**Supplementary Material**

**Supplementary Table S1** Population pairwise Fst values based on the frequency and number of differences in *T. pueraricola.*

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | HH | HY | JC | SC | SB | HZ | YW | YH | YC  | YL  | GY | YY |
| HH | - | 0.00848 | 0.27386\* | 0.16960\* | 0.17109\* | 0.22713\* | 0.54895\* | 0.53879\* | 0.51853\* | 0.66745\* | 0.13515\* | 0.28521\* |
| HY | 0.70613\* | - | 0.28906\* | 0.14449\* | 0.10666\* | 0.24167\* | 0.64932\* | 0.57669\* | 0.61427\* | 0.76917\* | 0.08515\* | 0.28798\* |
| JC | 0.88096\* | 0.96214\* | - | 0.12299\* | 0.56292\* | 0.02930 | 0.13813\* | 0.15757\* | 0.12059\* | 0.21386\* | 0.48532\* | 0.10835\* |
| SC | 0.31926\* | 0.64499\* | 0.84452\* | - | 0.44140\* | 0.01928 | 0.34392\* | 0.22403\* | 0.31480\* | 0.46735\* | 0.37359\* | 0.03365 |
| SB | 0.83141\* | 0.86276\* | 0.94610\* | 0.79248\* | - | 0.64841\* | 0.96278\* | 0.80568\* | 0.96029\* | 0.97270\* | -0.00596 | 0.68410\* |
| HZ | 0.71135\* | 0.86397\* | 0.95705\* | 0.68997\* | 0.89642\* | - | 0.22250\* | 0.11334\* | 0.18897\* | 0.36394\* | 0.57540\* | 0.01984 |
| YW | 0.47149\* | 0.59889\* | 0.84903\* | 0.41666\* | 0.37208\* | 0.68989\* | - | 0.08722\* | 0.00000 | 0.00000 | 1.00000\* | 0.28235\* |
| YH | 0.80599\* | 0.86685\* | 0.97002\* | 0.73343\* | 0.89457\* | 0.91381\* | 0.72539\* | - | 0.07674\* | 0.12681\* | 0.78643\* | 0.11190\* |
| YC  | 0.81045\* | 0.89311\* | 1.00000\* | 0.70139\* | 0.89693\* | 0.94197\* | 0.67368\* | 0.43282\* | - | 0.00000 | 1.00000\* | 0.24695\* |
| YL  | 0.86104\* | 0.95485\* | 1.00000\* | 0.69263\* | 0.93831\* | 0.96255\* | 0.78549\* | 0.96341\* | 1.00000\* | - | 1.00000\* | 0.42891\* |
| GY | 0.65291\* | 0.91223\* | 1.00000\* | 0.15419\* | 0.90743\* | 0.93125\* | 0.59357\* | 0.93615\* | 1.00000\* | 1.00000\* | - | 0.62684\* |
| YY | 0.62578\* | 0.89997\* | 1.00000\* | 0.13957\* | 0.90096\* | 0.92292\* | 0.56280\* | 0.93072\* | 1.00000\* | 1.00000\* | 0.00000 | - |

\**P*<0.05.

Upper right: nuclear DNA.

Lower left: mitochondrial DNA.

**Supplementary Fig. S1** Phylogenetic analysis of *Wolbachia* in *Tetranychus pueraricola* based on the concatenated MLST data. Values at nodes indicate the bootstrap percentages based on 1000 replicates, and branches with bootstrap values above 50% are marked.