

## HFNC weed control report for Nigretta Flora Reserve 2019

HFNC requested the Lands Dept to cancel the grazing lease on this Crown Land in 1975. HFNC submissions to the LCC were successful and this 12 ha grassy woodland block with frontage to the Wannan River and Nigretta Falls became a Flora Reserve in 1982. Our flora surveys have shown 205 native species present. An aggressive invader, African Weed Orchid (AWO), was found in great numbers on this 12-ha site in 2009 and action has been taken over the last 10 years to combat it, as well as other weeds (e.g. Phalaris) resulting from a history of grazing and other incursions.

Hamilton's rainfall for May-Oct. was 79, 94, 68, 64, 61 & 36 mm, a total of 402 mm, cf. the long-term average of 427 mm. The 6-month totals for 2009-18 were 407, 390, 338, 399, 369, 288, 254, 631, 360, 375 mm. Sep-Oct spring rain for 2019 was 97 mm, cf. 58 mm for 2018 and 139 mm long-term.

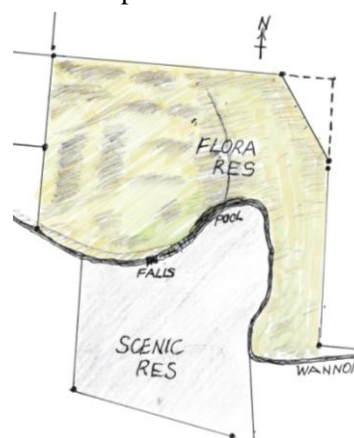
Sunday 13 Oct. 7 members (RB, DL, PH, PM, WM & SM) approached from the northern side through private property, the river level being too high to cross. We variously worked from 9.45 am to 4 pm (total 30 hrs) and wiped 3,170 AWO with 14 L of glyphosate (30 mL/L), metsulfuron methyl (1 g/L), wetter (5 mL/L) and dye (5 mL/L) solution. Excluding thistles that were also treated, approximately 4 mL of wipe solution was applied per plant.

In 2018 the lower branches of the 7 main Tree Violets in the NW corner and near the bend in the mid-N fence were trimmed to prevent future spray-damage to the shrubs. *Galium aperine* (Clingers) garden weeds beneath these shrubs were sprayed with glyphosate solution at the present visit.

Saturday 26 Oct. Unfortunately this working bee had to be cancelled due to wet weather.

Wednesday 06 Nov. RB & PH crossed over the river and worked from 1.15 pm to 5.15 pm (8 hrs) on weeds and wiped 1200 AWO and 200 Wild Gladiolus (4 L herbicide solution; 2.8 mL/plant).

A dense infestation of *Galium aperine* was found under Tree Violet shrubs on the mid-west fence. Some lower branches were pruned and some weed was removed. Clumps of phalaris there were spot-sprayed. A surviving *A. longifolia* at the east end was also treated.



Saturday 11 Nov. DL & RB worked from 10 am to 5 pm (13 hrs) to cover the western block and wiped 2,395 AWO (5 L herbicide solution; 2.1 mL/plant wiped) and pulled 70 AWO. The entire infested area was covered. The wiping may have been a little late, in that some plants may have time to set viable seeds. A little work was also done on Clingers on the west fence and NW corner.

Saturday 30 Nov. 5 members (DL, RB, PH, JS & YI) worked variously from 9.30 am to 3 pm (17 hrs) and cleared 535 AWO (499 dug & 36 pulled), 15 Wild Gladiolus and masses of *Galium aperine* from beneath shrubs on the west fence and fence and in the centre, near the bracken area. Low branches were removed from many of the shrubs in order to hand-weed the Clingers that threaten to advance across the reserve. Birds and/or wallabies are probably transporting seed to these clumps. This year most plants had only a small, single tuber, despite almost average winter-spring rainfall.

Summary of works to control AWOs since 2009:

- 2019 – 7,370 AWO wiped (6,765 plants), dug (499 plants) or pulled (106 plants) [68 hr]
- 2018 – 3,480 AWO wiped (3,225 plants) or dug (255) [60.5 hr]
- 2017 – 5,190 AWO wiped (3,820 plants), dug (1,265 plants) or pulled (105 plants) [57 hr]
- 2016 – 16,100 AWO wiped (13,625 plants) or dug (2,480 plants) or pulled (2,665 plants) [93 hr]
- 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 or 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); NW & E not done [27 hr]
- 2009 – 22,500 AWO dug (2,290 plants) or pulled (20,280 plants) but NW area not done [68 hr]