



HAMILTON FIELD NATURALISTS CLUB

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Report on Weed Control Work at the Fulham Streamside Reserve in Sept.-Nov. 2014

SUMMARY

On 14 & 15 Sep., 20 Sep., 4 Oct, 17 Oct., 20 Oct, 22 Oct & 1 Nov 2014 at various times six members of HFNC spent 92 hours treating *Moraea flaccida* Cape Tulip (CT), *Sparaxis bulbifera* Harlequin Flower (SB), *Gladiolus undulatus* Wild Gladiolus (WG), Bridal Creeper (BC), African Weed Orchid (AWO) and Fumitory on the western part of the floristically-rich part of the western half of the Fulham SR. The attached map shows the areas treated (marked in green).

Overall, about 73 hours were spent wiping CT, 13 hours pulling CT and removing from the site, and 6 hours treating other weeds. From a sample count of 3,600 plants wiped with 3.8 L of herbicide in 5 hours, about 700 CT were wiped per hour or 950 CT/L herbicide. On that estimate, with about 73 h devoted to CT wiping, about 50,000 plants were wiped.

The dry spring appears to have resulted in a wide spread of germination, with many tiny plants and others still not flowering by November but others had set seen in the capsules weeks ago. For the plants pulled on 1 Nov, 17 kg were removed, comprising about 70% of the total pulled (about 30% were small plants with no flowers, seed capsules or attached bulbs and these were left on site). We estimated from a sample that the average plant weighed 3g and therefore a total of about 8,000 plants were pulled. Eradication of CT is difficult since plants are easily missed and seed from previous years lies in the ground or is carried in on vehicles, birds, macropods and the wind. Another problem is that some treated plants that are in flower may still produce viable seed, or their corms may not die.

It is clear, after 9 years at this site, that WG is also a major threat to the reserve. It has advanced in great numbers from the River Track and along the track to the Old Bridge, extending steadily into the heathland. This weed has the potential to drastically affect the floristic value of the reserve.

We found only tens of SB this year, compared with tens of thousands 9 years ago, so our efforts over the years have been rewarded. However, the plant is persistent and eradication will be hard to achieve because it is entrenched along the river east from 'our' area where we have not been operating.

AWO is spread widely around the reserve although still only in small numbers at each spot. We treated all plants seen on areas that we work in. The AWO problem may be intractable.

Off-track driving for 'pleasure' (including hoons' 'circle' work' on the open sites) or collecting wood for camp fires is a major problem. Some of the damage in past years results from drivers avoiding a boggy spot (as on the Old Bridge Track) or driving around the barriers on the River Track.

The spreading of weed seeds is a major problem, from mud carried off the roads and from seeds dropping off vehicles that are driven off-road in summer and autumn. For example, CT is rampant in the adjacent State Forest area where most drivers visit and then some will proceed to drive off-track in the Streamside Reserve. We are convinced that this problem can only be reduced by:

1. Erecting prominent signs directing drivers to stay on the roads to prevent the spread of Cape Tulip, Phytophthora and the destruction of native vegetation. Such signs are present in State Forests, such as Bear, so why not here?
2. Fixing up the few boggy spots on designated tracks so that vehicles need not go off road.

We added 4 species (Intermediate Egret, Royal Spoonbill, Yellow-billed Spoonbill and Australian White Ibis) to the bird list, total now 124 species. Eastern & Western Grey Kangaroos and Black & Red-necked Wallabies were seen. Shingle-back Lizards were frequently seen.

WORKS

A total of 92 hours of voluntary work was done:

Sat 13 Sep. – RB & DL = 14 hrs

Sun 14 Sep. – RB & DL, RZ & YI = 18.5 hrs

Sat 20 Sep. – RB & PH = 10 hrs

Sat 4 Oct. – DL = 6.5 hrs
Fri 17 Oct. – RB = 7.5 hrs
Mon 20 Oct. – RB & DL = 16 hrs (incl. spraying Fumitory & Phalaris)
Wed 22 Oct – RB = 6 hrs (incl. Spraying Fumitory & Phalaris)
Sat 1 Nov. – RB & DL = 13 hrs (pulling CT rather than herbicide-wiping)

The area worked is shown on the attached map. As in previous years, we concentrated first on CT, but also treating any SB, AWO, WG or BC found. .

The herbicide wipe mixture used to wipe SB and CT plants was a solution (*Metsulfuron methyl*, 1 g/L, *Glyphosate* 30 mL/L, surfactant 5 mL/L, dye 5 mL/L) using a tool (previously described).

The spray used on Phalaris and Fumitory contained *Metsulfuron methyl* 3 g/10 L, *Glyphosate* (200 mL/10 L), surfactant 30 mL/10 L and a red vegetable dye 30 mL/10 L).

Defined areas of work

1. **Along the Entry Track to the Glenelg River** – plants missed on the first treatment on this strip (approx. 50-100 m either side of the track) were treated on subsequent visits.
2. **Area between the Entry Tk and the Railway Embankment and north to the Old Bridge Tk** – a small portion of the central western part of this area across to the railway ditch may have been missed. CT was the major weed and many dense spots were found. A section south of the Old Bridge Tk, from Entry Tk to the embankment channel was treated on 13 Sep. On the 20 & 22 Oct CT was wiped (4 L) on the eastern 200 m strip from the Bridge Tk south about 600 m. The remaining portion south was wiped on 17 Oct.
3. **Between the Old Bridge Tk and the river at the Main (second) Creek (downstream from the river bend) to the Old Bridge** – CT and a few SB were treated over this area on 13 September. Clumps of Phalaris towards the Old Bridge were sprayed(3 L) on 22 Oct.
4. **The western boundary strip outside the channel along the railway embankment to the Old Bridge** – CT on the southern half were wiped on 4 Oct. CT on the northern half (from the Bridge to the first Red Gum growing on the embankment) were pulled on 1 Nov and removed from the site. About 3,000 plants were removed, many bearing capsules.
5. **The western boundary channel** – CT (1.8 L wipe solution and about 1700 plants) and a couple of SB were wiped on the northern half of the channel area on 22 Oct. A few dozen CT were treated on the southern half to the defunct little bridge on the channel on 17 Oct.
6. **The ‘peninsula’** – CT (many clumps), BC (a few plants), AWO (a few plants), SB (a few on the river margin near the southern bend) and WG were treated on 20 Sep (10 hrs).
7. **East side of the entry track near the junction with the River Tk** – this is a former hotspot of SB & WG along off-road vehicle tracks through the *Pterostylis nutans* site and *Caladenia tentaculata* site nearby. This area was treated on 13 & 20 Sep. for CT, SB and WG.
8. **From the Seasonal River Road Closure extending ~ 300 m east** – CT was pulled on a strip 150-200 m wide to the western edge of the Melaleuca Swamp. Also a 50 m strip extending about 50 m east from the junction of the disused track and the River Tk. About 5,000 plants were removed, many bearing seed capsules. It was deemed too late to apply herbicide.
9. **River Tk east from the Melaleuca Swamp to the old Diagonal Tk** – this was NOT visited.
10. **The old ‘diagonal track’ from the River Tk to the old junction with the Entry Tk** – this area was NOT visited.
11. **The area west from the entrance on Edgewood Rd across the creek to the railway bank** – this section runs down to the defunct little channel bridge. Fumitory and clumps of Phalaris were treated (10 L spray) along the channel just upstream from the little bridge on 20 Oct. CT and a couple of SB were wiped (1.5 L wipe solution) along the embankment, extending 50 m

south of the road sign on Edgewood Rd, and east to the creek. Fumitory, Phalaris and a small patch of BC was sprayed (7 L) on the channel near the Edgewood Rd on 22 Oct.

12. **The large central area of heath and woodland east of the Entry Tk** – the major part was NOT treated this year, due to a shortage of volunteers.
13. **NE edge of Melaleuca Swamp** – unfortunately, again, we did not have time to check this area where WG and SB was seen in 2013 as a serious threat to the swamp vegetation.
14. **Edgewood Rd** – we did not see any CT or SB there.
15. **Eastern corner, Edgewood Rd and Entry Track junction** – a block approx. 250 m wide east of the Entry Tk at Edgewood Rd and extending about 400 m north from there was also treated for abundant clumps of CT on 4 Oct & 20 Oct.

Fulham Streamside Reserve – HFNC volunteer work areas in September-November 2013

The green-shaded part of the map indicates areas that were treated in 2014.

