

November in our Catchment, 2011

Until Friday I was thinking that perhaps we could do with a little more rain; well now we have had it! Perhaps now we can go into summer with the expectation that the creeks will run and the ground water will hold good until autumn. In terms of the aquatic vegetation in the region this has been a good year...just as well since the process of getting the communities 'typed' is on right now.

Your Results

While plenty of the water temperature readings were highish, Lake Burley Griffin and the Banksia Street wetland were warmer than is good for life. So long as the water cools down over night there is likely to be little harm done ... and mayflies and dragonflies like the higher afternoon temperatures if they are going to go through their last moult! A few of the pH readings have crept up; this is very probably flow related, and the rain will both dilute the chemical load and get the system cleaning itself. There was the usual scatter of high EC readings, including at the new site in Telopea Ck in Barton. And while the turbidity readings were generally at expected levels, the Burra Creek reading was elevated ... only the pipeline works or has something else become disturbed?

The little fringing plants...more important than you might think.

In October and November, when you visited your sites, you probably saw plenty of smaller tufty plants and spreaders which soon become overgrown by the sedges, the knotweeds and the reedbeds. They are very important in the initial recovery stages after flood, but also hold things together in spring.

What keeps the mud from redissolving or turning to dust? Two little groups of plant-like organism that usually get overlooked ... the cyanobacteria and the thallose liverworts. The flat to the ground rosette form and the ability of the plant to dry out and rehydrate many times makes the *Riccia*



Riccia rosettes

liverwort an ideal growth habit for life on mud. There is just enough space between the segments for other things to grow; the grooves make ideal collecting sites for seeds and spores. It is interesting that in muddy flood-runners these plants may form a long-lived community through which seasonal plants grow and die back.

Many of the riverside mat-forming plants are found often on sandy mud rather than clay-like muds. They form a star-like pattern and so both hold a large area of soil and provide shelter for other plants to grow through. One important local example is Sneezeweed (*Centipeda cunninghamii*) along

with creeping smartweed (*Persicaria prostrata*) and purslane (*Portulaca oleracea*). This is one of the main stabilisers of muddy sand after floods.



Isolepis habra

The small sedges (*Isolepis*, *Schoenus* and *Centrolepis*) and many of the smaller *Juncus* species are common at the water edge. The tussock habit is useful in areas of periodic inundation as the plant may bend with the flow and later poke above the water while it subsides. Tussocks also collect silt and grit and so may be self composting and manuring.



Centrolepis sp

Some of the more interesting ones are those that begin as prostrate plants, spread and then grow erect stems. The two common ones are *Lythrum hyssopifolium* (Hyssop-leaved Loosestrife) and *Alternanthera denticulata* (Khaki Weed).

For the short time that most of these plants are the vigorous vegetation they all hold the structure of the river bank together, they let other plants get started and they get through their own lifecycle, so they are back next year.

Calendar

December Sampling

17th & 18th December

January Sampling

21st & 22nd January

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