



Logarithm of the odds (LOD) scores plotted against marker positions. Each facet represents a chromosome depicted as I through V and X. The traits that are mapped are shown on the title of the corresponding figure. The horizontal dashed line represents the 5% genomewide significance threshold obtained after 1000 permutations. A-D) LOD profiles for centroid speed at particular time points. E and F) LOD profiles for centroid speed at every 0.18 seconds for chromosomes IV (E) and X(F) respectively. Each facet represents the mapping results of speed at a single time point (depicted as sp\*.\*\*s in red). The red horizontal line represents the 5% genomewide significance thresholds. The gray vertical line in (E) represent the peak marker position of the significant QTL. The blue vertical line in (F) represents the position of *npr-1* gene. Asterisks represent the speed at time points where a significant QTL was

detected on chromosome IV. G-J) QTL analysis results of the speed related escape behavior components. The

axes of the plots are same as in Fig S2A. The traits mapped are in the title of each plot.

Figure S2 Linkage analysis of various escape behavioral components related to centroid speed.

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