

Supplemental Table S1. Sample information of 124 *Brachymystax lenok tsinlingensis* individuals in this study.

	Sample ID	Location	Sample collection time	Tissue type	Population in this study	Data source
1	A1	Zhang County	2020	muscle	A	This study
2	A2	Zhang County	2022	muscle	A	This study
3	A3	Zhang County	2021	muscle	A	This study
4	A4	Zhang County	2020	muscle	A	This study
5	A5	Zhang County	2020	muscle	A	This study
6	A6	Zhang County	2020	muscle	A	This study
7	A7	Zhang County	2024	muscle	A	This study
8	A8	Zhang County	2024	muscle	A	This study
9	A9	Zhang County	2021	muscle	A	This study
10	A10	Zhang County	2025	muscle	A	This study
11	A11	Zhang County	2020	muscle	A	This study
12	A12	Zhang County	2020	muscle	A	This study
13	A13	Zhang County	2020	muscle	A	This study
14	A14	Zhang County	2024	muscle	A	This study
15	A15	Zhang County	2024	muscle	A	This study
16	A16	Zhang County	2024	muscle	A	This study
17	A17	Zhang County	2021	muscle	A	This study
18	A18	Zhang County	2025	muscle	A	This study
19	A19	Zhang County	2020	muscle	A	This study
20	A20	Zhang County	2020	muscle	A	This study
21	A21	Zhang County	2020	muscle	A	This study
22	A22	Zhang County	2020	muscle	A	This study
23	A23	Zhang County	2023	muscle	A	This study
24	A24	Zhang County	2024	muscle	A	This study
25	A25	Zhang County	2023	muscle	A	This study
26	A26	Zhang County	2021	muscle	A	This study
27	A27	Zhang County	2020	muscle	A	This study
28	A28	Zhang County	2020	muscle	A	This study
29	A29	Zhang County	2024	muscle	A	This study
30	A30	Zhang County	2024	muscle	A	This study

	Sample ID	Location	Sample collection time	Tissue type	Population in this study	Data source
31	C1	Wushan County	2025	muscle	C	This study
32	C2	Wushan County	2020	muscle	C	This study
33	C3	Wushan County	2024	muscle	C	This study
34	C4	Wushan County	2021	muscle	C	This study
35	C5	Wushan County	2020	muscle	C	This study
36	C6	Wushan County	2020	muscle	C	This study
37	C7	Wushan County	2020	muscle	C	This study
38	C8	Wushan County	2020	muscle	C	This study
39	C9	Wushan County	2024	muscle	C	This study
40	C10	Wushan County	2021	muscle	C	This study
41	C11	Wushan County	2025	muscle	C	This study
42	C12	Wushan County	2020	muscle	C	This study
43	C13	Wushan County	2020	muscle	C	This study
44	C14	Wushan County	2020	muscle	C	This study
45	C15	Wushan County	2024	muscle	C	This study
46	C16	Wushan County	2024	muscle	C	This study
47	C17	Wushan County	2023	muscle	C	This study
48	C18	Wushan County	2021	muscle	C	This study
49	D1	Qinzhou District	2020	muscle	D	This study
50	D2	Qinzhou District	2020	muscle	D	This study
51	D3	Qinzhou District	2024	muscle	D	This study
52	D4	Qinzhou District	2024	muscle	D	This study
53	D5	Qinzhou District	2025	muscle	D	This study
54	D6	Qinzhou District	2025	muscle	D	This study
55	D7	Qinzhou District	2020	muscle	D	This study
56	D8	Qinzhou District	2020	muscle	D	This study
57	D9	Qinzhou District	2020	muscle	D	This study
58	D10	Qinzhou District	2024	muscle	D	This study

Sample ID	Location	Sample collection time	Tissue type	Population in this study	Data source	
59	D11	Qinzhou District	2024	muscle	D	This study
60	D12	Qinzhou District	2023	muscle	D	This study
61	D13	Qinzhou District	2021	muscle	D	This study
62	D14	Qinzhou District	2020	muscle	D	This study
63	D15	Qinzhou District	2025	muscle	D	This study
64	D16	Qinzhou District	2021	muscle	D	This study
65	D17	Qinzhou District	2023	muscle	D	This study
66	D18	Qinzhou District	2020	muscle	D	This study
67	D19	Qinzhou District	2020	muscle	D	This study
68	D20	Qinzhou District	2020	muscle	D	This study
69	D21	Qinzhou District	2024	muscle	D	This study
70	D22	Qinzhou District	2024	muscle	D	This study
71	E1	Zhangjiachuan County	2023	muscle	E	This study
72	E2	Zhangjiachuan County	2021	muscle	E	This study
73	E3	Zhangjiachuan County	2020	muscle	E	This study
74	E4	Zhangjiachuan County	2020	muscle	E	This study
75	E5	Zhangjiachuan County	2024	muscle	E	This study
76	E6	Zhangjiachuan County	2024	muscle	E	This study
77	E7	Zhangjiachuan County	2023	muscle	E	This study
78	E8	Zhangjiachuan County	2020	muscle	E	This study
79	E9	Zhangjiachuan County	2024	muscle	E	This study
80	E10	Zhangjiachuan County	2024	muscle	E	This study
81	E11	Zhangjiachuan County	2023	muscle	E	This study
82	E12	Zhangjiachuan County	2020	muscle	E	This study
83	E13	Zhangjiachuan County	2024	muscle	E	This study
84	E14	Zhangjiachuan County	2024	muscle	E	This study
85	E15	Zhangjiachuan County	2023	muscle	E	This study

	Sample ID	Location	Sample collection time	Tissue type	Population in this study	Data source
86	E16	Zhangjiachuan County	2020	muscle	E	This study
87	E17	Zhangjiachuan County	2024	muscle	E	This study
88	E18	Zhangjiachuan County	2024	muscle	E	This study
89	E19	Zhangjiachuan County	2024	muscle	E	This study
90	E20	Zhangjiachuan County	2021	muscle	E	This study
91	E21	Zhangjiachuan County	2025	muscle	E	This study
92	E22	Zhangjiachuan County	2020	muscle	E	This study
93	E23	Zhangjiachuan County	2020	muscle	E	This study
94	P1	Xunke - Sunwu County	2020	muscle	P	This study
95	P2	Xunke - Sunwu County	2024	muscle	P	This study
96	P3	Xunke - Sunwu County	2024	muscle	P	This study
97	P4	Xunke - Sunwu County	2021	muscle	P	This study
98	P5	Xunke - Sunwu County	2020	muscle	P	This study
99	P6	Xunke - Sunwu County	2024	muscle	P	This study
100	P7	Xunke - Sunwu County	2024	muscle	P	This study
101	P8	Xunke - Sunwu County	2023	muscle	P	This study
102	P9	Xunke - Sunwu County	2020	muscle	P	This study
103	P10	Xunke - Sunwu County	2024	muscle	P	This study
104	P11	Xunke - Sunwu County	2020	muscle	P	This study
105	P12	Xunke - Sunwu County	2024	muscle	P	This study
106	P13	Xunke - Sunwu County	2024	muscle	P	This study
107	P14	Xunke - Sunwu County	2024	muscle	P	This study
108	P15	Xunke - Sunwu County	2023	muscle	P	This study
109	P16	Xunke - Sunwu County	2020	muscle	P	This study
110	P17	Xunke - Sunwu County	2024	muscle	P	This study
111	P18	Xunke - Sunwu County	2024	muscle	P	This study
112	P19	Xunke - Sunwu County	2025	muscle	P	This study
113	P20	Xunke - Sunwu County	2020	muscle	P	This study

Sample ID	Location	Sample collection time	Tissue type	Population in this study	Data source	
114	P21	Xunke - Sunwu County	2020	muscle	P	This study
115	P22	Xunke - Sunwu County	2020	muscle	P	This study
116	P23	Xunke - Sunwu County	2024	muscle	P	This study
117	P24	Xunke - Sunwu County	2024	muscle	P	This study
118	P25	Xunke - Sunwu County	2023	muscle	P	This study
119	P26	Xunke - Sunwu County	2020	muscle	P	This study
120	P27	Xunke - Sunwu County	2024	muscle	P	This study
121	P28	Xunke - Sunwu County	2021	muscle	P	This study
122	P29	Xunke - Sunwu County	2020	muscle	P	This study
123	P30	Xunke - Sunwu County	2024	muscle	P	This study
124	P31	Xunke - Sunwu County	2024	muscle	P	This study