

Figure 1:

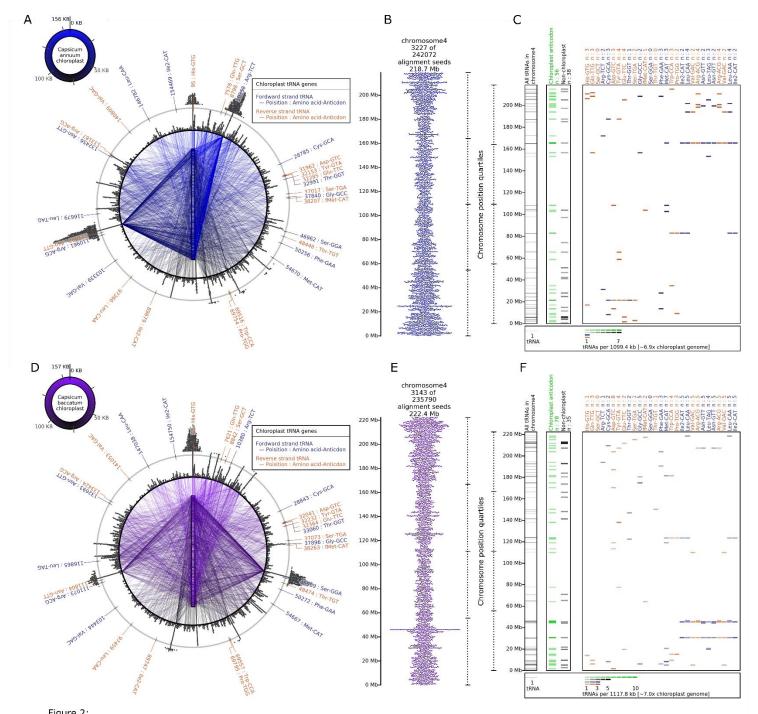
A,B,C: Alignment seeds between Capsicum annuum chloroplast and C. annuum nuclear chromosome 4, and tRNA genes in each.

D,E,F: Alignment seeds between Solanum lycopersicum chloroplast and S. lycopersicum nuclear chromosome 4, and tRNA genes in each.

**A,D:** Swarm plot of alignment seeds in circular chloroplast chromsome, with lines connecting seed location in chloroplast to location in nuclear chromsome. Alignment seeds are points stacked outward from the circle. In locations with a high density of seeds above an arbitrary threshold points are allowed to shift circumferentially, altering the scale (seen as broader peaks outside the circle). tRNA genes are labeled with their position, colored by whether they are encoded on the forward or reverse strand. Many of these extreme peaks occur directly adjacent to a tRNA gene.

B,E: Swarm plot of alignment seeds, by position in nuclear chromosome. Points are colored by alignment position in chloroplast.

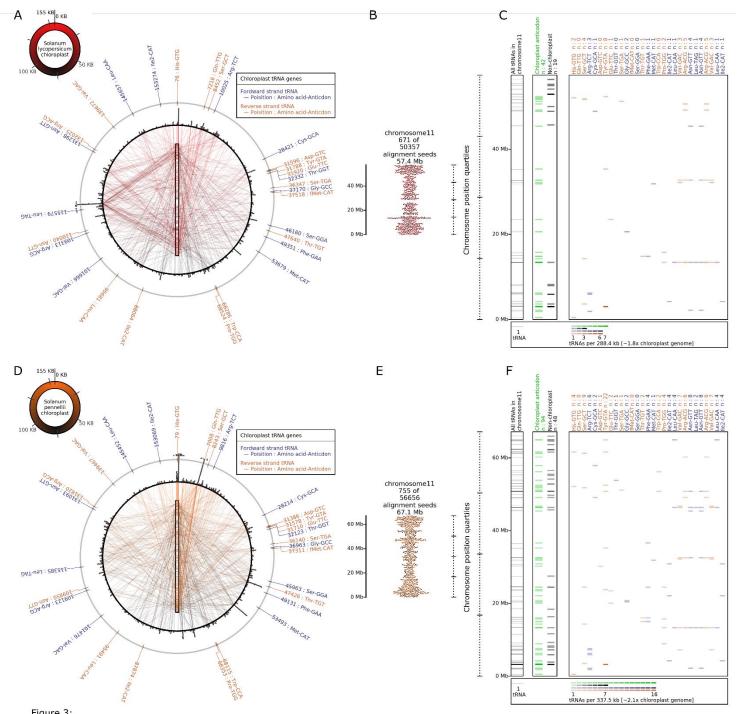
**C,F:** Locations of tRNA genes in the nuclear chromosome, with particular amino acids and anticodons as identified by tRNAscan-SE. This shows which tRNA genes have a matching anticodon with the chloroplast, and potentially may have been transferred from the chloroplast genome to the nuclear genome. In *C. annuum* chromosome 4, regions of around 1 Mb are seen to contain sets of tRNAs that are adjacent in the chloroplast.



A,B,C; Alignment seeds between Capsicum annuum chloroplast and C. annuum nuclear chromosome 4, and tRNA genes in each.

D,E,F: Alignment seeds between Capcsicum baccatum chloroplast and C. baccatum nuclear chromosome 4, and tRNA genes in each.

A,B,C,D,E,F: Same as figure 1.



A,B,C: Alignment seeds between Solanum lycopersicum chloroplast and S. lycopersicum nuclear chromosome 11, and tRNA genes in each.
 D,E,F: Alignment seeds between Solanum pennellii chloroplast and S. pennellii nuclear chromosome 11, and tRNA genes in each.
 A,B,C,D,E,F: Same as figure 1