or access was viewed as necessary as well as funding for infrastructure and capacity building within Aboriginal communities.
- The ability to have control over water allocation for Aboriginal communities was considered a way to deliver many cultural and social benefits.



For further information contact Dr Skye Wassens on swassens@csu.edu.au or Dr Alexandra Knight on aknight@csu.edu.au

Useful references:

Williams & Sides, Wiradjuri plant use in the Murrumbidgee catchment (2008)

Lower Murray-Darling Catchment Authority, Ecological cultural knowledge - Mutthi Mutthi & Yitha Yitha knowledge shared (2012)

Murrumbidgee LTIM project:
<https://www.csu.edu.au/research/ilws/research/sra-sustainable-water/murrumbidgee-ltim-project>

Aboriginal Water Initiative:
www.water.nsw.gov.au/water-management/water-sharing/aboriginal-communities

National Cultural flows project:
culturalflows.com.au
 Indigenous Biocultural knowledge website <http://aibk.info/>

Atlas of Living Australia: www.ala.org.au/ Search for flora and fauna of Australia.