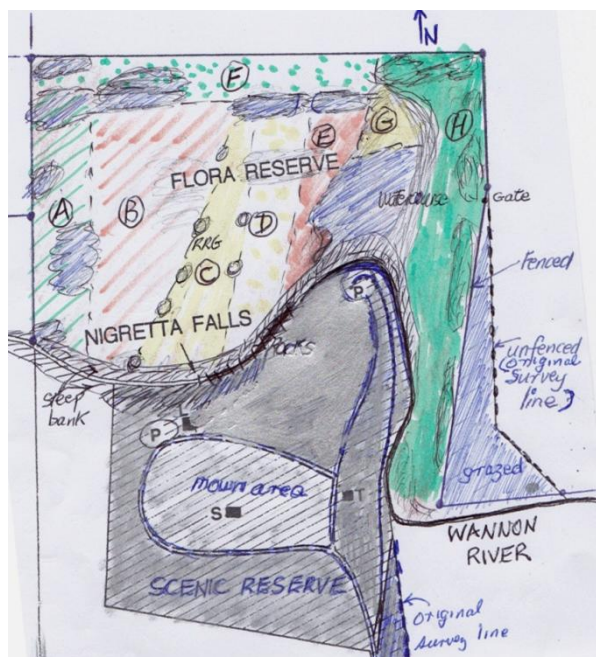


HFNC weed control report for Nigretta Flora Reserve 2015

In 1975, HFNC requested the Lands Dept to cancel the grazing lease. HFNC submissions to the LCC were successful and it became a Flora Reserve in 1982. This reserve has over 200 native plant species. An aggressive new threat, African Weed Orchid (AWO), was found in great numbers on this 12-ha site in 2009.



Saturday 17 Oct. 2015 – Working Bee: 4 members (RB, DL, PH & RT) were present. Contributions from 9.45 to 5 pm were made (19 work hours) and most of the open areas (A-H) were covered. More helpers at this stage would mean fewer plants left untreated to need digging up later – a much tougher prospect.

We herbicide-wiped 3,115 AWO, plus a few Wild Gladiolus near the river. Glyphosate (30 mL/L), metsulfuron methyl (2 g/L), wetter and dye was used (about 7 L was applied). The ground was very dry.

Only a few large AWO had flowers out; most of the AWO were still in bud and some small plants had withered without producing a flower spike. The day was very warm but the dry spring resulted in no sun-orchids in bloom and very few flowers were seen.

Wednesday 21 Oct. 2015: RB & PH each wiped another 50 AWO (2 hrs).

RB (1.30 pm-7.30 pm) assessed the herbicide-wipe experiment installed in 2014, where the plants were allocated in 3 'blocks' to examine the effects of 3 herbicide treatments and time of application: 21 Sept. before development of flowering spike and 3 weeks later, 10 Oct., before flowering. There were 5 plants per treatment, except for only 4 plants per treatment in Block 3, Oct. application.

Herbicide-wipe Treatments (the solutions all contained wetter and marker dye, each 5 mL/L):

1. Control (no treatment)
2. Glyphosate (60 mL/L of wipe solution)
3. Metsulfuron methyl (3 g/L wipe solution)
4. Glyphosate + Metsulfuron methyl (as above)

On 21 Oct. 2015 the job was to record presence or absence of live plants and corms at each pin. A large screwdriver was used to excavate each site and the soil was examined to locate any corms. The glyphosate treatment was very effective. Metsulfuron methyl is probably effective too, since no plants survived and any corms present had not produced new plants. This herbicide may be preferred where glyphosate might affect valuable adjacent plants. However, it does take longer to act and so viable seed might be produced if it is applied too late in the flowering process. That will also be a problem with glyphosate if applied too late.

Control (untreated) plots – of the 29 plots, 25 had plants present and 28 had viable corms present.

Glyphosate plots – 0 of 26 plots had plants or corms (3 pins could not be found)

Metsulfuron methyl plots – 0 of 29 plots had plants but 6 had corms that were a little shriveled

Glyphosate + metsulfuron methyl plots – 3 of 28 plots had small, dead plants and 4 had shriveled corms

Saturday 7 November – Working Bee: Nine members contributed to a good effort in covering the entire area: RB, DL, PH, DD, RZ, JS, GC, JC & RT (on Wednesday) dug up 830 green AWO (25 hrs total). The light rain last week had sparked up the *Brunonia*, *Pimelea* and other species, producing colourful displays.

The 2015 tally is half that in 2014 or 2013. We have been thorough in all 3 years and it may be that we are at last having some impact.

- 2015 – 4,045 AWO wiped (3,215 plants) or dug (830 plants) over the entire site [46 hr]
- 2014 – 7,975 AWO wiped (6,665 plants) or dug (1,310 plants) over the entire site [65 hr].
- 2013 – 8,275 AWO wiped or dug (8,125 plants) or pulled to remove heads (150 plants) [71 hr].
- 2012 – 6,900 AWO wiped & dug (6,800 plants) or pulled to remove heads (100 plants) [46 hr].
- 2011 – 5,500 AWO wiped (5,000 plants) or pulled to remove heads (500 plants) [39 hr].
- 2010 – 13,720 AWO wiped (10,140 plants) or pulled (3,580 plants); far NW & NE not done [27 hr].
- 2009 – 22,500 AWO dug (2,290 plants) or pulled (20,280 plants) but NW area not done [68 hr].