

## Supplementary

# Genetic Diversity of *Jinshaia sinensis* (Cypriniformes, Balitoridae) Distributed Upstream of the Yangtze River

**Table S1.** Primers information used in the study.

Gene	Primer	Sequence (5' to 3')	Reference
COI	COI-L	TCAACCAACCACAAAGACATTGGCAC	[21]
	COI-H	TAGACTTCTGGGTGGCCAAAGAATCA	
Cytb	L14724	GACTTGAAAAACCACCGTTG	[20]
	H15915	CTCCGATCTCCGGATTACAAGAC	
	cytb 5a	GGTCGGAATGTTAGTCCTC	This study
	cytb 3a	ACAATGCCCACAACCCTTA	
RAG1	RAG1-L	CTGAGCTGCAGTCAGTACCATAAGATGT	[19]
	RAG1-H1	TGAGCCTCCATGAACTTCTGAAGRTAYTT	
	RAG1-H2	CTGAGTCCTTGTGAGCTTCCATRAAYTT	
RH	RH-L1	TACGTGCCTATGTCCAAYGC	[19]
	RH-L2	CNTATGAATAYCCTCAGTACTACC	
	RH-H	TGCTTGTTTCATGCAGATGTAGA	
	RH 5a	GGCGTGGTTAGGAGTCCAT	This study
	RH 3a	AGGCTGGCACTGTCATAAA	

**Table S2.** All samples information used in this study and GenBank accession number.

Species	Locations	Specimens name	GenBank Accession No.			
			COI	Cytb	RAG1	RH
<i>Jinshaia sinensis</i>	Lijiang (Yunnan Prov., 26°55'54.71"N, 99°57'13.01"E)	Lijiang1	MW441106	MW441132	MW441183	MW441037
		Lijiang2	MW441105	MW441133	-	MW441041
		Lijiang3	MW441104	MW441134	MW441184	MW441042
		Lijiang4	MW441103	MW441135	MW441185	MW441043
		Lijiang5	MW441102	MW441136	MW441186	MW441044
		Lijiang6	MW441101	MW441137	MW441187	MW441045
		Lijiang7	MW441100	MW441138	MW441188	MW441046
		Lijiang8	MW441099	MW441139	MW441189	MW441047
		Lijiang9	MW441098	MW441140	MW441190	MW441048
		Lijiang10	MW441097	MW441141	MW441191	MW441027
		Lijiang11	MW441096	MW441142	MW441192	MW441028
		Lijiang12	MW441095	MW441143	MW441193	MW441029
		Lijiang13	MW441094	MW441144	MW441194	MW441030
		Lijiang14	MW441093	MW441145	MW441195	MW441031
		Lijiang15	MW441092	MW441146	MW441196	MW441032
		Lijiang16	MW441091	MW441147	MW441197	MW441033
		Lijiang17	MW441090	MW441148	MW441198	MW441034
		Lijiang18	MW441089	MW441149	MW441199	MW441035
		Lijiang19	MW441088	MW441150	MW441200	MW441036
		Lijiang20	MW441087	MW441151	MW441201	MW441038
		Lijiang21	MW441086	MW441152	MW441202	MW441039
		Lijiang22	MW441085	MW441153	MW441203	MW441040

Panzhihua (Sichuan Prov., 26°31'16.02"N, 101°26'19.16"E)	PanzhihuaG1	MW441077	MW441154	-	MW441051
	PanzhihuaC2	MW441078	MW441155	MW441182	MW441052
	PanzhihuaC1	MW441079	MW441156	-	MW441053
	PanzhihuaE2	MW441080	-	-	MW441054
	PanzhihuaE1	MW441081	MW441159	-	MW441055
	PanzhihuaG2	MW441082	-	-	-
	PanzhihuaG3	MW441083	MW441160	-	-
	PanzhihuaG5	MW441084	-	-	-
	/	-	JN176976*	JN177046*	-
	/	JN177119*	JN176981*	JN177049*	-
	/	JN177114*	JN176986*	-	-
	/	JN177120*	JN176979*	JN177052*	-
	/	JN177115*	-	JN177050*	-
	/	JN177124*	JN176990*	-	-
	/	JN177118*	JN176983*	JN177048*	-
	/	-	JN176982*	-	-
Luzhou (Sichuan Prov., 28°49'07.71"N, 105°49'30.43"E)	Luzhou1	MW441076	MW441111	MW441161	MW441016
	Luzhou2	MW441075	MW441112	MW441162	MW441019
	Luzhou3	MW441074	MW441113	MW441163	MW441020
	Luzhou4	MW441073	MW441114	MW441164	MW441021
	Luzhou5	MW441072	MW441115	MW441165	MW441022
	Luzhou6	MW441071	MW441116	MW441166	MW441023
	Luzhou7	MW441070	MW441117	MW441167	MW441024
	Luzhou8	MW441069	MW441118	MW441168	MW441025
	Luzhou9	MW441068	MW441119	MW441169	MW441026
	Luzhou10	MW441067	MW441120	MW441170	MW441006

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Luzhou11	MW441066	MW441121	MW441171	MW441007
Luzhou12	MW441065	MW441122	MW441172	MW441008
Luzhou13	MW441064	MW441123	MW441173	MW441009
Luzhou14	MW441063	MW441124	MW441174	MW441010
Luzhou15	MW441062	MW441125	MW441175	MW441011
Luzhou16	MW441061	MW441126	MW441176	MW441012
Luzhou17	MW441060	MW441127	MW441177	MW441013
Luzhou18	MW441059	MW441128	MW441178	MW441014
Luzhou19	MW441058	MW441129	MW441179	MW441015
Luzhou20	MW441057	MW441130	MW441180	MW441017
Luzhou21	MW441056	MW441131	MW441181	MW441018

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Note: -, sequence not been successfully amplified or unavailable for download; \*, sequence from NCBI download.

**Table S3.** Gene flow ( $N_m$  : below the diagonal) was evaluated from the values of GammaSt for the *Jinshaia sinensis* populations.

Genes	Populations	Lijiang	Panzhihua
COI	Lijiang		
	Panzhihua	15.194	
	Luzhou	5.853	8.676
Cyt b	Lijiang		
	Panzhihua	14.828	
	Luzhou	6.232	5.024
RAG1	Lijiang		
	Panzhihua	15.582	
	Luzhou	7.495	8.343
RH	Lijiang		
	Panzhihua	5.617	
	Luzhou	6.872	5.338