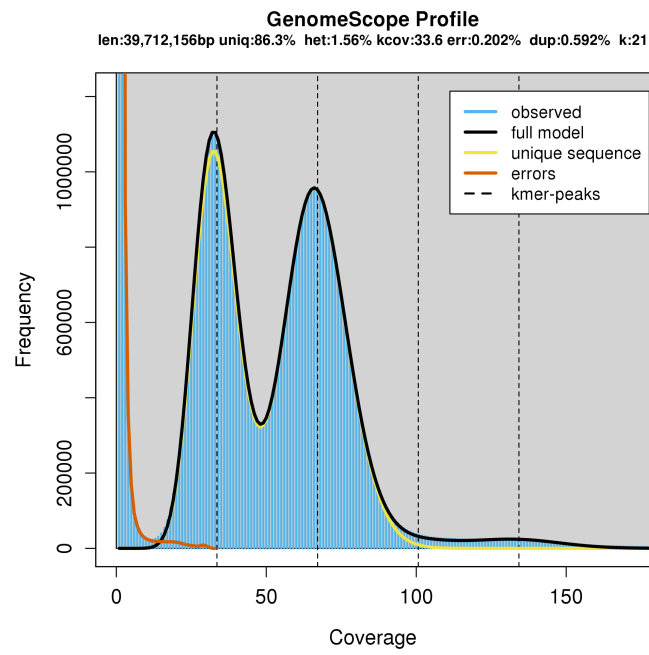
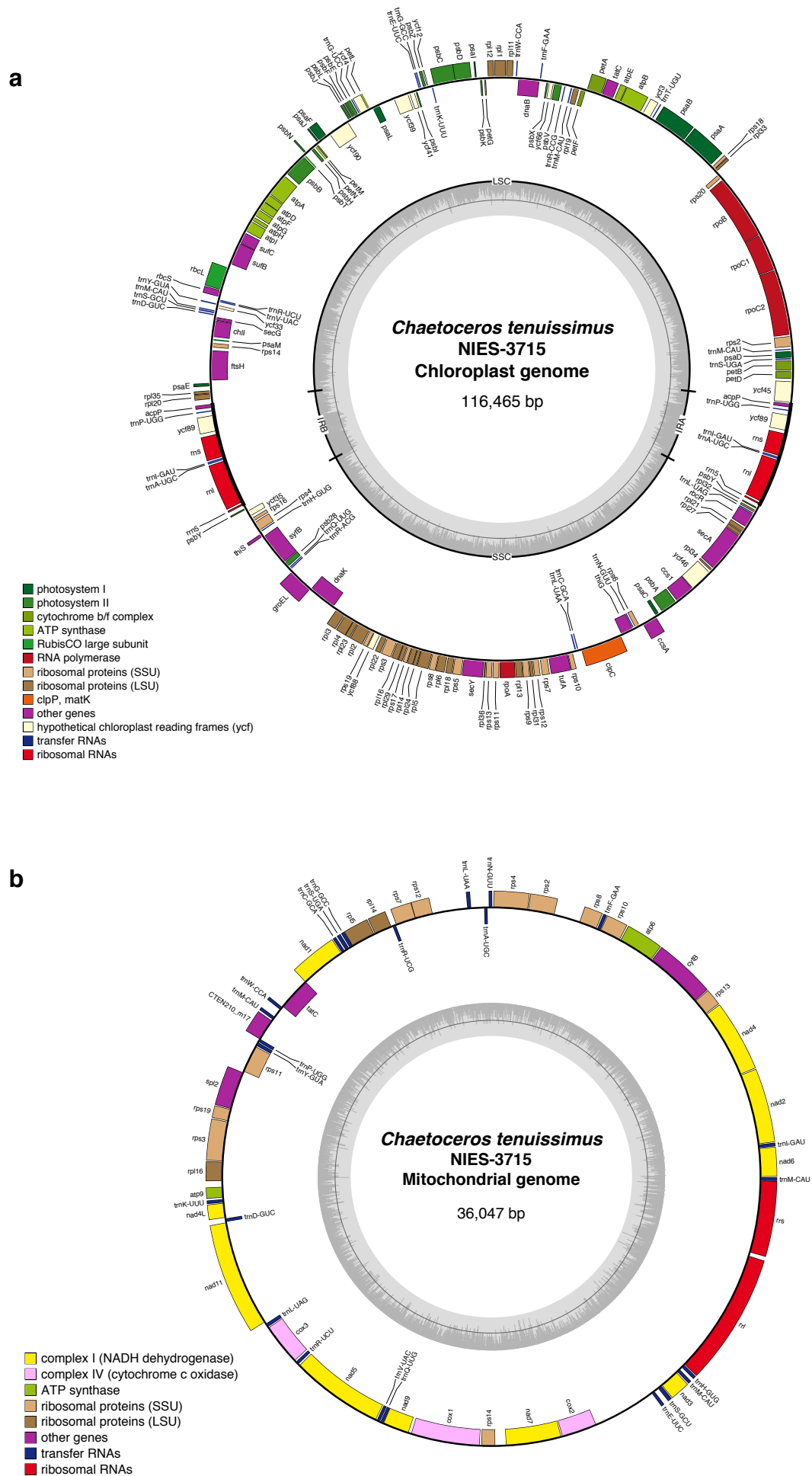


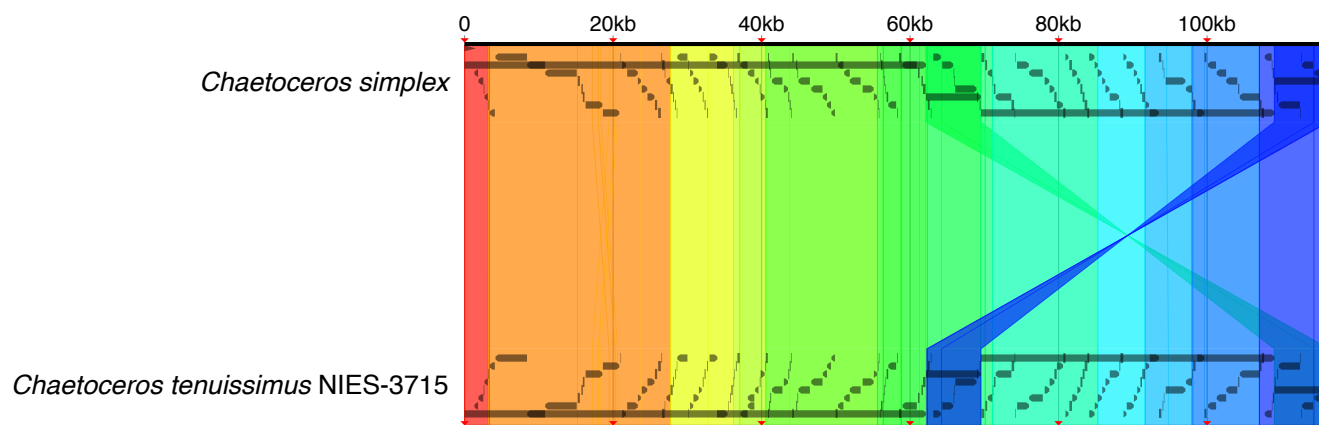


Supplementary Figure 1. Histogram of the kmer coverage in the genome sequences. The two peaks in coverage indicated that the polyploidy in *C. tenuissimus* is diploid chromosome.

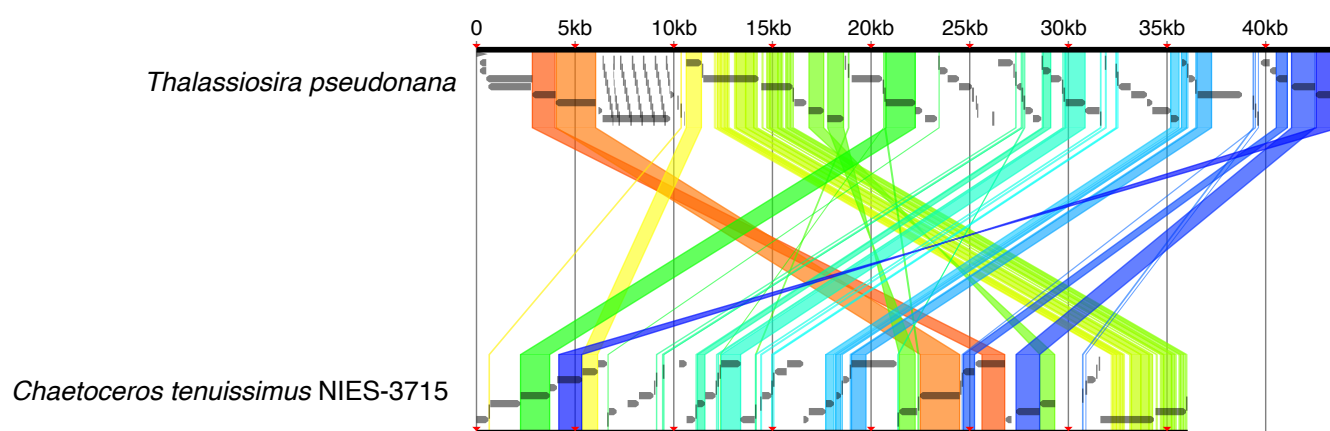


Supplementary Figure 2. Genome map of (a) chloroplast and (b) mitochondria in *C. tenuissimus* NIES-3715.

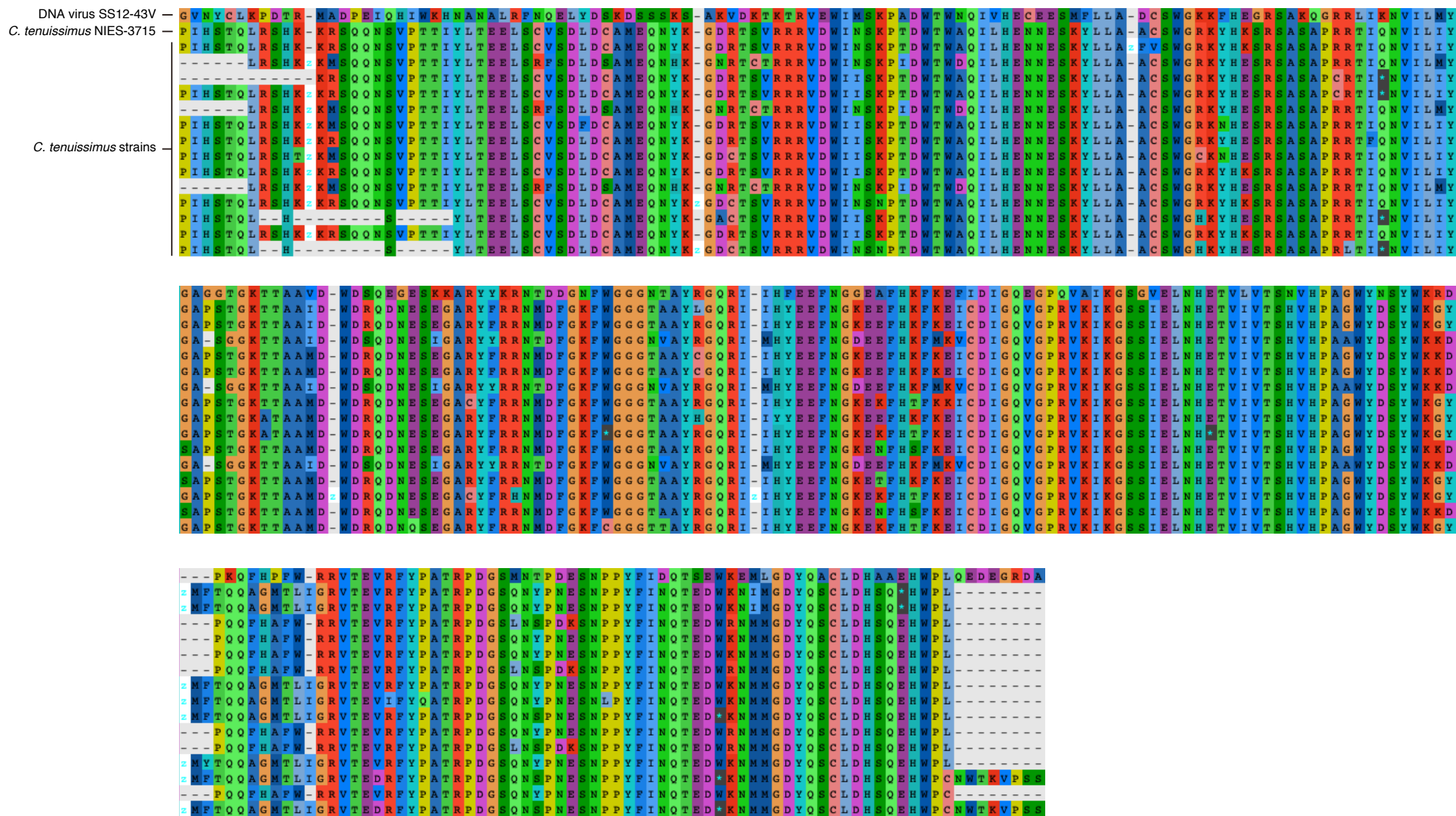
a

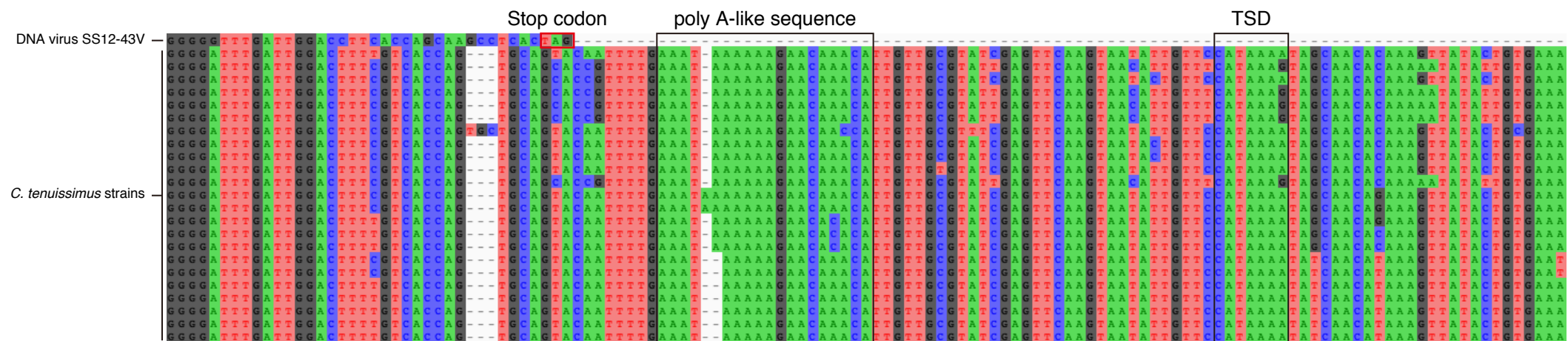


b

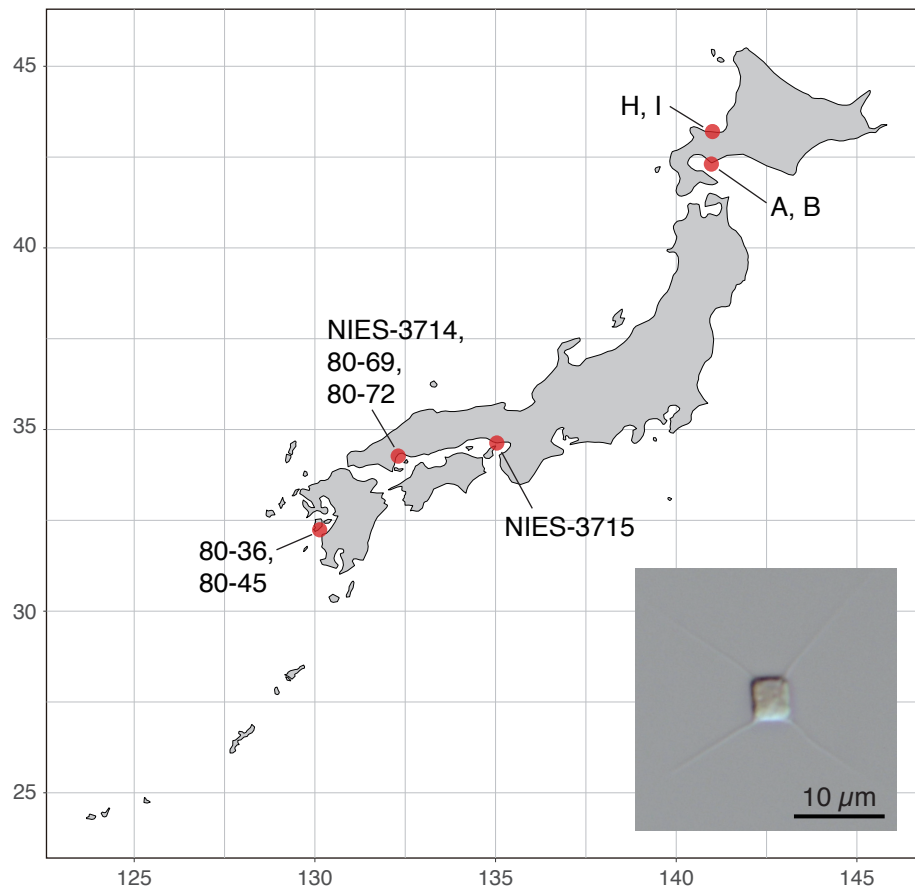


Supplementary Figure 3. Identification of synteny blocks within (a) the chloroplast genome of *C. simplex* and *C. tenuissimus* NIES-3715, and (b) the mitochondrial genome of *T. pseudonana* and *C. tenuissimus* NIES-3715.





Supplementary Figure 5. 3'-end of the nucleotide sequence alignment of EVLF with a replication-associated protein from the infectious virus SS12-43V.



Supplementary Figure 6. Geographic location of the isolated *C. tenuissimus* strains and photographic image of a *C. tenuissimus* cell. *C. tenuissimus* strains: NIES-3714, NIES-3715, A, B, H, I, 80-36, 80-45, 80-69, and 80-72.