



HAMILTON FIELD NATURALISTS CLUB

PO Box 591
Hamilton
Vic 3300

October 2006

Report on Weed Control Work at the Fulham Streamside Reserve in September 2006 compiled by Rod Bird

Summary

- The HFNC (6 members) spent >60 person-hours spraying pest and environmental weeds at the floristically rich Fulham Streamside Reserve, basically the western half, concentrating on the fringes to tracks and streams.
- The herbicides used were metsulfuron methyl (Ally) and glyphosate, together with a surfactant (Pulse) and dye marker (purple). Weeds were, wherever practicable, spot-sprayed to achieve little off-target deaths.
- The weeds controlled were One-leaf Cape Tulip, Halequin Flower, South African Orchid, Wild Gladiolus, Bridal Creeper and Perennial Veldt Grass, Toowoomba Canary-grass, Cocksfoot, Yorkshire Fog-grass and Spear Thistle. We did not have time to scan and spray the entire weed population.
- The precise locations of weed hotspots were marked by GPS, to enable follow-up work in later years
- The degree of infestation from Sparaxis was greater than anticipated, and this serious weed requires stringent attention in following years. Together with Cape Tulip, this weed is readily spread by grader/bulldozer tracks and recreational vehicle tracks. There was ample evidence of that.
- To justify further weed eradication work, there has to be a serious attempt to curtail off-road vehicle traffic. Most noticeable is the flagrant disregard for “road closure” signs, and the consequent mess created at the swampy areas of the River Track, even in this dry year. We saw steady traffic through the “closed” section.
- We recommend that the River Track be improved (there are 3 sites that need mounding up) to allow all-year traffic, rather than attempt a seasonal closure – unsupervised closures and absence of fines ensure that signs will always be ignored by 4WD drivers who are accustomed to doing as they like here.
- We further recommend that the 2 loop tracks south off the River Track be closed because these are a danger to the long-term integrity of the vegetation in these valuable marsh areas. If the River Track is open there is no reason for the other tracks to remain open.
- Off-road recreational motorcycles and other vehicles also constitute a danger to the reserve, through spreading weeds, cutting up fragile areas and risking the spread of Phytophthora. Signs are needed.

Works undertaken

From 14-17 Sept. 2006 and 28 Sept. 2006 at the Fulham Streamside Reserve, members of Hamilton Field Naturalists Club located and sprayed the noxious and environmental weeds listed below:

- *Moraea flaccida* (One-leaf Cape Tulip)
- *Sparaxis bilbifera* (Halequin Flower)
- *Disa bracteata* (South African Orchid)
- *Gladiolus undulatus* (Wild Gladiolus)
- *Asparagus asparagoides* (Bridal Creeper)
- *Phalaris aquatica* (Toowoomba Canary-grass)
- *Dactylis glomeratum* (Cocksfoot)
- *Holcus lanatus* (Yorkshire Fog-grass)
- *Cirsium vulgare* (Spear Thistle)
- *Ehrharta calycina* (Perennial Veldt Grass)

The general areas spot-sprayed were:

1. W margin of the Entrance Tk, from 100 m S of the bulldozed fire line to the minor W track at 1.45 km (37-09-13.8/141-51-34.0) that leads to the river bend. The Entrance Tk margin has a massive infestation of Sparaxis.
2. The area N of the track at 1.45 km from the entrance (37-09-13.8/141-51-34.0) and the river frontage at the most southerly bend, running N and including all areas W of the Entrance Tk and river as far as the road closure point on the River Tk (37-09-04.2/141-51-46.4). It has some Cape Tulip, Sparaxis and Bridal Creeper but also patches of Red-Beak Orchids that would be affected by spray operators unaware of the identity of the orchid.
3. E of the Entrance Tk from Edgewood Rd (37-09-56.4/141-51-23.2), N to the river and to the right hand side (south) of the River Tk that runs E to where the third drainage line crosses the track (37-08-53.4/141-53-10.3). There are massive infestations of Sparaxis, Wild Gladiolus and Phalaris, with many smaller areas of Cape Tulip, south of the River Tk. The area north of the track (river side) is worse (we did not treat that area).
4. E from the intersection of Entrance Tk and bulldozed fire-line (37-09-25.7/141-51-27.9), along the fireline to Edgewood Rd – sporadic occurrences of Cape Tulip were found there, from corms transferred by the machine.
5. E from the Entrance Gateway (37-09-56.4/141-51-23.2), along Edgewood Rd for 3 km to a corner of the reserve – there are patches of Cape Tulip, Sparaxis and pasture weeds along this section.
6. W from the N-S Boundary Tk that runs from Edgewood Rd to the corner of the reserve where the boundary turns east – patches of Cape Tulip and African Weed Orchid occur there.
7. N down the creek that crosses Edgewood Rd and runs through the reserve (with 2 other tributaries from the E) to cross the River Tk – this is a critical waterway, since weeds that spread down that line will invade the body of the reserve. Cape Tulip and (in the lower part) Sparaxis occur sporadically along these drainage lines.

The precise location (GPS latitude/longitude co-ordinates on Aust 84 datum) of the infestations are listed below, so that these areas can be re-located next year for follow-up treatment. Unless that is done then the efforts made this year will be futile in the long term, since it is rare that all plants are eradicated in the first instance (some plants have dormant corms or have set seed in a previous year, while small plants may not be observed).

1. W edge of the Entrance Tk, from 100 m S of the bulldozed fire line (37-09-25.7/141-51-27.9) to the W track at 1.45 km (37-09-13.8/141-51-34.0)

An extensive, severe infestation of Sparaxis (and the odd Cape Tulip) occurs along an old track, extending 150 m N and 50 m S of the bulldozed fireline. At the S end, this infestation is ~30 m W of the Entrance Tk but largely confined to and near the old (disused) track. These plants were sprayed but the area needs particular attention in following years. The infestation has also spread some distance W down the firebreak and some plants were found and sprayed on a heap of soil on that firebreak ~ 150 m W of the Entrance Tk.

2. N of the track at 1.45 km from the Entrance (37-09-13.8/141-51-34.0) and W to the river frontage at the most southerly bend, including all areas W of the Entrance Tk and river as far as the road closure point on the River Tk (37-09-04.2/141-51-46.4).

No particular GPS readings were taken in this area – we sprayed many isolated plants of Bridal Creeper (particularly among trees and shrubs near the river in the N section), Wild Gladiolus and clumps of pasture weeds.

3. E of the Entrance Tk from Edgewood Rd (37-09-56.4/141-51-23.2), N to the river and to the S of the River Tk that runs E to where the third drainage line crosses the track (37-08-53.4/141-53-10.3).

There were massive infestations of Sparaxis at various points on both sides of this track – we only dealt with those on the S side. The major sites of infestation are indicated below:

- 3.1 Area W and S of the Road Closure point on the River Tk (37-09-04.2/141-51-46.4) – massive infestation of Sparaxis, with many Wild Gladiolus and Phalaris patches in the section where there are current and old tracks - sprayed. This area needs annual inspection and treatment because these weeds will certainly invade the pristine grassland/heathland to the S and E if unchecked. We found 3 major clumps of Nodding Greenhood close to the serious, blanket infestation of Sparaxis on the old track at 37-09-05.2/141-51-43.8. This was a “new” species for this reserve – it could not survive Sparaxis invasion.
- 3.2 S of River Tk adjacent to Road Closure point on the River Tk (37-09-04.2/141-51-46.4) – bad infestation of Sparaxis, Phalaris, Wild Gladiolus and a few Cape Tulip near the log piles - sprayed.
- 3.3 Several infestations along River Tk to the *Melaleuca neglecta* swamp – severe and extensive infestation of Sparaxis (with some Cape Tulip) at the 1st watercourse. Unless checked, this area now extending 20-30 m S of the River Tk, will infest the whole wetland area. There will be some loss of Poa Tussocks from this, and future, spraying because the weed has invaded this area and intimately associated itself with many of the tussock plants.
- 3.4 E of 1st Diversion Tk to S, at ~50 m S of River Tk in the *M. neglecta* patch by a River red Gum on a bulldozed firebreak (37-09-07.7/141-52-01.6) – a patch of Cape Tulip, sprayed.
- 3.5 A small patch of Cape Tulip ~40 m E from 3.4 (37-09-07.0/141-52-03.0) – sprayed
- 3.6 Another small patch of Cape Tulip further S (37-09-08.3/141-52-02.9) – sprayed
- 3.7 Another small patch of Cape Tulip further S (37-09-09.2/141-52-03.3) – sprayed
- 3.8 At branching of 1st Diversion Tk (37-09-09.8/141-52-11.4) – ~12 active African Weed Orchids (new leaves), and Sparaxis on the track, sprayed.
- 3.9 Along the N branch of 1st Diversion Tk (37-09-09.0/141-52-10.9) – bad infestation of Sparaxis on both sides of this old track, extending for ~40 m to the bulldozed fire trail. Sprayed.
- 3.10 Along the bulldozed fire-line, ~20 m to the E of N branch of 1st Diversion Tk (37-09-08.1/141-52-12.6) – a few Sparaxis shifted there by the bulldozer, sprayed.
- 3.11 Dirt pile on E branch of the 1st Diversion Tk (37-09-08.7/141-52-13.1) – a few Sparaxis, sprayed.
- 3.12 Further E on E branch of the 1st Diversion Tk (37-09-08.1/141-52-13.9) – a small patch of Cape Tulip and Sparaxis, sprayed.
- 3.13 Along River Tk between Melaleuca swamp and Diversion Tk (37-09-04.3/141-52-11.7) – Sparaxis on the track, not sprayed.
- 3.14 Just E of the 2nd waterway (37-09-06.7/141-52-16.1) – patch of Sparaxis on the track.
- 3.15 Along River Tk (37-09-00.3/141-52-39.1) – large patch of Cape Tulip, sprayed.
- 3.16 Along River Tk (37-09-00.7/141-52-41.1) – African Weed Orchid, ~ 10 plants but no new leaves, sprayed.
- 3.17 2nd waterway, a few Cape Tulip along the edges of this ~70-m section of River Tk, sprayed. This section of track needs to be elevated with road fill to keep motorists on the track.
- 3.18 River Tk (37-08-58.9/141-52-46.5) – a sizable patch of Cape Tulip, sprayed.
- 3.19 River Tk (37-08-59.9/141-52-46.6) – another patch of Cape Tulip, sprayed.
- 3.20 River Tk E side of burned Melaleuca, near track (37-09-05.9/141-51-56.9) – Cape Tulip, apparently not sprayed.
- 3.21 River Tk (37-09-00.1/141-52-47.3) – a large patch of Sparaxis, partly sprayed.
- 3.22 River Tk, on the E of boghole (37-08-58.5/141-52-47.9) – patches of Cape Tulip both sides of track, sprayed.
- 3.23 River Tk (37-08-57.0/141-52-52.5) on and off the track around old spray area – patches of Cape Tulip
- 3.24 River Tk, 10 m S of 3.21 (37-08-57.6/141-52-52.8) – small patch of Cape Tulip.
- 3.25 River Tk at intersection with E end of 2nd Diversion Tk (37-08-55.4/141-52-58.5) – patch of Sparaxis on the

track, sprayed.

3.26 River Tk near 3^d watercourse, ~ 40 m S of track (37-08-54.5/141-53-02.8) – a large infestation on this saline flat, partly sprayed.

3.27 2nd Diversion Tk, towards E end near a large River Red Gum (37-08-56.8/141-52-58.4) and an area 20 m E – small patches of Cape Tulip, apparently not sprayed.

4. E along the bulldozed fire-line from it's intersection with Entrance Tk (37-09-25.7/141-51-27.9) to Edgewood Rd

There were isolated plants of Cape Tulip located all along this ad hoc fire trail. Sprayed. These would have been the result of corms transferred from Entrance Tk by the bulldozer.

5. Edgewood Rd E from Reserve Entrance

5.1 At ~0.9 km near left hand bend - Cape Tulip (~12 plants) ~ 40 m from road (37-09-56.2/141-51-57.8), plus another small patch near the road ~90 m further east (near the Telstra post), sprayed.

5.2 At 1.7 km (37-09-57.0/141-52-31.9) – 2 small patches of Cape Tulip near bulldozed area with large trees, ~400 m W of shed on opposite side of the road, sprayed.

5.3 At ~1.9 km, another patch of Cape Tulip, sprayed.

5.4 At ~2.25 km (37-09-55.0/141-52-52.2), a small patch of Cape Tulip W from the culvert and ~80 m into the reserve. A large area of Sparaxis closer to the road, on the same line, sprayed.

5.5 Edgewood Rd (37-09-57.3/141-52-07.6) – Sparaxis, Phalaris and Cocksfoot on the roadside, sprayed

5.6 Near spoon drain, 25 m W of white post at 37-09-57.3/141-53-01.9 – 3 Cape Tulip plants, sprayed

6. N-S Boundary Tk from Edgewood Rd to the corner turn east

6.1 At a small W-flowing creek ~0.65 km along N-S Boundary Tk from Edgewood Rd (37-09-48.5/141-53-17) – a few Cape Tulip sprayed.

6.2 Another W-flowing watercourse at ~1.2 km on the Boundary Tk (37-09-18.9/141-53-19.3) down the creek ~400 m to a pool where 2 channels converge (37-03-14.1/141-53-12.5) – Cape Tulip – many dense patches and much Phalaris/Cocksfoot, sprayed.

6.3 At 1.4 km, ~100 m W from Boundary Tk and above the creek – African Weed Orchid, no leaves visible.

6.4 A small patch of Cape Tulip along the Boundary Tk (37-09-46.5/141-53-19.5) and into the bush, sprayed.

6.5 North of W-flowing creek tributary (37-09-02.1/141-53-17.9) near a big stump and log – a few Cape Tulip plants, sprayed.

6.6 Another small patch of Cape Tulip 20 m E of above location, near a medium-sized River Red Gum, sprayed.

7. Creek at Edgewood Rd that runs N-S through the reserve (with 2 tributaries from the east, off N-S Boundary Tk)

7.1 Down the creek ~100 m (37-09-50.7/141-52-58.1) – small patch of Cape Tulip, sprayed.

7.2 Down the creek further (37-09-45.4/141-53-02.2) – small patch of Cape Tulip. Sprayed.

7.3 Down the creek further (37-09-49.9/141-53-00.2) – small patch of Cape Tulip, sprayed.

7.4 Down the creek further, near large fire-blackened stump (37-09-46.8/141-53-01.3) – small patch of Cape Tulip, sprayed.

7.5 Down the creek further on at an S-bend (37-03-41.9/141-53-05.6) – small patch of Cape Tulip, sprayed.

7.6 Just downstream from junction with tributary from the east (37-09-29.2/141-53-15.0) – small patch of Cape Tulip, sprayed.

7.7 Downstream near bulldozed firebreak crossing the creek (37-09-09.0/141-53-10.9) – 4 small patches of Cape Tulip in gully just upstream, both sides – sprayed.

7.8 Downstream ~200 m from stream firebreak crossing (37-09-05.7/141-53-08.0) – small patch of Cape Tulip, sprayed.

7.9 Further downstream on W side of creek (367-09-04.0/141-53-08.8) – dense infestation of Cape Tulip, sprayed.

7.10 Further downstream on E side of creek (37-09-02.5/141-53-09.8) – small patch of Cape Tulip, sprayed

7.11 Downstream on W side of creek, near confluence with E tributary (37-09-01.6/141-53-09.8) – 6 m² patch of Sparaxis and small spots of Wild Gladiolus.

7.12 Intersection of creek with River Tk culvert/drain (37-08-53.4/141-53-10.3) – a few Cape Tulip 20 m SE, sprayed. This location marks the NE boundary of our sprayed area.

7.13 N side of E watercourse (37-03-01.7/141-53-13.9) that runs from Boundary Tk, ~ 200 m from corner turn – patch of Cape Tulip ~ 80 m upstream from confluence with main creek, sprayed. Two more spots upstream cited above (6.6 & 6.7).

7.14 S side of the W-flowing creek tributary (37-03-04.4/141-53-17.0) near a big tree – a few Cape Tulip plants, sprayed

7.15 S side, ~ 40 m further W – a few Cape Tulip by a log, sprayed.

7.16 S side, some 250 m from boundary corner – ~ 16 African Weed Orchids ~50 m W from the fence (37-09-05.9/141-53-17.3) – about a dozen plants sprayed but no visible leaves present

7.17 S side, further S near Lightwood Trees (37-09-04.8/141-53-13.4) – medium-sized patch of Cape Tulip, sprayed.

7.18 S side ~50 m from junction with main creek (37-09-02.5/141-53-12.0) – 3 plants of Cape Tulip, sprayed.