

1 10.1071/BT12212_AC
2 *Australian Journal of Botany*, 2013, **61**, 11–21
3 ©CSIRO 2013
4

5 **Supplementary Material**

6

7 **Estimating the time since fire of long-unburnt *Eucalyptus salubris* (Myrtaceae) stands in**
8 **the Great Western Woodlands**

9

10 *Carl R. Gosper*^{A,B,C}, *Suzanne M. Prober*^B, *Colin J. Yates*^A and *Georg Wiehl*^B

11 ^AScience Division, Department of Environment and Conservation, Locked Bag 104, Bentley
12 Delivery Centre, WA 6983, Australia.

13 ^BCSIRO Ecosystem Sciences, Private Bag 5, Wembley, WA 6913, Australia.

14 ^CCorresponding author. Email: carl.gosper@dec.wa.gov.au

15

16
17
18
19
20
21
22
23

Table S1. Estimated time since fire for plots not sampled for growth rings.

Estimated time since fire (years \pm SE of single-trunked *E. salubris* from modified point-centred quarter samples; see Methods) was calculated by extrapolation of the relationship between (i) untransformed growth rings and diameter (Model 1; Table 1, Fig. 3); (ii) square-root transformed growth rings and diameter (Model 4; Fig. 3); (iii) untransformed growth rings and diameter + northing (Model 2); (iv) square-root transformed growth rings and diameter + northing (Model 5); and (v) square-root transformed growth rings and diameter + height + northing (Model 22).

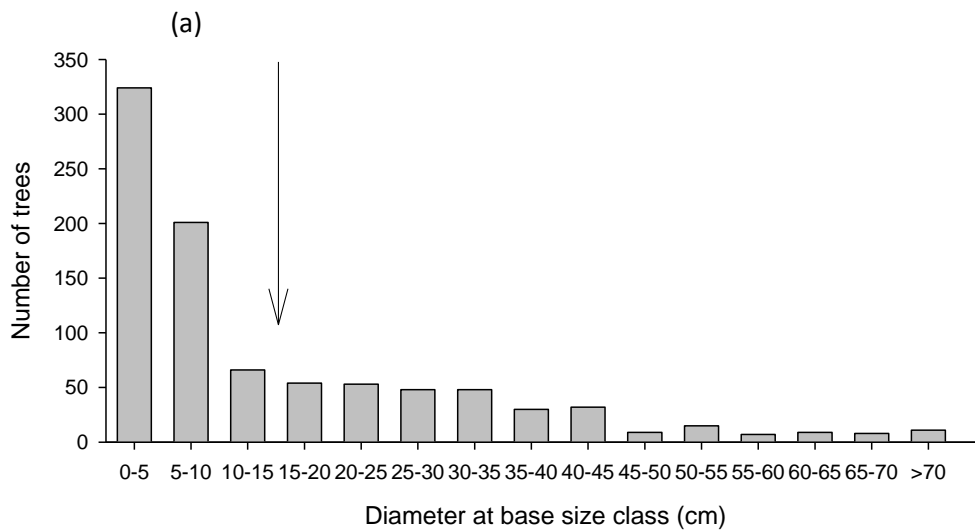
Plot	Model number (Table 1)					Evidence
	1	4	2	5	22	of fire in 1972
GIM01	24 \pm 2.3	20 \pm 2.0	26 \pm 2.4	22 \pm 2.1	33 \pm 1.9	Yes
GIM02	39 \pm 2.9	35 \pm 3.2	42 \pm 3.0	38 \pm 3.4	40 \pm 2.9	Yes
GIM04	140 \pm 13	250 \pm 40	140 \pm 13	260 \pm 41	150 \pm 22	No
GIM08	250 \pm 27	740 \pm 135 ^A	260 \pm 28	770 \pm 140 ^A	280 \pm 41	No
GIM13	180 \pm 15	400 \pm 55	190 \pm 15	420 \pm 57	200 \pm 25	No
GIM17	120 \pm 11	190 \pm 33	120 \pm 11	200 \pm 34	100 \pm 11	No
GIM18	230 \pm 12	590 \pm 53	230 \pm 12	610 \pm 54	240 \pm 24	No
GIM22	150 \pm 11	270 \pm 36	150 \pm 11	280 \pm 37	120 \pm 12	No
GIM23	48 \pm 3.6	45 \pm 4.9	48 \pm 3.7	46 \pm 5.1	56 \pm 3.7	Yes

GIM27	200 ± 12	470 ± 50	200 ± 12	490 ± 52	170 ± 12	No
GIM28	240 ± 15	630 ± 66	240 ± 15	650 ± 68	230 ± 21	No
GIM29	240 ± 23	690 ± 131 ^A	240 ± 23	690 ± 134 ^A	230 ± 29	No
GIM31	230 ± 33	690 ± 176 ^A	230 ± 34	690 ± 180 ^A	220 ± 38	No
GIM34	200 ± 15	470 ± 60	200 ± 15	470 ± 61	170 ± 18	No
GIM35	180 ± 14	410 ± 54	180 ± 14	410 ± 55	160 ± 18	No
GIM36	29 ± 2.7	24 ± 2.6	24 ± 2.8	21 ± 2.4	31 ± 2.9	Yes
GIM38	180 ± 25	430 ± 97	180 ± 25	420 ± 98	160 ± 26	No
GIM40	140 ± 17	260 ± 56	140 ± 17	260 ± 56	120 ± 17	No
GIM43	170 ± 19	350 ± 74	160 ± 19	350 ± 75	130 ± 17	No
GIM45	160 ± 5.1	320 ± 18	160 ± 5.2	320 ± 18	120 ± 7.3	No
GIM46	210 ± 30	530 ± 131	210 ± 31	550 ± 136	200 ± 35	No
GIM48	35 ± 2.6	30 ± 2.6	35 ± 2.6	30 ± 2.7	38 ± 3.2	Yes
GIM49	86 ± 11	110 ± 24	88 ± 12	110 ± 25	84 ± 7.5	No
GIM50	210 ± 24	530 ± 99	220 ± 24	550 ± 103	230 ± 20	No
GIM52	200 ± 12	450 ± 49	200 ± 13	470 ± 51	230 ± 14	No
GIM53	110 ± 6.9	160 ± 17	100 ± 7.0	150 ± 17	100 ± 11	No
GIM55	230 ± 20	620 ± 95	230 ± 20	620 ± 96	220 ± 24	No

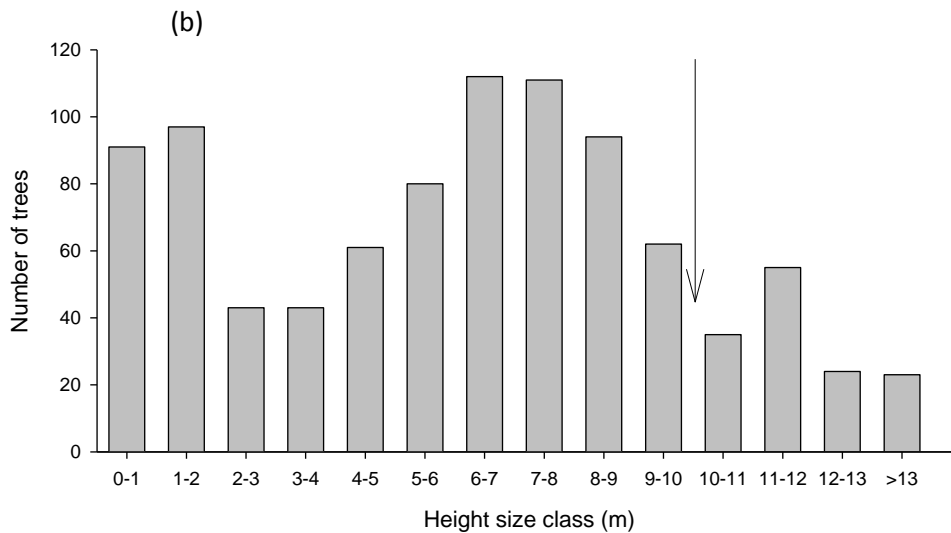
GIM57	210 ± 27	550 ± 125	210 ± 27	550 ± 127	160 ± 23	No
GIM58	370 ± 20	1440 ± 143 ^A	370 ± 21	1460 ± 146 ^A	350 ± 33	No
GIM61	170 ± 17	370 ± 71	170 ± 18	390 ± 73	160 ± 24	No
GIM68	180 ± 16	400 ± 57	190 ± 16	420 ± 59	200 ± 21	No
GIM69	200 ± 5	480 ± 22	210 ± 5.5	500 ± 23	230 ± 18	No
GIM70	290 ± 36	940 ± 187 ^A	300 ± 37	970 ± 194 ^A	310 ± 41	No
GIM71	250 ± 21	700 ± 105 ^A	250 ± 21	710 ± 108 ^A	240 ± 22	No
GIM72	270 ± 43	800 ± 225 ^A	270 ± 43	820 ± 232 ^A	200 ± 91	No

24 ^APlots with a more uncertain estimated time since fire, due to small changes in trunk diameter
25 causing large changes in estimated time since fire with square- root transformation of
26 growth rings (Clarke *et al.* 2010). Until more information on the time since fire of the
27 longest-unburnt plots becomes available, it may be prudent to regard these plots as having
28 an age of > ~ 650 years.
29

30



31



32

33 **Fig. S1.** Frequency distribution of sizes of single-trunked *Eucalyptus salubris*: (a) diameter at
34 the base; (b) tree height. The arrow indicates the largest individual sampled with a complete
35 growth ring record. The proportion of individuals larger than the maximum of any trunk with
36 a complete growth ring record was 35.4% for diameter at the base, and 16.1% for plant
37 height. The maximum of any trunk with a complete growth ring record was 12.3% of the
38 largest trunk diameter measured, and 56% of the tallest tree measured.