

HFNC Weed Control Report for Nigretta Falls Scenic Reserve 2016

African Weed Orchid (AWO): This weed is a serious environmental pest and was found on this Reserve in 2009. Work by HFNC to control it has continued annually in Oct-Nov.

Roger Thompson has again attacked this pest with zeal, searching on 13 occasions across the site, spending 21 hours on the work. He dug a total of 1611 plants, removing plants and tubers, mostly before seed was shed:

- 25 Sep – 75 juv. plants dug (1.5 hrs)
- 06 Oct – 96 juv. plants dug (1 hr)
- 14 Oct – 143 larger plants dug (1 hr)
- 18 Oct – 167 plants dug (1.45 hr)
- 19 Oct – 216 plants dug (3 hr)
- 22 Oct – 170 plants dug (2.45 hr)
- 27 Oct – 142 plants dug (1.45 hr)
- 29 Oct – 45 plants dug (1 hr)
- 09 Nov – 110 plants dug (2 hr)
- 19 Nov – 92 plants (2 hr) – flowering
- 20 Nov – 42 plants (1.25 hr) – flowering
- 03 Jan17 – 157 plants (1.45 hr) – dried
- 08 Jan17 – 87 plants (1 hr) – dried

The decline in number of AWO found in the dry year of 2015 compared with 2014 (a 65% decline) gave some hope that the infestation was being reduced. However, the wet year of 2016 has shown that the problem has not gone away, with a 480% increase in AWO numbers!

We think that plants germinating in winter produce a tuber that spring and grow from that next winter, producing a new tuber alongside the shrivelled old tuber, and many will produce a small flower head in that early summer. If that is so, the great increase in numbers of AWO in 2016 may be derived from germination in the dry year of 2015. Plants without flowering stalks are hard to see and would mostly have been missed in 2015. However, we have observed this year that there has also been a substantial germination of AWO; tiny plants with a single tuber (and no old exhausted tuber). What will 2017 deliver?

AWO in the Scenic Reserve are all dug up since that is the simplest way of removing the pest. This approach is very labour-intensive, tedious and practical only in the following cases:

- In the first stage of infestation when the numbers are less than about 1000 plants and can be handled in about 4 hours by 3 people;
- When the weather is too wet to allow successful herbicide application and it is not possible to find another better opportunity before the plants flower and set seed;
- ‘Mopping up’ late in spring when some plants have been missed or new plants have emerged, and would probably have time to set viable seed if herbicide was applied at that late stage.

Care is needed when digging the plants because the tuber (2 or 3 ‘new’ tubers are sometimes found) is easily detached from the plant and lost if the soil is not adequately loosened before pulling up the plant. A narrow-bladed tool (such as a very large screwdriver) is best used when the soil is hard or the ground is stony. That also reduces collateral damage to adjacent native plants.

The history of attempts to control this pest plant and some others is given below:

- 2016 – 1618 AWO dug (20.7 hr), incl. 244 in early Jan. 2017
- 2015 – 276 AWO dug (5 hr)
- 2014 – 787 AWO dug and 15 plants pulled (15 hrs) – 38 of those were dug in Feb 2015
- 2013 – 230 AWO dug (2 hr)
- 2012 – 70 AWO, 220 Wild Gladiolus, 50 Grevillea and dozens of *Ixia* pulled (2.3 hrs)
- 2011 – 50 AWO dug and 12 Grevillea plants pulled (4 hr)
- 2010 – 180 AWO dug; 615 AWO, 450 Wild Gladiolus, 70 *Ixia* & 87 Grevillea pulled (12 hr)
- 2009 – 217 AWO dug and 104 AWO and 10 *Grevillea rosmarinifolia* pulled (6 hrs)

Blue Periwinkle (*Vinca major*), Phalaris, Cocksfoot, *Ixia*, Wild Gladiolus & *Grevillea rosmarinifolia*

HFNC has not treated any of these weeds in 2016. However, as in 2015, the Shire has contracted Nature Glenelg Trust to do some work on weeds in this reserve and they were observed to have treated some Blue Periwinkle near the toilets.