River Red Gums (RRG) at Bryans Swamp and elsewhere in SW Victoria and South Australia

Rod Bird

This is a long-term project builds on the initial study by Lionel Elmore and HFNC at Bryans Swamp in 1962. Lionel made detailed measurements of the girth and diameter of large and significant River Red Gums at Bryans Swamp. He also photographed these significant trees, a great help in determining which trees were measured and how they appeared in the landscape of 1962.

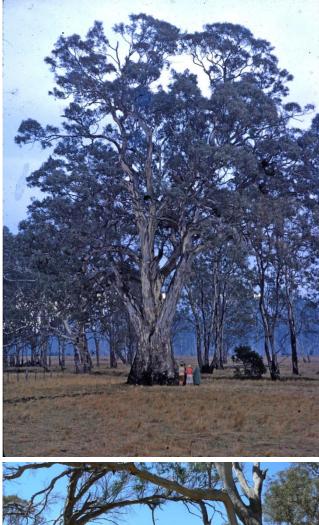


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The objectives of this recent study were:

• To re-measure Elmore's trees, to estimate annual diameter growth over the past 40 years (this information can be useful when estimating the age of River Red Gums).

• To photograph, measure and record GPS positions of a range of RRGs so that a similar approach may be taken by other HFNC members in another 40 years!

• To document the giant RRGs and other interesting RRGs in the landscape of SE Australia.

Tree positions (latitude & longitude) were recorded with GPS Australia Geodetic 1984. Girth over bark was measured at 1.3 m above ground. Tree height was measured with a Suunto clinometer.

A fire emanating from an adjacent farm in November 2006 killed or severely damaged a dozen of the venerable trees at Bryans Swamp, a reminder that care is needed to conserve our natural heritage.

Dwyers Ck, Victoria Valley, 1962. River Red Gum with 3 HFNC ladies at the base: Connie and Grace Merlin, Ruth Abbot. (Photo: Lionel Elmore)

Bryans Swamp, February 2008

River Red Gums showing the devastation caused by the 2006 fire – the fire started in nearby farmland. Some of the trees measured by Lionel Elmore in 1962 were killed in this fire.

(Photo: Diane Luhrs)

Measurements and photographs of RRGs (*E. camaldulensis*) at Bryans Swamp and Dwyers Creek, taken in 1962 and recently (2002, 2006, 2007) were used to indicate changes over the 40-44 years since the HFNC first visited the area. Diane Luhrs and I were able to locate only 3 living trees of those measured by Lionel Elmore and his helpers. Our re-measurement of those 3 trees gave a diameter increase of 6 mm, 4.1 mm, and 6.6 mm per year respectively over the 40-44 years. The average was 5.6 mm per year. Roger Edwards, Forest Officer at Cavendish, has found that regrowth RRGs at Woohlpooer (now about 100 years old) have a diameter growth of about 3.5 mm per year over the last 25 years.

RRGs from Brimboal, Grampians/Gariwerd NP, Wannon, Dunkeld, Mooralla, Mirranatwa, Nangeela, Casterton, Guildford and Edenhope in Victoria, and Mullinger Swamp, Comaum, Orrorooin and Wirrabara in SA, were also measured and/or photographed. Kym Knight (SA) supplied further information.

One objective was to give an approximate ranking of size of our existing RRGs. That has proved to be difficult. Twenty-five of "The World's Largest Red Gums" are tentatively ranked from the 85 assessed:

- 1. Mt Remarkable, SA RRG: Kym Knight (SASA) reported a tree of diam. 4.6 m (at 1 m), a magnificent, multi-branched specimen.
- 2. Charleston Buttressed Tree, SA: Kym Knight (SASA) reported a tree of 4.93 m diam. (at 1 m), a magnificent specimen in a grazed paddock.
- 3. 'Big Red' RRG1 at Mullinger Swamp, SA: 42 m tall and 3.86 m DBH in Jan. 2008, with hollow base. Ranked on volume of timber (once perhaps 73 m³).
- 4. 'Herbigs Tree', SA: Kym Knight (SASA) reported a tree of 4.8 m diam. (at 1.4 m) with crown regrowth of 150 years. Base rotted, standing now on 5 or 6 'legs'.
- 5. Dwyers Creek RRG, Victoria Valley: 28.5 m tall and 4.0 m DBH in Oct. 2006– the largest girth recorded but base partly hollowed out).
- 6. Gariwerd RRG1 at Forest Lodge: 51 m tall and 2.25 m diam. in May 1998 the tallest tree recorded and also a substantial volume of merchantable timber (45 m³).
- 7. Mt Crawford area RRG2, SA: reported as 31.5 m tall and diam. 4.1 m (at 1 m) in March 2008; an impressive tree with a hollow trunk; tree with a hollow trunk.
- 8. Charleston Tree, SA: 41.3 m tall and 3.91 m diam. (at 1 m) in Oct. 2007. The tree has a hollow base. For comparative purposes I estimated, from a photograph and data supplied in the website, that the DBH was approximately 3.6 m (girth 11.3 m).
- 9. Mt Crawford area RRG3, SA: reported as 38.2 m tall and diam. 3.9 m (at 1 m) in March 2008; a large tree with a crown width of 35 m and a flared trunk
- 10. Nangeela RRG (M Moran): 43.6 m tall and 2.93 m DBH in May 2008 with ~10 m to the first branch. A magnificent, healthy tree with a sound base.
- 11. Mullinger Swamp RRG2, SA: 42.2 m tall and 3.1 m DBH in Jan. 2008, solid.
- 12. Mt Crawford area RRG4, SA: reported as 43.5 m tall and diam. 2.5 m (at 1 m) in March 2008; a large, spreading tree (crown width 40 m).
- 13. 'King Tree', Wirrabara RRG: 36.5 m tall & 3.0 m DBH and apparently solid.
- 14. Mullinger Swamp RRG3, SA: tree near the fence in the reserve near parking area, height 38.2 m & DBH 2.99 m in Jan. 2008.
- 15. Mirranatwa RRG1 on 'Bowacka' (A Beveridge): 36.8 m tall & DBH 3.12 m in May 2008. A healthy tree but with a small dead spot at the base.
- 16. Guildford RRG: 32.5 m tall & 3.75m DBH in Apr. 2011 (but exagerated by a large burl the diameter above the burl (at 1.8 m) was 2.7 m). This is a picturesque tree.
- 17. Brimboal RRG1, Bilston's Tree, Glenmia Rd: 36 m tall & 2.45 m DBH in Feb. 1998 a massive volume of merchantable timber (40 m³) in what appears to be a solid butt.
- 18. Mirranatwa RRG2 on 'Lambing Flat' (A Beveridge): 31.5 m tall & 2.88 m DBH in May 2008. Multi-branched at 3.5 m, 34 m spread, sound base. A magnificent tree.
- 19. Comaum Forest RRG, SA: reported in 1996 to have a DBH of 3.34 m.
- 20. Poocher's Swamp RRG, SA: reported in 1996 to have a DBH of 3.34 m.
- 21. Penola RRG, SA (ID March): reported in 1996 to have a DBH of 3.33 m.
- 22. Mundulla, SA (L Rogers): reported in 1996 to have a DBH of 3.33 m.
- 23. Casterton (F Haddrick): tree reported in 1996 to have a DBH of 3.2 m.
- 24. Balmoral RRG (Broers): reported in May 1998 to be 30-40 m tall & DBH 2.88 m. The tree was hollowed out at the base by fire.
- 25. Orroroo RRG, SA: 19 m tall & DBH 3.15 m in Sep. 2008. The tree has a very short, apparently solid bole'.

There are other giant trees yet to be measured and, no doubt, other larger trees 'out there' too. A detailed report of this project has been compiled – *see Publications/Information folder* (C).