Figure S8  Possible gene inversion scenarios for the D. melanogaster, D. mojavensis, and D. grimshawi F elements as determined by GRIMM. Each box in the diagram corresponds to a gene that is shared between the source and target genomes while each row represents an inversion step. The color boxes in each row correspond to the size of the inverted region at that step. (Top) GRIMM estimates that it requires a minimum of 31 inversions to transform the gene order and orientation seen in the D. melanogaster F element to that seen in the D. mojavensis F element (72 genes in common). (Middle) A minimum of 33 inversions is required to transform the D. melanogaster F element gene order and orientation to that seen in the D. grimshawi F element (73 genes in common). (Bottom) A minimum of seven inversions is required to transform the D. mojavensis F element gene order and orientation to that seen in the D. grimshawi F element (78 genes in common).