

Supplementary Material

Assessing changes in high-intensity fire events in south-eastern Australia using Fourier Transform Infra-red (FITR) spectroscopy

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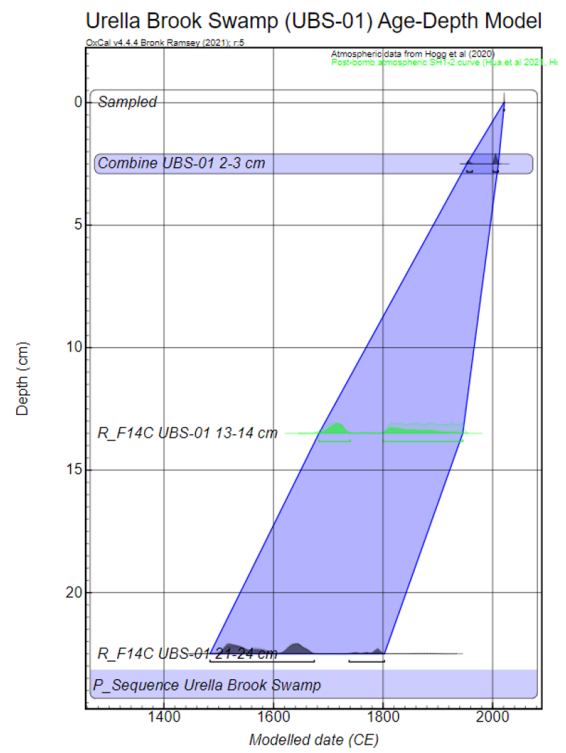
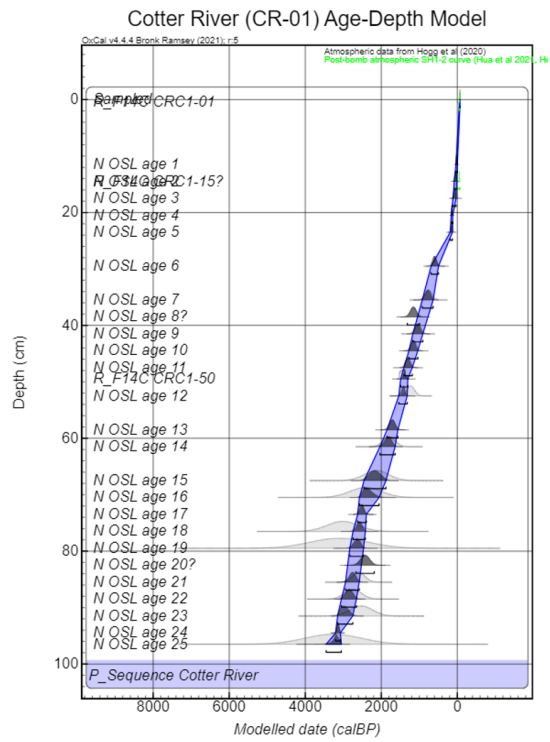
Supplementary Figure S1. Photos of the Cotter River (CR-01) Core (left) and Urella Brook Swamp (UBS-01) Monolith (right) before subsampling.

Table S1. Radiocarbon $F^{14}C$ values and OSL ages for Urella Brook Swamp (UBS-01) and Cotter River (CR-01).

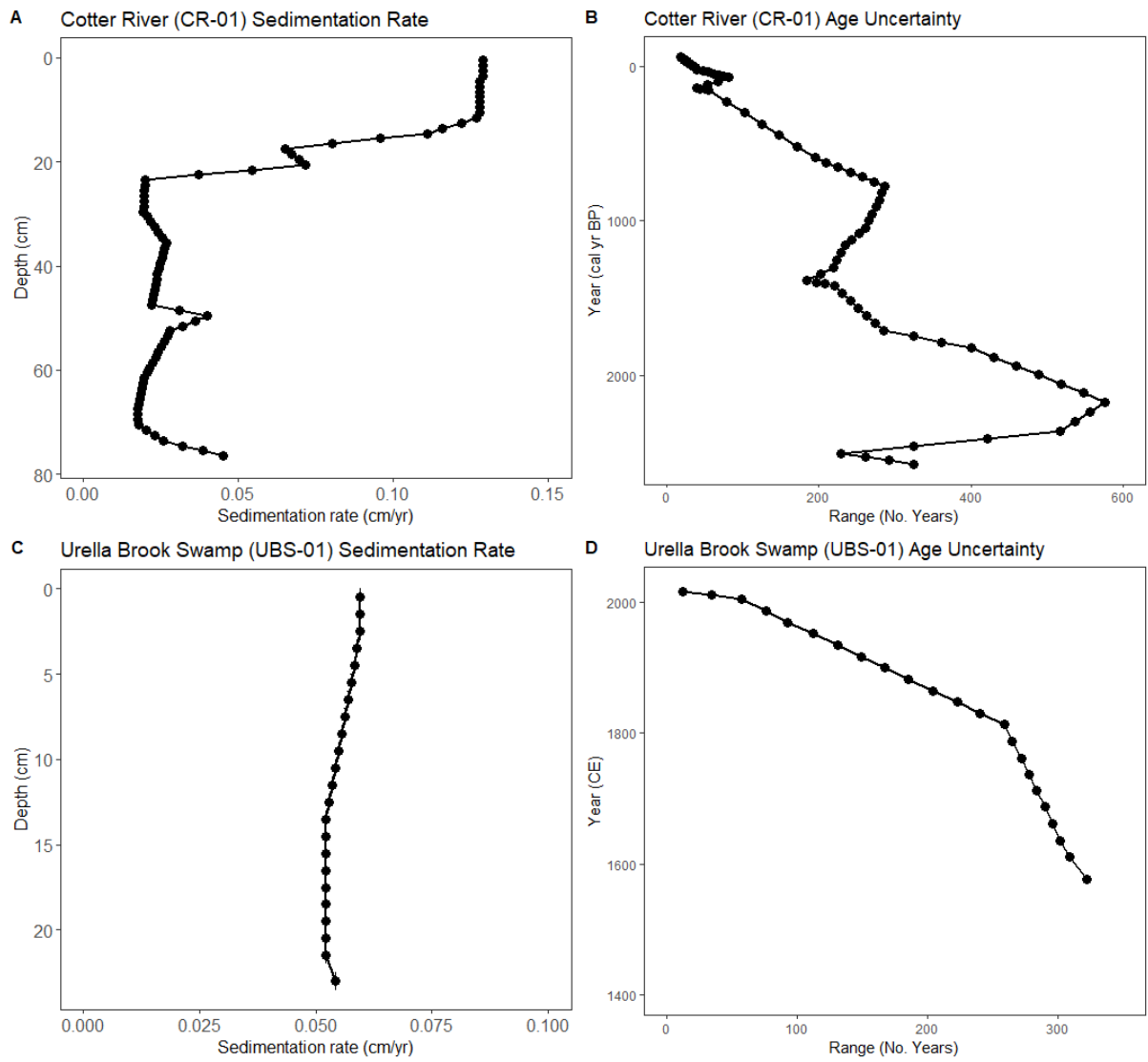
Sample	$F^{14}C$ (unitless)	Error (1σ)	MAM (ka)	Lab Number
CR-01 0-1 cm charcoal	1.0461	0.0042		UNSW-2029
CR-01 14-15 cm charcoal	1.0676	0.0044		UNSW-2030
CR-01 49-50 cm charcoal	0.8199	0.0044		UNSW-2031
CR-01 76-77.5 cm charcoal*	0.0114	0.0010		UNSW-2032
CRD-OSL 1 11.5 cm			0.07±0.01	
CRD-OSL 2 14.5 cm			0.11±0.02	
CRD-OSL 3 17.5 cm			0.10±0.03	
CRD-OSL 4 20.5 cm			0.20±0.01	
CRD-OSL 5 23.5 cm			0.19±0.02	
CRD-OSL 6 29.5 cm			0.66±0.05	
CRD-OSL 7 35.5 cm			0.81±0.09	
CRD-OSL 8 38.5 cm			1.21±0.08	
CRD-OSL 9 41.5 cm			1.09±0.08	
CRD-OSL 10 44.5 cm			1.20±0.07	
CRD-OSL 11 47.5 cm			1.35±0.07	
CRD-OSL 12 52.5 cm			1.28±0.10	
CRD-OSL 13 58.5 cm			1.77±0.08	
CRD-OSL 14 61.5 cm			1.85±0.16	
CRD-OSL 15 67.5 cm			2.18±0.32	
CRD-OSL 16 70.5 cm			2.46±0.42	
CRD-OSL 17 73.5 cm			2.59±0.06	
CRD-OSL 18 76.5 cm			3.07±0.41	

CRD-OSL 19 79.5 cm			3.16±0.77	
CRD-OSL 20 82.5 cm			2.48±0.12	
CRD-OSL 21 85.5 cm			2.65±0.16	
CRD-OSL 22 88.5 cm			2.80±0.22	
CRD-OSL 23 91.5 cm			2.58±0.30	
CRD-OSL 24 94.5 cm			3.20±0.03	
CRD-OSL 25 96.5 cm			3.32±0.74	
UBS-01 2-3 cm charcoal	1.0846	0.0042		UNSW-1278
UBS-01 2-3 cm seed	1.0590	0.0046		UNSW-1279
UBS-01 13-14 cm charcoal	0.9826	0.0040		UNSW-1280
UBS-01 21-24 cm charcoal	0.9617	0.0041		UNSW-1281

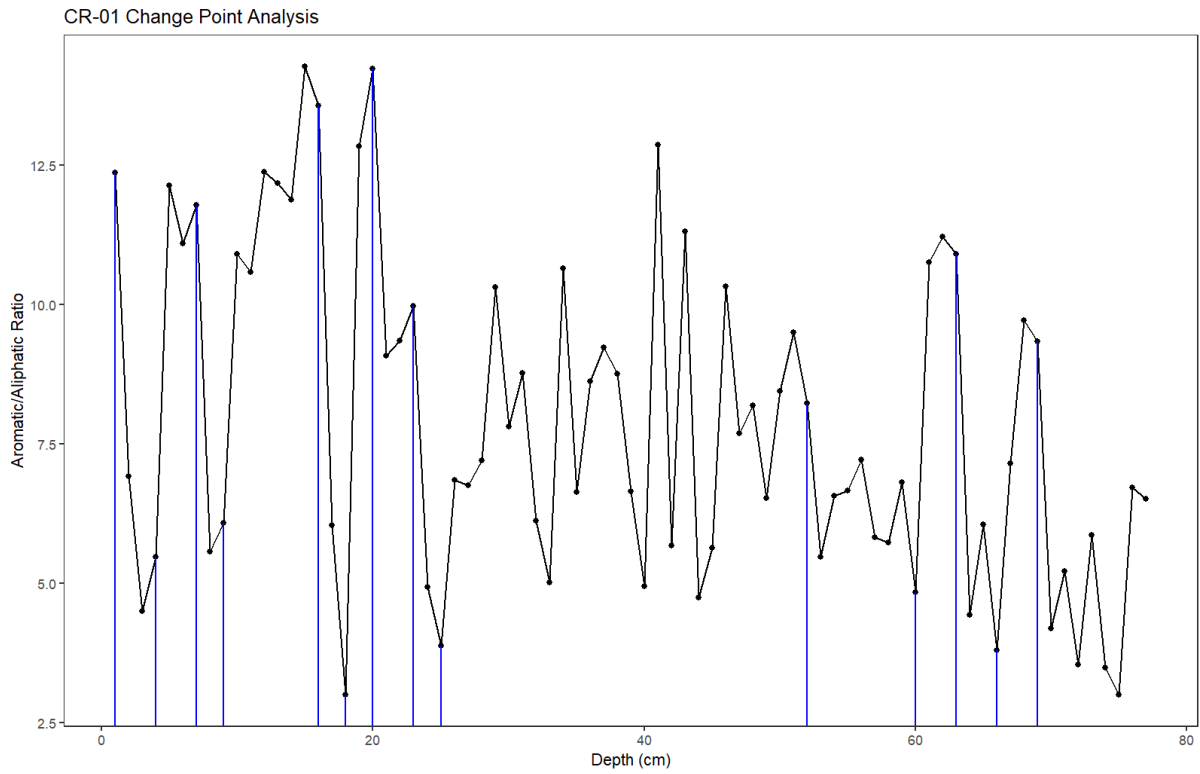
MAM: OSL Minimum Age Model (MAM) values. The asterisk denotes the age removed from the final model.



Supplementary Figure S2. Radiocarbon-based age-depth models from OxCal for the Cotter River (left) and Urella Brook Swamp (right) cores.



Supplementary Figure S3. The left column shows the sedimentation rate in cm/yr, and the right column shows the change in age uncertainty with depth in number of years. The first row displays data for CR-01 and the second for UBS-01.



Supplementary Figure S4. Change Point Analysis using the "ggchangeplot" package in RStudio (Killick and Eckley 2014) for the CR-01 core. Blue lines represent significant changes in the mean.

