

Supplemental File 2. Raw sample data for key metrics in the DNA metabarcoding wet laboratory and bioinformatics processing. Abbreviations are as follows: PS, DNeasy® PowerSoil® kit; PSP, DNeasy® PowerSoil® Pro kit; ASV, amplicon sequence variant.

State	Kit	Temp (°C)	Treatment	DNA yield (ng/ul)	Library yield (nM)	Raw Reads	Final Reads	# ASV
COLORADO	PS	65	Spiked normal 1	4.36	36.15	35948	13887	60
			Spiked normal 2	1.96	38.32	36121	13918	67
			Spiked partial 1	3.41	35.35	37781	12534	49
			Spiked partial 2	2.6	41.25	40566	6686	52
			Unspiked 1	1.27	22.51	31717	3527	33
			Unspiked 2	0.764	18.40	37585	2257	14
		90	Spiked normal 1	4.69	69.04	40315	14463	68
			Spiked normal 2	2.47	53.03	37373	13729	65
			Spiked partial 1	1.6	65.20	34965	14548	59
			Spiked partial 2	1.64	44.14	46543	16840	62
			Unspiked 1	1.48	35.12	33218	6137	44
			Unspiked 2	1.4	32.20	35226	5196	37
	PSP	65	Spiked normal 1	16.2	79.81	30831	8541	56
			Spiked normal 2	13.1	92.69	27362	11671	56
			Spiked partial 1	11.1	47.06	38199	12479	51
			Spiked partial 2	13.4	66.34	30080	10471	59
			Unspiked 1	13.2	43.31	31762	8420	49
			Unspiked 2	10.6	34.78	35295	8719	53
		90	Spiked normal 1	20.7	58.71	46887	18950	72
			Spiked normal 2	9.57	66.23	34929	11930	58
			Spiked partial 1	7.74	81.59	36999	7537	60
			Spiked partial 2	14.8	98.92	38737	14171	65
			Unspiked 1	14	39.84	23678	8689	52
			Unspiked 2	12	64.40	26982	8112	55
NORTH CAROLINA	PS	65	Spiked normal 1	12.7	116.37	29963	14192	42
			Spiked normal 2	11.6	86.71	38891	12000	80
			Spiked partial 1	8.67	83.77	39302	11176	66
			Spiked partial 2	11.4	101.68	33932	13427	60
			Unspiked 1	5.11	75.39	23463	3975	40
			Unspiked 2	9.31	45.80	44444	13309	51
		90	Spiked normal 1	11.5	62.64	37715	13413	83
			Spiked normal 2	11.2	37.66	52599	14564	87
			Spiked partial 1	10.8	77.99	42203	17209	82
			Spiked partial 2	14.1	63.97	39166	12354	84
			Unspiked 1	27.2	43.56	20239	6836	59
			Unspiked 2	10.8	37.17	27307	6863	56
	PSP	65	Spiked normal 1	39.8	95.15	29731	13006	49
			Spiked normal 2	45.1	127.74	26788	7376	64
			Spiked partial 1	44.6	103.51	26582	8579	63
			Spiked partial 2	37.4	87.07	32930	6801	63
			Unspiked 1	51	142.82	21138	5325	69
			Unspiked 2	44.3	102.19	31854	15786	70
		90	Spiked normal 1	56	86.18	31035	9198	65
			Spiked normal 2	60	122.60	32409	7719	55
			Spiked partial 1	55	32.96	35496	12154	74
			Spiked partial 2	45.1	32.72	38097	11767	64
			Unspiked 1	59	121.92	26913	14247	72
			Unspiked 2	Too high	100.37	28249	13274	80
PENNSYLVANIA	PS	65	Spiked normal 1	3.28	20.96	35385	11216	77
			Spiked normal 2	5.58	26.87	32884	10575	77
			Spiked partial 1	6.3	27.99	77400	33467	145
			Spiked partial 2	4.86	23.78	125	33	2
			Unspiked 1	4.56	16.19	25063	15076	65
			Unspiked 2	4.54	13.88	20354	9953	59
		90	Spiked normal 1	6.47	98.05	38736	11582	86
			Spiked normal 2	8.51	32.31	65120	21133	120
			Spiked partial 1	10.2	33.66	35092	11146	103
			Spiked partial 2	12	27.65	50066	14920	111
			Unspiked 1	8.05	78.62	28880	13719	100
			Unspiked 2	8.37	35.00	31188	15390	122

	PSP	65	Spiked normal 1	29	38.88	35872	13872	118
			Spiked normal 2	20.8	30.73	37657	14333	114
			Spiked partial 1	30.9	16.43	59045	24761	134
			Spiked partial 2	19.6	19.98	31809	12256	102
			Unspiked 1	24.3	28.37	32001	15227	132
			Unspiked 2	22.4	17.58	29355	14392	132
		90	Spiked normal 1	22.3	101.90	32038	13740	123
			Spiked normal 2	24.4	55.60	31683	14710	132
			Spiked partial 1	29.7	44.73	50953	22144	149
			Spiked partial 2	30.6	37.50	34301	14590	112
			Unspiked 1	20.5	112.65	29481	17364	134
			Unspiked 2	28.2	86.99	28995	15210	136