

Supplementary Material

Table S1: Sediment texture (sand, silt and clay percentage) along with sample number and depth.

Sample no.	Depth (cm)	Age (Ka BP)	Sand%	Silt%	Clay%
NT-1	154	11.4	40	19	41
NT-5	146	10.6	39	23	38
NT-9	138	9.8	39	21	40
NT-13	130	8.9	39	23	38
NT-17	122	8.1	39	22	39
NT-21	114	7.2	39	21	40
NT-25	106	6.4	38	21	40
NT-29	98	5.6	44	20	36
NT-33	90	4.7	44	19	37
NT-38	80	3.7	40	21	39
NT-41	74	3.0	44	22	34
NT-46	64	2.0	54	18	28
NT-49	58	1.7	64	22	14
NT-52	52	1.5	49	23	29
NT-55	46	1.4	26	40	34
NT-58	40	1.2	60	26	14
NT-60	36	1.1	29	45	26
NT-63	30	1.0	76	14	10
NT-65	26	0.9	79	13	8
NT-68	20	0.7	77	12	10
NT-71	14	0.5	50	31	19
NT-73	10	0.3	35	44	21
NT-76	4	0.1	61	25	14
NT-78	0	0.0	65	23	12

Table S2: Sample numbers with depth and TOC%, TN%, $\delta^{13}\text{C}$ values (‰; VPDB), TOC/TN, magnetic susceptibility (χ_{lf}) and LOI values of Nonia Tal profile.

Sample No.	Depth (cm)	Age(ka BP)	TOC (%)	TN (%)	$\delta^{13}\text{C}$ values (‰; VPDB)	TOC/TN	χ_{lf} (10 ⁻⁸ m ³ kg ⁻¹)	Moisture (%)	Org C (%)	CO ₃ - (%)
NT-1	154	11.4	0.06	0.013	-22.3	4.78	5.4	2.4	0.06	1.5
NT-2	152	11.2	0.06	0.018	-22.0	3.3	6.33	2.3	0.06	1.9
NT-3	150	11	0.06	0.013	-21.6	4.41	9.36	2.2	0.06	2
NT-4	148	10.8	0.04	0.014	-20.5	2.81	3.58	2.5	0.04	2.1
NT-5	146	10.6	0.07	0.01	-21.8	6.86	2.34	2.4	0.07	2.6
NT-6	144	10.4	0.04	0.012	-20.6	3.49	8.39	3.5	0.04	1.7
NT-7	142	10.2	0.1	0.013	-22.4	7.54	7.69	2.2	0.1	4
NT-8	140	10	0.07	0.011	-21.5	5.93	13.68	2.5	0.07	2
NT-9	138	9.8	0.06	0.013	-21.0	4.77	11.16	2.5	0.06	1.9
NT-10	136	9.5	0.06	0.013	-20.6	4.62	10.41	1.1	0.06	2.1
NT-11	134	9.3	0.09	0.011	-22.1	8.47	9.16	1.9	0.09	2.2
NT-12	132	9.1	0.11	0.015	-21.4	7.59	2.7	2.5	0.11	2
NT-13	130	8.9	0.07	0.008	-20.6	8.93	14.72	2.4	0.07	3.6
NT-14	128	8.7	0.1	0.012	-21.4	8.28	5.83	2.4	0.1	2.5
NT-15	126	8.5	0.08	0.01	-20.6	8.4	7.98	3.1	0.08	2.4
NT-16	124	8.3	0.09	0.01	-20.6	8.38	9.71	2.3	0.09	2.4
NT-17	122	8.1	0.09	0.011	-20.0	8.36	3.92	2.8	0.09	2.3
NT-18	120	7.9	0.1	0.014	-20.4	7.56	15.81	2.4	0.1	4.3
NT-19	118	7.7	0.11	0.011	-20.6	9.72	8.98	2.4	0.11	2.1
NT-20	116	7.4	0.11	0.012	-20.3	9.66	8.81	2.6	0.11	1.9
NT-21	114	7.2	0.12	0.014	-20.1	8.73	9.76	1	0.12	1.7
NT-22	112	7	0.11	0.021	-20.0	5.41	14.99	2.6	0.11	1.8
NT-23	110	6.8	0.12	0.012	-19.8	9.62	3.59	2.2	0.12	2
NT-24	108	6.6	0.1	0.015	-19.7	6.74	7.07	1.2	0.1	2.3
NT-25	106	6.4	0.12	0.011	-19.4	10.62	4.88	1.5	0.12	2.1
NT-26	104	6.2	0.14	0.011	-19.3	12.27	4.91	1.1	0.14	2.4
NT-27	102	6	0.13	0.012	-19.5	11.19	13.7	1.2	0.13	1.8
NT-28	100	5.8	0.14	0.019	-20.2	7.43	6.3	1.9	0.14	2
NT-29	98	5.6	0.15	0.014	-19.7	10.9	6.34	1.7	0.15	1.8
NT-30	96	5.3	0.15	0.015	-19.6	9.63	17.37	1	0.15	2.1
NT-31	94	5.1	0.15	0.021	-19.9	7.14	11.59	0.9	0.15	1.9
NT-32	92	4.9	0.18	0.015	-20.0	11.91	4.36	0.5	0.18	1.5
NT-33	90	4.7	0.18	0.014	-19.8	12.95	9.33	1.2	0.18	1.8

NT-34	88	4.5	0.18	0.014	−19.2	12.92	21.73	0.8	0.18	2.6
NT-35	86	4.3	0.2	0.018	−19.8	11.08	16.13	0.8	0.2	2
NT-36	84	4.1	0.24	0.017	−19.3	14.29	16.78	1.2	0.24	1.6
NT-37	82	3.9	0.3	0.026	−19.7	11.46	6.57	0.6	0.3	1.6
NT-38	80	3.7	0.26	0.017	−19.4	15.2	18.85	0.9	0.26	1.6
NT-39	78	3.5	0.24	0.022	−19.6	11.04	17.57	1	0.24	1.7
NT-40	76	3.2	0.33	0.025	−19.4	13.24	9.04	1	0.33	1.9
NT-41	74	3	0.33	0.024	−19.3	13.66	15.88	2.9	0.33	1.7
NT-42	72	2.8	0.37	0.027	−20.3	13.52	17.01	2.5	0.37	1.6
NT-43	70	2.6	0.33	0.024	−19.2	13.55	4.98	2.7	0.33	1.6
NT-44	68	2.4	0.36	0.028	−19.9	12.72	7.7	3.3	0.36	1.8
NT-45	66	2.2	0.35	0.03	−19.0	11.81	14.29	2.8	0.35	2
NT-46	64	2	0.26	0.021	−18.7	12.35	10.79	2.3	0.26	1.4
NT-47	62	1.8	0.33	0.029	−19.2	11.34	4.59	2.5	0.33	1.3
NT-48	60	1.7	0.31	0.026	−19.9	11.93	10.23	2.9	0.31	1.5
NT-49	58	1.7	0.32	0.026	−20.0	12.45	1.28	2.6	0.32	1.5
NT-50	56	1.6	0.36	0.033	−20.6	10.79	6.52	2.2	0.36	2.6
NT-51	54	1.6	0.53	0.047	−20.8	11.3	9.78	2.2	0.53	1.8
NT-52	52	1.5	0.48	0.041	−20.5	11.72	8.57	2.8	0.48	1.7
NT-53	50	1.5	0.66	0.055	−20.8	11.83	10.53	1	0.66	0.8
NT-54	48	1.4	0.69	0.06	−20.6	11.43	16.82	3.1	0.69	1.7
NT-55	46	1.4	0.81	0.065	−20.3	12.4	15.26	2.8	0.81	2.1
NT-56	44	1.3	0.64	0.053	−21.0	12.12	24.12	4.4	0.64	2.1
NT-57	42	1.3	0.51	0.039	−20.7	13.14	38	1.7	0.51	1
NT-58	40	1.2	0.65	0.051	−20.5	12.73	19.89	2.4	0.65	1.3
NT-59	38	1.2	0.52	0.04	−20.9	12.87	28.35	1.9	0.52	1.6
NT-60	36	1.1	0.76	0.058	−20.4	13	17.9	2.6	0.76	2.7
NT-61	34	1.1	0.47	0.037	−21.0	12.7	21.76	2.6	0.47	2.9
NT-62	32	1	0.39	0.03	−20.9	13.06	28.07	1.8	0.39	2.4
NT-63	30	1	0.37	0.027	−21.4	13.52	19.33	2	0.37	2.1
NT-64	28	0.9	0.44	0.034	−21.5	12.98	24.08	1.3	0.44	1.9
NT-65	26	0.9	0.36	0.023	−21.0	15.57	14.52	1.6	0.36	1.9
NT-66	24	0.8	0.68	0.053	−20.7	12.85	17.45	2.2	0.68	2.8
NT-67	22	0.8	0.47	0.036	−20.6	12.86	34.08	3.5	0.47	2.5
NT-68	20	0.7	0.4	0.035	−21.4	11.5	20.91	1.3	0.4	1.7
NT-69	18	0.6	0.39	0.029	−21.7	13.58	25.96	1.1	0.39	1.5
NT-70	16	0.6	0.35	0.032	−22.1	11.23	13.08	1.2	0.35	1.3
NT-71	14	0.5	0.6	0.049	−21.2	12.34	23.95	2.1	0.6	2.4
NT-72	12	0.4	0.94	0.066	−22.5	14.12	25.44	2.4	0.94	3
NT-73	10	0.3	0.76	0.057	−21.3	13.4	16.22	2.7	0.76	3.7
NT-74	8	0.3	0.8	0.062	−21.1	12.74	40	2.7	0.8	3.1
NT-75	6	0.2	0.66	0.052	−21.4	12.61	13.63	2.2	0.66	2.8

NT-76	4	0.1	0.48	0.039	-21.6	12.2	22.85	1.4	0.48	2.2
NT-77	2	0.1	0.34	0.027	-22.2	12.86	33.32	1.1	0.34	1.5
NT-78	0	0	0.57	0.047	-22.6	12.11	15.99	1.5	0.57	2.3

Table S3: $\delta^{13}\text{C}$ repeat values

Sample No.	$\delta^{13}\text{C}$ values (‰; VPDB)
NT-1	-22.3
NT-1 R	-22.0
NT-10	-20.6
NT-10 R	-20.5
NT-12	-21.4
NT-12 R	-21.2
NT-13	-20.6
NT-13R	-20.5
NT-18	-20.4
NT-18R	-20.4
NT-21	-20.1
NT-21R	-20.1
NT-29	-19.7
NT-29R	-19.7
NT-35	-19.8
NT-35R	-19.8
NT-41	-19.3
NT-41R	-19.5
NT-45	-19.0
NT-45R	-19.1
NT-48	-19.9
NT-48R	-20.1
NT-52	-20.5
NT-52R	-20.7
NT-56	-21.0
NT-56R	-20.9
NT-59	-20.9
NT-59R	-20.8
NT-64	-21.5
NT-64R	-21.6
NT-67	-20.6
NT-67R	-20.7
NT-73	-21.3

NT-73R	-21.5
NT-76	-21.6
NT-76R	-21.8

Table S4: Calibration curves.

