

Supplementary Table S1. Substrate temperature data (substrate monthly mean temperature (°C), annual mean temperature (°C), maximum annual temperature (°C), and minimum annual temperature (°C)) for all Data Loggers operating in 2019.

	April	May	June	July	August	September	October	Average Temp	Max Temp	Min Temp
AG1	15.58	13.69	21.92	24.75	23.85	21.05	10.81	15.08	34.02	2.92
AG2	21.46	21.59	20.85	22.59	23.80	22.25	12.37	18.99	30.16	2.62
AG3	13.97	12.93	18.16	22.58	22.51	19.69	10.04	17.13	30.93	3.04
AG4	12.31	11.80	17.60	21.45	21.04	17.92	9.32	15.92	25.82	6.65
AG5	14.90	13.32	19.01	22.52	21.95	18.35	8.74	16.97	29.21	3.04
GR1	19.53	15.66	22.99	27.53	25.86	23.30	10.39	20.75	43.88	-0.22
GR2	19.24	14.78	22.31	27.41	26.01	21.42	9.47	20.09	38.09	0.60
AG AVG	15.65	14.67	19.51	22.78	22.63	19.85	10.26	16.82	30.03	3.65
GR AVG	19.39	15.22	22.65	27.47	25.93	22.36	9.93	20.42	40.99	0.19

Supplementary Table S2. Substrate temperature data (substrate monthly mean temperature (°C), annual mean temperature (°C), maximum annual temperature (°C), and minimum annual temperature (°C)) for all Data Loggers operating in 2020.

	April	May	June	July	August	September	October	Average Temp	Max Temp	Min Temp
AG1	13.30	20.62	22.46	24.05	24.59	19.54	15.85	20.06	33.29	2.53
AG2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AG3	10.47	15.82	18.75	20.61	21.16	17.41	11.50	16.53	25.87	3.17
AG4	9.11	12.97	17.84	21.08	20.80	17.81	9.32	15.56	27.54	3.30
AG5	10.90	16.30	18.23	22.27	22.01	16.95	9.38	16.58	26.81	2.01
AG6	9.69	15.01	18.49	20.99	21.25	16.55	10.72	16.10	25.69	3.30
GR1	15.20	21.58	23.60	25.22	25.86	18.90	N/A	21.73	35.09	0.94
GR2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GR3	15.69	20.54	23.82	26.41	26.63	18.77	11.33	20.46	36.72	0.51
GR4	15.98	20.73	24.08	25.99	25.36	17.30	9.11	19.79	35.86	0.38
GR5	12.62	20.78	23.83	25.62	24.92	18.21	11.13	19.59	39.51	0.86
GR6	N/A	-17.78	22.42	23.01	22.18	17.64	12.58	19.57	37.36	2.92
AG AVG	10.69	16.15	19.15	21.80	21.96	17.65	11.35	16.97	27.84	2.86
GR AVG	14.87	20.91	23.55	25.25	24.99	18.17	11.04	20.23	36.91	1.12

Supplementary Table S3. Mean monthly average temperatures (°C), mean monthly maximum temperatures (°C), and precipitation (mm) [36] at DBG in 2019 and 2020 over the course of the study.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean	2019	0.00	-2.06	1.72	9.50	10.89	18.67	24.28	24.11	20.72	6.50	2.33	0.94	9.78
	2020	1.44	-2.17	5.83	7.94	15.33	21.72	24.72	25.00	18.56	9.89	6.50	0.61	11.28
Max	2019	7.00	5.17	8.17	17.06	17.72	26.72	32.83	32.50	29.72	14.72	9.83	7.39	17.39
	2020	8.89	4.39	13.33	16.17	23.89	30.94	33.56	34.17	27.06	19.06	14.83	7.50	19.50
Precip	2019	45.47	24.64	42.16	4.83	61.98	3.81	40.64	32.00	4.06	40.64	33.53	10.41	344.17
	2020	1.78	34.04	57.66	24.64	15.49	41.40	15.75	3.56	24.64	10.67	18.54	14.99	263.14