

Table S1. Primers used in this study

Locus	Primer		Sequence 5'→3' (forward and reverse)	Reference	PCR reaction
ITS-2	F	ITS-5.8s	GGGACGATGAAGAACGGAGC	(White et al. 1990)	94°C 45s
	R	ITS-28s	TCCTCCGCTTATTGATATGC		48°C 1min 72°C 60s
28SD2	F	28sa	GACCCGTCTTGAACACGGA	(Rix et al. 2008)	94°C 30s
	R	LSUR	GCTACTACCACCAAGATCTGCA		55°C 30s 72°C 30s
H3	F	H3nf	ATGGCTCGTACCAAGCAGAC	(Colgan et al. 1998)	94°C 30s
	R	H3nr	ATRTCCTTGGGCATGATTGTTAC		50°C 45s 72°C 45s
cox1	F	LCO1490	GGTCAACAAATCATAAAGATATTGG	(Folmer et al. 1994)	94°C 30s
	R	HCO2198	TAAACTTCAGGGTGACCAAAAAATCA		49°C 30s 72°C 30s
16S	F	16sb2_12864	CTCCGGTTTGAAGTCAGATCA	(Hormiga et al. 2003)	94°C 30s
	R	LR-J-13360	GTAAGGCCTGCTCAATGA		50°C 30s 72°C 45s
				(Yan 2018)	

Table S2. Sequences information

Samples		GenBank accession number				
Species	individual code	<i>cox1</i>	16S	ITS-2	28S	H3
<i>Trogloneta yunnanense</i>	GN-1	MZ577427	MZ612904	OK513497	MZ613029	MZ603566
	GN-2	NA	MZ612905	NA	MZ613030	MZ603567
	GN-3	MZ577428	MZ612906	OK513498	MZ613031	MZ603568
	GN-4	MZ577429	MZ612907	OK513499	MZ613032	MZ603569
	GN-5	MZ577430	MZ612908	OK513500	MZ613033	MZ603570
	GN-6	MZ577431	MZ612909	OK513501	MZ613034	MZ603571
	GN-7	MZ577432	MZ612910	OK513502	MZ613035	MZ603572
	GN-8	MZ577433	MZ612911	OK513503	MZ613057	MZ603595
	GN-9	MZ577434	MZ612912	OK513504	MZ613063	MZ603601
	GN-10	MZ577435	MZ612913	OK513505	MZ613058	MZ603596
	GN-11	MZ577436	MZ612914	OK513506	MZ613059	MZ603597
	GN-12	MZ577437	MZ612915	OK513507	MZ613060	MZ603598
	GN-13	MZ577438	MZ612916	OK513508	MZ613061	MZ603599
	GN-14	MZ577439	MZ612917	OK513509	MZ613062	MZ603600
	YLD-1	MZ577392	MZ612869	OK513485	MZ613024	MZ603560

YLD-2	MZ577393	MZ612870	OK513486	MZ613025	MZ603561
YLD-3	MZ577394	MZ612871	OK513487	MZ613026	MZ603562
YLD-4	MZ577395	MZ612872	OK513488	MZ613027	MZ603563
YLD-5	MZ577396	MZ612873	OK513489	MZ613028	MZ603564
YLD-6	MZ577397	MZ612874	OK513490	MZ613024	MZ603565
YLD-7	MZ577398	MZ612875	OK513491	MZ613051	MZ603589
YLD-8	MZ577399	MZ612876	OK513492	MZ613052	MZ603590
YLD-9	MZ577400	MZ612877	OK513493	MZ613053	MZ603591
YLD-10	MZ577401	MZ612878	OK513494	MZ613054	MZ603592
YLD-11	MZ577402	MZ612879	OK513495	MZ613055	MZ603593
YLD-12	MZ577403	MZ612880	OK513496	MZ613056	MZ603594
QX-1	MZ577440	MZ612918	OK513461	MZ613012	MZ603548
QX-2	MZ577441	MZ612919	OK513462	MZ613013	MZ603549
QX-3	MZ577442	MZ612920	OK513463	MZ613014	MZ603550
QX-4	MZ577443	MZ612921	OK513464	MZ613015	MZ603551
QX-5	MZ577444	MZ612922	OK513465	MZ613016	MZ603552
QX-6	MZ577445	MZ612923	OK513466	MZ613045	MZ603583
QX-7	MZ577446	MZ612924	OK513467	MZ613046	MZ603584
QX-8	MZ577447	MZ612925	OK513468	MZ613047	MZ603585
QX-9	MZ577448	MZ612926	OK513469	MZ613048	MZ603586
QX-10	MZ577449	MZ612927	OK513470	MZ613049	MZ603587
QX-11	MZ577450	MZ612928	OK513471	MZ613050	MZ603588
SLD-1	MZ577404	MZ612881	OK513472	MZ613017	MZ603553
SLD-2	MZ577405	MZ612882	OK513473	MZ613018	MZ603554
SLD-3	MZ577406	MZ612883	OK513474	MZ613019	MZ603555
SLD-4	MZ577407	MZ612884	OK513475	MZ613020	MZ603556
SLD-5	MZ577408	MZ612885	OK513476	MZ613021	MZ603557
SLD-6	MZ577409	MZ612886	OK513477	MZ613022	MZ603558
SLD-7	MZ577410	MZ612887	OK513478	MZ613023	MZ603559
SLD-8	MZ577411	MZ612888	OK513479	MZ613039	MZ603577
SLD-9	MZ577412	MZ612889	OK513480	MZ613040	MZ603578
SLD-10	MZ577413	MZ612890	OK513481	MZ613041	MZ603579
SLD-11	MZ577414	MZ612891	OK513482	MZ613042	MZ603580
SLD-12	MZ577415	MZ612892	OK513483	MZ613043	MZ603581
SLD-13	MZ577416	MZ612893	OK513484	MZ613044	MZ603582
XR-1	MZ577379	MZ612856	OK513448	MZ613005	MZ603541
XR-2	MZ577380	MZ612857	OK513449	MZ613006	MZ603542
XR-3	MZ577381	MZ612858	OK513450	MZ613007	MZ603543
XR-4	MZ577382	MZ612859	OK513451	MZ613008	MZ603544
XR-5	MZ577383	MZ612860	OK513452	MZ613009	MZ603545
XR-6	MZ577384	MZ612861	OK513453	MZ613010	MZ603546
XR-7	MZ577385	MZ612862	OK513454	MZ613011	MZ603547

	XR-8	MZ577386	MZ612863	OK513455	MZ613065	MZ603603
	XR-9	MZ577387	MZ612864	OK513456	MZ613066	MZ603604
	XR-10	MZ577388	MZ612865	OK513457	MZ613067	MZ603605
	XR-11	MZ577389	MZ612866	OK513458	MZ613068	MZ603606
	XR-12	MZ577390	MZ612867	OK513459	MZ613069	MZ603607
	XR-13	MZ577391	MZ612868	OK513460	MZ613064	MZ603602
	BY-1	MZ577417	MZ612894	OK513510	MZ613036	MZ603573
	BY-2	MZ577418	MZ612895	OK513511	NA	MZ603574
	BY-3	MZ577419	MZ612896	OK513512	MZ613037	MZ603575
	BY-4	MZ577420	MZ612897	OK513513	MZ613038	MZ603576
	BY-5	MZ577421	MZ612898	OK513514	MZ613070	MZ603608
	BY-6	MZ577422	MZ612899	OK513515	MZ613071	MZ603609
	BY-7	MZ577423	MZ612900	OK513516	MZ613072	MZ603610
	BY-8	MZ577424	MZ612901	OK513517	MZ613073	MZ603611
	BY-9	MZ577425	MZ612902	OK513518	MZ613074	MZ603612
	BY-10	MZ577426	MZ612903	OK513519	MZ613075	MZ603613
<i>Trogloneta yuensis</i>	XX52f	MZ584802	MZ612929	NA	MZ613076	MZ603614
	XX52m	MZ584803	MZ612930	NA	MZ613077	MZ603615

Table S3. Best-fit models for genes

locus	Mrbayes	BEAST	IQTREE
<i>cox1</i>	GTR+I+G	HKY+I+G	TIM3 + F + I + G4
16S	GTR+I+G	HKY+I+G	TIM3 + F + I + G4
H3	GTR+G	HKY+I	TIM + F + G4
28S	HKY+G	HKY+I	HKY + F
ITS-2	GTR+G	HKY+I	TIM + F + G4

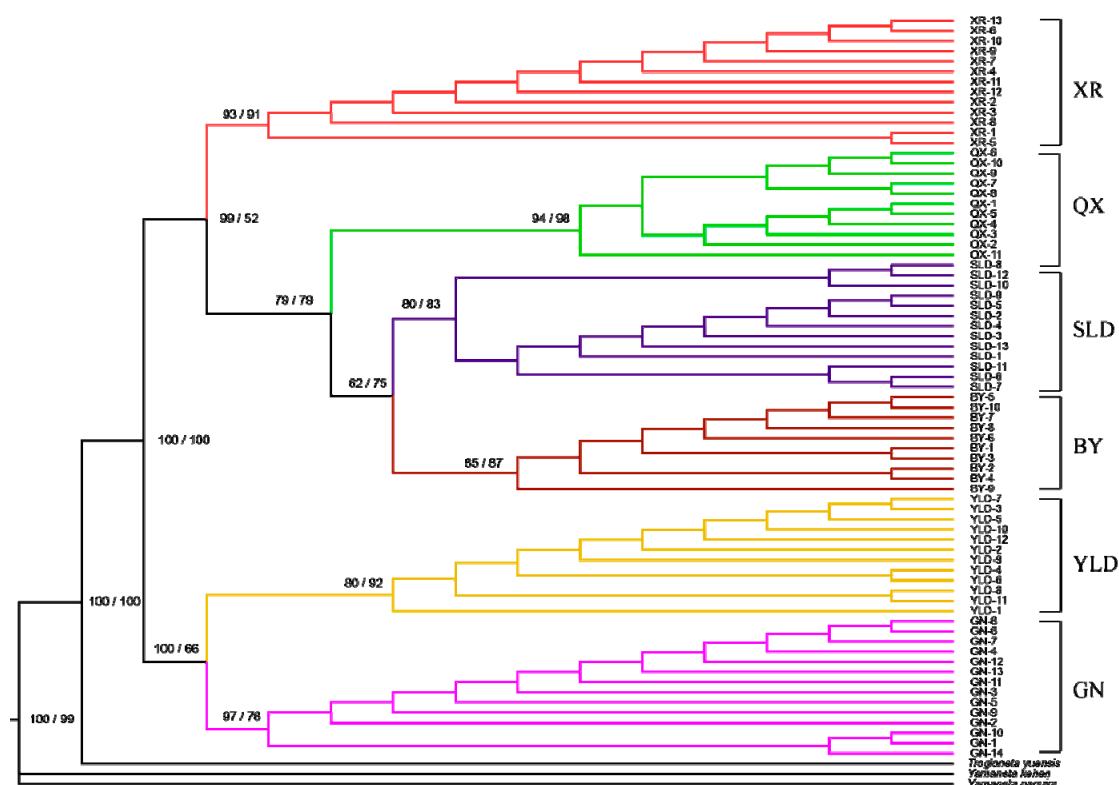


Figure S1. Concatenated gene tree constructed in IQ-TREE. Colors of branches were same as BI tree. Bootstrap supports (right) and SH-aLRT (left) values were provide beside nodes.

Reference

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