

Murrumbateman Landcare Group

Dam walk, 320 Isabel Drive Murrumbateman, 11 February 2017

The walk was led by Sue McIntyre and Jacqui Stol; 17 landcarers joined the walk.

First dam

The first dam had two species of floating-leaved native aquatic plant, *Ottelia ovalifolia* (foreground) *Potamogeton* sp. (middle-distance).



Emergent plants on the water's edge and the inner slope of the dam wall provide a filtering mechanism for water entering the dam. They include Spikerushes (*Elaeochloa* sp.), rushes (*Juncus* spp.) and the exotic Umbrella Sedge (*Cyperus eragrostis* pictured below).



Second dam (photo below)



The muddy slope exposed by water drawdown has been colonised by wetland species that do not tolerate total inundation. Species found in this zone can include Sneezeweed (*Centipeda* spp.), Loosestrife (*Lythrum hyssopifolia*), Knotweeds (*Persicaria* spp.) and Swamp Isotoma (*Isotoma fluviatilis*). The roots of these plants stabilize the drying mud and prevent sediment filling the dam when next there is heavy rainfall and / or water inflows.



General comments about farm dams

- Water colour can result from tannins leaching from vegetation and algal growth. Water clarity can be reduced by suspended algae and washed-in sediment or mud disturbance.
- Shading of the dam water surface can reduce the density of aquatic plants which tend to require full sun.
- Bullrushes or Cumbungi (*Typha* spp.) provide excellent fauna habitat and bank stabilization, but they can completely dominate shallow dams. They will not grow in water >2 metres deep and stands can be reduced by cutting stems below the water surface in autumn.
- Frogs and turtles are not restricted to dams, they need habitat near water bodies to aestivate (similar to hibernation), breed (turtles) and forage (frogs). Habitat includes long grass, log and litter under trees.
- Ideally exclude livestock from dams to maintain water quality, protect earth walls and foster plant growth. Piping water to troughs, providing limited access and a hard surface approach to dams are possible considerations.
- Rocks and logs in dams are good habitat and provide protection for fish.
- Avoid moving fish between dams. The introduced guppy-like Mosquitofish (*Gambusia* spp.) does not control mosquitos despite their name and do many bad things. Mosquitofish have harmed native fish populations in many ways, and have been implicated in the decline of at least 9 fish and 10 native frog species. Native microbats such as the locally common Eastern Forest Bat can control mosquitos and have been reported eating up to 100 mossies an hour!
- There are restrictions about what species of fish can be put in farm dams, and it is best to contact authorities. There is no pressing ecological reason to stock farm dams with fish.
- Yabbies do feed on wetland plants, and this can be a problem if there are few plants and many yabbies. Some form of protection may be needed if introducing native plants into an otherwise bare dam.

Jacqui mentioned a frog identification app (android and iOS) 'Frogs Field Guide' put out by the Australian Museum. The app (see below) has a number of useful features including frog calls. There is a link to this app (and many other useful ones) on our website

<http://www.landcare.nsw.gov.au/groups/murrumbateman-landcare-group/useful-apps>.

frogs field guide

