

Supplementary Materials

Table S1. Collecting information of newly sequenced species.

Species	Geographical locality	Collection date
<i>Triatoma picta</i> Zhao & Cai, sp. nov.	Jianfeng Mountain, Ledong Li Autonomous County, Hainan, China	26. IV. 2016
<i>Triatoma atrata</i> Zhao & Cai sp. nov.	Binchuan County, Dali Bai Autonomous Prefecture, Yunnan (25.70 °N, 100.55 °E), China	8. VI. 2020
<i>Triatoma migrans</i> Breddin, 1903	Borneo Jungle girl camp, Kinabalu, Malaysia	25. VIII. 2016
<i>Triatoma rubrofasciata</i> (De Geer, 1773)	Zhizhen Village, Baisha Li Autonomous County, Hainan, China	10. VI. 2017

Table S2. Nucleotide Frequencies of mitochondrial COI barcode sequences of *Triatoma*.

Samples	GenBank accession number	T(U)	C	A	G	Total
<i>T. picta</i> *	OP062225	33.7	19.6	29.3	17.3	658
<i>T. atrata</i> *	OP062226	35.6	18.7	29.9	15.8	658
<i>T. migrans</i> *	OP062227	35.0	19.8	28.7	16.6	658
<i>T. rubrofasciata</i> *	OP062228	33.4	21.1	28.0	17.5	658
<i>T. vanda</i>	KC249392	29.2	25.2	28.6	17.0	658
<i>T. guasayana</i>	MH029699	30.7	24.5	27.2	17.6	658
<i>T. circummaculata</i>	KC249324	30.1	23.4	29.3	17.2	658
<i>T. brasiliensis</i>	KJ580488	29.9	24.3	28.3	17.5	658
<i>T. infestans</i>	NC_035547	30.7	23.4	28.4	17.5	658
<i>T. bolivari</i>	KY033219	32.1	23.1	28.3	16.6	658
<i>T. rubida</i>	MT556664	31.6	21.0	31.0	16.4	658
<i>T. barberi</i>	MT556655	33.0	22.0	27.7	17.3	658
<i>T. protracta</i>	MT556662	35.6	19.0	27.8	17.6	658
<i>T. lecticularia</i>	MT556650	33.9	20.8	28.0	17.3	658
<i>T. gerstaeckeri</i>	MT587783	32.4	20.8	28.6	18.2	658
<i>T. mexicana</i>	NC_050324	31.6	22.0	29.3	17.0	658
<i>T. mazzottii</i>	MT556651	33.1	21.0	28.7	17.2	658
<i>T. phyllosoma</i>	MT556660	33.1	21.0	28.4	17.5	658
<i>T. huehuetenaguensis</i>	MT556649	31.8	22.0	29.3	16.9	658
<i>T. picturata</i>	MT556661	31.9	21.4	29.3	17.3	658
<i>T. sanguisuga</i>	MT556653	31.6	21.9	28.7	17.8	658
<i>T. dispar</i>	MN621059	32.1	22.2	28.6	17.2	658
<i>T. longipennis</i>	KY033220	38.0	17.0	28.3	16.7	658
Avg.		32.6	21.5	28.7	17.2	658