**Table 1.** Oligonucleotide primers used in this study

|  |  |  |
| --- | --- | --- |
| **Primer** | **Sequences (5’ - 3’)** | **Application** |
| gapFSP | CGCAAYCCSGCSGAVCTGCC | Forward primer for *gapA* PCR and sequencing |
| gapRSP | GTGTGRTTGGCRTCGAARATCGA | Reverse primer for *gapA* PCR and sequencing |
| gltFSP | GAAAACTTCCTSCACATGATGTTC | Forward primer for *gltA* PCR and sequencing |
| gltRP | GTMCGYGCCAGGGCGAAGAT | Reverse primer for *gltA* PCR |
| gltRS | TAGAAGTCSACGTTCGGGTA | Reverse primer for *gltA* sequencing |
| acnFP | CGGTRCTSTGGTTCTTCGGCGACGAC | Forward primer for *acnB* PCR |
| acnRP | TTCTTCTCKACGGTCAGCAGGCC | Reverse primer for *acnB* PCR |
| acnFS | CCGATCTTCTAYAACACCATGGAAG | Forward primer for *acnB* sequencing |
| acnRS | CCAGGTCRCGCAGGGTGATGCC | Reverse primer for *acnB* sequencing |

**Table 2.** Diversity in three genetic loci in *Pseudomonas* populations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Locus** | ***gapA*** | ***gltA*** | ***acnB*** | **Concatenated** |
| Length (bp) | 303 | 339 | 255 | 897 |
| Number of sequence | 152 | 152 | 152 | 152 |
| Polymorphism (%) | 45.28 | 35.69 | 39.42 | 40.00 |
| Segregation sites | 23 | 21 | 18 | 59 |
| Spearman’s rho | 65.331 | 48.949 | 29.000 | 0.0614 |
| Watterson’s theta | 4.134 | 3.774 | 3.235 | 0.0118 |
| Rate of recombination to mutation (r/m) | 15.8 | 12.9 | 9.0 | 5.22802 |
| LPT *P* | 0.007 | 0.25 | 0.09 | 0.08 |
| Tajima’s D | 2.072 | 2.480 | 2.196 | 2.758 |
| Fu and Li’s D | 1.830 | 1.777 | 1.686 | 2.357 |

**Table 3**, Analysis of recombination in *Pseudomonas* populations by location

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Oxford** | **Auckland** | **Total population** |
| Unique STs | 44 + 0 (sharing) | 37 + 0 (sharing) | 81 |
| OTUs, 0.06 | 7 + 4 (sharing) | 11 + 4 (sharing) | 22 |
| Segregating sites | 64 | 109 | 59 |
| *d*N/*d*S | 0.0219 | 0.0293 | 0.0293 |
| Mutation rate, *θ* | 0.016403 | 0.029109 | 0.01175 |
| Recombination rate, *ρ* | high | 0.031773 | 0.061429 |
| Rate of recombination to mutation (r/m), *ρ/θ* | >10 | 1.09149 | 5.22789 |
| Tajima’s D | 1.571 | 1.645 | 2.758 |
| Fu and Li’s D | 1.990 | 2.000 | 2.357 |
| LPT, *P* | 0.000 | 0.025 | 0.08 |
| r2 | 0.000 | 0.003 | 0.260 |
| Phi coefficient | 0.4675 | 0.5307 | 0.6880 |
| Phi, *P* | 0.0000 | 0.1571 | 0.0776 |