

Supplementary Material for: Fowler, A., A. Lorrey, and P. Crossley, 2005. Seasonal growth characteristics of kauri. *Tree-Ring Research* 61: 3–19.

This supplement details all corrections made and presents revised figures and tables, where the re-analysis changed the originals in any way. To assist comparison with the original paper, the same figure and table numbering is used.

Table S1 shows corrected DBH measurements in bold. Changed site classes are also in bold. Note that only some DBH changes resulted in a size class change and that some size class changes are a consequence of using a revised threshold between the small and medium classes.

Figures S4–S7 are all influenced by various combinations of the DBH corrections, consequent very minor vernier expansion corrections, and the changing mix of trees in the small and middle size classes. All changes are minor (especially S5) and none affect the key conclusions of the original paper.

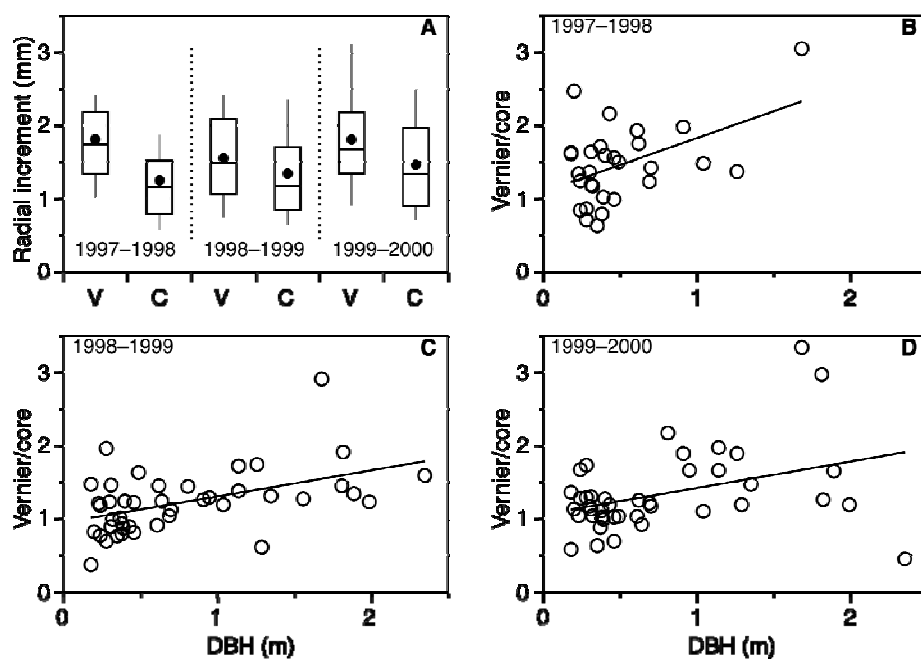
Table S3 shows correlations between corrected DBH and growth timing statistics (slightly affected by thermal expansion corrections). There are some notable changes compared to the original Fowler *et al.* (2005) Table 3, but the conclusion is unchanged – relationships are generally weak and inconsistent between years.

Table S1: Details of banded trees and dates when short cores were taken. Bold entries indicate changes from Fowler *et al.* (Table 1), due to either the DBH correction or the change in the DBH threshold separating the small and medium size classes.

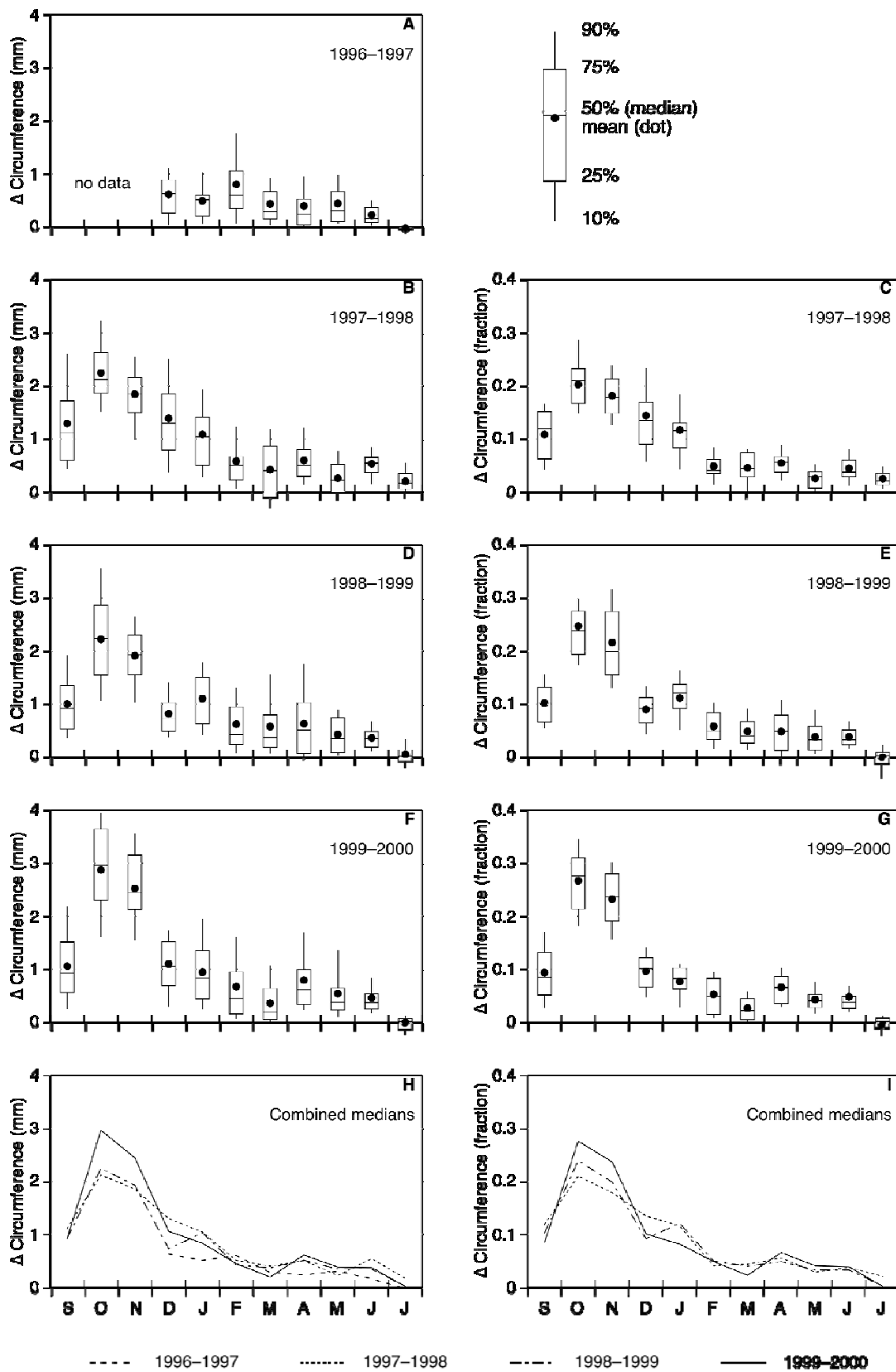
Tree	DBH <sup>1</sup>	Size class	Ridge	Vernier	Coring dates			
ID	(m)	(L/M/S) <sup>2</sup>	(E/W)	start date	9.24.2002	12.11.2002	3.7.2003	6.23.2003
1004	1.04	M	E	10.13.96			X	X
1013	0.69	M	E	10.13.96			X	X
1036	1.26	L	E	11.12.96			X	X
1037	0.91	M	E	10.13.96		X		X
1040	1.68	L	E	10.13.96		X		X
1050	<b>0.70</b>	M	E	10.23.96	X			X
1052	0.62	M	E	10.13.96	X			X
1055	<b>0.37</b>	S	E	10.23.96			X	X
1056	<b>0.46</b>	<b>M</b>	E	10.23.96			X	X
1060	<b>0.20</b>	S	E	11.12.96		X		X
1062	0.24	S	E	11.12.96	X			X
1063	<b>0.28</b>	S	E	11.12.96		X		X
1065	<b>0.61</b>	M	E	11.12.96		X		X
1066	0.18	S	E	11.12.96		X		X
1073	<b>0.31</b>	S	E	10.23.96		X		X
1074	<b>0.23</b>	S	E	10.23.96		X		X
1075	<b>0.40</b>	<b>M</b>	E	10.23.96	X			X
1079	<b>0.46</b>	<b>M</b>	E	11.12.96		X		X
1081	<b>0.18</b>	S	E	05.10.96		X		X
1098	0.49	M	E	10.13.96			X	X
1100	0.38	<b>S</b>	E	10.13.96		X		X
1109	<b>0.39</b>	<b>M</b>	E	10.23.96	X			X
1113	<b>0.43</b>	<b>M</b>	E	11.12.96	X			X
1116	0.32	<b>S</b>	E	10.13.96		X		X
1117	<b>0.28</b>	S	E	10.23.96		X		X
1125	0.31	<b>S</b>	E	10.13.96		X		X
1130	<b>0.35</b>	S	E	10.23.96			X	X
1137	0.30	<b>S</b>	E	10.13.96		X		X
1139	0.24	S	E	10.23.96			X	X
1141	1.14	L	E	11.12.96	X			X
1142	0.95	M	E	11.12.96	X			X
1197	1.29	L	W	10.24.97	X			X
1198	0.81	M	W	10.24.97		X		X
1199	1.56	L	W	10.24.97	X			X
1200	1.35	L	W	10.24.97			X	X
1201	<b>2.35</b>	L	W	10.24.97		X		X
1202	1.82	L	W	12.06.97			X	X
1208	0.64	M	W	10.24.97	X			X
1217	0.38	<b>S</b>	W	10.24.97			X	X
1232	1.81	L	W	10.24.97			X	X
1242	1.14	L	W	12.06.97			X	X
1247	1.99	L	W	12.06.97	X			X
1251	1.89	L	W	12.06.97		X		X

<sup>1</sup>DBH measured when vernier bands installed.

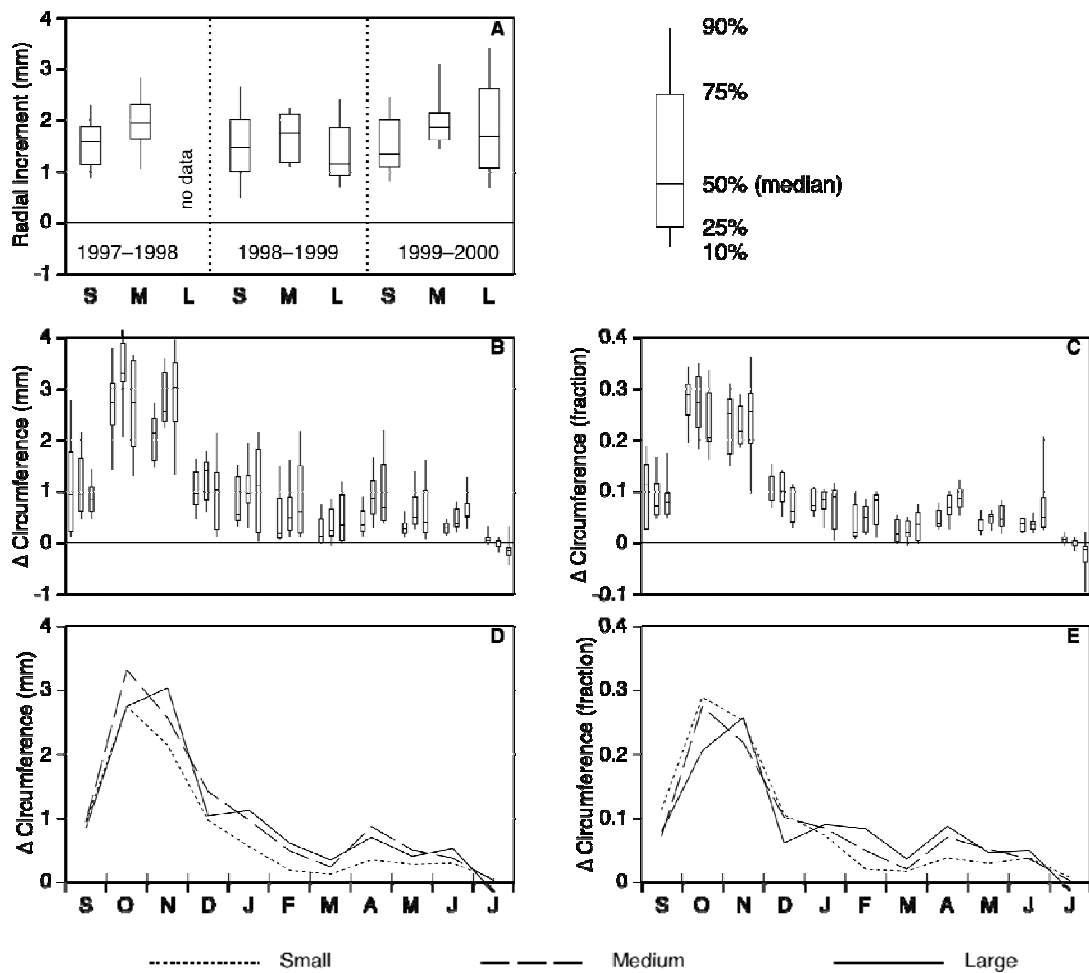
<sup>2</sup>Three-way size class split (L = large, M = middle, S = small).  $S < 0.39 \text{ m} \leq M < 1.10 \text{ m} \leq L$ .



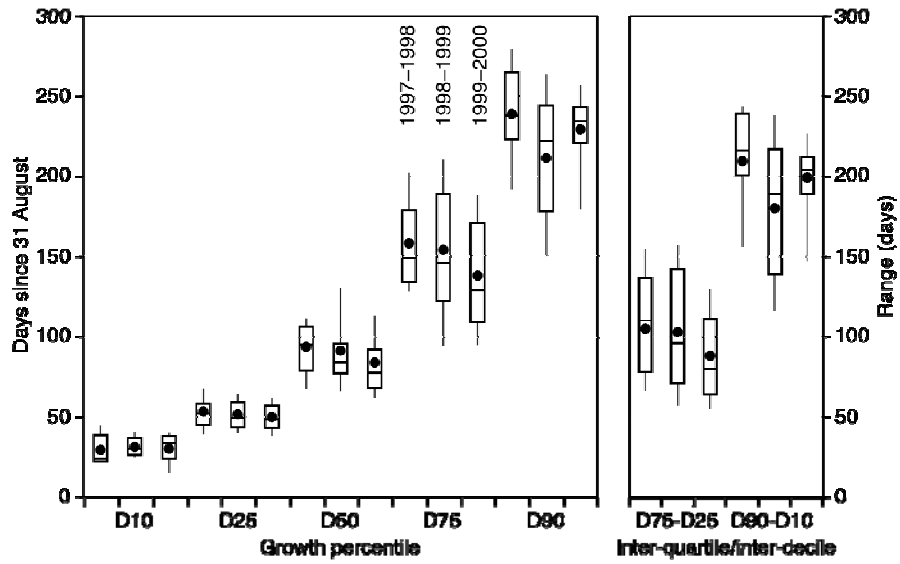
**Figure S4.** Comparison of annual radial increment derived from vernier bands (“V” in Panel A) and short cores (“C” in Panel A). Core measurements are ring-width measurements, scaled to account for shrinkage during sample preparation. Vernier band measurements include bark growth and cumulative errors associated with the band method. The box-and-whiskers plots indicate 10th, 25th, 50th, 75th, and 90th percentiles and the mean (dots). Panels B–D show ratios of vernier to core annual increments plotted against tree DBH.



**Figure S5.** Inter-tree and inter-annual variations in absolute (left panels) and fractional (right panels) monthly circumference changes. Fractional growth is not available for 1996–1997 because of incomplete data and the fractional plot for 1997–1998 (Panel C) is based on a reduced data set (see text for details). Inter-tree variance is represented by the box-and-whiskers plots. The bottom two panels plot the medians from the panels above them to assist inter-annual comparison.



**Figure S6.** Dependence of annual and monthly growth rates on tree size. Panel A separates vernier annual radial increment results presented in Figure 4A, for small (S), medium (M), and large (L) trees. Panels B and C are a similar size class breakdown of the results for the 1999–2000 season presented in Figures 5F and 5G. Panels D and E plot the medians for each size class (from Panels B and C).



**Figure S7.** Inter-tree variation in the timing of seasonal growth, by size class. D10, D25, D50, D75, D90, D75–D25, and D90–D10 are seasonal timing variables described in the text. The sets of three box-and-whiskers plots associated with each of these are for the growing seasons 1997–1998, 1998–1999, and 1999–2000, in the order indicated for D75.

Table S3: Correlation between growth timing statistics (D10 to D90-D10) and tree size (DBH). Statistically significant correlations ( $p \leq 0.05$ ) are italicized.

Growth Timing Statistic	Correlation for Growing Season:		
	1997–1998	1998–1999	1999–2000
D10	0.04	0.06	-0.02
D25	-0.06	0.04	0.14
D50	0.11	0.09	<i>0.41</i>
D75	0.12	-0.03	0.09
D90	<i>0.39</i>	0.03	<i>0.33</i>
D75-D25	0.13	-0.04	0.07
D90-D10	0.31	0.02	<i>0.30</i>