

Supplementary Material

Taxonomic reassessment of *Scabies* (Bivalvia: Unionidae) species in China based on multilocus and mitogenomic phylogenetic analyses

Yu-Ting Dai^A, Zhong-Guang Chen^A, Cheng-Lin Hu^A, Peng-Fei Ning^B, Shan Ouyang^A,
Xiao-Chen Huang^{A,*} and Xiao-Ping Wu^{A,*}

^ASchool of Life Sciences, Nanchang University, Nanchang, 330031, PR China

^BFisheries Research Institute of Tianjin, Tianjin, 300221, PR China

*Correspondence to: Email: xiaochenhuang@hotmail.com, xchuang@ncu.edu.cn;
xpwu@ncu.edu.cn

Table S1. List of sequences used in the unrooted median-joining haplotype network.

Number	Species	Country	Location	COI	Haplotype	Reference
1	<i>Nodularia douglasiae</i>	Russia	Amur River	MF975692	Hap_1	Klishko <i>et al.</i> 2018
2	<i>Nodularia douglasiae</i>	Russia	Amur River	MF975696	Hap_1	Klishko <i>et al.</i> 2018
3	<i>Nodularia douglasiae</i>	Russian	Amur River Basin	MW139306	Hap_1	Sayenko <i>et al.</i> 2020
4	<i>Nodularia douglasiae</i>	Russia	Amur River	MK574280	Hap_1	Bolotov <i>et al.</i> 2020
5	<i>Nodularia douglasiae</i>	Russia	Amur River	MK574282	Hap_1	Bolotov <i>et al.</i> 2020
6	<i>Nodularia douglasiae</i>	Russia	Amur River	MK574283	Hap_1	Bolotov <i>et al.</i> 2020
7	<i>Nodularia douglasiae</i>	Russia	Amur River	MK574284	Hap_1	Bolotov <i>et al.</i> 2020
8	<i>Nodularia douglasiae</i>	Russia	Amur River	MK574285	Hap_1	Bolotov <i>et al.</i> 2020
9	<i>Nodularia douglasiae</i>	Russian	Khanka Lake Basin	MW139307	Hap_2	Sayenko <i>et al.</i> 2020
10	<i>Nodularia douglasiae</i>	Russia	Amur River	MK574281	Hap_2	Bolotov <i>et al.</i> 2020
11	<i>Nodularia douglasiae</i>	Russia	Onon River	MF975693	Hap_23	Klishko <i>et al.</i> 2018
12	<i>Nodularia douglasiae</i>	Russia	Onon River	MF975694	Hap_24	Klishko <i>et al.</i> 2018
13	<i>Nodularia douglasiae</i>	Russia	Amur River	MF975695	Hap_25	Klishko <i>et al.</i> 2018
14	<i>Nodularia douglasiae</i>	Russia	Ussury River	MF975697	Hap_26	Klishko <i>et al.</i> 2018
15	<i>Nodularia douglasiae</i>	Russia	Ussury River	MF975698	Hap_26	Klishko <i>et al.</i> 2018
16	<i>Nodularia douglasiae</i>	Russian	Amur River Basin	MW139308	Hap_37	Sayenko <i>et al.</i> 2020
17	<i>Nodularia douglasiae</i>	Russian	Amur River Basin	MW139309	Hap_74	Sayenko <i>et al.</i> 2020
18	<i>Nodularia douglasiae</i>	Japan	Lake Biwa, Shiga, Japan	LC518962	Hap_3	Sano <i>et al.</i> 2019
19	<i>Nodularia douglasiae</i>	Japan	Lake Kawaguchiko, Yamanashi, Japan	LC518963	Hap_4	Sano <i>et al.</i> 2019
20	<i>Nodularia douglasiae</i>	Japan	Lake Kawaguchiko, Yamanashi, Japan	LC518964	Hap_5	Sano <i>et al.</i> 2019
21	<i>Nodularia douglasiae</i>	Japan	Wakayama, Japan	LC518965	Hap_6	Sano <i>et al.</i> 2019
22	<i>Nodularia douglasiae</i>	Japan	Wakayama, Japan	LC518966	Hap_7	Sano <i>et al.</i> 2019
23	<i>Nodularia douglasiae</i>	Japan	Nakama, Fukuoka, Japan	LC518967	Hap_8	Sano <i>et al.</i> 2019
24	<i>Nodularia douglasiae</i>	Japan	Nakama, Fukuoka, Japan	LC518968	Hap_9	Sano <i>et al.</i> 2019
25	<i>Nodularia douglasiae</i>	Japan	Yodo River, Osaka, Japan	LC518969	Hap_10	Sano <i>et al.</i> 2019
26	<i>Nodularia douglasiae</i>	Japan	Okayama	MF975688	Hap_19	Klishko <i>et al.</i> 2018
27	<i>Nodularia douglasiae</i>	Japan	Biwa Lake	MT020672	Hap_20	Lopes-Lima <i>et al.</i> 2020
28	<i>Nodularia douglasiae</i>	Japan	Okayama	MF975689	Hap_20	Klishko <i>et al.</i> 2018
29	<i>Nodularia douglasiae</i>	Japan	Mukogawa River, Hyogo, Japan	LC518970	Hap_20	Sano <i>et al.</i> 2019
30	<i>Nodularia douglasiae</i>	Japan	Fukuro River	MT020676	Hap_73	Lopes-Lima <i>et al.</i> 2020
31	<i>Nodularia douglasiae</i>	China	Beijiang River	OR830565*	Hap_14	This study
32	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822343	Hap_15	Liu <i>et al.</i> 2019
33	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG463026	Hap_15	Huang <i>et al.</i> 2018
34	<i>Nodularia douglasiae</i>	China	Yangtze Basin	KJ434520	Hap_15	Uyang <i>et al.</i> 2014
35	<i>Nodularia douglasiae</i>	China	Yangtze Basin	KJ434521	Hap_16	Ouyang <i>et al.</i> 2015
36	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822342	Hap_16	Liu <i>et al.</i> 2019
37	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822363	Hap_16	Liu <i>et al.</i> 2019
38	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG463028	Hap_16	Huang <i>et al.</i> 2018
39	<i>Nodularia douglasiae</i>	China	Liangzi Lake	MG210499	Hap_17	Liu <i>et al.</i> 2017
40	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210523	Hap_17	Liu <i>et al.</i> 2017
41	<i>Nodularia douglasiae</i>	China	Xiannv Lake	MG210537	Hap_17	Liu <i>et al.</i> 2017
42	<i>Nodularia douglasiae</i>	China	Hongze Lake	MG210550	Hap_17	Liu <i>et al.</i> 2017
43	<i>Nodularia douglasiae</i>	China	Yangtze Basin	KJ434522	Hap_17	Ouyang <i>et al.</i> 2015
44	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822333	Hap_17	Liu <i>et al.</i> 2019
45	<i>Nodularia douglasiae</i>	China	Qinglan Lake	MG463030	Hap_17	Huang <i>et al.</i> 2018
46	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG463033	Hap_17	Huang <i>et al.</i> 2018
47	<i>Nodularia douglasiae</i>	China	Hongze Lake	MG210546	Hap_20	Liu <i>et al.</i> 2017
48	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822351	Hap_20	Liu <i>et al.</i> 2019
49	<i>Nodularia douglasiae</i>	China	Yangtze River	MF975690	Hap_21	GenBank
50	<i>Nodularia douglasiae</i>	China	Liangzi Lake	MG210495	Hap_27	Liu <i>et al.</i> 2017
51	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210529	Hap_27	Liu <i>et al.</i> 2017
52	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822337	Hap_27	Liu <i>et al.</i> 2019
53	<i>Nodularia douglasiae</i>	China	Qinglan Lake	MG463032	Hap_27	Huang <i>et al.</i> 2018
54	<i>Nodularia douglasiae</i>	China	Liangzi Lake	MG210496	Hap_28	Liu <i>et al.</i> 2017
55	<i>Nodularia douglasiae</i>	China	Liangzi Lake	MG210501	Hap_28	Liu <i>et al.</i> 2017
56	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210531	Hap_28	Liu <i>et al.</i> 2017
57	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822339	Hap_28	Liu <i>et al.</i> 2019
58	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822348	Hap_28	Liu <i>et al.</i> 2019
59	<i>Nodularia douglasiae</i>	China	Liangzi Lake	MG210497	Hap_29	Liu <i>et al.</i> 2017
60	<i>Nodularia douglasiae</i>	China	Liangzi Lake	MG210498	Hap_30	Liu <i>et al.</i> 2017
61	<i>Nodularia douglasiae</i>	China	Liangzi Lake	MG210500	Hap_31	Liu <i>et al.</i> 2017
62	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210520	Hap_31	Liu <i>et al.</i> 2017
63	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210534	Hap_31	Liu <i>et al.</i> 2017

Number	Species	Country	Location	COI	Haplotype	Reference
64	<i>Nodularia douglasiae</i>	China	Hongze Lake	MG210544	Hap_31	Liu <i>et al.</i> 2017
65	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822332	Hap_31	Liu <i>et al.</i> 2019
66	<i>Nodularia douglasiae</i>	China	Liangzi Lake	MG210502	Hap_32	Liu <i>et al.</i> 2017
67	<i>Nodularia douglasiae</i>	China	Dongting Lake	MG210503	Hap_33	Liu <i>et al.</i> 2017
68	<i>Nodularia douglasiae</i>	China	Dongting Lake	MG210504	Hap_34	Liu <i>et al.</i> 2017
69	<i>Nodularia douglasiae</i>	China	Dongting Lake	MG210505	Hap_35	Liu <i>et al.</i> 2017
70	<i>Nodularia douglasiae</i>	China	Dongting Lake	MG210506	Hap_36	Liu <i>et al.</i> 2017
71	<i>Nodularia douglasiae</i>	China	Dongting Lake	MG210507	Hap_36	Liu <i>et al.</i> 2017
72	<i>Nodularia douglasiae</i>	China	Dongting Lake	MG210510	Hap_36	Liu <i>et al.</i> 2017
73	<i>Nodularia douglasiae</i>	China	Poyang Lake	MG210511	Hap_36	Liu <i>et al.</i> 2017
74	<i>Nodularia douglasiae</i>	China	Poyang Lake	MG210515	Hap_36	Liu <i>et al.</i> 2017
75	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210519	Hap_36	Liu <i>et al.</i> 2017
76	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210528	Hap_36	Liu <i>et al.</i> 2017
77	<i>Nodularia douglasiae</i>	China	Taihu Lake	MG210551	Hap_36	Liu <i>et al.</i> 2017
78	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822331	Hap_36	Liu <i>et al.</i> 2019
79	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822336	Hap_36	Liu <i>et al.</i> 2019
80	<i>Nodularia douglasiae</i>	China	Dongting Lake	MG210508	Hap_38	Liu <i>et al.</i> 2017
81	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210522	Hap_38	Liu <i>et al.</i> 2017
82	<i>Nodularia douglasiae</i>	China	Taihu Lake	MG210554	Hap_38	Liu <i>et al.</i> 2017
83	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822323	Hap_38	Liu <i>et al.</i> 2019
84	<i>Nodularia douglasiae</i>	China	Dongting Lake	MG210509	Hap_39	Liu <i>et al.</i> 2017
85	<i>Nodularia douglasiae</i>	China	Poyang Lake	MG210514	Hap_42	Liu <i>et al.</i> 2017
86	<i>Nodularia douglasiae</i>	China	Poyang Lake	MG210518	Hap_42	Liu <i>et al.</i> 2017
87	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822341	Hap_42	Liu <i>et al.</i> 2019
88	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210521	Hap_43	Liu <i>et al.</i> 2017
89	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210524	Hap_43	Liu <i>et al.</i> 2017
90	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822324	Hap_43	Liu <i>et al.</i> 2019
91	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210525	Hap_44	Liu <i>et al.</i> 2017
92	<i>Nodularia douglasiae</i>	China	Taihu Lake	MG210556	Hap_44	Liu <i>et al.</i> 2017
93	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822334	Hap_44	Liu <i>et al.</i> 2019
94	<i>Nodularia douglasiae</i>	China	Duggan Lake	MG463025	Hap_44	Huang <i>et al.</i> 2018
95	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210526	Hap_45	Liu <i>et al.</i> 2017
96	<i>Nodularia douglasiae</i>	China	Xiannv Lake	MG210540	Hap_45	Liu <i>et al.</i> 2017
97	<i>Nodularia douglasiae</i>	China	Taihu Lake	MG210558	Hap_45	Liu <i>et al.</i> 2017
98	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822335	Hap_45	Liu <i>et al.</i> 2019
99	<i>Nodularia douglasiae</i>	China	Duggan Lake	MG463024	Hap_45	Huang <i>et al.</i> 2018
100	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210530	Hap_46	Liu <i>et al.</i> 2017
101	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822338	Hap_46	Liu <i>et al.</i> 2019
102	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG210533	Hap_47	Liu <i>et al.</i> 2017
103	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822340	Hap_47	Liu <i>et al.</i> 2019
104	<i>Nodularia douglasiae</i>	China	Xiannv Lake	MG210538	Hap_48	Liu <i>et al.</i> 2017
105	<i>Nodularia douglasiae</i>	China	Xiannv Lake	MG210542	Hap_48	Liu <i>et al.</i> 2017
106	<i>Nodularia douglasiae</i>	China	Hongze Lake	MG210543	Hap_48	Liu <i>et al.</i> 2017
107	<i>Nodularia douglasiae</i>	China	Hongze Lake	MG210549	Hap_48	Liu <i>et al.</i> 2017
108	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822325	Hap_48	Liu <i>et al.</i> 2019
109	<i>Nodularia douglasiae</i>	China	Hongze Lake	MG210547	Hap_51	Liu <i>et al.</i> 2017
110	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822359	Hap_51	Liu <i>et al.</i> 2019
111	<i>Nodularia douglasiae</i>	China	Qinglan Lake	MG463031	Hap_51	Huang <i>et al.</i> 2018
112	<i>Nodularia douglasiae</i>	China	Taihu Lake	MG210552	Hap_52	Liu <i>et al.</i> 2017
113	<i>Nodularia douglasiae</i>	China	Taihu Lake	MG210555	Hap_52	Liu <i>et al.</i> 2017
114	<i>Nodularia douglasiae</i>	China	Taihu Lake	MG210553	Hap_53	Liu <i>et al.</i> 2017
115	<i>Nodularia douglasiae</i>	China	Taihu Lake	MG210557	Hap_53	Liu <i>et al.</i> 2017
116	<i>Nodularia douglasiae</i>	China	Ganjiang River	MG463027	Hap_55	Huang <i>et al.</i> 2018
117	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822328	Hap_58	Liu <i>et al.</i> 2019
118	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822345	Hap_61	Liu <i>et al.</i> 2019
119	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822352	Hap_66	Liu <i>et al.</i> 2019
120	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822353	Hap_67	Liu <i>et al.</i> 2019
121	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822355	Hap_68	Liu <i>et al.</i> 2019
122	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822356	Hap_69	Liu <i>et al.</i> 2019
123	<i>Nodularia douglasiae</i>	China	Poyang Lake Basin	MH822364	Hap_73	Liu <i>et al.</i> 2019
124	<i>Nodularia douglasiae</i>	China	Heilongjiang	OR830566*	Hap_1	This study
125	<i>Nodularia douglasiae</i>	China	Heilongjiang	OR830567*	Hap_121	This study
126	<i>Nodularia douglasiae</i>	China	Heilongjiang	OR830568*	Hap_122	This study
127	<i>Nodularia douglasiae</i>	South Korea	Mangyeoung River	MN495517	Hap_73	Choi <i>et al.</i> 2020
128	<i>Nodularia douglasiae</i>	South Korea	Bukhan River	MN495497	Hap_74	Choi <i>et al.</i> 2020
129	<i>Nodularia douglasiae</i>	South Korea	Bukhan River	MN495498	Hap_75	Choi <i>et al.</i> 2020

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130	<i>Nodularia douglasiae</i>	South Korea	Bukhan River	MN495499	Hap_76	Choi <i>et al.</i> 2020
131	<i>Nodularia douglasiae</i>	South Korea	Geum River	MN495500	Hap_77	Choi <i>et al.</i> 2020
132	<i>Nodularia douglasiae</i>	South Korea	Geum River	MN495501	Hap_78	Choi <i>et al.</i> 2020
133	<i>Nodularia douglasiae</i>	South Korea	Geum River	MN495502	Hap_79	Choi <i>et al.</i> 2020
134	<i>Nodularia douglasiae</i>	South Korea	Geum River	MN495503	Hap_80	Choi <i>et al.</i> 2020
135	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495504	Hap_81	Choi <i>et al.</i> 2020
136	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495505	Hap_82	Choi <i>et al.</i> 2020
137	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495506	Hap_83	Choi <i>et al.</i> 2020
138	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MT020668	Hap_83	Lopes-Lima <i>et al.</i> 2020
139	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495507	Hap_84	Choi <i>et al.</i> 2020
140	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495508	Hap_85	Choi <i>et al.</i> 2020
141	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495509	Hap_86	Choi <i>et al.</i> 2020
142	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495510	Hap_87	Choi <i>et al.</i> 2020
143	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495511	Hap_88	Choi <i>et al.</i> 2020
144	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495512	Hap_89	Choi <i>et al.</i> 2020
145	<i>Nodularia douglasiae</i>	South Korea	Geum River	MN495513	Hap_90	Choi <i>et al.</i> 2020
146	<i>Nodularia douglasiae</i>	South Korea	Geum River	MT020664	Hap_90	Lopes-Lima <i>et al.</i> 2020
147	<i>Nodularia douglasiae</i>	South Korea	Geum River	MN495514	Hap_91	Choi <i>et al.</i> 2020
148	<i>Nodularia douglasiae</i>	South Korea	Mangyeoung River	MN495515	Hap_92	Choi <i>et al.</i> 2020
149	<i>Nodularia douglasiae</i>	South Korea	Mangyeoung River	MT020669	Hap_92	Lopes-Lima <i>et al.</i> 2020
150	<i>Nodularia douglasiae</i>	South Korea	Mangyeoung River	MN495516	Hap_93	Choi <i>et al.</i> 2020
151	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495518	Hap_94	Choi <i>et al.</i> 2020
152	<i>Nodularia douglasiae</i>	South Korea	Yeongsan River	MT020665	Hap_94	Lopes-Lima <i>et al.</i> 2020
153	<i>Nodularia douglasiae</i>	South Korea	Nakdong River	MN495519	Hap_95	Choi <i>et al.</i> 2020
154	<i>Nodularia douglasiae</i>	South Korea	Tamjin River	MN495520	Hap_96	Choi <i>et al.</i> 2020
155	<i>Nodularia douglasiae</i>	South Korea	Yeongsan River	MN495521	Hap_97	Choi <i>et al.</i> 2020
156	<i>Nodularia breviconcha</i>	South Korea	Bukhan River	MN495522	Hap_98	Choi <i>et al.</i> 2020
157	<i>Nodularia breviconcha</i>	South Korea	Han River	MT020663	Hap_98	Lopes-Lima <i>et al.</i> 2020
158	<i>Nodularia breviconcha</i>	South Korea	Namhan River	MN495523	Hap_99	Choi <i>et al.</i> 2020
159	<i>Nodularia breviconcha</i>	South Korea	Bukhan River	MN495524	Hap_100	Choi <i>et al.</i> 2020
160	<i>Nodularia breviconcha</i>	South Korea	Bukhan River	MN495525	Hap_101	Choi <i>et al.</i> 2020
161	<i>Nodularia breviconcha</i>	South Korea	Bukhan River	MN495526	Hap_102	Choi <i>et al.</i> 2020
162	<i>Nodularia breviconcha</i>	South Korea	Namhan River	MN495527	Hap_103	Choi <i>et al.</i> 2020
163	<i>Nodularia breviconcha</i>	South Korea	Namhan River	MN495528	Hap_104	Choi <i>et al.</i> 2020
164	<i>Nodularia breviconcha</i>	South Korea	Namhan River	MN495529	Hap_105	Choi <i>et al.</i> 2020
165	<i>Nodularia breviconcha</i>	South Korea	Namhan River	MN495530	Hap_106	Choi <i>et al.</i> 2020
166	<i>Nodularia breviconcha</i>	South Korea	Bukhan River	MN495531	Hap_107	Choi <i>et al.</i> 2020
167	<i>Nodularia breviconcha</i>	South Korea	Geum River	MN495532	Hap_108	Choi <i>et al.</i> 2020
168	<i>Nodularia breviconcha</i>	South Korea	Ungcheon Stream	MT020670	Hap_108	Lopes-Lima <i>et al.</i> 2020
169	<i>Nodularia breviconcha</i>	South Korea	Seomjin River	MN495533	Hap_109	Choi <i>et al.</i> 2020
170	<i>Nodularia breviconcha</i>	South Korea	Tamjin River	MN495535	Hap_109	Choi <i>et al.</i> 2020
171	<i>Nodularia breviconcha</i>	South Korea	Seomjin River	MT020662	Hap_109	Lopes-Lima <i>et al.</i> 2020
172	<i>Nodularia breviconcha</i>	South Korea	Tamjin River	MT020666	Hap_109	Lopes-Lima <i>et al.</i> 2020
173	<i>Nodularia breviconcha</i>	South Korea	Seomjin River	MN495534	Hap_110	Choi <i>et al.</i> 2020
174	<i>Nodularia breviconcha</i>	South Korea	Yeongsan River	MN495536	Hap_111	Choi <i>et al.</i> 2020
175	<i>Nodularia breviconcha</i>	South Korea	Hyeonsan Stream	MT020667	Hap_111	Lopes-Lima <i>et al.</i> 2020
176	<i>Nodularia breviconcha</i>	South Korea	Yeongsan River	MN495537	Hap_112	Choi <i>et al.</i> 2020
177	<i>Nodularia douglasiae</i>	Vietnam	Hanoi	MH248376	Hap_56	Lopes-Lima <i>et al.</i> 2020
178	<i>Nodularia nuxpersicae</i>	Vietnam	Tây Bắc	KX822654	Hap_18	Choi <i>et al.</i> 2020
179	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830553*	Hap_118	This study
180	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830556*	Hap_119	This study
181	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830559*	Hap_120	This study
182	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830548*	Hap_11	This study
183	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830549*	Hap_12	This study
184	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830551*	Hap_12	This study
185	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830552*	Hap_12	This study
186	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830554*	Hap_12	This study
187	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830555*	Hap_12	This study
188	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830557*	Hap_12	This study
189	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830558*	Hap_12	This study
190	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830560*	Hap_12	This study
191	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830561*	Hap_12	This study
192	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830562*	Hap_12	This study
193	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830563*	Hap_12	This study
194	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830564*	Hap_12	This study
195	<i>Nodularia nuxpersicae</i>	China	Beijiang River	OR830550*	Hap_13	This study

Number	Species	Country	Location	COI	Haplotype	Reference
196	<i>Nodularia nipponensis</i>	Japan	Name River	MT020678	Hap_6	Lopes-Lima <i>et al.</i> 2020
197	<i>Nodularia nipponensis</i>	Japan	Abukuma River	MF975691	Hap_22	Klishko <i>et al.</i> 2018
198	<i>Nodularia nipponensis</i>	Japan	Abukuma River	MT020673	Hap_22	Lopes-Lima <i>et al.</i> 2020
199	<i>Nodularia nipponensis</i>	Japan	Biwa Lake	MT020674	Hap_113	Lopes-Lima <i>et al.</i> 2020
200	<i>Nodularia nipponensis</i>	Japan	Izunuma Lake	MT020677	Hap_114	Lopes-Lima <i>et al.</i> 2020
201	<i>Nodularia nipponensis</i>	Japan	Name River	MT020679	Hap_115	Lopes-Lima <i>et al.</i> 2020
202	<i>Nodularia nipponensis</i>	Japan	Biwa Lake	MT020680	Hap_116	Lopes-Lima <i>et al.</i> 2020
203	<i>Nodularia nipponensis</i>	Japan	Biwa Lake	MT020681	Hap_117	Lopes-Lima <i>et al.</i> 2020
204	<i>Nodularia</i> sp.1	China	Hongze River	MG210545	Hap_50	Liu <i>et al.</i> 2017
205	<i>Nodularia</i> sp.1	China	Hongze River	MG210548	Hap_50	Liu <i>et al.</i> 2017
206	<i>Nodularia</i> sp.2	China	Poyang Lake	MG210512	Hap_40	Liu <i>et al.</i> 2017
207	<i>Nodularia</i> sp.2	China	Poyang Lake	MG210516	Hap_40	Liu <i>et al.</i> 2017
208	<i>Nodularia</i> sp.2	China	Xiannv Lake	MG210536	Hap_40	Liu <i>et al.</i> 2017
209	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822326	Hap_40	Liu <i>et al.</i> 2019
210	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822362	Hap_40	Liu <i>et al.</i> 2019
211	<i>Nodularia</i> sp.2	China	Poyang Lake	MG210513	Hap_41	Liu <i>et al.</i> 2017
212	<i>Nodularia</i> sp.2	China	Poyang Lake	MG210517	Hap_41	Liu <i>et al.</i> 2017
213	<i>Nodularia</i> sp.2	China	Ganjiang River	MG210527	Hap_41	Liu <i>et al.</i> 2017
214	<i>Nodularia</i> sp.2	China	Ganjiang River	MG210532	Hap_41	Liu <i>et al.</i> 2017
215	<i>Nodularia</i> sp.2	China	Xiannv Lake	MG210535	Hap_41	Liu <i>et al.</i> 2017
216	<i>Nodularia</i> sp.2	China	Xiannv Lake	MG210541	Hap_41	Liu <i>et al.</i> 2017
217	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822322	Hap_41	Liu <i>et al.</i> 2019
218	<i>Nodularia</i> sp.2	China	Qinglan Lake	MG463029	Hap_41	Huang <i>et al.</i> 2018
219	<i>Nodularia</i> sp.2	China	Xiannv Lake	MG210539	Hap_49	Liu <i>et al.</i> 2017
220	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822358	Hap_49	Liu <i>et al.</i> 2019
221	<i>Nodularia</i> sp.2	China	Ganjiang River	MG463023	Hap_54	Huang <i>et al.</i> 2018
222	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822327	Hap_57	Liu <i>et al.</i> 2019
223	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822329	Hap_59	Liu <i>et al.</i> 2019
224	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822330	Hap_60	Liu <i>et al.</i> 2019
225	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822346	Hap_62	Liu <i>et al.</i> 2019
226	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822347	Hap_63	Liu <i>et al.</i> 2019
227	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822349	Hap_64	Liu <i>et al.</i> 2019
228	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822350	Hap_65	Liu <i>et al.</i> 2019
229	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822357	Hap_70	Liu <i>et al.</i> 2019
230	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822360	Hap_71	Liu <i>et al.</i> 2019
231	<i>Nodularia</i> sp.2	China	Poyang Lake Basin	MH822361	Hap_72	Liu <i>et al.</i> 2019

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Table S2. Partitioning strategies for the *COI + 28S* dataset (from *MEGA X*) and the mitogenome dataset (from *PartitionFinder2*) according to AICc.

Dataset	Subset	Best model	Partition scheme
<i>COI + 28S</i>	1	GTR+I+G	COI_codon1, COI_codon2
	2	HKY+G	COI_codon3
	3	GTR+G	28S
Mitogenome	1	GTR+I+G	ATP6_codon1, ND4_codon1, ND3_codon1, ND4L_codon1, ND5_codon1
	2	GTR+I+G	ND5_codon2, ND4_codon2, ATP6_codon2, ND3_codon2, ND4L_codon2
	3	GTR+I+G	COI_codon3, CO3_codon3, ND3_codon3, ATP6_codon3, CO2_codon3, ND4L_codon3
	4	GTR+I+G	COI_codon1, CO3_codon1, CO2_codon1
	5	GTR+I+G	COI_codon2, CO2_codon2, CO3_codon2
	6	GTR+I+G	ND6_codon1, ND2_codon1, ND1_codon1, CYTB_codon1
	7	GTR+I+G	ND6_codon2, ND2_codon2, ND1_codon2, CYTB_codon2
	8	GTR+G	ND2_codon3, CYTB_codon3, ND6_codon3, ND1_codon3
	9	GTR+G	ND5_codon3, ND4_codon3
	10	GTR+I+G	16S, 12S