





Figure S1 Fine mapping of QTL on linkage group 3, 6 and 8. Results were scaled according to the physical position of markers on the *Tribolium castaneum* (red flour beetle) genome database. Tick marks appear at marker positions. **(A)** Linkage group 3 showing four protein coding genes located in the QTL region; **(B)** Linkage group 6 showing 11 genes located in the QTL region; and **(C)** Linkage group 8 showing 12 genes located in the QTL region.

Table S1 Primer sequences of microsatellite, sequence-tagged site (STS), and single-strand conformational polymorphism (SSCP) markers used in the study for fine mapping beetle tapeworm parasite susceptibility QTL in *Tribolium castaneum*.

No.	Marker ^a	LG	cM	Forward primer	Reverse primer	Motif (Repeats)	Size(bp)	Note ^b
1	Tca3.2267	3	6.48	GCCAGAACGCCAAATAAAAC	TACGGTATGTTGCGGATTGA	SSCP	191	AC191 ^L
2	Tca3.2331	3	6.66	GGCCAACAATATAACAACCGA	GAATCAGAGGCTGCTAACGTC	A(12)	232	This study
3	Tca3.3038	3	8.69	TGTGATTTTCTTTGGTTCAACG	CAAATTGCATTGTGCGCATC	SSCP	290	26.M03t ^L
4	Tca3.3800	3	10.86	GACCGAATGGCGTCTTACTC	ACAATAAAAGCCTAGCTGGAGG	T(12)	232	This study
5	Tca3.4657	3	13.31	GCCGTCGTTTTATTTCCAGA	CTGGTTCGGTCTGTGGATT	SSCP	258	This study
6	Tca3.4771	3	13.63	GCCAACAGACGCGCTTTCATT	ACGAGTTACCGCATCAGATTCCTTAT	CGG(5)	281	S1031 ^L
7	Tca3.4821	3	13.77	CCAATGGTGAGAGGTCCCTA	CATTCCGTAATCCGCAAAC	SSCP	278	This study
8	Tca3.4924	3	14.07	GGA CTG GACTTTCAAGCAG	GTCGACGAAATGGGAAAGAA	SSCP	219	This study
9	Tca3.4970	3	14.20	GCCTGGGTGTCACTACTGTA	TGGAGCACGATCAAAGAGTG	SSCP	213	This study
10	Tca3.5286	3	15.10	TTGCTGCTCCGAATGTATG	CCCATATTTGCACTCAAGCA	SSCP	317	This study
11	Tca3.5465	3	15.61	GAATATCCGTCTGGCCGTA	TGTGATTGCGAAACTCGAAG	GGC(6)	202	L2A8.377s ^Z
12	Tca3.5912	3	16.89	GTATATTGCGTTTCGCTGGT	GTCATCGTGAACGTTGTTGG	SSCP	321	This study
13	Tca3.5953	3	17.01	CGCAACTGCAAGAAAAATTG	TTGGTTTTGCGTGTACGAG	SSCP	204	25E11 ^L
14	Tca3.6143	3	17.55	ATCCGGCCAGTAAAAGTGTG	CGCGCATAAATAAACCGAAT	SSCP	228	This study
15	Tca3.6763	3	19.31	TGTTTTGATTTCTCTTTGCAT	AAGCACAATTGGTCAAACAAA	T(16)	271	Tca-3.45 ^D
16	Tca3.6901	3	19.69	ACCAATCGACCAGTTTTTC	ACCGAGTGGGCTTTAAACT	SSCP	211	32.D14s ^L
17	Tca3.6939	3	19.83	TTCAATCAGTTTTCTTCTGTCAA	TACGATGCATTGGATTTTGG	TAT(6)	239	Tca-3.22 ^D
18	Tca3.6972	3	19.92	CCTCCTGAAAGGACACAGGA	GGTGCAACTCGCTTCTTCAT	TCA(5)	228	Tca-3.11 ^D

19	Tca3.7226	3	20.65	GGCAACCGCACTAAACACTT	AAGTTGGCGCTTTAGGAACA	SSCP	348	This study
20	Tca6.1708	6	4.90	AAGGACAGGTTGTGTTTTAGG	TCCCATTATAGCCCACTTCACT	T(13)	108	This study
21	Tca6.2427	6	6.93	CCAAAACCACAGAAGCTGCATA	AGCTAGACTTCGCCTCCTCATT	AAT(6)	118	This study
22	Tca6.2445	6	6.99	CAGAAGCTATGAGAGCTGCAGTA	TTAACAGAATTGCGGGAAAAA	ATT (9)	187	Tca-6.12 ^D
23	Tca6.2726	6	7.79	GACACGCTCCAGCAAGTTTAC	CGTAGCTCCAATAACAACCTCCC	A(16)	159	This study
24	Tca6.2926	6	8.34	AATTCAGCGTTTGCTGCT	TGTTTGCATCGCTTGTCT	AATT(4)	157	This study
25	Tca6.3003	6	8.67	CACAGGCGTAGATTGGTTGTT	TCAGGCTTACTTGGGTTAGCA	TA(26)	215	This study
26	Tca6.3352	6	9.58	AATTGGAAGGAAGTGTGGTG	AAAAGTGCGATGATTACGTCT	A(12)	226	This study
27	Tca6.3393	6	9.69	GTCCATAAGCTGCATTTCGT	TGGCGCAATTTTGTAACTGA	SSCP	236	This study
28	Tca6.3527	6	10.08	TGGCCTTAAATCGTCAATTTTT	CAGAAATGCCAGCTGTTCTTC	ATTTA(5)	255	This study
29	Tca6.3661	6	10.46	GAAAACGCCAAATCGACATT	TCGTTTATGTAGCCGGTGAA	ATT(5)	222	Tca-6.7 ^D
30	Tca6.3810	6	10.89	ATCATCTGGAGCGACAAACC	GATTTATTTGCGGCGACCT	A(16)	160	This study
31	Tca6.4168	6	11.91	GATAAGGTAGGGCAGCTTCG	GGGTGGGTACGAACAAGAAT	T(13)	243	This study
32	Tca6.4460	6	12.74	TCACCCTTATCTTCTCCGAT	CATTTGGCCGATCTTCAGTC	A(14)	230	This study
33	Tca6.4509	6	12.89	ACCTGACCTGACCTGACCTG	CGTCAGTTGTTTCTCGAAA	CCTGA (4)	186	Tca-6.26 ^D
34	Tca6.5044	6	14.37	AGATCCCAATGGGCAAATCT	GCCGAAACTTTGGGTGATAA	TCAAG (5)	200	Tca-6.18 ^D
35	Tca6.5425	6	15.50	TTTTTGCTCAGAAGCACTCAAAA	CCTTCATATGTGGAAGGAAACA	ATT (5)	194	Tca-6.16 ^D
36	Tca6.5819	6	16.63	AAAATGCGTTTTTCACTCAAAT	CCAACCTGCCATTATGAAC	T (12)	206	Tca-6.13 ^D
37	Tca6.6324	6	18.07	AACGAGCCATAACCAGAGA	TTTGGCGAAGAAAAGTAAAA	A (13)	211	Tca-6.4 ^D
38	Tca6.6659	6	19.03	TTGTTTGTAAAGATCAAGGCAAAA	TGGTCACTCTTTTTCGCTATGT	GA (8)	194	Tca-6.36 ^D
39	Tca6.6723	6	19.21	AAATTATAAATCAAGCAGACAGGAG	TCCTGTATAAACGATTATGTTTTCAA	TAA (5)	205	Tca-6.33 ^D

40	Tca8.2341	8	6.69	TTGTAGATTGTATTTGGCAAT	GGAATCCTGGAATCTTAGAACG	TTA (20)	194	Tca-8.8 ^D
41	Tca8.2668	8	7.62	TAGGGTGATCCTGCTAAAAGTACC	TGGATCTAAACTTCGCCATA	TAA (21)	188	Tca-8.35 ^D
42	Tca8.3441	8	9.83	TTTGGCATTCTCAAGGTCA	GGTAGATGCGCTGGAATTTT	AAT(8)-ATA(5)	244	This study
43	Tca8.3671	8	10.49	TTTGAAATGGTTCAACACGC	CTCCGCCTGTTTGTGGTAT	AAT (7)	145	Tca-8.14 ^D
44	Tca8.3781	8	10.80	GGTTTAGCCAAAGGAACCTCG	AAAGTTAACAACGCGAATGGA	CCA(5)-CAA(4)	232	This study
45	Tca8.4007	8	11.50	ATCTGTATCCGTTTGGTAAGC	AGCTAGATTTTGCCTTTCACA	TAA(6)-TAA(15)	195	This study
46	Tca8.4236	8	12.10	TGGGTAAAGTTGAAGTAGCCTTG	GAAACGAAGTGAGAAAACGGA	TTA(7)	181	This study
47	Tca8.4398	8	12.57	TGTTTTGTTGATTTGAGTTTGTC	TTCGCTTAATGAATGCCTCC	TTA (23)	205	Tca-8.16 ^D
48	Tca8.4517	8	12.85	TGCATTACAGCGCTTAATTT	TCAATGTACAGGCTGGTGTG	A (15)	196	Tca-8.48 ^D
49	Tca8.5815	8	16.61	GGTTAAATAGGACAAAGTTGCG	AGAACGCCTTGGAAAAGGTA	A(14)	157	This study
50	Tca8.6428	8	18.34	TGTGAGGTCCCATGGTGTA	ACATTTATTTGGTCCACAAGC	T (15)	195	Tca-8.22 ^D
51	Tca8.6819	8	19.49	TAAACACACGTCCGGTTCCT	TTTGTGTCGAGATACTGTTAGACG	CA(8)	180	This study
52	Tca8.7101	8	20.30	AAAGCGCTGTTGCAAATTC	ACCCACTCAGTAGCCAGTGC	TTA(9)-TTA(5)	178	Tca-8.32 ^D
53	Tca8.7305	8	20.87	CCGGATAATGGAGTTTCA	TCTCTTGCATGTGGGTTTT	TTAA(4)	211	This study
54	Tca8.7359	8	21.03	CCGAGCGAGGAGTATATGTTG	GAACGCAAACGACCAAATC	CA(9)	215	This study

Note: a: Markers are designated by the beetle species name *Tribolium castaneum* (Tca), genetic linkage group and location on linkage group. For example, marker Tca3.2267 represents the marker located at the 2267kb position on linkage group 3, whereas Tca6.1708 represents the marker located at the 1708kb position on linkage group 6. b: Reference L: Lorenzen et al 2005; D: Demuth et al 2007; Z: Zhong et al 2004. LG:Linkage Group; cM: centiMorgan.