

An abundance of water couch (Paspalum distichum) at a vegetation survey site near Bunnor wetlands

Controlling lippia: the role of environmental water

Lippia (Phyla canescens) is a significant weed in the Gwydir wetlands. It spreads along the ground smothering native grasses, reducing both our native habitat and our natural pastures for cattle (Figure 1 & 3). Water couch (Paspalum distichum) is one of the most important native grasses in the Gwydir wetlands. It forms large meadows that are important for key species like magpie geese and brolga and it also provides good pasture for grazing cattle (Above image).

Water couch and lippia tend to live in the same areas. What we have found is that the delivery of environmental water can benefit water couch, allowing it to dramatically out compete the lippia weed. We have been monitoring several water couch sites since spring of 2014 and we have seen that sites with infrequent inundation can host up to six time more lippia that water couch.



Figure 1. Lippia (Phyla canescens) is a serious weed of inland river systems and floodplains

Spring 2014 - Water Couch: 10 % / Lippia: 60 %

Autumn 2015 - Water Couch: 81 % / Lippia: 3 %

Spring 2015 - Water Couch: 60 % / Lippia: 3 %



Autumn 2016 - Water Couch: 40 % / Lippia: 32 %



Spring 2016 - Water Couch: 50 % / Lippia: 10 %



Autumn 2017 - Water Couch: 40 % / Lippia: 15 %



Figure 2. One of our study sites at Munwonga showing the effect of environmental water on the water couch-lippia relationship



Figure 3. Foliage of lippia weed (Phyla canescens)

You can see from the photo sequence (Figure 2), of one of our sites on Munwonga, that lippia made up 60% of the ground cover in Spring 2014. However, inundation over the summer period of 2014/15 allowed the water couch to bounce back and dominate the site making up over 80% of the ground cover by autumn 2015. At the same time, lippa was reduced to only 3% cover.

This beneficial effect from the inundation and subsequent inundation events was maintained for several years, giving a lasting benefit to our native animals and our grazing cattle.



For more on MER check out: https://www.environment.gov.au/water/cewo/mon itoring/mer-program

