Supplemental Material

Figure S1: Phylogenetic tree of strains in this study and public strains belonging to *C. botulinum* Groups I-III based on whole genomic SNPs. The blue circle represented Group I, the orange circle represented Group II, the pink circle represented Group III. The red type represented isolates in this study.

Figure S2: Functional distributions in the core gene set. (A) Function annotation of 2933 core genes. (B) Function annotation of 329 core genes.

Figure S3: Phylogenetic tree of published *C. botulinum* genomes to track the
foodborne botulism outbreak events. Isolates with red label represent genomes from the outbreaks. (A). Phylogenetic tree with public isolates from the foodborne botulism outbreak event in 2006. (B). Phylogenetic tree with public isolates from the foodborne botulism outbreak event in 2011. (C). Phylogenetic tree with public isolates from the foodborne botulism outbreak event in 2012.

Figure S4: Phylogenetic tree with newly sequenced genomes and published genomes to track the foodborne botulism outbreak events. Isolates with red label represent clinical strains and isolates with blue label represent corresponding environmental samples of botulism outbreak in newly sequenced genomes. Isolates with brown label represent botulism outbreak strains in published genomes.
Table S1 Basic information of assembly quality based on all isolates

| Assembly | # contig | Total length (>= 0 bp) | Total length (>= 1000 bp) | Total length (>= 5000 bp) | Total length (>= 10000 bp) | Total length (>= 25000 bp) | Total length (>= 50000 bp) |
|----------|----------|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|
| XJFE01   | 9        | 3841                   | 38213                      | 38022                      | 38022                      | 37429                     | 37429                     |
|          | 5        | 3841                   | 38213                      | 38022                      | 38022                      | 37429                     | 37429                     |
|          | 10       | 3825                   | 38022                      | 38022                      | 37429                     | 37429                     |                           |
|          | 96       | 38029                   | 38029                      | 37426                     | 37426                     |                           |                           |
|          | 96       | 38029                   | 37426                     |                           |                           |                           |                           |
| XJFE02   | 4        | 3846                   | 38207                      | 38019                      | 38019                      | 37426                     | 37426                     |
|          | 9        | 3846                   | 38207                      | 38019                      | 38019                      | 37426                     | 37426                     |
|          | 10       | 38022                   | 38022                      | 37429                     | 37429                     |                           |                           |
|          | 96       | 38022                   | 37429                     |                           |                           |                           |                           |
| XJFE03   | 4        | 3841                   | 38212                      | 38022                      | 38022                      | 37429                     | 37429                     |
|          | 10       | 3841                   | 38212                      | 38022                      | 38022                      | 37429                     | 37429                     |
|          | 96       | 38022                   | 38022                      | 37429                     | 37429                     |                           |                           |
|          | 96       | 38022                   | 37429                     |                           |                           |                           |                           |
| XJFE04   | 8        | 3841                   | 38212                      | 38022                      | 38022                      | 37429                     | 37429                     |
|          | 10       | 3841                   | 38212                      | 38022                      | 38022                      | 37429                     | 37429                     |
|          | 96       | 38022                   | 38022                      | 37429                     | 37429                     |                           |                           |
|          | 96       | 38022                   | 37429                     |                           |                           |                           |                           |
| XJFE05 | XJFE06 | XJFD01 | XJFD02 |
|--------|--------|--------|--------|
| 5      | 4      | 1      | 8      |
| 6      | 27     | 3      | 10     |
| 7      | 3      | 8      | 2      |
| 1       | 2      | 9      | 2      |
| 6      | 1      | 2      | 7      |
| 7      | 1      | 3      | 4      |
| 1      | 7      | 2      | 9      |
| 5      | 8      | 2      | 3      |
| 5      | 8      | 2      | 2      |
| 5      | 8      | 2      | 8      |
| 5      | 1      | 2      | 9      |
| 5      | 1      | 2      |        |
| 5      | 4      |        |        |
| 5      | 4      |        |        |
| 1      | 11     | 11     | 11     |
| 5      | 8      | 8      | 8      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
| 5      | 6      | 3      | 3      |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0     | 63    | 28    | 8     | 5     | 9     | 40    | 202   | 83    | 81    | 81    | 68    | 68    |       |       |       |       |
| 98    | 93    | 6     | 6     | 97    |       |       |       |       |       |       |       |       |       |       |       |
| 5     | 6     | 6     | 7     | .6    |       |       |       |       |       |       |       |       |       |       |       |
| 4     | 8     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2     | 8     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2     | 8     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 8     | 4     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2     | 1     | 1     | 21    |       |       |       |       |       |       |       |       |       |       |       |       |
| 28    | 38    | 8     | 0     | 5     | 23    |       |       |       |       |       |       |       |       |       |       |
| 1     | 10    | 95    | .3    | 0     | 14    |       |       |       |       |       |       |       |       |       |       |
| 2     | 31    | 53    | 0     | 1     | 7     | 9.    |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| XJFD03| 5     | 0     | 3     | 5     | 0     | 1     | 4     | 1     | 3     | 4.8   | 125   | 17    | 7     | 7     | 7     | 5     |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| XJFD04| 5     | 6     | 1     | 5     | 6     | 7     | 7     | 1     | 3     | 4.76  | 125   | 15    | 9     | 9     | 9     | 5     |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| XJFD05| 1     | 2     | 9     | 1     | 3     | 8     | .5    | 2     | 5     | 0     | 121   | 19    | 10    | 10    | 7     | 7     |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| XJFD06| 1     | 32    | 38    | 2     | 3     | 4     | 27    | 1     | 2     | 9.4   | 189   | 18    | 8     | 7     | 7     | 4     |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|   | 9   | 11  | 14  | 8   | 9   | 5   | 57  |
|---|-----|-----|-----|-----|-----|-----|-----|
|   | 8   | 9   | 0   | 5   | 3   | 8   |     |
|   | 5   | 1   | 8   | 4   |     |     |     |
|   | 1   | 1   | 8   |     |     |     |     |
|   | 8   | 2   |     |     |     |     |     |
|   |     | 2   | 1   | 1   |     |     |     |
|   |     | 10  | 40  | 7   | 5   | 75  |     |
|   | 63  | 45  |     | 9   | 2   | 34  |     |
|   | 9   | 81  | 54  | 8   | 8   | 1   | 35  |

XJFD07

|   | 9   | 3   | 6   | 6   | 2   | 0   | 7   | 3   | 6   | 0.25 | 99   | 21   | 11   | 11   | 8   | 8   | 576  | 29   | 85   | 85   | 72   | 72   |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|-----|-----|------|------|------|------|------|------|
|   | 2   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |     |     |      |      |      |      |      |      |
|   |     | 2   | 8   | 1   | 13  |     |     |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |      |
|   |     | 20  | 39  | 8   | 7   | 5   | 46  |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |      |
|   | 1   | 87  | 01  |     | 8   | 0   | 44  |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |      |
|   | 2   | 84  | 11  | 0   | 4   | 7   | 3   |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |      |

XJFD08

|   | 8   | 6   | 2   | 3   | 6   | 0   | 3   | 1   | 4   | 4.92 | 128  | 18   | 9    | 9    | 6    | 5    | 198  | 41   | 02   | 02   | 16   | 31   |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
|   | 2   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |
|   |     | 1   |     |     | 4   | 2   |     |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |      |
|   | 21  | 38  | 9   | 0   | 15  |     |     |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |      |
|   | 79  | 30  | 6   | 3   | 31  |     |     |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |      |
|   | 9   | 67  | 38  | 2   | 7   | 6   | 54  |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |      |

XJFD09

|   | 0   | 8   | 3   | 8   | 8   | 9   | 6   | 1   | 3   | 1    | 90   | 16   | 8    | 8    | 5    | 5    | 521  | 55   | 53   | 53   | 40   | 40   |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
|   |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |
|   |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |
|   |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |
|   |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |     |     |      |      |      |      |      |
| XJFD10 | XJFD11 | XJFD12 | XJFD13 |
|--------|--------|--------|--------|
|        |        |        |        |
| 2      | 10     | 4      | 3      |
| 5      | 38     | 0      | 1      |
| 9      | 8      | 2      | 4      |
| 6      | 6      | 8      | 1      |
| 77     | 7      | 5      | 9      |
| 63     | 6      | 8      | 25     |
| .      | 7      | 7      | 7      |
| .      |        |        |        |
| 3934   | 38579  | 38051  | 38051  |
| 37457  | 37457  |        |        |
|        |        | 40142  | 21770  |
|        |        | 38994  | 38971  |
|        |        |        |        |
|        | 38803  | 38803  | 38308  |
|        | 37875  | 37878  | 37878  |
|        |        |        |        |
|        | 3918   | 38971  | 38803  |
|        |        | 38803  | 38308  |
|        |        |        | 37878  |
|        |        |        |        |
|    | 7  | 1  | 0   | 95 | 54 | 2  | 5  | 42 | 0  | 68 | 16 | 2  | 7  | 2  | 90 | 3871 | 38486 | 38281 | 38281 | 37688 | 37285 |
|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|------|
| XJFD14 | 0  | 57 | 3  | 8  | 2  | 8  | .3 | 3  | 6  | 5.03 | 100 | 22 | 12 | 12 | 9  | 8   | 074  | 27   | 54   | 54   | 41   | 93   |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 3870 | 38431 | 38285 | 38285 | 37692 | 37289 |
| XJFD15 | 9  | 57 | 6  | 6  | 2  | 8  | .4 | 3  | 6  | 5.09 | 109 | 19 | 12 | 12 | 9  | 8   | 366  | 29   | 53   | 53   | 40   | 92   |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     | 4148 | 40978 | 40266 | 39410 | 38314 | 37500 |
| XJFD16 | 1  | 2  | 1  | 9  | 8  | 9  | 2  | 5  | 6.9 | 221 | 56 | 26 | 14 | 7  | 5   | 578  | 03   | 84   | 86   | 59   | 81   |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     | 3868 | 38436 | 38281 | 38281 | 37688 | 37285 |
| XJFD17 | 1  | 66 | 7  | 6  | 2  | 8  | .8 | 3  | 6  | 7.4 | 101 | 20 | 12 | 12 | 9  | 8   | 820  | 61   | 18   | 18   | 18   | 18   |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     | 4334 | 43061 | 42890 | 42890 | 42395 | 41965 |
| XJFD18 | 0  | 33 | 15 | 7  | 2  | 0  | 6  | 1  | 3  | 6.72 | 109 | 16 | 8  | 8  | 5  | 4   | 075  | 32   | 84   | 84   | 98   | 13   |
|    | XJFD19     | XJFD20     | XJFD21     | XJFD22     |
|----|------------|------------|------------|------------|
| 9  | 72 65 .   | 3 7 59     | 3865 38452 | 38282 38282 |
| 9  | 5 9 3 4 7. | 7 5 8      | 37689 37287 |
| 7  | 2 0 9 7   |            |            |
| 2  | 9 4 38 7 9 | 0 71 95 51 |            |
| 9  | 68 55 9 7 50 | 2 5 48 9 |            |
|    | 3865 38452 | 38282 38282 | 37689 37287 |
| XJFD19 | 1 57 1 8 2 8 .5 3 6 7.61 91 21 12 12 9 8 968 70 99 99 86 38 | 3921 38990 38814 38814 38319 37888 |
| XJFD20 | 2 2 1 4 2 8 4 1 2 7.35 102 16 7 7 4 3 804 95 20 20 34 49 | 3842 38208 38020 38020 37427 37427 |
| XJFD21 | 4 9 8 8 2 7 8 2 5 5.04 94 19 10 10 7 7 052 77 16 16 03 03 | 3844 38183 38027 38027 37434 37434 |
| XJFD22 | 0 62 24 7 5 9 34 2 5 7.4 109 18 10 10 7 7 999 37 17 17 04 04 | 3842 38208 38020 38020 37427 37427 |
| XJFD23 | 9 14 92 . 5 6 81 |
|--------|------------------|
|        | 1 6 9 6 7 .1    |
|        | 9 5 8            |
|        | 4 7             |
|        | 9 2             |
|        | 2 5 9           |
|        | 10 38 8 6 6     |
|        | 63 39 . 6 7 78  |
|        | 9 98 95 0 4 8 19|
|        | 3856 38344 38119 38050 37462 37462 |
| XJFD24 | 8 24 83 2 0 8 77|
|        | 3841 38240 38041 38041 37448 37448 |
|        | 7 5 5 2 3 8 39 2 5 7.55 97 23 11 10 7 7 812 12 66 46 39 39 |
|        | 9 2             |
|        | 5 9             |
|        | 10 38 6 6 78    |
|        | 63 28 3 7 35    |
|        | 8 24 83 2 0 8 77|
|        | 3841 38240 38041 38041 37448 37448 |
|        | 3 8 4 8 3 8 .3 2 5 2.59 83 20 10 10 7 7 945 56 94 94 81 81 |
|        | 1 9 1           |
|        | 2 5 4 11        |
|        | 19 38 8 7 0 90  |
|        | 1 57 49 . 9 7 60|
|        | 6 96 58 0 6 1 2.|
|        | 3877 38403 38194 38194 37610 36668 |
| XJFD25 | 8 4 5 5 4 0 9 1 5 4.96 168 24 13 13 10 7 834 94 89 89 98 98 09 |
|        | 1 19 38 2 1 1 12|
|        | 0 57 50 8 9 4 15|
|        | 3864 38450 38213 38213 37629 36686 |
| XJFD26 | 3 96 32 . 5 0 72 1 5 0 103 25 12 12 9 6 962 08 41 41 50 61 |
| 4 9 0 7 4 .5 | 6 9 2 3 | 6 2 | 4 | 4 2 | 2 9 9 |
| 1 61 27 | 3 7 39 |
| 0 56 40 0 3 8 94 10.1 | 3843 38223 38076 38023 37430 37430 |

**XJFD27**

| 0 1 7 1 0 7 .1 3 6 1 100 20 13 12 9 9 429 38 81 70 57 57 9 2 | 3841 38175 38011 38011 37418 37418 |
| 1 61 25 | 3 5 29 |
| 1 96 23 0 4 1 93 |

**XJSL01**

| 8 9 8 2 2 2 0 .4 2 5 7.42 118 18 10 10 7 7 000 46 30 30 17 17 9 2 | 3839 38210 38022 38022 37429 37429 |
| 1 61 26 | 3 7 29 |
| 8 96 42 0 4 8 22 |

**XJSL02**

| 5 9 7 2 2 7 .5 2 5 5.07 85 21 10 10 7 7 378 70 33 33 20 20 10 38 2 9 2 78 |
| 1 61 25 8 5 9 31 |
| 9 96 23 | 5 6 18 |

**XJSL03**

| 0 9 2 0 3 7 .2 2 5 5.1 90 20 10 10 7 7 860 48 16 16 03 03 | 3839 38188 38020 38020 37427 37427 |
|     | 1   | 4   | 8   | 2   | 7   | 9   | 2   | 2   | 5   | 9   | 10  | 38  | 8   | 5   | 6   | 1   | 61  | 24  | 3   | 0   | 78  | 4   | 10  | 10  | 7   | 7   | 465 | 24  | 27  | 27  | 14  | 14  | 3843 | 38189 | 38015 | 38015 | 37422 | 37422 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| XJS04 | 6   | 9   | 7   | 1   | 2   | 1   | 75  | 2   | 5   | 7.87| 106 | 20  | 10  | 10  | 7   | 7   | 7   | 465 | 24  | 27  | 27  | 14  | 14  | 3834 | 38185 | 38022 | 38022 | 37429 | 37429 |
| XJS05 | 6   | 9   | 2   | 8   | 2   | 7   | 5.15| 76  | 19  | 10  | 10  | 7   | 7   | 7   | 261 | 54  | 33  | 33  | 20  | 20  | 3836 | 38164 | 38024 | 38024 | 37430 | 37430 |
| XJS06 | 2   | 1   | 3   | 8   | 2   | 7   | 8   | 5   | 7.38| 82  | 18  | 10  | 10  | 7   | 7   | 7   | 788 | 84  | 04  | 04  | 91  | 91  | 3845 | 38253 | 38052 | 38052 | 37459 | 37459 |
| XJS07 | 5   | 4   | 4   | 1   | 1   | 8   | 4   | 2   | 5   | 253 | 95  | 20  | 10  | 10  | 7   | 7   | 7   | 785 | 11  | 21  | 21  | 08  | 08  | 3845 | 38253 | 38052 | 38052 | 37459 | 37459 |
|   | 2     | 0     | 3     | 2     | 8     | 3     | 13    |
|---|-------|-------|-------|-------|-------|-------|-------|
|   | 20    | 38    | 8     | 4     | 0     | 34    |
|   | 1     | 84    | 08    | .     | 4     | 4     | 98    |
|   | 1     | 40    | 49    | 0     | 0     | 5     | 0.    |
| XJSL08| 3     | 6     | 5     | 3     | 6     | 6     | 6     |
|      | 8     | 1     | 4     | 38    | 6     | 6     |
|      | 95    | 26    | 6     | 1     | 71    |
|      | 8     | 66    | 54    | 2     | 0     | 6     | 43    |
| XJSL09| 2     | 27    | 1     | 8     | 0     | 2     | 42    |
|      | 3     | 6     | 0     | 82    | 20    | 11    | 11    |
|      | 8     | 8     | 477   | 57    | 17    | 17    | 04    |
|      | 9     | 2     | 5     | 9     |
|      | 10    | 38    | 5     | 6     | 78    |
|      | 61    | 22    | 3     | 7     | 37    |
|      | 7     | 96    | 39    | 2     | 4     | 8     | 47    |
| XJSL10| 8     | 9     | 3     | 8     | 2     | 8     |
|      | .     | 42    | 3     | 6     | 0     | 82    |
|      | 20    | 10    | 10    | 10    | 7     | 7     | 773   |
|      | 2     | 2     | 0     | 3     | 2     | 8     | 3     |
|      | 20    | 38    | 8     | 4     | 0     | 35    |
|      | 84    | 10    | .     | 4     | 4     | 43    |
|      | 9     | 40    | 51    | 0     | 0     | 5     | 6.    |
| XJSL11| 1     | 6     | 9     | 4     | 6     | 6     | 5     |
|      | 1     | 4     | 0     | 91    | 18    | 9     | 9     |
|      | 7     | 6     | 433   | 39    | 64    | 64    | 89    |
|      | 3     | 4     | 2     | 4     |
|      | 13    | 85    | 8     |

XJSL08: 3827 38029 37847 37847 37480 37142
XJSL09: 3839 38207 38051 38051 37458 37458
XJSL10: 3834 38191 38022 38022 37429 37429
XJSL11: 3823 38035 37881 37881 37513 37175
| XJSL17 | XJSL18 | XJSL19 | XJSL20 |
|--------|--------|--------|--------|
| 81 01  | 6 6 93 | 4 1 9 5 7 .5 | 7 9 9 9 8 1 8 9 2 2 5 9 10 38 7 6 6 78 1 63 27 .5 7 43 |
| 0 81 43 9 9 8 07 | | 3843 38192 38050 38050 37456 37456 | 3856 38369 38217 38217 37484 36537 |
| XJSL17 | XJSL18 | XJSL19 | XJSL20 |
| 0 4 4 9 1 8 .1 2 5 2.56 100 18 10 10 7 7 989 00 04 04 91 91 | 1 | 2 5 4 11 | 19 38 8 8 0 92 58 43 .0 4 49 |
| 9 01 75 0 1 1 7. | | | 3856 38369 38217 38217 37484 36537 |
| XJSL19 | XJSL20 |
| 7 6 2 6 6 9 6 1 3 9.74 97 16 8 8 5 5 916 92 73 73 15 15 | 7 22 38 2 2 4 15 | 3860 38450 38316 38316 37723 37723 | 5 04 49 7 2 2 51 1 3 7.61 75 16 8 8 5 5 099 94 73 73 15 15 |
| 7 22 38 2 2 4 15 | 3860 38450 38316 38316 37723 37723 | 5 04 49 7 2 2 51 1 3 7.61 75 16 8 8 5 5 099 94 73 73 15 15 |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 59  | 86  | .  | 0   | 0   | 69  |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 6   | 8   | 9  | 4   | 3   | 8.  |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 6   | 5   | 1  | 8   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 9   |     | 9   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 6   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 2   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 2   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 2   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   |     | 2   | 15  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 22  | 38  | 7  | 4   | 0   | 51  |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 04  | 49  | .  | 6   | 1   | 97  |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 7   | 69  | 34  | 9   | 9   | 0   | 1.  |     |     |     |     |     |     |     |     |     |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| XJSL21 | 4 | 6 | 1 | 5 | 6 | 2 | 4 | 1 | 3 | 7.53 | 74 | 16 | 8 | 8 | 5 | 5 | 947 | 56 | 56 | 56 | 98 | 98 |
|       | 2 |   |   |   |   |   |   |   |   |     |     |     |     |     |     |     |     |     |     |     |     |
|       | 2 |   |   |   | 4  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|       | 2 |   |   |   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|       | 0 |   | 2 | 15 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|       | 22 | 38 | 7 | 4 | 0 | 51 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|       | 04 | 50 | . | 5 | 4 | 48 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 8   | 57  | 40 | 9  | 7   | 1   | 3.  |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| XJSL22 | 1 | 6 | 1 | 7 | 6 | 9 | 2 | 1 | 3 | 9.92 | 81 | 16 | 8 | 8 | 5 | 5 | 192 | 07 | 53 | 53 | 95 | 95 |
|       | 2 |   |   |   |   |   |   |   |   |     |     |     |     |     |     |     |     |     |     |     |     |
|       | 1 |   |   |   |   | 4  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|       |   | 2 |   |   |   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|       | 2 |   |   |   | 7 | 2 | 15 |     |     |     |     |     |     |     |     |     |     |     |     |     |
|       | 21 | 38 | 7 | 9 | 0 | 33 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|       | 79 | 24 | . | 6 | 2 | 68 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 8   | 62  | 78 | 9 | 2 | 7 | 2.  |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| XJSL23 | 5 | 4 | 8 | 7 | 4 | 8 | 4 | 1 | 3 | 5.12 | 85 | 16 | 8 | 8 | 5 | 5 | 876 | 04 | 22 | 22 | 09 | 09 |
| SRR8527709 | 6 71 3 8 3 6 .6 5 3 0.05 66 29 21 20 18 17 617 84 74 21 27 16 |
| SRR8527710 | 0 97 4 9 9 6 .9 4 9 0 60 25 17 16 14 13 788 76 92 39 45 34 |
| SRR8527718 | 7 70 7 8 3 7 .8 6 7 0 87 36 27 27 21 19 934 84 14 14 37 77 |
| SRR8527719 | 9 31 9 1 1 6 4 5 5 0 129 87 72 61 42 31 749 81 07 85 55 77 |
|          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|          |          |          |          |          |          |          |          |          |          |          |          |          |          |
| 1 23 . 65 . 2 . 5 . 92 | 3 08 . 03 . 0 . 3 . 3 . 10 . 1 . 5 | 0 41 . 8 . 4 . 6 . 0 . 3 . 2 . 1 . 0 | 130 98 76 69 39 22 357 55 86 47 78 34 |
| 1 28 . 38 . 2 . 7 . 2 . 10 . 1 . 5 | 9 18 . 16 . 0 . 2 . 4 . 18 . 2 | 0 58 . 62 . 6 . 7 . 17 | 4 9 . 4 . 9 . 2 | 7 4 . 4 | 2 9 . 1 | 38 8 . 2 . 9 . 10 |
| SRR8981002 |          |          |          |          |          |          |          |          |          |          |          |          |          |
| 0 41 . 8 . 4 . 6 | 0 . 3 | 2 . 1 | 0 | 130 | 98 | 76 | 69 | 39 | 22 | 357 | 55 | 86 | 47 | 78 | 34 |
| 1          |          |          |          |          |          |          |          |          |          |          |          |          |          |
| 1          |          |          |          |          |          |          |          |          |          |          |          |          |          |
| SRR8981005 | 7 27 | 1 8 | 1 6 | 1 6 5 | 0 | 87 | 56 | 43 | 39 | 32 | 21 | 954 | 23 | 73 | 31 | 33 | 69 |
| 1 44 | 01 | 2 8 | 76 |          |          |          |          |          |          |          |          |          |          |          |
| 9 67 | 49 | 9 4 | 3 2 | 2 8 |          |          |          |          |          |          |          |          |          |          |
| SRR8981278 | 6 34 | 2 9 | 7 6 | 3 3 | 4 | 0 | 196 | 159 | 119 | 97 | 57 | 22 | 744 | 82 | 78 | 86 | 30 | 67 |
| 2          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
| 2 3 | 3 | 8 8 | 1 | 9 | 26 |          |          |          |          |          |          |          |          |          |
| 65 77 | . 1 | 9 | 78 |          |          |          |          |          |          |          |          |          |          |          |
| SRR8981312 | 2 99 | 3 7 | 9 6 | 8 6 | 5 | 0 | 92 | 59 | 46 | 39 | 30 | 20 | 208 | 58 | 35 | 27 | 90 | 21 |
| SRR8981317 | 1 28 | 38 | 2 | 7 | 2 | 10 | 1 | 5 | 0 | 143 | 98 | 73 | 69 | 49 | 27 | 3896 | 38830 | 38125 | 37888 | 34732 | 27217 |
| SRR8981412 | 1 86 7 8 5 3 .7 6 7 | 0 81 38 28 25 24 21 125 90 70 89 81 32 |
| SRR8981424 | 2 17 8 5 1 9 .4 7 6 | 0 102 57 45 43 30 21 781 11 96 42 49 73 |
| SRR8981479 | 9 79 8 1 8 .2 8 6 1 | 0 109 68 55 48 32 19 288 42 57 62 12 25 |
| SRR8981518 | 9 26 3 8 1 0 .1 3 0 | 0 59 23 17 16 14 12 478 98 57 68 67 13 |
| SRR8981519 | 8 | 8 | 7 | 1 |
| SRR8981561 | 4 | 2 | 7 | 3 |
| SRR8981570 | 9 | 4 | 2 | 9 |
| SRR8981574 | 2 | 8 | 1 | 6 |
| SRR8981582 | 1 | 2 | 9 | 3 |
|   | 5 26 13 8 4 1 38 5 1 |   | 827 08 46 49 26 29 |
|---|----------------------|--|-------------------|
|   | 1 12 76 . 4 6 57    |   | 0 0 8 8 .8       |
|   | 1 0 5                |   |                    |
|   | 2 5 1                |   |                    |
|   | 38 8 6 3 72          |   |                    |
|   | 2 21 87 . 9 7 14    |   |                    |
|   | 1 47 14 0 7 2 0 . 2 7|   |                    |
|   | SRR8981584           |   |                    |
|   | 9 52 1 2 6 8 3 0 1 0|   | 219 140 101 84 52|
|   | 2 6 1                |   | 25 427 46 20 84   |
|   | 39 8 2 5 67          |   | 61 82              |
|   | 1 14 62 . 1 9 60    |   |                    |
|   | 6 41 60 0 4 8 2 . 2 6|   |                    |
|   | SRR8981586           |   |                    |
|   | 5 51 8 2 5 6 4 1 9 0|   | 165 130 96 85 53|
|   | 3 2 5 7              |   | 25 039 16 65 11   |
|   | 40 7 6 7 31          |   | 72 89              |
|   | 53 62 . 2 9 91      |   |                    |
|   | 7 72 24 9 4 4 87 1  |   |                    |
|   | SRR8981599           |   |                    |
|   | 7 20 0 2 3 5 .1 5 3 0|   | 77 34 24 22 19 17|
|   | 4 1                  |   | 17 878 05 09 10   |
|   | 2 0 4                |   | 42 94              |
|   | 38 8 9 0 44          |   |                    |
|   | 91 94 . 7 3 47      |   |                    |
|   | 9 82 51 0 4 5 70 1  |   |                    |
|   | SRR8981610           |   |                    |
|   | 9 90 6 2 5 5 .8 4 0 0|   | 99 32 20 18 15 12|
|   | 862 93 69 64 41 78  |   |                    |
| Assembly | Start Position (bp) | End Position (bp) | Length (bp) | Percentage Match |
|----------|---------------------|-------------------|-------------|------------------|
| GCA_0000170 | 63 | 63 | 2 | 45.1_ASM1702
| 38 | 38 | 2 | 38634
| 38 | 38 | 2 | 38634
| 38 | 38 | 2 | 38634
| 38 | 38 | 2 | 38634
| v1_genomic | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 450 | 50 | 50 | 50 | 50 | 50 | 50 |
| GCA_0000170 | 63 | 63 | 2 | 45.1_ASM1704
| 37 | 37 | 2 | 37605
| 37 | 37 | 2 | 37605
| 37 | 37 | 2 | 37605
| 37 | 37 | 2 | 37605
| v1_genomic | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 560 | 60 | 60 | 60 | 60 | 60 | 60 |
| GCA_0000170 | 63 | 63 | 2 | 45.1_ASM1706
| 39 | 39 | 2 | 40129
| 39 | 39 | 2 | 40129
| 39 | 39 | 2 | 40129
| 39 | 39 | 2 | 40129
| v1_genomic | 2 | 7 | 8 | 3 | 7 | 7 | 7 | 2 | 1 | 1 | 0.25 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 918 | 18 | 18 | 18 | 87 | 87 | 87 |
| GCA_0000193 | 39 | 41 | 2 | 05.1_ASM1930
| 58 | 58 | 2 | 41070
| 58 | 58 | 2 | 41070
| 58 | 58 | 2 | 41070
| 58 | 58 | 2 | 41070
| v1_genomic | 2 | 23 | 01 | 5 | 5 | 23 | 1 | 1 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 013 | 13 | 13 | 13 | 13 | 13 | 13 |
| Dataset ID       | X Chromosome | Y Chromosome | Data | Value |
|-----------------|-------------|-------------|------|-------|
| 85.1_ASM6358    | 86 03 8 8 8 8 70 | 260 60 60 60 16 16 |
| v1_genomic      | 91 26 . 8 8 70 | |
|                 | 6 0 2 6 6 8. | |
|                 | 4 9 9 9 | |
|                 | 1 1 | |
|                 | 6 6 | |
|                 | 3 3 | |
|                 | 9 9 | |
| 91 39 8 3 3 75 | |
| GCA_0000923     | 93 10 . 0 0 70 | |
| 45.1_ASM9234    | 08 61 2 8 8 5. | |
| v1_genomic      | 2 3 4 9 3 3 3 1 1 0.27 2 2 2 2 2 1 1 614 14 14 14 83 83 | |
|                 | 4 2 | |
|                 | 2 3 0 | |
|                 | 14 40 8 3 2 71 | |
| GCA_0001710     | 31 30 . 5 5 24 | |
| 55.1_ASM1710    | 4 30 94 4 0 5 91 | |
| 5v1_genomic     | 8 7 9 7 1 4 7 3 8 0 49 42 15 14 10 9 357 97 53 98 95 55 | |
|                 | 1 | |
|                 | 2 7 3 | |
|                 | 42 8 0 9 17 | |
| GCA_0001710     | 32 17 . 3 2 28 | |
| 75.1_ASM1710    | 7 78 75 2 1 1 58 2 | |
| 7v1_genomic     | 0 05 4 3 5 5 .1 9 7 0 70 66 52 47 31 24 754 95 78 78 92 18 | |
| GCA_0002531     | 1 39 39 2 3 3 39 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3919 39197 39197 39197 39197 39197 | |
| ID               | Length | Coverage | Depth | Quality | GC Content |
|------------------|--------|----------|-------|---------|-------------|
| 95.1_ASM2531     | 19     | 19       | 8     | 9       | 9           |
| 9v1_genomic      | 74     | 74       | 1     | 1       | 74          |
|                  | 0      | 2        | 9     | 9       | 9           |
|                  | 1      |          | 7     |          | 7           |
|                  | 4      |          | 4     |          |             |
|                  | 0      |          | 0     |          |             |
| GCA_0003076      | 19     | 40       | 8     | 4       | 1           |
| 35.1_ASM3076     | 4      | 33       | 36    | 1       | 2           |
|                  | 2      | 1        | 53    | 7       | 3           |
| 3v1_genomic      | 0      | 6        | 4     | 8       | 8           |
|                  | 1      | 3        | 0     | 1743    | 1062        |
|                  | 19     | 74       | 0     | 805     | 36          |
|                  | 0      | 84       | 36    | 5       | 98878       |
|                  | 1      | 40       | 40    | 40      |             |
|                  | 0      | 40       | 40    | 40      |             |
|                  | 0      | 40       | 40    | 40      |             |
| GCA_0003076      | 2      | 19       | 13    | 0       | 0           |
| 55.2_CFSAN00     | 4      | 91       | 63    | 9       | 3           |
|                  | 3      | 2        | 9     | 3       | 3           |
| 01628_2.0_genomic| 6      | 01       | 0     | 8       | 2           |
|                  | 4      | 4        | 2     | 2       | 2           |
|                  | 0      | 146      | 239   | 158     | 109         |
|                  | 45     | 15       | 630   | 42      | 25          |
|                  | 19     | 16       | 64    |         |             |
|                  | 2      | 4        | 1     |         |             |
| GCA_0004396      | 1      | 17       | 72    | 0       | 5           |
| 15.1_CFSAN00     | 6      | 62       | 49    | 9       | 2           |
|                  | 2      | 6        | 9     | 2       | 9           |
| 2367_1.0_genomic| 1      | 69       | 6     | 9       | 3           |
|                  | 1      | 2        | 8     | 1       | 0           |
|                  | 164    | 157      | 122   | 106     | 52          |
|                  | 15     | 962      | 81    | 35      | 96          |
|                  | 24     | 24       | 18    |         |             |
|                  | 2      |          | 3     |         |             |
| GCA_0004396      | 3      | 13       | 30    | 9       | 4           |
| 35.1_CFSAN00     | 4      | 13       | 4     | 9       | 3           |
|                  | 3      | 3        |       |         |             |
| 2368_1.0_genomic| 4      | 02       | 0     | 5       | 2           |
|                  | 2      | 1        | 8     | 7       | 3           |
|                  | 0      | 238      | 228   | 166     | 110         |
|                  | 47     | 14       | 187   | 58      | 98          |
|                  | 58     | 58       | 72    | 91      |             |
| GCA_0005824 | 3 | 10 | 95 | 8 | 5 | 77 | 2 | 40 | 8 | 9 | 5 | 27 |
|------------|---|----|----|---|---|-----|---|----|---|---|---|----|
| 35.1_CDC5408 | 4 | 14 | 76 | 0 | 0 | 4 | 5 | 5 | 0 | 4095 | 40903 | 37393 | 31379 | 17271 | 68426 |
| 5.1_genomic | 5 | 78 | 3 | 2 | 5 | 4 | 3 | 7 | 4 | 0.98 | 345 | 338 | 214 | 132 | 42 | 10 | 763 | 04 | 15 | 14 | 64 | 2 |
| 2 | 1 |
| GCA_0005824 | 7 | 68 | 79 | 4 | 5 | 07 | 1 | 4 |
| 55.1_CDC5409 | 2 | 03 | 04 | 1 | 7 | 4 | 0 | 4 | 8 |
| 1.1_genomic | 1 | 1 | 6 | 1 | 8 | 7 | 2 | 5 | 5 | 1.86 | 721 | 702 | 280 | 107 | 7 | 1 | 046 | 39 | 96 | 98 | 1 | 68031 |
| 2 | 1 |
| 2 | 7 | 4 |
| 2 | 3 | 2 | 20 |
| GCA_0007109 | 32 | 09 | . | 5 | 5 | 14 |
| 75.1_B2_331_g | 1 | 59 | 10 | 9 | 9 | 7 | 0. |
| enomic | 0 | 0 | 3 | 7 | 0 | 6 | 2 | 1 | 3 | 0 | 10 | 10 | 6 | 5 | 5 | 5 | 5 | 5 | 103 | 03 | 25 | 25 | 25 | 25 |
| 2 | 1 |
| 2 | 0 | 4 | 14 |
| GCA_0007109 | 22 | 39 | 8 | 3 | 1 | 03 |
| 85.1_B2_275_g | 1 | 69 | 18 | 0 | 9 | 9 | 5. |
| enomic | 3 | 1 | 8 | 2 | 1 | 7 | 6 | 1 | 5 | 0 | 13 | 13 | 9 | 8 | 8 | 8 | 8 | 188 | 88 | 66 | 59 | 59 | 59 | 59 |
|         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|        |
|         |         |         | Genomic |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
|        |        |        |         |        |        |        | Genomic |         |         |         |         |         |         |         |         |         |         |         |        |
| GCA_0007109 | 95.1 | A2B3_87_ | 1   | 02 | 55 | 8  | 2   | 1 | 2. | 4168  | 41685 | 41611 | 41521 | 41521 | 40783 |
|         | GCA_0007110 | 05.1 | A2B7_92_ | 1   | 74 | 81 | 9  | 7   | 9 | 28 | 4057  | 40578 | 40503 | 40414 | 40414 | 40128 |
|         |         |         |        |        |        |        | Genomic |         |         |         |         |         |         |         |         |         |         |         |        |
| GCA_0007110 | 55.1 | A2_117_ | 1   | 80 | 26 | 0  | 0   | 9 | 8. | 3808  | 38082 | 38008 | 37917 | 37917 | 37639 |
|         |         |         |        |        |        |        | Genomic |         |         |         |         |         |         |         |         |         |         |         |        |
| GCA_0007110 | 65.1 | B2_128_g | 1   | 97 | 46 | 9  | 9   | 8 | 05 | 3844  | 38444 | 38359 | 38266 | 38266 | 37981 |
| Accession | Description   | Start | Stop | Length | Contig | Identity | GC Content | Annotation
|-----------|--------------|-------|------|--------|--------|----------|-------------|------------|
| GCA_0007110 | 95.1_B2_267_g | 1     | 73   | 72     | 95.1   | 37       | 0.03        | enonomic   |
| GCA_0007111 | 05.1_F_357_ge | 1     | 12   | 11     | 0.38   | 45       | 0.04        | enonomic   |
| GCA_0007111 | 15.1_B2_433_g | 1     | 32   | 31     | 0.74   | 32       | 0.03        | enonomic   |
| GCA_0007307 | 05.1_ASM7307  | 3     | 81   | 78     | 0.38   | 61       | 0.04        | enonomic   |
| Strain    | Version | Genomic | Chr | Start | End | Length | Completion |
|-----------|---------|---------|-----|-------|-----|--------|------------|
| GCA_0007307 | 1v1_genomic | 15.1_ASM7307 | 39 | 12    | 75 | 66     | 3977       |
|           |         |         | 3   | 0     | 39 | 45     | 39663      |
|           |         |         | 4   | 2     | 50 | 8     | 39668      |
|           |         |         | 5   | 1     | 52 | 3     | 32314      |
|           |         |         | 6   | 4     | 52 | 10    | 20170      |
|           |         |         | 7   | 3     | 50 | 45    | 73535      |
| GCA_0007307 | 2v1_genomic | 25.1_ASM7307 | 39 | 7     | 98 | 28     | 3966       |
|           |         |         | 3   | 0     | 85 | 65    | 39456      |
|           |         |         | 4   | 6     | 85 | 3     | 36226      |
|           |         |         | 5   | 5     | 85 | 13    | 31756      |
|           |         |         | 6   | 8     | 85 | 14    | 18319      |
|           |         |         | 7   | 2     | 85 | 4     | 52906      |
| GCA_0007307 | 3v1_genomic | 35.1_ASM7307 | 39 | 2     | 67 | 1     | 3684       |
|           |         |         | 3   | 9     | 80 | 15    | 3679       |
|           |         |         | 4   | 1     | 80 | 9     | 21831      |
|           |         |         | 5   | 5     | 80 | 11    | 10697      |
|           |         |         | 6   | 6     | 80 | 11    | 97135      |
| GCA_0007307 | 4v1_genomic | 45.1_ASM7307 | 39 | 8     | 99 | 1     | 3960       |
|           |         |         | 3   | 9     | 80 | 1     | 3916       |
|           |         |         | 4   | 1     | 80 | 9     | 24582      |
|           |         |         | 5   | 5     | 80 | 13    | 28483      |
|           |         |         | 6   | 6     | 80 | 13    | 12568      |
|           |         |         | 7   | 1     | 80 | 9     | 25674      |
| GCA_0007307 | 5v1_genomic | 55.1_ASM7307 | 39 | 8     | 99 | 4     | 3890       |
|           |         |         | 3   | 9     | 80 | 4     | 38795      |
|           |         |         | 4   | 1     | 80 | 13    | 34582      |
|           |         |         | 5   | 5     | 80 | 13    | 28483      |
|           |         |         | 6   | 6     | 80 | 13    | 12568      |
|           |         |         | 7   | 1     | 80 | 9     | 25674      |

**Total**: 100%

**Completion Score**: 100%

**Strain**: GCA_0007307

**Version**: 1v1_genomic

**Genomic**: 15.1_ASM7307

**Length**: 3977 bp

**Completion**: 3977 bp
| Accession       | Date     | Prefix          | Genome Build | GI       | Length | Start | End   | Identity | Similarity | E-value | Alignment Length |
|-----------------|----------|-----------------|---------------|----------|--------|-------|-------|----------|------------|----------|------------------|
| GCA_0007309     | 2v1_genomic | 4 5 77 . 5 0 6 7 | 8 2 4 9 7 | 1 9      | 3557   | 34998 | 14708 | 44758    | 0          | 26458   | 0                |
| GCA_0007309     | 4v1_genomic | 3 8 4 2 4 7 8 7 0 | 2.22 | 1079 1003 | 191    | 33    | 1 0   | 862 63 57 1 | 26458 0 |          |                  |
| GCA_0007309     | 1 35 8 4 1 |                  |               |          |        |       |       |          |            |         |                  |
| GCA_0007309     | 5v1_genomic | 9 3 1 6 8 7 . 3 3 2 | 1.13 | 1046 923 | 214    | 56    | 2 0   | 781 44 85 9 | 54415 0 |          |                  |
| GCA_0007309     | 2 38 8 9 2 12 |                |               |          |        |       |       |          |            |         |                  |
| GCA_0007309     | 6 45 88 . 3 6 21 1 4 |            |               |          |        |       |       |          |            |         |                  |
| GCA_0007309     | 6v1_genomic | 3 7 5 2 4 0 6 0 5 0.33 | 684 618 | 257 112 | 11 0 | 295 97 23 91 5 | 0 |          |                  |
| GCA_0007309     | 2 5 2 |                  |               |          |        |       |       |          |            |         |                  |
| GCA_0007309     | 4v1_genomic | 1 09 8 2 4 6 5 2 8 | 0 | 131 126 | 95 86 | 56 | 31 | 128 64 74 95 47 31 |          |                  |
| GCA_0007309     | 4410_01.0_ge | 3 71 12 9 0 5 4 2 6 |          |          |        |       |       |          |            |         |                  |
| GCA_0007309     | 1 18 05 . 8 0 28 |            |               |          |        |       |       |          |            |         |                  |
| GCA_0007309     | nomic | 1 09 8 2 4 6 5 2 8 | 0 | 131 126 | 95 86 | 56 | 31 | 128 64 74 95 47 31 |          |                  |
| GCA_0007309     | GCA_0008169 | 38 38 2 3 3 38 |          |          |        |       |       |          |            |         |                  |
| GCA_0007309     | 45.1_ASM8169 | 92 92 8 8 8 9 2 |          |          |        |       |       |          |            |         |                  |
| GCA_0007309     | 4v1_genomic | 1 02 02 . 9 9 02 1 1 0 | 1 1 1 1 1 | 1 1 | 1 029 29 29 29 29 29 | 29 29 |          |                  |
| GenBank Accession | Length (bp) | Version | Description |
|-------------------|-------------|---------|-------------|
| GCA_0008169       | 4358       | 65.1    | ASM8169     |
| 6v1_genomic       | 4358       | 65.1    | ASM8169     |
| GCA_0008179       | 4358       | 35.1    | ASM8179     |
| 3v1_genomic       | 4358       | 35.1    | ASM8179     |
| GCA_0008290       | 4358       | 15.1    | ASM8290     |
| 1v1_genomic       | 4358       | 15.1    | ASM8290     |
| GCA_0008307       | 4358       | 19.1    | ASM8307     |
| 1v1_genomic       | 4358       | 19.1    | ASM8307     |
| Assembly   | Scaffold | Length | Start | End | %Identity | N50 | L50 | T50 | M50 |
|------------|----------|--------|-------|-----|-----------|-----|-----|-----|-----|
| 55.1_ASM8307 | 01 | 8      | 51    | 7   | 3         | 9   | 50  | 0   | 1   |
|             |         |        |       |     |           |     |     |     |     |
| 5v1_genomic | 01 | 2      | 96    | 3   | 2         | 22  |     |     |     |
|             |         |        |       |     |           |     |     |     |     |
|             | 00 | 6      | 0     | 9   | 1         | 0   | 1   |     |     |
|             |         |        |       |     |           |     |     |     |     |
|             | 5    |        | 3     |     | 7         |     |     |     |     |
|             | 0    | 7      |       |     |           |     |     |     |     |
| GCA_0008764 | 16 | 29     | 43    | 7   | 6         | 5   | 99  |     |     |
| 95.2_ASM8764 | 97 | 1       | 66    | 7   | 7         | 0   | 5   |     |     |
| 9v2_genomic | 0   | 2       | 9     | 5   | 2         | 7   | 9   | 1   | 3   |
|             |         |        |       |     |           |     |     |     |     |
|             | 10  | 0       | 10    | 10  | 7         | 6   | 6   | 5   | 669 |
|             |         |        |       |     |           |     |     |     |     |
|             | 14  | 42     | 7     | 1   | 8         | 47  |     |     |     |
| GCA_0009652 | 2  | 2       | 14    | 84  | 3         | 0   | 67  | 1   |     |
| 95.1_ASM9652 | 6  | 26      | 14    | 7   | 9         | 1   | 2   | 3   | 3   |
| 9v1_genomic | 5   | 14      | 0     | 8   | 5         | 5   | 4   | 6   | 2   |
|             |         |        |       |     |           |     |     |     |     |
|             | 14  | 0       | 287   | 253 | 159       | 119 | 49  | 14  | 470 |
|             |         |        |       |     |           |     |     |     |     |
|             | 2    | 38      | 8     | 7   | 1         |     |     |     |     |
| GCA_0009653 | 8  | 38      | 36    | 4   | 9         | 92  | 1   | 5   |     |
| 25.1_ASM9653 | 8  | 37      | 47    | 2   | 4         | 9   | 38  | 5   | 6   |
| 2v1_genomic | 5   | 6       | 6     | 5   | 9         | 3   | .1  | 2   | 2   |
|             |         |        |       |     |           |     |     |     |     |
|             | 14  | 0       | 962   | 762 | 234       | 92  | 4   | 0   | 878 |
|             |         |        |       |     |           |     |     |     |     |
|             | 1    | 37      | 2     | 3   | 1         |     |     |     |     |
| GCA_0009653 | 4  | 26      | 23    | 8   | 8         | 1   | 52  | 2   | 9   |
| 45.1_ASM9653 | 4  | 29      | 94    | 0   | 5         | 54  | 88  |     |     |
| 4v1_genomic | 1   | 6       | 8     | 6   | 0         | 3   | .6  | 1   | 1   |
|             |         |        |       |     |           |     |     |     |     |
|             | 33  | 0       | 1680  | 1080| 168       | 33  | 2   | 0   | 828 |
|             |         |        |       |     |           |     |     |     |     |
|             | 17   | 2       | 12    | 76  | 3         | 51305 | 0  |     |     |
| GCA_0009655 | 15.1_ASM9655 | 1v1_genomic | 72 | 56 | 8 | 2 | 5 | 99 | 1 | 4 |
| GCA_0009869 | 25.1_CBOT001 | -SEQ-1-ASM- | 1_genomic | 12 | 39 | 2 | 5 | 5 | 80 |
| GCA_0012731 | 65.1_CBOT002 | -SEQ-1-ASM- | 1_genomic | 20 | 39 | 8 | 3 | 3 | 13 |
| GCA_0012732 | 55.1_CBOT006 | -SEQ-1-ASM- | 1_genomic | 39 | 8 | 7 | 0 | 25 |
| GCA_0012732 | 75.1_CBOT007 | -SEQ-1-ASM- | 1_genomic | 49 | 91 | 2 | 82 | 22 | 3 | 9 | 0 | 35 | 24 | 14 | 14 | 14 | 12 | 427 | 10 | 32 | 32 | 32 | 56 |
| Accession     | Length | Bases | Chromosome | Start | End | Identity | GC Content | E-value |
|--------------|--------|-------|------------|-------|-----|----------|------------|---------|
| GCA_0012769  | 38     | 70    | 1_genomic  | 5     | 45  | 92.8     | 45.2       | 3889    |
| 851_CBOT009  | 93     | 87    | -SEQ-1-ASM-| 2     | 29  | 92.2     | 48.0       | 3884    |
| GCA_0015731  | 45     | 59    | 1_genomic  | 1     | 1   | 97.9     | 48.1       | 3862    |
| 751_10148_g  | 37     | 30    | enomic     | 0     | 4   | 97.5     | 53.1       | 3820    |
| GCA_0015732  | 40     | 98    | 23v1_genomic| 2     | 2   | 95.1     | 53.5       | 3865    |
| 351_ASM1573  | 7      | 11    | 25v1_genomic| 0     | 1   | 94.8     | 53.3       | 3865    |
| Accession | Version | Type    | Length | GC Content | Identity | Similarity | Mismatches | Insertions | Deletions | Coverage |
|-----------|---------|---------|--------|------------|----------|------------|------------|------------|-----------|----------|
| GCA_0015734 | 65.1_ASM1573 | 46v1_genomic | 2434839 | 43.6% | 99.8% | 99.7% | 3 | 14 | 2395 | 17369 | 2796 |
| GCA_0015734 | 85.1_ASM1573 | 48v1_genomic | 2061165 | 45.2% | 99.9% | 99.8% | 2 | 13 | 1551 | 2453 | 2692 |
| GCA_0015735 | 15.1_ASM1573 | 51v1_genomic | 2562426 | 40.9% | 99.7% | 99.6% | 1 | 22 | 2098 | 4117 | 4625 |
| GCA_0015735 | 35.1_ASM1573 | 53v1_genomic | 2166737 | 45.8% | 99.9% | 99.8% | 0 | 21 | 1936 | 3625 | 4664 |
| GCA_0015735 | 55.1_ASM1573 | 55v1_genomic | 2765070 | 41.5% | 99.8% | 99.7% | 0 | 20 | 2368 | 4329 | 4797 |
| Accession     | Length | Source | Genome | Assembly | Release | Start | End   | Identity | Coverage |
|--------------|--------|--------|--------|----------|---------|-------|-------|----------|----------|
| GCA_0015736  | 2808   | 65.1   | ASM1573| 66v1     | genomic | 0     | 8438  | 0.78     | 4008     |
| GCA_0015737  | 3900   | 25.1   | ASM1573| 72v1     | genomic | 0     | 1278  | 0.79     | 3900     |
| GCA_0015738  | 3869   | 25.1   | ASM1573| 82v1     | genomic | 0     | 1278  | 0.79     | 3869     |
| GCA_0015739  | 4285   | 85.1   | ASM1573| 88v1     | genomic | 0     | 1278  | 0.79     | 4285     |
| Species        | Accession | Start | End  | Length | Coverage | GC Content | GC Bias | Phred Score | Strand |
|---------------|-----------|-------|------|--------|----------|------------|---------|-------------|--------|
| 98v1_genomic  | GCA_0015740 | 46    | 85   | 8      | 8        | 9          | 29      | 5           | +      |
| 151_ASM1574   | 01v1_genomic | 60    | 94   | 8      | 8        | 9          | 0       | 5           | -      |
| 351_ASM1574   | GCA_0015740 | 90    | 120  | 9      | 9        | 9          | 28      | 5           | -      |
| 551_ASM1574   | 03v1_genomic | 60    | 95   | 8      | 8        | 8          | 0       | 5           | +      |
| 651_ASM1574   | GCA_0015740 | 75    | 106  | 7      | 0        | 6          | 6       | 9           | -      |
| 751_ASM1574   | 05v1_genomic | 50    | 85   | 7      | 7        | 9          | 97      | 1           | -      |
| 851_ASM1574   | GCA_0015740 | 75    | 106  | 8      | 8        | 9          | 0       | 2           | +      |
| 951_ASM1574   | 06v1_genomic | 45    | 80   | 9      | 2        | 9          | 0       | 0           | +      |
| Accession | Version | Subversion | Start | End | Score | Identity | Coverage |
|-----------|---------|------------|-------|-----|-------|----------|----------|
| GCA_0015740 | 2       | 83         | 76    | 80  | 6     | 4476     | 4166     | 42233    | 41345    | 40416    | 39525 |
| 95.1_ASM1574 | 2       | 69         | 51    | 9   | 9     | 1 08     | 1        |          |          |          |       |
| 09v1_genomic  | 3       | 75         | 9     | 2   | 9     | 7 .5  5  | 9         | 0 223    | 141      | 40       | 26      | 19    | 16    | 519   | 18    | 02    | 86    | 84    | 45    |
| GCA_0015741  | 4       | 94         | 11    | 5   | 6     | 4311     | 42791    | 42314    | 42247    | 42059    | 40841 |
| 15.1_ASM1574 | 9       | 13         | 89    | 8   | 1     | 4 37     | 1        |          |          |          |       |
| 11v1_genomic  | 9       | 89         | 5     | 8   | 9     | 0 .9  5  | 7         | 0 99     | 51       | 24       | 23      | 22    | 19    | 895   | 20    | 24    | 15    | 52    | 12    |
| GCA_0015741  | 4       | 94         | 81    | 5   | 8     | 4281     | 42663    | 42269    | 42269    | 42115    | 41017 |
| 25.1_ASM1574 | 6       | 11         | 98    | 8   | 1     | 7 55     | 1        |          |          |          |       |
| 12v1_genomic  | 6       | 77         | 8     | 7   | 9     | 8 .8  4  | 4         | 0 66     | 43       | 21       | 21      | 20    | 17    | 988   | 77    | 99    | 99    | 40    | 48    |
| GCA_0015741  | 1       | 67         | 68    | 7   | 5     | 4368     | 43315    | 42092    | 41949    | 41566    | 39418 |
| 35.1_ASM1574 | 3       | 91         | 9     | 1   | 8     | 7 25     | 1        |          |          |          |       |
| 13v1_genomic  | 9       | 27         | 0     | 9   | 4     | 8 .7  4  | 7         | 0 139    | 86       | 27       | 25      | 23    | 17    | 910   | 71    | 53    | 39    | 49    | 51    |
| Genomic  | Start | End | Length |
|----------|-------|-----|--------|
| 25v1_genomic | 4    | 20  | 62     |
|           | 2    | 3   | 1     |
|           | 3    | 9   | 3     |
|           | 2    |
|           | 2    |
|           | 2    |
|           | 2    |
|           | 2    |
|           | 4    |
|           | 6    |
|           | 40   |
|           | 8    |
|           | 9    |
|           | 25   |
| GCA_0015742 | 58   |
| 65.1_ASM1574 | 6    |
| 26v1_genomic | 8    |
|           | 56   |
|           | 8    |
|           | 1    |
|           | 2    |
|           | 5    |
|           | 2    |
|           | .2   |
|           | 8    |
|           | 5    |
|           | 31   |
|           | 28   |
|           | 26   |
|           | 21   |
|           | 988  |
|           | 28   |
|           | 61   |
|           | 23   |
|           | 46   |
|           | 25   |
| GCA_001574 | 62   |
| 85.1_ASM1574 | 6    |
| 28v1_genomic | 1    |
|           | 51   |
|           | 4    |
|           | 4    |
|           | 9    |
|           | 5    |
|           | .9   |
|           | 5    |
|           | 0    |
|           | 61   |
|           | 53   |
|           | 29   |
|           | 27   |
|           | 27   |
|           | 23   |
|           | 17   |
|           | 384  |
|           | 43   |
|           | 41   |
|           | 93   |
|           | 03   |
|           | 25   |
| GCA_0015743 | 74   |
| 15.1_ASM1574 | 5    |
| 31v1_genomic | 1    |
|           | 76   |
|           | 7    |
|           | 6    |
|           | 5    |
|           | .2   |
|           | 8    |
|           | 5    |
|           | 4    |
|           | 0    |
|           | 51   |
|           | 44   |
|           | 21   |
|           | 19   |
|           | 18   |
|           | 17   |
|           | 977  |
|           | 17   |
|           | 06   |
|           | 00   |
|           | 41   |
|           | 01   |
| GCA_0015743 | 49   |
| 35.1_ASM1574 | 4    |
| 33v1_genomic | 3    |
|           | 33   |
|           | 2    |
|           | 9    |
|           | 0    |
|           | 6    |
|           | .2   |
|           | 6    |
|           | 9    |
|           | 0    |
|           | 43   |
|           | 41   |
|           | 30   |
|           | 30   |
|           | 25   |
|           | 20   |
|           | 852  |
|           | 94   |
|           | 51   |
|           | 51   |
|           | 98   |
|           | 32   |
|                | 5  | 4  | 9  | 3  | 2  | 2  | 7  | 6  | 39  | 7  | 0  | 3  | 26 |
|----------------|----|----|----|----|----|----|----|----|-----|----|----|----|----|
| GCA_0015743   |    |    |    |    |    |    |    |    |     |    |    |    |    |
| 55.1_ASM1574  | 7  | 92 | 76 | 9  | 9  | 9  | 31 | 1  | 3929 | 39121 | 38767 | 38716 | 38258 | 36242 |
| 35v1_genomic  | 2  | 88 | 0  | 3  | 2  | 6  | 2  | 6  | 6   | 0  | 72  | 43  | 26  |
| GCA_0015743   | 1  | 28 | 45 | 2  | 5  | 97 |
| 65.1_ASM1574  | 3  | 77 | 91 | 9  | 9  | 4  | 4  | 1  | 6   | 3945 | 39352 | 38741 | 37557 | 31729 | 23166 |
| 36v1_genomic  | 7  | 93 | 4  | 8  | 7  | 4  | 5  | 6  | 6   | 0  | 137 | 120 | 97  |
| GCA_0018796   |    |    |    |    |    |    |    |    |     |    |    |    |    |
| 05.1_ASM1879  | 89 | 89 | 0  | 0  | 0  | 89 |
| 60v1_genomic  | 1  | 7  | 7  | 4  | 7  | 7  | 7  | 1  | 1   | 0  | 1  | 1  | 1  |
| GCA_0018796   |    |    |    |    |    |    |    |    |     |    |    |    |    |
| 25.1_ASM1879  | 54 | 20 | 8  | 4  | 4  | 4  | 43 |
| 62v1_genomic  | 3  | 7  | 3  | 2  | 7  | 7  | 5  | 1  | 1   | 0  | 3  | 3  | 3  | 2  | 2  |
|                | 2  | 063 | 63 | 63 | 37 | 37 | 37 |
|     | 7  | 7  | 3  | 3  | 8  | 8  | 2  | 6  | 6  | 38  | 38  | 8  | 7  | 7  | 38 |
|----|----|----|----|----|----|----|----|----|----|-----|-----|----|----|----|----|
| GCA_0018893 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 45.1_ASM1889 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 34v1_genomic | 1  | 7  | 3  | 4  | 7  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 27 | 62 |
|             | 4  | 2  | 2  | 3  | 3  | 40 |     |     |     |     |     |     |     |     |     |
| GCA_0018893 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 65.1_ASM1889 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 36v1_genomic | 2  | 3  | 4  | 1  | 3  | 5  | 1  | 1  | 0  | 2  | 2  | 2  | 2  | 2  | 2  | 2 |
|             | 3  | 3  | 9  | 9  |     |     |     |     |     |     |     |     |     |     |     |
| GCA_0019219 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 90v1_genomic | 2  | 8  | 7  | 9  | 8  | 3  | 1  | 1  | 0  | 2  | 2  | 2  | 2  | 1  | 1  | 27 | 71 |
|             | 4  | 3  | 2  | 2  | 3  | 3  | 40 |     |     |     |     |     |     |     |     |
| GCA_0019219 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 25.1_ASM1921 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 92v1_genomic | 2  | 5  | 6  | 1  | 7  | 3  | 1  | 1  | 0  | 2  | 2  | 2  | 2  | 2  | 2  | 2 |
|             | 3  | 3  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4 |
| Release | ID       | Length | Assembly | Base Composition |
|---------|----------|--------|----------|-----------------|
| GCA_0019219 | 36      | 28,94  | 45.1_ASM1921 | 36 6 9 2 34,28,41,8 8 8 95 |
| GCA_0019219 | 39      | 29,52  | 45.1_ASM1921 | 39 6 9 2 36 3 6 5 |
| 94v1_genomic | 2 3 3 1 | 2 2 2 2 2 2 2 2 2 523 23 23 23 23 23 23 |
| GCA_0019219 | 39      | 94,11  | 65.1_ASM1921 | 39 40 8 4 4 76 |
| GCA_0019219 | 29      | 27,84  | 65.1_ASM1921 | 29 9 9 39 |
| 96v1_genomic | 4 2 2 9 | 4 2 2 2 2 2 1 1 842 42 42 42 74 74 |
| GCA_0019219 | 38      | 41,03  | 85.1_ASM1921 | 38 43 7 1 4 52 |
| GCA_0019219 | 37      | 37,35  | 85.1_ASM1921 | 37 35 8 7 8 7 |
| 98v1_genomic | 4 8 1 9 | 4 4 4 4 4 3 3 351 51 51 51 80 80 |
| GCA_0019511 | 2 39    | 4 2 3 3 37 |
| 35.2_ASM1951 | 6 82    | 6 8 9 3 31 1 1 0.56 26 26 18 12 2 1 578 78 78 39 22 91 |
| Assembly     | Version | Assembly ID | Genomic Version | Contig Length | GC Content | Assembly ID | Genomic Version | Contig Length | GC Content |
|--------------|---------|-------------|-----------------|---------------|------------|-------------|-----------------|---------------|------------|
| 13v2_genomic |         |             |                 | 79            | 8.8%       |             |                 |               |            |
|             |         |             |                 | 57            | 7.9%       |             |                 |               |            |
| GCA_0020243 | 1       | 23          | 95              | 3             | 9.5%       |             |                 |               |            |
| 65.1_ASM2024| 1       | 23          | 95              | 3             | 9.5%       |             |                 |               |            |
| 36v1_genomic| 6       | 53          | 0               | 8             | 5.7%       |             |                 |               |            |
|             |         |             |                 | 5             | 6.5%       |             |                 |               |            |
| GCA_0020243 | 1       | 19          | 00              | 1             | 9.1%       |             |                 |               |            |
| 75.1_ASM2024| 3       | 10          | 61              | 0             | 9.2%       |             |                 |               |            |
| 37v1_genomic| 5       | 42          | 9               | 2             | 8.6%       |             |                 |               |            |
|             |         |             |                 | 6             | 2.2%       |             |                 |               |            |
| GCA_0020243 | 1       | 14          | 97              | 5             | 1.7%       |             |                 |               |            |
| 85.1_ASM2024| 2       | 52          | 06              | 9             | 6.6%       |             |                 |               |            |
| 38v1_genomic| 2       | 8           | 0               | 5             | 4.6%       |             |                 |               |            |
|             |         |             |                 | 2             | 6%         |             |                 |               |            |
| GCA_0020243 | 1       | 27          | 74              | 8             | 1.8%       |             |                 |               |            |
| 95.1_ASM2024| 2       | 11          | 10              | 8             | 2.9%       |             |                 |               |            |
| 39v1_genomic| 2       | 92          | 0               | 7             | 2.3%       |             |                 |               |            |
| GenBank Accession | Sequence Length | Percentage | Similarity | Accession | Description |
|-------------------|----------------|------------|------------|-----------|-------------|
| GCA_0020244       | 72            | 82.04%     | 99.83%     | 45.1_ASM2024 | 44v1_genomic |
| GCA_0020244       | 72            | 40.25%     | 59.95%     | 65.1_ASM2024 | 46v1_genomic |
| GCA_0021037       | 51            | 73.27%     | 96.40%     | 95.1_ASM2103 | 79v1_genomic |
| GCA_0021038       | 51            | 23.40%     | 75.04%     | 05.1_ASM2103 | 80v1_genomic |
| GCA_0021038       | 51            | 75.40%     | 25.04%     | 25.1_ASM2103 | 82v1_genomic |
| SRA ID | Version | Release | Percentage | Length | Contigs | $\sigma$ Value |
|--------|---------|---------|------------|--------|---------|---------------|
| GCA_0021038 | 85v1_genomic | 55.1_ASM2103 | 2 8 3 8 .1 | 6 2 1 | 3 9 | 5 3 |
| 55.1_ASM2103 | 2 9 17 | 70 | 9 2 79 | 3972 | 39689 | 39390 | 39390 | 39173 | 38885 |
| GCA_0021038 | 87v1_genomic | 75.1_ASM2103 | 1 9 22 22 9 8 1 8 24 3 7 0 32 25 11 11 10 9 | 7 2 | 3906 | 39031 | 38841 | 38841 | 38841 | 38495 |
| 75.1_ASM2103 | 1 03 50 | 9 5 1 85 | 3906 | 39031 | 38841 | 38841 | 38841 | 38495 |
| GCA_0021038 | 89v1_genomic | 97.1_ASM2103 | 3 2 4 9 10 20 77 38 77 78 4 | 39173 | 38885 | 36947 | 33877 | 21656 | 11045 |
| 97.1_ASM2103 | 4 20 78 | 9 9 0 5 4 3 | 266 226 165 124 48 17 | 462 78 | 21 58 | 43 78 |
| Accession      | Assembly | Genome Type | Start | End | Length | GC Content | Annotation | Stats |  |  |
|---------------|----------|-------------|-------|-----|--------|------------|------------|-------|  |  |
| GCA_0021039   | 85.1_ASM2103 | 98v1_genomic | 7     | 32  | 25      | 32          | 3          | 2    | 2 | 2 |
|              | 32       | 38          | 3     | 7   | 23      | 3           | 3          | 5   | 5 | 15 |
| GCA_0021040   | 15.1_ASM2104 | 01v1_genomic | 3     | 86  | 83      | 49          | 01         | 2   | 1 | 9 |
|              | 86       | 49          | 8     | 1   | 82      | 1           | 1          | 2   | 1 | 16 |
| GCA_012605    | 29       | 8           | 2     | 5   | 16      | 2           | 00         | 2   | 1 | 1 |
| GCA_0028657   | 45.1_ASM2865 | 74v1_genomic | 1     | 13  | 12      | 11          | 1          | 1   | 1 | 1 |
|              | 45       | 45          | 1     | 1   | 45      | 2           | 2           | 3   | 3 | 13 |
| GCA_0028657   | 39       | 39          | 2     | 3   | 39      | 3           | 3           | 3   | 3 | 39 |
|              | 39       | 39          | 8     | 5   | 39      | 5           | 5           | 3   | 3 | 39 |
| GCA_0028657   | 39       | 39          | 2     | 3   | 39      | 3           | 3           | 3   | 3 | 39 |
|              | 39       | 39          | 2     | 3   | 39      | 3           | 3           | 3   | 3 | 39 |
| GCA_0028657   | 39       | 39          | 2     | 3   | 39      | 3           | 3           | 3   | 3 | 39 |
|              | 39       | 39          | 2     | 3   | 39      | 3           | 3           | 3   | 3 | 39 |
| GCA_0028657   | 39       | 39          | 2     | 3   | 39      | 3           | 3           | 3   | 3 | 39 |
|              | 39       | 39          | 2     | 3   | 39      | 3           | 3           | 3   | 3 | 39 |
| GCA_0028657   | 39       | 39          | 2     | 3   | 39      | 3           | 3           | 3   | 3 | 39 |
|              | 39       | 39          | 2     | 3   | 39      | 3           | 3           | 3   | 3 | 39 |
|          |   59   |   59   |    1   |    1   |    59   |
|----------|--------|--------|--------|--------|--------|
|          |   7    |   7    |    2   |   7    |   7    |
|          |   6    |   5    |    5   |    9   |    9   |
|          |   7    |   7    |        |    3   |    3   |
|          |        |        |        |    9   |    9   |
|          |   2    |   0    |    0   |   38   |        |
|          |   39   |   39   |    8   |    8   |   94   |
|          |   04   |   14   |    .   |    4   |    4   |
|          |   45   |   56   |    1   |    5   |    5   |
|          |        |        |        |        |        |
|          |   39   |   39   |   45   |   45   |   39   |
|          |   39   |   39   |   45   |   45   |   39   |
|          |   39   |   44   |   54   |   54   |   39   |
|          |        |        |        |        |        |
|          |   04   |   14   |    .   |    4   |    4   |
|          |   45   |   56   |    1   |    5   |    5   |
|          |        |        |        |        |        |
|          |   39   |   39   |   45   |   45   |   39   |
|          |   39   |   44   |   54   |   54   |   39   |
|          |        |        |        |        |        |
|          |   04   |   14   |    .   |    4   |    4   |
|          |   45   |   56   |    1   |    5   |    5   |
|          |        |        |        |        |        |
|          |   39   |   39   |   45   |   45   |   39   |
|          |   39   |   44   |   54   |   54   |   39   |

|          |   2    |   4    |   5    |   6    |   4    |
|----------|--------|--------|--------|--------|--------|
|          |   4    |   4    |   2    |   1    |   1    |
|          |   3    |   3    |        |        |        |
|          |   9    |   9    |        |        |        |
|          |   2    |   2    |    2   |    2   |        |
|          |        |        |        |        |        |
|          |   39   |   41   |    2   |    2   |    37  |
|          |        |        |        |        |        |
|          |   09   |   94   |    2   |    9   |    9   |
|          |        |        |        |        |        |
|          |   22   |   54   |    0   |    0   |   54   |
|          |        |        |        |        |        |
|          |   41   |   41   |    4   |    6   |    74  |
|          |        |        |        |        |        |
|          |   16   |   59   |    .   |    8   |    8   |
|          |        |        |        |        |        |
|          |   85   |   64   |    2   |    5   |    5   |
|          |        |        |        |        |        |
|          |   41   |   41   |    8   |    6   |    74  |
|          |        |        |        |        |        |
|          |   16   |   59   |    .   |    8   |    8   |
|          |        |        |        |        |        |
|          |   85   |   64   |    2   |    5   |    5   |
|          |        |        |        |        |        |
|          |   41   |   41   |    8   |    6   |    74  |
|          |        |        |        |        |        |
|          |   41   |   41   |    8   |    6   |    74  |
| RefSeq | Accession  | Assembly  | Version | Description | Assembly ID | Assembly ID | Assembly ID | Assembly ID | Assembly ID | Assembly ID | Assembly ID | Assembly ID |
|--------|------------|-----------|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| GCA_0028658 | 85.1_ASM2865 | 88v1_genomic | 3       | 6  3  2  6  6  1  1  0  3  3  3  3  1  1 | 4084 4084 4084 4084 40511 40511 |
| GCA_0028660 | 45.1_ASM2866 | 04v1_genomic | 2       | 0  6  6  0  0  5  1  1  0  2  2  2  2  2  2 | 4169 4169 4169 4169 4169 4169 |
| GCA_0028661 | 25.1_ASM2866 | 12v1_genomic | 4       | 9  7  5  9  9  8  1  1  0  4  4  4  4  4  2  2 | 4050 4050 4050 4050 40170 40170 |
| GCA_0028662 | 25.1_ASM2866 | 22v1_genomic | 3       | 5  3  9  0  0  3  1  1  0  3  3  3  3  2  2 | 4109 4109 4109 4109 40858 40858 |
| Accession | Start   | End     | Length | Identity | Sequence |
|-----------|---------|---------|--------|----------|----------|
| GCA_0030149 | 1 1     | 5 5     | 4      | 1        |          |
| 55.1_ASM3014 | 5 61 1 61 | 0 7 9 3 2 8 | 38 8 5 4 54 | 3877 38703 38062 36589 28939 17036 |
| 95v1_genomic | 5 79 3 7 7 5 9 7 6 0 | 155 145 119 99 54 22 613 61 71 44 58 22 | 39 39 7 8 8 39 |
| GCA_0030171 | 88 88 | 6 6 88 | 3988 39886 39886 39886 39886 39886 |
| 45.1_ASM3017 | 69 69 8 9 9 69 | 3998 39986 39986 39986 39986 39986 |
| 14v1_genomic | 1 3 3 5 3 3 3 1 1 0 | 1 1 1 1 1 1 693 93 93 93 93 93 | 40 40 7 4 4 40 |
| GCA_0030171 | 04 04 | 6 6 04 | 4004 40046 40046 40046 40046 40046 |
| 95.1_ASM3017 | 63 63 9 3 3 63 | 4004 40046 40046 40046 40046 40046 |
| 19v1_genomic | 1 5 5 2 5 5 5 1 1 0 | 1 1 1 1 1 1 635 35 35 35 35 35 | 39 39 7 9 9 39 |
| GCA_0030172 | 98 98 | 9 9 98 | 3998 39987 39987 39987 39987 39987 |
| 25.1_ASM3017 | 74 74 7 8 8 74 | 3998 39987 39987 39987 39987 39987 |
| 22v1_genomic | 1 7 7 9 7 7 7 1 1 0 | 1 1 1 1 1 1 747 47 47 47 47 47 | 2 3 3 |
| Accession      | Version   | Clone     | Total Length | Average GC Content |
|---------------|-----------|-----------|--------------|--------------------|
| GCA_0030173   | 35.1      | ASM3017   | 3978         | 39.78%             |
| GCA_0030583   | 45.1      | ASM3058   | 3858         | 38.58%             |
| GCA_0030584   | 45.1      | ASM3058   | 3930         | 39.30%             |
| GCA_0033453   | 15.1      | ASM3345   | 4018         | 40.18%             |
| GCA_0033453   | 31.1      | ASM3345   | 4018         | 40.18%             |

| Accession      | Version   | Clone     | Total Length | Average GC Content |
|---------------|-----------|-----------|--------------|--------------------|
| 33v1_genomic  |           |           | 960          | 39.78%             |
| 34v1_genomic  |           |           | 11111        | 38.58%             |
| 44v1_genomic  |           |           | 410          | 39.30%             |
| 31v1_genomic  |           |           | 503          | 40.18%             |
|                | 1 | 3 | 2 | 4 | 4 | 2, |
|----------------|---|---|---|---|---|----|
|                | 9 | 9 | 2 |
|                | 0 | 0 |
|                | 1 | 1 |
|                | 3 | 3 |
|                | 9 | 9 |
| GCA_0033453   | 22| 02| . | 1 | 1 | 24 |
| 35.1_ASM3345  | 19| 17| 0 | 9 | 9 | 5  |
| 33v1_genomic  | 3 | 4 | 1 | 7 | 4 | 4 | 1 | 1 |
|                | 0 | 3 | 3 | 3 | 2 | 2 | 2 |
|                | 2 | 2 |
|                | 41| 7 | 4 | 8 | 50|
| GCA_0034123   | 2 | 23| 49| . | 2 | 7 | 60| 1 |
| 85.1_ASM3412  | 2 | 35| 22| 9 | 7 | 4 | 6 | 3 | 2 |
| 38v1_genomic  | 0 | 00| 4 | 6 | 0 | 3 | 3 | 6 | 3 |
|                | 0 | 22| 0 | 21| 4 | 16| 11| 8 |
|                | 54| 16| 224| 79| 33| 33| 66| 16|
|                | 2 | 1 |
|                | 40| 7 | 2 | 4 | 17|
| GCA_0034123   | 4 | 59| 50| . | 7 | 1 | 14| 3 |
| 95.1_ASM3412  | 8 | 41| 89| 9 | 2 | 4 | 5 | 9 | 0 |
| 39v1_genomic  | 5 | 4 | 6 | 2 | 0 | 0 | 1 | 1 | 2 |
|                | 0 | 485| 460| 261| 131| 20| 3 | 896| 72 | 39| 49| 6 | 4 |
|                | 1 | 3 |
|                | 41| 2 | 6 | 6 | 17|
| GCA_0034124   | 40| 96| 7 | 1 | 2 | 64|
| 35.1_ASM3412  | 9 | 52| 13| . | 2 | 0 | 46| 3 |
| 43v1_genomic  | 3 | 72| 7 | 9 | 8 | 7 | 8 | 9 | 1 |
|                | 0 | 93| 74 | 52| 46| 34| 26| 137| 28 | 27 | 40 | 80 | 99 |
| Accession     | Acc. Len (bp) | C. Len (bp) | Genomic Type |
|---------------|---------------|-------------|--------------|
| GCA_0035156   | 65,165,494    | 66,080,303  | 66v1_genomic |
| GCA_0036107   | 55,188,668    | 56,084,876  | 55v1_genomic |
| GCA_0039949   | 35,136,488    | 36,285,345  | 35v1_genomic |
| GCA_0039968   | 45,128,675    | 46,081,753  | 45v1_genomic |
| GCA_0039968   | 85,122,641    | 86,081,753  | 85v1_genomic |

Note: The numbers represent various biological and genetic information, such as accession numbers, lengths, and types of genomic data.
| Reference          | Accession | Name            | Start | End  | Length | GC Content | Nucleotides |
|--------------------|-----------|-----------------|-------|------|--------|------------|-------------|
| 88v1_genomic       | 67        | 88v1_genomic    | 6    | 5    | 36     | 5          | 6 36        |
|                    |           |                 | 0    | 3    | 5      | 1          |             |
|                    |           |                 | 6    | 2    | 0      |            |             |
|                    |           |                 | 8    |      |        |            |             |
|                    |           |                 | 1    |      |        |            |             |
|                    |           |                 | 2    | 3    | 3      |            |             |
|                    |           |                 | 40   | 8    | 0      | 3 14       |             |
| GCA_0039968        | 30        | GCA_0039968     | 30   | 19   | 4      | 8          | 2 75        |
| 95_1_ASM3996       | 7         | 95_1_ASM3996    | 7    | 54   | 72     | 0 5        | 3 52 13     |
|                    |           |                 | 40   | 19   | 4      | 8          | 2 75        |
| 89v1_genomic       | 1         | 89v1_genomic    | 1    | 07   | 5      | 6 2        | 0 71 62 51 50 36 25 721 38 31 05 27 64 |
|                    |           |                 | 2    | 1    |        |            |             |
|                    |           |                 | 40   | 8    | 4      | 4 16       |             |
| GCA_0039969        | 4         | GCA_0039969     | 4    | 43   | 50     | 0 2        | 87 2        |
| 25_1_ASM3996       | 5         | 25_1_ASM3996    | 5    | 58   | 54     | 2 8        | 2 4 9 8     |
|                    |           |                 | 2    | 1    |        |            |             |
| 92v1_genomic       | 7         | 92v1_genomic    | 7    | 07   | 5      | 6 2        | 9 2 7 1 8 0 457 445 257 146 25 2 546 62 56 04 8 6 3 |
|                    |           |                 | 2    | 8    | 9      |            |             |
|                    |           |                 | 39   | 8    | 4      | 5 33       |             |
| GCA_0039969        | 51        | GCA_0039969     | 51   | 05   | 5      | 7 5        | 83          |
| 35_1_ASM3996       | 7         | 35_1_ASM3996    | 7    | 87   | 90     | 1 7 6 95 1 |
|                    |           |                 | 3905 | 38865 | 38414  | 38357 37512 36470 |
| 93v1_genomic       | 1         | 93v1_genomic    | 1    | 78   | 2      | 2 5 9 2 5 2 0 71 45 22 21 16 13 902 24 40 10 72 74 |
|                    |           |                 | 2    | 2    | 9      |            |             |
|                    |           |                 | 40   | 8    | 7      | 3 31       |             |
| GCA_0041205        | 56        | GCA_0041205     | 56   | 15   | 7      | 3 54       |             |
| 35_1_ASM4120       | 4         | 35_1_ASM4120    | 4    | 07   | 17     | 0 7 2 92 1 |
|                    |           |                 | 4015 | 40058 | 39901  | 39837 39477 39130 |
| 53v1_genomic       | 7         | 53v1_genomic    | 7    | 90   | 4      | 5 0 9 5 5 0 47 32 24 23 20 19 174 99 88 11 98 04 |
| Reference         | Start | End   | Length | Annotation  | Genus | Species | Accession   | Release | Date   | Location |
|-------------------|-------|-------|--------|-------------|--------|---------|-------------|---------|---------|----------|
| GCA_0097338       | 86    | 38    | 49     | 85.1_ASM9733 | 88v1_genomic | 67     | 3903 3903 | 3901_genomic |    111   | 11 11 11 67 67 |
| GCA_0099389       | 43    | 43    | 1      | 35.1_ASM9938 | 93v1_genomic | 15     | 3903 3903 | 3901_genomic |    953   | 47 16 08 09 14 |
| GCA_0099393       | 1     | 1     | 1      | 25.1_ASM9939 | 32v1_genomic | 17     | 3903 3903 | 3901_genomic |    565   | 86 80 48 86 84 |
| GCA_0100783       | 36    | 36    | 1      | 45.1_ASM9939 | 34v1_genomic | 43     | 3903 3903 | 3901_genomic |    4323  | 43188 42839 42594 40126 37348 |


| Accession | Length | Identity | Mismatches | Indels | Coverage |
|-----------|--------|----------|------------|--------|----------|
| GCA_0110094 | 3973 | 8619 | 38442 | 38338 | 37486 |
| GCA_0110097 | 3657 | 4932 | 38305 | 38082 | 37873 |
| GCA_0110098 | 4027 | 40202 | 39991 | 39852 | 38839 |
| GCA_0110099 | 3861 | 38532 | 38305 | 38082 | 37873 |
| GCA_0110100 | 3981 | 40202 | 39991 | 39852 | 38839 |
| Dataset | Length (bp) | Quality Score (Q30) | GC Content (%) |
|---------|------------|---------------------|----------------|
| GCA_0110098 | 378,883 | 95.1 | 37.8 |
| 75.1_ASM1100 | 988v1_genomi | 37 | 1,513 | 76.1 |
| GCA_0110098 | 348,883 | 95.1 | 37.8 |
| 85.1_ASM1100 | 988v1_genomi | 37 | 1,513 | 76.1 |
| GCA_0110099 | 388,883 | 95.1 | 37.8 |
| 15.1_ASM1100 | 991v1_genomi | 37 | 1,513 | 76.1 |
| GCA_0110099 | 428,883 | 95.1 | 37.8 |
| 25.1_ASM1100 | 992v1_genomi | 37 | 1,513 | 76.1 |
| Sequence       | Start1 | End1 | Start2 | End2 | Start3 | End3 | Start4 | End4 | Start5 | End5 | Start6 | End6 |
|----------------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|
| GCA_0110099    | 3      | 997  | 3      | 997  | 3      | 997  | 3      | 997  | 3      | 997  | 3      | 997  |
| 998v1_genomi   | 7      | 7    | 1      | 2    | 3      | 1    | 4      | 1    | 4      | 1    | 4      | 1    |
| c              | 9      | 18   | 15     | 1    | 1      | 1    | 1      | 1    | 1      | 1    | 1      | 1    |
| GCA_0110099    | 3      | 997  | 3      | 997  | 3      | 997  | 3      | 997  | 3      | 997  | 3      | 997  |
| 998v1_genomi   | 7      | 7    | 1      | 2    | 3      | 1    | 4      | 1    | 4      | 1    | 4      | 1    |
| c              | 9      | 18   | 15     | 1    | 1      | 1    | 1      | 1    | 1      | 1    | 1      | 1    |
| GCA_0110099    | 3      | 997  | 3      | 997  | 3      | 997  | 3      | 997  | 3      | 997  | 3      | 997  |
| 998v1_genomi   | 7      | 7    | 1      | 2    | 3      | 1    | 4      | 1    | 4      | 1    | 4      | 1    |
| c              | 9      | 18   | 15     | 1    | 1      | 1    | 1      | 1    | 1      | 1    | 1      | 1    |
| GenBank ID | Percentage | Assembly | Version | Genomic Location | Functions |
|------------|------------|----------|---------|------------------|-----------|
| GCA_0110100 | 65.1 | ASM1101 | 005v1 | GCA_0110100 | 38 8 1 8 10 |
| 55.1_ASM1101 | 30 51 | 6 3 33 | 005v1_genomi | GCA_0110100 | 5 54 95 0 1 7 07 1 4 |
| 3 2 3 | c | 5 99 | 2 3 9 1 6 4 9 0 112 92 79 70 42 28 002 44 74 41 14 25 |
| 2 8 1 | c | 2 1 3 |
| GCA_0110100 | 38 8 2 | 5 20 | 006v1_genomi | GCA_0110100 | 5 65 14 0 0 8 77 2 |
| 65.1_ASM1101 | 33 54 | 3 3 11 | 006v1_genomi | GCA_0110100 | 0 98 | 4 3 0 | 1 2 7 1 0 73 49 37 32 28 19 944 35 36 04 15 23 |
| 1 2 3 4 | c | 1 2 3 4 |
| GCA_0110100 | 38 8 1 5 18 | 85.1_ASM1101 | 008v1_genomi | GCA_0110100 | 5 93 36 0 9 3 67 2 |
| 85.1_ASM1101 | 34 59 | 5 1 48 | 008v1_genomi | GCA_0110100 | 0 78 2 2 6 6 1 8 5 0 61 49 39 39 39 32 22 813 53 52 52 91 77 |
| 2 3 4 | c | 2 2 3 4 |
| GCA_0110100 | 38 8 0 4 16 | 05.1_ASM1101 | 010v1_genomi | GCA_0110100 | 8 48 44 0 6 8 47 1 3 |
| 05.1_ASM1101 | 53 52 | 8 6 04 | 010v1_genomi | GCA_0110100 | 6 85 | 0 3 4 1 2 1 9 0 99 82 68 57 38 25 483 16 07 93 56 99 |
| 010v1_genomi | 3 61 38 2 3 9 31 1 | GCA_0110100 | 3 61 38 2 3 9 31 1 |
| 35.1_ASM1101 | 1 15 64 8 1 8 55 5 3 0 41 30 21 20 18 16 578 24 21 19 23 63 | GCA_0110100 | 3 61 38 2 3 9 31 1 |
|        | 2  | 7  | 1  | 5  | 0  | 138 | 118 | 87  | 75  | 48  | 32  | 930 | 28  | 34  | 20  | 34  | 57  |
|--------|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GCA_0110102 | 41 | 7  | 9  | 91 |    |     |     |     |     |     |     |     |     |     |     |     |     |
| 35.1_ASM1101 | 1  | 23 | 72 | 4  | 4  | 54  |     |     |     |     |     |     |     |     |     |     |     |
| 023v1_genomi | 2  | 44 | 99 | 9  | 6  | 1   | 7  | 15  |     |     |     |     |     |     |     |     |     |
| c       | 5  | 23 | 1  | 3  | 1  | 1   | 78 |     |     |     |     |     |     |     |     |     |     |
| GCA_0110102 | 38 | 8  | 9  | 84 |    |     |     |     |     |     |     |     |     |     |     |     |     |
| 45.1_ASM1101 | 1  | 23 | 51 | 9  | 7  | 66  |     |     |     |     |     |     |     |     |     |     |     |
| 024v1_genomi | 0  | 18 | 73 | 0  | 4  | 2   | 15  |     |     |     |     |     |     |     |     |     |
| c       | 9  | 14 | 9  | 4  | 7  | 1   | 58 | 88  |     |     |     |     |     |     |     |     |     |
| GCA_0110102 | 41 | 7  | 9  | 84 |    |     |     |     |     |     |     |     |     |     |     |     |     |
| 75.1_ASM1101 | 1  | 21 | 32 | 7  | 6  | 9  |     |     |     |     |     |     |     |     |     |     |     |
| 027v1_genomi | 0  | 57 | 03 | 2  | 9  | 30  | 14  |     |     |     |     |     |     |     |     |     |
| c       | 3  | 44 | 5  | 9  | 6  | 4   | 58 | 88  |     |     |     |     |     |     |     |     |
| GCA_0110102 | 38 | 8  | 2  | 28 |    |     |     |     |     |     |     |     |     |     |     |     |     |
| 85.1_ASM1101 | 45 | 62 | 4  | 5  | 69 |     |     |     |     |     |     |     |     |     |     |     |     |
| 028v1_genomi | 3  | 12 | 82 | 0  | 2  | 9   | 1  |     |     |     |     |     |     |     |     |     |
| c       | 1  | 14 | 1  | 1  | 1  | 2   | 5  | 6  | 4  |     |     |     |     |     |     |     |
| GCA_0110102 | 38 | 8  | 2  | 4  | 24 |     |     |     |     |     |     |     |     |     |     |     |     |
| 95.1_ASM1101 | 45 | 62 | 8  | 5  | 12 |     |     |     |     |     |     |     |     |     |     |     |     |
| 029v1_genomi | 4  | 48 | 07 | 9  | 6  | 54  | 2  |     |     |     |     |     |     |     |     |     |
| c       | 4  | 61 | 1  | 0  | 7  | 8   | 6  | 0  | 58 | 43  | 35  | 33  | 27  | 18  | 446 | 62  | 48  | 66  | 68  | 80  |
| Accession | Version | Length | Genomic Start | Genomic End | GC Content |
|-----------|---------|--------|---------------|-------------|------------|
| GCA_0110103  | 35.1_ASM1101 | 41,766 | 10,425,439 | 10,425,845 | 35.1% |
| GCA_0110103  | 45.1_ASM1101 | 39,825 | 19,645,968 | 19,653,193 | 45.1% |
| GCA_0110103  | 55.1_ASM1101 | 39,091 | 19,675,493 | 19,684,684 | 55.1% |
| GCA_0110104  | 15.1_ASM1101 | 45,053 | 19,540,966 | 19,586,019 | 15.1% |
| Genomic accession | Assembly | Length (bp) | N50 (bp) | GCA_ID | Assembly ID |
|-------------------|----------|-------------|----------|--------|-------------|
| GCA_0110104       | 35.1_ASM1101 | 162970035  | 14214965 | 3967   | 39562       |
|                   |          |             |          | 38811  | 38032       |
|                   |          |             |          | 32912  | 26960       |
| GCA_0110104       | 45.1_ASM1101 | 162970035  | 14214965 | 3967   | 39562       |
|                   |          |             |          | 38811  | 38032       |
|                   |          |             |          | 32912  | 26960       |
| GCA_0110104       | 55.1_ASM1101 | 162970035  | 14214965 | 3967   | 39562       |
|                   |          |             |          | 38811  | 38032       |
|                   |          |             |          | 32912  | 26960       |
| GCA_0110104       | 85.1_ASM1101 | 162970035  | 14214965 | 3967   | 39562       |
|                   |          |             |          | 38811  | 38032       |
|                   |          |             |          | 32912  | 26960       |
|      |      |      |
|------|------|------|
| GCA_0110105  | 39 | 8 | 6 | 15 |
| 05.1_ASM1101  | 47 | 44 | 9 | 4 | 02 |
| 050v1_genomi  | 8  | 23 | 98 | 0 | 2 | 7 | 04 | 1 | 3 |
| c             | 3  | 56 | 5 | 5 | 6 | .5 | 1 | 9 | 0 | 99 | 76 | 61 | 56 | 41 | 26 | 710 | 42 | 32 | 48 | 54 | 40 |
| GCA_0110105  | 39 | 8 | 4 | 8 | 13 |
| 35.1_ASM1101  | 27 | 46 | 9 | 8 | 25 |
| 053v1_genomi  | 7  | 69 | 35 | 0 | 1 | 1 | 11 | 1 | 3 |
| c             | 5  | 58 | 6 | 4 | 0 | 1 | .1 | 1 | 6 | 0 | 92 | 69 | 58 | 53 | 36 | 27 | 549 | 67 | 07 | 76 | 25 | 05 |
| GCA_0110105  | 39 | 8 | 5 | 2 |
| 45.1_ASM1101  | 33 | 46 | 0 | 7 | 15 |
| 054v1_genomi  | 7  | 55 | 15 | 0 | 6 | 3 | 54 | 3 |
| c             | 8  | 39 | 7 | 3 | 7 | 8 | 86 | 9 | 4 | 0 | 93 | 72 | 59 | 52 | 31 | 25 | 691 | 68 | 61 | 72 | 29 | 19 |
| GCA_0110105  | 39 | 8 | 6 | 3 | 86 |
| 75.1_ASM1101  | 1  | 29 | 22 | 1 | 3 | 70 |
| 057v1_genomi  | 4  | 77 | 91 | 0 | 8 | 6 | 9 | 1 | 6 |
| c             | 4  | 54 | 7 | 6 | 2 | 6 | 6 | 8 | 8 | 0 | 168 | 136 | 100 | 77 | 47 | 22 | 568 | 54 | 98 | 83 | 13 | 58 |
| GCA_0110106  | 1  | 22 | 39 | 2 | 7 | 1 | 78 |
| 15.1_ASM1101  | 3  | 26 | 40 | 8 | 7 | 3 | 27 | 1 | 6 |
| 061v1_genomi  | 7  | 25 | 01 | .4 | 8 | 5 | 8 | 6 | 0 | 152 | 130 | 98 | 80 | 45 | 26 | 562 | 08 | 80 | 41 | 43 | 49 |
| Position | c  | 0  | 2  | 4  | 5  | 7  | 8  | 9  | 1  | 2  | 1  | 7  | 6  | 7  | 8  | 2  | 1  | 4  | 5  | 7  | 8  | 9  | 1  | 2  |
|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| GCA_0110106 | 41 | 38 | 0  | 4  | 3  | 1  | 6  | 8  | 9  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| 35.1_ASM1101 | 1  | 22 | 61 | 9  | 7  | 5  | 73 | 1  | 2  | 8  | 1  | 7  | 6  | 7  | 8  | 2  | 1  | 4  | 5  | 7  | 8  | 9  | 1  | 2  | 1  | 4  | 5  | 7  | 8  | 9  | 1  | 2  |
| 063v1_genomic | 4  | 08 | 76 | 0  | 3  | 1  | 6  | 1  | 6  | 4  | 15 | 92 | 17 | 22 | 16 | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| GCA_0110106 | 41 | 38 | 0  | 4  | 3  | 1  | 6  | 8  | 9  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| 45.1_ASM1101 | 1  | 26 | 9  | 6  | 0  | 81 | 1  | 4  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| 064v1_genomic | 1  | 26 | 40 | 9  | 6  | 0  | 81 | 1  | 4  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| GCA_0110106 | 41 | 38 | 0  | 4  | 3  | 1  | 6  | 8  | 9  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| 55.1_ASM1101 | 1  | 26 | 40 | 9  | 6  | 0  | 81 | 1  | 4  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| 065v1_genomic | 1  | 26 | 40 | 9  | 6  | 0  | 81 | 1  | 4  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| GCA_0110106 | 41 | 38 | 0  | 4  | 3  | 1  | 6  | 8  | 9  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| 85.1_ASM1101 | 1  | 26 | 40 | 9  | 6  | 0  | 81 | 1  | 4  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| 068v1_genomic | 1  | 26 | 40 | 9  | 6  | 0  | 81 | 1  | 4  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| GCA_0110107 | 1  | 59 | 41 | 2  | 9  | 2  | 19 | 3  | 4  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| 15.1_ASM1101 | 1  | 59 | 41 | 2  | 9  | 2  | 19 | 3  | 4  | 2  | 1  | 6  | 3  | 7  | 4  | 0  | 17 | 34 | 99 | 76 | 41 | 28 | 159 | 77 | 87 | 51 | 77 |
| Strain         | Percent Composition | Number of Cells |
|---------------|---------------------|-----------------|
| GCA_0110107   | 071v1_genomi        | 0 87 43 0 6 14 |
|               | c                   | 6 0 7 4 .8     |
|               |                      | 7 4 0           |
|               |                      | 2 2 3           |
| 35.1_ASM1101  |                     |                |
| 073v1_genomi  |                     | 41 81 0 15     |
|               | c                   | 39 63 0 9 33   |
|               |                      |                |
| 45.1_ASM1101  |                     |                |
| 074v1_genomi  |                     | 5 9 0 7 8 4     |
|               | c                   | 6 43 5 6 8 4 .5|
|               |                      | 1 1 0 102 75 51|
|               |                      | 46 35 26 441 76|
|               |                      | 80 29 52 90    |
| 39.1_ASM1101  |                     |                |
| 077v1_genomi  |                     | 3 5 0 7 8 1     |
|               | c                   | 9 7 9 1 2 9 8 1|
|               |                      | 4 5 0 177 152   |
|               |                      | 116 98 48 23 662|
|               |                      | 35 25 36 08 30|
| 75.1_ASM1101  |                     |                |
| 078v1_genomi  |                     | 6 9 0 7 8 2     |
|               | c                   | 3 5 2 8 6 7 .5|
|               |                      | 9 1 0 80 61 51|
|               |                      | 46 36 25 848 84|
|               |                      | 63 91 04 34 00|
| 85.1_ASM1101  |                     |                |
| ID            | Accession   | Description | Genomic Coordinates | Amino Acid Coordinates | Sequence Length |
|---------------|-------------|-------------|---------------------|------------------------|-----------------|
| GCA_0110108   | 35.1_ASM1101| 083v1_genomi| 2 6 1               | 7 423 26 5 1             | 352            |
| GCA_0110108   | 65.1_ASM1101| 086v1_genomi| 2 6 1               | 7 423 26 5 1             | 352            |
| GCA_0110108   | 95.1_ASM1101| 089v1_genomi| 2 6 1               | 7 423 26 5 1             | 352            |
| GCA_0110109   | 05.1_ASM1101| 090v1_genomi| 2 6 1               | 7 423 26 5 1             | 352            |
| GCA_0110109   | 35.1_ASM1101| 093v1_genomi| 2 6 1               | 7 423 26 5 1             | 352            |
| GenBank ID | Version | Length | Identity | Similarity | Accession 1 | Accession 2 | Accession 3 | Accession 4 | Accession 5 | Accession 6 | Accession 7 | Accession 8 | Accession 9 | Accession 10 | Accession 11 | Accession 12 | Accession 13 | Accession 14 |
|-----------|---------|--------|----------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| GCA_0110109 | 45.1_ASM1101 | 99378 | 414 | 93.1 | 3795 | 3792 | 37612 | 37500 | 35795 | 29885 | 4090 | 40839 | 40459 | 40310 | 38203 | 35071 |
| 094v1_genomi | 36 | 92 | 9 | 9 | 9 | 83 | 7 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| c | 6 | 80 | 69 | 0 | 2 | 7 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| GCA_0110109 | 65.1_ASM1101 | 4486 | 9 | 9 | 9 | 68 | 7 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 096v1_genomi | 40 | 8 | 6 | 9 | 16 | 9 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| c | 3 | 99 | 9 | 2 | 7 | 5 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| GCA_0110109 | 75.1_ASM1101 | 4687 | 1 | 4 | 15 | 4 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 097v1_genomi | 40 | 8 | 8 | 3 | 24 | 3 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| c | 6 | 51 | 2 | 2 | 7 | 8 | 5 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| GCA_0110110 | 15.1_ASM1101 | 4887 | 4 | 4 | 30 | 4 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 101v1_genomi | 40 | 8 | 9 | 2 | 22 | 2 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| c | 3 | 73 | 4 | 2 | 3 | 9 | 3 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| GCA_0110110 | 14.1_ASM1101 | 4987 | 4 | 4 | 30 | 4 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 102v1_genomi | 40 | 8 | 9 | 2 | 22 | 2 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| GCA_0110111  | 35.1_ASM1101 | 113v1_genomi | c  | 87.3 16  
|-------------|------------|-------------|----|-------
| GCA_0110111  | 40 8 6 5 16 | 46 85 2 8 35 | 8 12 09 8 74 1 3 | 3 19 1 3 2 9 .7 0 5 0 100 77 57 47 40 28 887 35 12 80 92 82 |
| GCA_0110111  | 40 8 7 5 84 | 1 26 75 2 4 15 | 4 07 13 0 0 7 0 1 7 | 9 57 9 5 2 6 7 9 4 0 167 143 103 90 51 23 372 05 75 40 05 52 |
| GCA_0110111  | 40 8 6 3 11 | 1 27 82 5 3 01 | 0 72 61 0 5 3 82 1 4 | 1 69 2 3 2 8 .7 4 5 0 116 96 71 60 44 28 921 44 94 41 91 23 |
| GCA_0110111  | 40 8 3 0 18 | 85.1_ASM1101 | 41 82 0 3 24 | 8 33 43 0 7 8 84 3 | 5 51 7 3 7 3 2 8 1 0 103 76 54 46 35 21 594 07 51 47 01 93 |
| GCA_0110112  | 1 46 40 2 9 2 13 1 4 | 118v1_genomi | 4088 40791 40060 39555 36410 30382 | 8 33 43 0 7 8 84 3 | 5 51 7 3 7 3 2 8 1 0 103 76 54 46 35 21 594 07 51 47 01 93 |
| GCA_0110112  | 1 46 40 2 9 2 13 1 4 | 15.1_ASM1101 | 0 11 84 8 8 3 75 2 6 0 120 97 70 63 44 27 527 96 34 96 72 92 |
| Genomic Region | Start | End | Length | Start | End | Length |
|---------------|-------|-----|--------|-------|-----|--------|
| 121v1_genomi  | 5     | 96  | 91     | 2     | 7   | 5      |
| c             | 4     | 0   | 1      | 0     | .3  |        |
|               | 3     | 4   | 7      |       |     |        |
|               | 2     | 8   | 2      |       |     |        |
| GCA_0110112   | 39    | 7   | 9      | 4     | 11  |        |
| 35.1_ASM1101  | 29    | 29  | .5     | 8     | 5   | 65     |
| 123v1_genomi  | 8     | 57  | 49     | 9     | 5   | 32     |
|               | 0     | 90  | 83     | 65    | 58  | 40     |
|               | 27    | 0   | 29     | 64    | 10  | 45     |
|               | 61    | 74  |        |       |     |        |
| GCA_0110112   | 39    | 7   | 8      | 6     | 11  |        |
| 45.1_ASM1101  | 22    | 30  | .9     | 9     | 3   | 69     |
| 124v1_genomi  | 8     | 90  | 92     | 9     | 2   | 13     |
|               | 1     | 13  | 14     |       |     |        |
| c             | 5     | 62  | 4      | 9     | 9   | 4      |
|               | .9    | 2   | 0      | 0     | 91  | 82     |
|               | 64    | 56  | 42     | 42    | 28  | 28     |
|               | 0     | 63  | 72     | 36    | 30  | 05     |
|               | 04    |     |        |       |     |        |
| GCA_0110112   | 40    | 8   | 3      | 1     | 43  |        |
| 55.1_ASM1101  | 74    | 84  | .1     | 0     | 95  |        |
| 125v1_genomi  | 4     | 09  | 77     | 0     | 2   | 0      |
|               | 74    | 1   |        |       |     |        |
| c             | 6     | 08  | 2      | 7     | 2   | 2      |
|               | .4    | 1   | 0      | 65    | 41  | 19     |
|               | 19    | 1    | 17     | 14    | 337 | 59     |
|               | 44    | 44   | 09    | 05    |     |        |
| GCA_0110112   | 39    | 8   | 3      | 1     | 11  |        |
| 95.1_ASM1101  | 22    | 72  | .2     | 6     | 08  |        |
| 129v1_genomi  | 9     | 49  | 08     | 0     | 3   | 1      |
|               | 04    | 14  |        |       |     |        |
| c             | 8     | 69  | 2      | 5     | 1   | 5      |
|               | .7    | 3   | 4      | 0     | 107 | 91     |
|               | 70    | 60  | 41     | 25    | 101 | 58     |
|               | 04    | 80  | 68     | 82    |     |        |
| GCA_0110113   | 5     | 32  | 39     | 2     | 1   | 5      |
|               | 15    | 17  | 9      | 2     | 0   | 65     |
|               | 52    | 41  | 37     | 30    | 25  | 3978   |
|               | 39724 | 39425 | 39145 | 37903 | 36205 |
| Location | ID       | Length | Genomic Region | Heterozygosity | GC Content | GC Content Variance | GC Skew | GC Skew Variance | GC Content Skew | GC Content Skew Variance | GC Content Skew Variance Variance |
|----------|----------|--------|----------------|---------------|------------|---------------------|---------|-----------------|----------------|--------------------------|-----------------------------------|
| 15.1_ASM1101 | 9 46 76 8 7 9 07 5 | 619 70 33 15 25 89 | 131v1_genomi | 08 49 . 8 9 58 | 4 0 6 6 .1 | 4 7 2 | 8 | 3 | 2 0 6 |
| GCA_0110113 | 39 8 8 0 35 | 35.1_ASM1101 | 66 76 . 1 9 78 | 133v1_genomi | 4 34 32 0 9 5 61 1 | 3978 39723 39509 39402 39219 38109 | c | 2 36 5 4 0 0 .2 4 6 0 48 35 26 24 23 20 450 01 09 82 68 91 | 1 |
| GCA_0110113 | 39 8 1 8 13 | 45.1_ASM1101 | 29 13 . 1 8 12 | 134v1_genomi | 8 97 61 0 6 2 20 1 4 | 3916 39098 38647 38069 35788 30888 | c | 4 70 1 5 3 9 .6 1 1 0 94 78 62 55 42 28 426 56 32 82 72 57 |
| GCA_0110113 | 39 8 5 9 74 | 75.1_ASM1101 | 1 26 94 . 3 0 81 | 137v1_genomi | 4 83 94 0 9 6 7 .2 7 | 3998 39869 39195 37933 32249 21469 | c | 1 08 8 9 0 3 1 2 2 0 153 130 104 86 54 24 935 80 98 76 42 28 |
| GCA_0110113 | 39 2 1 5 19 | 85.1_ASM1101 | 39 31 7 8 8 79 | 138v1_genomi | 5 53 50 . 5 5 08 2 | 3934 39303 39018 38755 38048 35990 | c | 0 95 1 9 1 7 .7 8 2 0 59 48 36 32 28 23 183 61 94 92 58 61 |
| GCA_0110114  | 15.1_ASM1101 | 141v1_genomi | c |
|-------------|--------------|--------------|---|
| 10          | 40           | 8            | 6 |
| 78          | 00           | 9            | 0 |
| 3           | 18           | 42           | 0 |
| 4           | 5            | 8            | 0 |
| 6           | 8            | 1            | 0 |
| 78          | 41           | 20           | 0 |
| 19          | 19           | 16           | 0 |
| 68          | 20           | 589          | 0 |
| 82          | 82           | 82           | 0 |
| 38775       | 4003         | 39979        | 4 |
| 39825       | 39772        | 39772        | 4 |
| 38775       | 38775        | 38775        | 4 |
| GCA_0110114 | 35.1_ASM1101 | 143v1_genomi | c |
| 39          | 2            | 6            | 0 |
| 9           | 81           | 21           | 0 |
| 3           | 1            | 6            | 0 |
| 5           | 1            | 4            | 0 |
| 112         | 91           | 73           | 0 |
| 61          | 41           | 26           | 0 |
| 383         | 46           | 64           | 0 |
| 68          | 68           | 73           | 0 |
| 30146       | 3999         | 39895        | 3 |
| 39895       | 39441        | 38662        | 3 |
| 35385       | 30146        | 30146        | 3 |
| GCA_0110114 | 45.1_ASM1101 | 144v1_genomi | c |
| 40          | 8            | 8            | 0 |
| 1           | 73           | 87           | 0 |
| 14          | 4           | 8            | 0 |
| 3           | 0            | 6            | 0 |
| 0           | 197          | 169          | 0 |
| 124         | 97           | 52           | 0 |
| 25          | 213          | 08           | 0 |
| 20          | 60           | 71           | 0 |
| 52          | 20292        | 20292        | 2 |
| GCA_0110114 | 65.1_ASM1101 | 146v1_genomi | c |
| 41          | 8            | 6            | 0 |
| 12          | 1            | 4            | 0 |
| 3           | 1           | 8            | 0 |
| 1           | 37           | 2            | 0 |
| 6           | 71           | 6            | 0 |
| 26          | 988          | 28           | 0 |
| 32          | 45           | 80           | 0 |
| 88          | 88           | 88           | 0 |
| Genotype   | c        | GCA_0110115                  |
|------------|----------|-------------------------------|
| 149v1_genomi | 4 81 93 98 1 | 40 96 82 16 37 8 5 6 22 |
| c          | 6 0 4 3 5 4 9 3 2 1 5 | 7 78 4 2 5 3 .4 7 0 0 56 43 32 31 27 20 774 06 08 89 00 11 2 |
| 151v1_genomi | 4 38 01 0 9 5 17 2 | 153v1_genomi | 3 46 94 2 4 9 5 2 7 |
| c          | 2 33 9 1 4 8 2 4 2 0 137 128 95 81 44 18 674 29 61 06 43 78 9 2 |
| 153v1_genomi | 3 46 94 2 4 9 5 2 7 | 154v1_genomi | 8 60 51 2 8 4 93 1 4 |
| c          | 2 33 9 1 4 8 2 4 2 0 137 128 95 81 44 18 674 29 61 06 43 78 9 2 |
| 154v1_genomi | 8 60 51 2 8 4 93 1 4 | 157v1_genomi | 1 70 33 0 0 1 7 1 5 |
| c          | 8 42 1 1 9 7 8 6 4 0 131 113 83 70 44 26 990 57 24 26 91 61 2 7 1 |
| 157v1_genomi | 1 70 33 0 0 1 7 1 5 | 158v1_genomi | 4 37 38 2 2 5 22 2 |
| c          | 8 42 1 1 9 7 8 6 4 0 131 113 83 70 44 26 990 57 24 26 91 61 2 7 1 |
| 158v1_genomi | 4 37 38 2 2 5 22 2 | 85v1_genomi | 8 35 68 7 7 1 61 6 1 0 |
| c          | 8 42 1 1 9 7 8 6 4 0 131 113 83 70 44 26 990 57 24 26 91 61 2 7 1 |
| 85v1_genomi | 8 35 68 7 7 1 61 6 1 0 |
| Genomics | Coverage | Similarity | Identity | Length | 
|----------|----------|------------|----------|--------|
| 158v1_genomi | 87 34 . 1 4 56 | 6 9 7 8 .5 | 8 6 0 | 2 | 2 9 6 |
| GCA_0110116 | 39 7 5 3 30 | 4 35 66 9 2 0 07 1 | 4 27 9 8 8 .4 5 8 0 48 41 32 28 24 20 | 2 | 2 8 |
| 151_ASM1101 | 63 32 . 3 3 45 | 4 35 66 9 2 0 07 1 | 4 27 9 8 8 .4 5 8 0 48 41 32 28 24 20 | 2 | 2 8 |
| 161v1_genomi | 4 32 80 9 9 4 11 | 4 32 80 9 9 4 11 | 4 32 80 9 9 4 11 | 4 32 80 9 9 4 11 | 2 | 2 8 |
| GCA_011016 | 10 38 7 0 3 | 3 3 7 7 0 2 90 3 7 0 33 21 13 | 2 | 3 1 |
| 351_ASM1101 | 63 48 . 1 4 62 | 4 32 80 9 9 4 11 | 4 32 80 9 9 4 11 | 4 32 80 9 9 4 11 | 2 | 2 8 |
| 163v1_genomi | 2 32 80 9 9 4 11 | 3 3 7 7 0 2 90 3 7 0 33 21 13 | 2 | 3 1 |
| GCA_011016 | 38 8 0 7 12 | 3 3 7 7 0 2 90 3 7 0 33 21 13 | 2 | 3 1 |
| 451_ASM1101 | 1 33 21 . 1 5 28 | 1 | 3 | 1 5 28 | 1 | 3 1 |
| 164v1_genomi | 0 68 85 0 5 5 14 1 4 | 6 13 0 4 9 4 .9 2 9 0 120 104 | 6 13 0 4 9 4 .9 2 9 0 120 104 | 6 13 0 4 9 4 .9 2 9 0 120 104 | 2 | 1 3 |
| GCA_011016 | 38 8 0 7 12 | 6 13 0 4 9 4 .9 2 9 0 120 104 | 6 13 0 4 9 4 .9 2 9 0 120 104 | 6 13 0 4 9 4 .9 2 9 0 120 104 | 2 | 1 3 |
| 651_ASM1101 | 30 91 . 1 1 84 | 6 13 0 4 9 4 .9 2 9 0 120 104 | 6 13 0 4 9 4 .9 2 9 0 120 104 | 6 13 0 4 9 4 .9 2 9 0 120 104 | 2 | 1 3 |
| 166v1_genomi | 7 71 95 0 0 8 20 1 3 | 1 20 7 3 4 7 .5 0 6 0 83 67 | 1 20 7 3 4 7 .5 0 6 0 83 67 | 1 20 7 3 4 7 .5 0 6 0 83 67 | 2 | 1 3 |
| Assembly | Version | Genomic | GCA_0110116 | GCA_0110117 | GCA_0110118 |
|----------|---------|---------|--------------|--------------|--------------|
| 95.1_ASM1101 | 169v1_genomi | c | 37 8 0 0 28 | 30 62 0 3 5 21 1 | 38 6 8 14 |
| 15.1_ASM1101 | 171v1_genomi | c | 5 15 6 2 0 6 1 5 4 0 46 32 23 22 21 17 0 96 57 92 71 35 11 | 30 72 6 2 16 | 38 6 8 14 |
| 172v1_genomi | 173v1_genomi | c | 5 15 6 2 0 6 1 5 4 0 46 32 23 22 21 17 0 96 57 92 71 35 11 | 30 72 6 2 16 | 38 6 8 14 |
| 35.1_ASM1101 | 173v1_genomi | c | 5 15 6 2 0 6 1 5 4 0 46 32 23 22 21 17 0 96 57 92 71 35 11 | 30 72 6 2 16 | 38 6 8 14 |
| Genomic Site | Total Length (bp) | Prefix | Assembly | Total Length (bp) | Prefix | Assembly | Total Length (bp) | Prefix | Assembly | Total Length (bp) | Prefix | Assembly | Total Length (bp) | Prefix | Assembly | Total Length (bp) | Prefix | Assembly |
|--------------|------------------|--------|----------|------------------|--------|----------|------------------|--------|----------|------------------|--------|----------|------------------|--------|----------|------------------|--------|----------|
| 175v1_genomi| 08 45            | 5 1    | 55       | GCA_0110117     | 37 8   | 5 1     | 76               | GCA_0110118     | 37 7   | 3 1     | 97               | GCA_0110118     | 38 8   | 3 1     | 16               | GCA_0110118     | 38 8   | 3 1     | |
|            |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| GCA_0110119 | 38    | 8     | 2     | 9     | 20    |       |       |       |       |       |       |       |       |       |
| 65.1_ASM1101 | 37    | 61    | .     | 3     | 302   |       |       |       |       |       |       |       |       |       |
| 196v1_genomi | 4     | 81    | 54    | 0     | 1     | 9     | 35    | 2     |       |       |       |       |       |       |
|             | 4     | 78    | 1     | 2     | 9     | .6    | 7     | 1     | 0     | 56    | 43    | 36    | 33    | 27    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| GCA_0110119 | 37    | 8     | 2     | 7     | 15    |       |       |       |       |       |       |       |       |       |
| 95.1_ASM1101 | 37    | 95    | .     | 8     | 409   |       |       |       |       |       |       |       |       |       |
| 199v1_genomi | 6     | 29    | 19    | 0     | 8     | 4     | 24    | 1     | 3     |       |       |       |       |       |
|             | 9     | 59    | 5     | 2     | 8     | 8     | .5    | 0     | 3     | 0     | 82    | 65    | 50    | 47    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| GCA_0110120 | 43    | 7     | 5     | 9     | 89    |       |       |       |       |       |       |       |       |       |
| 05.1_ASM1101 | 1     | 28    | 29    | .     | 8     | 8     | 13    |       |       |       |       |       |       |       |
| 200v1_genomi | 2     | 46    | 93    | 9     | 7     | 3     | 1     | 1     | 6     |       |       |       |       |       |
|             | 8     | 04    | 1     | 5     | 8     | 5     | 2     | 8     | 4     | 0     | 154   | 117   | 95    | 83    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| GCA_0110120 | 38    | 7     | 3     | 2     | 13    |       |       |       |       |       |       |       |       |       |
| 15.1_ASM1101 | 30    | 64    | .     | 5     | 0     | 74    |       |       |       |       |       |       |       |       |
| 201v1_genomi | 5     | 19    | 96    | 9     | 0     | 1     | 20    | 1     | 3     |       |       |       |       |       |
|             | 9     | 35    | 0     | 8     | 9     | 6     | .3    | 1     | 0     | 0     | 66    | 56    | 45    | 44    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| GCA_0110120 | 37    | 39    | 2     | 1     | 4     | 17    |       |       |       |       |       |       |       |       |
| 55.1_ASM1101 | 6     | 33    | 76    | 8     | 5     | 2     | 89    | 2     |       |       |       |       |       |       |
| 205v1_genomi | 1     | 08    | 70    | .     | 6     | 9     | 30    | 8    | 7     | 0     | 76    | 55    | 42    | 39    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

|            |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

| GCA_0110119 | 38    | 8     | 2     | 9     | 20    |       |       |       |       |       |       |       |       |       |
| 65.1_ASM1101 | 37    | 61    | .     | 3     | 302   |       |       |       |       |       |       |       |       |       |
| 196v1_genomi | 4     | 81    | 54    | 0     | 1     | 9     | 35    | 2     |       |       |       |       |       |       |
|             | 4     | 78    | 1     | 2     | 9     | .6    | 7     | 1     | 0     | 56    | 43    | 36    | 33    | 27    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| GCA_0110119 | 37    | 8     | 2     | 7     | 15    |       |       |       |       |       |       |       |       |       |
| 95.1_ASM1101 | 37    | 95    | .     | 8     | 409   |       |       |       |       |       |       |       |       |       |
| 199v1_genomi | 6     | 29    | 19    | 0     | 8     | 4     | 24    | 1     | 3     |       |       |       |       |       |
|             | 9     | 59    | 5     | 2     | 8     | 8     | .5    | 0     | 3     | 0     | 82    | 65    | 50    | 47    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| GCA_0110120 | 43    | 7     | 5     | 9     | 89    |       |       |       |       |       |       |       |       |       |
| 05.1_ASM1101 | 1     | 28    | 29    | .     | 8     | 8     | 13    |       |       |       |       |       |       |       |
| 200v1_genomi | 2     | 46    | 93    | 9     | 7     | 3     | 1     | 1     | 6     |       |       |       |       |       |
|             | 8     | 04    | 1     | 5     | 8     | 5     | 2     | 8     | 4     | 0     | 154   | 117   | 95    | 83    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| GCA_0110120 | 38    | 7     | 3     | 2     | 13    |       |       |       |       |       |       |       |       |       |
| 15.1_ASM1101 | 30    | 64    | .     | 5     | 0     | 74    |       |       |       |       |       |       |       |       |
| 201v1_genomi | 5     | 19    | 96    | 9     | 0     | 1     | 20    | 1     | 3     |       |       |       |       |       |
|             | 9     | 35    | 0     | 8     | 9     | 6     | .3    | 1     | 0     | 0     | 66    | 56    | 45    | 44    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| GCA_0110120 | 37    | 39    | 2     | 1     | 4     | 17    |       |       |       |       |       |       |       |       |
| 55.1_ASM1101 | 6     | 33    | 76    | 8     | 5     | 2     | 89    | 2     |       |       |       |       |       |       |
| 205v1_genomi | 1     | 08    | 70    | .     | 6     | 9     | 30    | 8    | 7     | 0     | 76    | 55    | 42    | 39    |
|             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| c  | 7046.5  |
|----|--------|
|    | 566    |
|    | 6      |
|    | 1      |
|    | 242    |
| GCA_0110120 | 4180921 |
| 75.1_ASM1101 | 64631966 |
| 207v1_genomi | 80609713 | 41681454240994405193800335915 |
| c  | 96604.4810777534632264201194246067 |
|    | 1      |
|    | 273    |
| GCA_0110120 | 41835 |
| 95.1_ASM1101 | 58640425 |
| 209v1_genomi | 85957063102 | 41704154540881403833887936460 |
| c  | 8138696126501077445382922318607296318 |
|    | 1      |
|    | 233    |
| GCA_0110121 | 3987718 |
| 05.1_ASM1101 | 44701062 |
| 210v1_genomi | 79641011782 | 39723966339273385553777834026 |
| c  | 1462541.48907864514035249458873253261 |
|    | 213    |
| GCA_0110121 | 4084020 |
| 25.1_ASM1101 | 54860059 |
| 212v1_genomi | 86837043822 | 40924080740366396003750134855 |
| c  | 4524201.688010575534230232353922719916 |
| Accession | Start | End | Length | Quality |
|-----------|-------|-----|--------|---------|
| GCA_0110121 | 39 | 89 | 50 | 12 |
| 55.1_ASM1101 | 1 | 29 | 94 | 6 |
| 215v1_genomi | 1 | 69 | 63 | 1 |
| c | 3 | 54 | 2 | 1 |
| | | | | 1 |
| | | | | 2 |
| GCA_0110121 | 40 | 8 | 2 |
| 65.1_ASM1101 | 58 | 00 | 2 |
| 216v1_genomi | 5 | 56 | 13 | 0 |
| c | 4 | 06 | 4 | 8 |
| | | | | 1 |
| | | | | 2 |
| GCA_0110121 | 39 | 8 | 1 |
| 95.1_ASM1101 | 1 | 23 | 46 | 3 |
| 219v1_genomi | 2 | 47 | 19 | 0 |
| c | 7 | 64 | 8 | 1 |
| | | | | 2 |
| | | | | 3 |
| GCA_0110122 | 37 | 8 | 7 |
| 15.1_ASM1101 | 33 | 95 | 2 |
| 221v1_genomi | 5 | 17 | 39 | 0 |
| c | 5 | 01 | 8 | 2 |
| | | | | 2 |
| | | | | 3 |
| | | | | 4 |
| GCA_0110122 | 1 | 20 | 37 | 2 |
| 25.1_ASM1101 | 2 | 49 | 86 | 8 |
| 222v1_genomi | 6 | 03 | 65 | 5 |
| | | | | 6 |
| | | | | 7 |

Note: The table above contains genomic information for various accessions, with columns for start, end, length, and quality scores.
| Accession | GCA_0110123 | GCA_0110123 | GCA_0110123 | GCA_0110123 | 235v1_genomi | 235v1_genomi | 235v1_genomi | 235v1_genomi | 236v1_genomi | 236v1_genomi | 236v1_genomi | 236v1_genomi | 237v1_genomi | 237v1_genomi | 237v1_genomi | 237v1_genomi | 243v1_genomi | 243v1_genomi | 243v1_genomi |
|-----------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Version   | 55.1_ASM1101| 65.1_ASM1101| 75.1_ASM1101| 35.1_ASM1101| 55.1_ASM1101  | 65.1_ASM1101  | 75.1_ASM1101  | 35.1_ASM1101  | 55.1_ASM1101  | 65.1_ASM1101  | 75.1_ASM1101  | 35.1_ASM1101  | 55.1_ASM1101  | 65.1_ASM1101  | 75.1_ASM1101  | 35.1_ASM1101  | 55.1_ASM1101  | 65.1_ASM1101  | 75.1_ASM1101  | 35.1_ASM1101  |
| Coverage  | 39 7 0 6 34 | 39 7 1 6 16 | 38 7 3 9    | 38 8 5 9 31 | 39 7 0 6 34 | 39 7 1 6 16 | 38 7 3 9    | 38 8 5 9 31 | 39 7 0 6 34 | 39 7 1 6 16 | 38 7 3 9    | 38 8 5 9 31 | 39 7 0 6 34 | 39 7 1 6 16 | 38 7 3 9    | 38 8 5 9 31 | 39 7 0 6 34 | 39 7 1 6 16 | 38 7 3 9    | 38 8 5 9 31 |
| Positions | 5 49 80 9 5 | 5 10 08 9 7 | 5 27 27 9 3 | 5 91 89 0 1  | 5 49 80 9 5 | 5 10 08 9 7 | 5 27 27 9 3 | 5 91 89 0 1  | 5 49 80 9 5 | 5 10 08 9 7 | 5 27 27 9 3 | 5 91 89 0 1  | 5 49 80 9 5 | 5 10 08 9 7 | 5 27 27 9 3 | 5 91 89 0 1  | 5 49 80 9 5 | 5 10 08 9 7 | 5 27 27 9 3 | 5 91 89 0 1  |
|               | c     | 9  | 0  | 4  | 9  | 2 |
|---------------|-------|----|----|----|----|---|
| GCA_0110127   |       | 6  | 9  | 1  | 2  | 3 |
| 55.1_ASM1101  | 1     | 18 | 56 | .  | 7  | 2 |
| 275v1_genomi  | 6     | 80 | 19 | 0  | 5  | 7 |
|               |       | 2  | 9  | 2  | 2  | 9 |
| GCA_0110127   |       | 6  | 11 | 3  | 4  | 8 |
| 95.1_ASM1101  | 1     | 44 | 88 | .  | 0  | 9 |
| 279v1_genomi  | 7     | 15 | 0  | 5  | 1  | 3 |
|               |       | 3  | 7  | 6  | 3  | 9 |
| GCA_0110128   |       | 6  | 10 | 5  | 1  | 3 |
| 15.1_ASM1101  | 1     | 61 | 91 | .  | 0  | 6 |
| 281v1_genomi  | 7     | 0  | 4  | 74 | 2  | 0 |
|               |       | 3  | 3  | 30 | 3  | 3 |
| GCA_0110128   |       | 3  | 24 | 5  | 8  | 3 |
| 25.1_ASM1101  | 2     | 9  | 64 | .  | 5  | 9 |
| 282v1_genomi  | 9     | 47 | 65 | 0  | 7  | 5 |
|               |       | 4  | 6  | 7  | 1  | 2 |
| GCA_0110128   |       | 1  | 67 | 4  | 3  | 6 |
| 35.1_ASM1101  | 6     | 80 | 65 | 8  | 9  | 5 |
|               |       | 0  | 4  | 4  | 2  | 3 |

|               | 3861 | 38541 | 37649 | 36108 | 26861 | 14351 |
|---------------|------|--------|--------|--------|--------|-------|
|               | 3861 | 38541 | 37649 | 36108 | 26861 | 14351 |
|               | 3894 | 38859 | 38511 | 38057 | 35538 | 30558 |
|               | 3910 | 38879 | 38595 | 38329 | 36030 | 31507 |
|               | 3871 | 38627 | 38218 | 37447 | 33814 | 29471 |
|               | 4068 | 40648 | 40494 | 40380 | 39423 | 38473 |
| Genome ID | Percentage | Length (bp) | Start | End |
|-----------|------------|-------------|-------|-----|
| 283v1_genomi | 76.00% | 43.250 | 2 | 503 |
| GCA_0110128 | 41.79% | 39.790 | 6 | 39.790 |
| 75.1_ASM1101 | 42.79% | 39.790 | 6 | 39.790 |
| 287v1_genomi | 76.230 | 43.250 | 2 | 503 |
| GCA_0110128 | 41.79% | 39.790 | 6 | 39.790 |
| 85.1_ASM1101 | 39.67% | 39.670 | 6 | 39.670 |
| 288v1_genomi | 76.180 | 43.250 | 2 | 503 |
| GCA_0110128 | 41.79% | 39.790 | 6 | 39.790 |
| 85.1_ASM1101 | 39.67% | 39.670 | 6 | 39.670 |
| GCA_0110130 | 39.88% | 39.880 | 6 | 39.880 |
| 55.1_ASM1101 | 73.99% | 73.990 | 1 | 23 |
| 305v1_genomi | 48.660 | 48.660 | 6 | 48.660 |
| GCA_0110131 | 35.51% | 35.510 | 1 | 72 |
| 75.1_ASM1101 | 21.75% | 21.750 | 7 | 53 |
| 317v1_genomi | 91.95% | 91.950 | 6 | 91.950 |
| GCA_0110131 | 35.51% | 35.510 | 1 | 72 |
| 75.1_ASM1101 | 21.75% | 21.750 | 7 | 53 |
| c | 75.10% | 75.100 | 6 | 75.100 |
| 317v1_genomi | 91.95% | 91.950 | 6 | 91.950 |
| GCA_0110131 | 35.51% | 35.510 | 1 | 72 |
| 75.1_ASM1101 | 21.75% | 21.750 | 7 | 53 |
| GCA_0110134  | 35.1_ASM1101 | 343v1_genomi | c     | 1  | 52 | 3  | 4  | 8  | 9  | 5  | 4  | 5  | 0  | 117 | 107 | 85  | 71  | 42  | 24  | 417 | 96  | 37  | 29  | 52  | 04  |
|--------------|--------------|--------------|-------|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GCA_0110135  | 39.81 ASM1101 | 354v1_genomi | c     | 2  | 61 | 1  |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |    |
| GCA_0110135  | 39.81 ASM1101 | 358v1_genomi | c     | 2  | 61 | 1  |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |    |
| GCA_0110136  | 39.7 ASM1101 | 361v1_genomi | c     | 2  | 61 | 1  |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |    |
| GCA_0110136  | 39.7 ASM1101 | 363v1_genomi | c     | 2  | 61 | 1  |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |    |
| Genome ID | Assembly | Version | Sequence Length | GC Content | Nucleotide Frequencies |
|-----------|----------|---------|----------------|------------|-----------------------|
| GCA_0110136 | 75.1_ASM1101 | 367v1_genomi | 3902 | 75.1 | 38975, 38649, 38319, 35745, 33278 |
| | | c | 0 | 82 | 66, 53, 48, 33, 26, 882, 31, 42, 60, 44, 38 |
| | | | 4 | 91 | 3 |
| | | | 5 | 5 |
| GCA_0110136 | 85.1_ASM1101 | 368v1_genomi | 3996 | 85.1 | 39931, 39133, 37149, 29628, 22212 |
| | | c | 0 | 160 | 151, 119, 92, 48, 28, 921, 62, 83, 52, 21, 97 |
| | | | 2 | 2 |
| | | | 3 | 6 |
| GCA_0110137 | 35.1_ASM1101 | 373v1_genomi | 3892 | 65.1 | 38863, 38632, 38520, 37758, 36157 |
| | | c | 0 | 55 | 39, 30, 28, 23, 19, 642, 66, 32, 90, 22, 70 |
| | | | 1 | 7 |
| | | | 2 | 0 |
| GCA_0110137 | 93.1_ASM1101 | 376v1_genomi | 3831 | 85.1 | 38265, 37845, 37448, 35316, 31487 |
| | | c | 0 | 88 | 75, 58, 52, 40, 29, 714, 01, 62, 26, 24, 06 |
| | | | 1 | 7 |
| | | | 2 | 8 |
| GCA_0110137 | 99.1_ASM1101 | 379v1_genomi | 3751 | 93.1 | 37452, 37093, 36489, 33088, 24724 |
| | | c | 0 | 101 | 88, 72, 64, 44, 20, 711, 91, 67, 09, 56, 52 |
| Strain     | GCA_0110138 | 65.1_ASM1101 | 15.1_ASM1101 | 381v1_genomi | 383v1_genomi | 386v1_genomi | 388v1_genomi |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|            | 3905 38896 38694 38516 36286 32243 | 3867 38604 38125 37648 34074 30778 | 3906 39004 38702 38520 37230 34682 | 3900 38942 38393 37701 33660 28393 | 3905 38896 38694 38516 36286 32243 | 3867 38604 38125 37648 34074 30778 | 3900 38942 38393 37701 33660 28393 |
|            | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 |
|            | 7 8 9 2 1 0 | 7 8 9 2 1 0 | 7 8 9 2 1 0 | 7 8 9 2 1 0 | 7 8 9 2 1 0 | 7 8 9 2 1 0 | 7 8 9 2 1 0 |
|            | 1 4 5 1 2 3 | 1 4 5 1 2 3 | 1 4 5 1 2 3 | 1 4 5 1 2 3 | 1 4 5 1 2 3 | 1 4 5 1 2 3 | 1 4 5 1 2 3 |
|            | 7 0 8 5 3 0 | 7 0 8 5 3 0 | 7 0 8 5 3 0 | 7 0 8 5 3 0 | 7 0 8 5 3 0 | 7 0 8 5 3 0 | 7 0 8 5 3 0 |
|            | 2 5 9 3 7 2 | 2 5 9 3 7 2 | 2 5 9 3 7 2 | 2 5 9 3 7 2 | 2 5 9 3 7 2 | 2 5 9 3 7 2 | 2 5 9 3 7 2 |
|            | 6 0 1 9 8 1 | 6 0 1 9 8 1 | 6 0 1 9 8 1 | 6 0 1 9 8 1 | 6 0 1 9 8 1 | 6 0 1 9 8 1 | 6 0 1 9 8 1 |
|            | 7 9 1 6 0 5 | 7 9 1 6 0 5 | 7 9 1 6 0 5 | 7 9 1 6 0 5 | 7 9 1 6 0 5 | 7 9 1 6 0 5 | 7 9 1 6 0 5 |
|            | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 |
|            | 3 4 5 1 2 3 | 3 4 5 1 2 3 | 3 4 5 1 2 3 | 3 4 5 1 2 3 | 3 4 5 1 2 3 | 3 4 5 1 2 3 | 3 4 5 1 2 3 |
|            | 8 0 5 6 8 8 | 8 0 5 6 8 8 | 8 0 5 6 8 8 | 8 0 5 6 8 8 | 8 0 5 6 8 8 | 8 0 5 6 8 8 | 8 0 5 6 8 8 |
|            | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 |
|            | 4 5 6 7 8 9 | 4 5 6 7 8 9 | 4 5 6 7 8 9 | 4 5 6 7 8 9 | 4 5 6 7 8 9 | 4 5 6 7 8 9 | 4 5 6 7 8 9 |
|            | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 |
|            | 5 6 7 8 9 0 | 5 6 7 8 9 0 | 5 6 7 8 9 0 | 5 6 7 8 9 0 | 5 6 7 8 9 0 | 5 6 7 8 9 0 | 5 6 7 8 9 0 |
| Version | Accession | Date | ID | Name | Size (kbp) | Organisms | Description |
|---------|-----------|------|----|------|------------|------------|-------------|
| 05.1_ASM1101 | GCA_0110139 | 390v1_genomi | 3 | 30 | 9 | 7 | 3 | 43 | 1 | 3907 | 39028 | 38836 | 38723 | 38087 | 37415 |
| 2 | 9 | 5 | 2 | 2 | 3 | 3 | 5 | 7 | 0 | 50 | 36 | 28 | 26 | 23 | 21 | 747 | 14 | 90 | 43 | 25 | 31 |
| 390v1_genomi | | | 3 | 30 | 9 | 7 | 3 | 43 | 1 | | | | | | | | | | | | | | |
| 06.1_ASM1101 | GCA_0110139 | 393v1_genomi | 3 | 63 | 51 | 9 | 2 | 2 | 69 | 1 | 4222 | 42179 | 42032 | 42032 | 41655 | 39703 |
| 2 | 9 | . | 6 | 5 | 4 | 0 | 43 | 30 | 23 | 23 | 21 | 16 | 245 | 75 | 05 | 05 | 33 | 50 |
| 393v1_genomi | | | 3 | 63 | 51 | 9 | 2 | 2 | 69 | 1 | | | | | | | | | | | | | | |
| 07.1_ASM1101 | GCA_0110139 | 395v1_genomi | 1 | 31 | 03 | 8 | 1 | 9 | 75 | 4006 | 40022 | 39399 | 37286 | 32615 | 24204 |
| 2 | 8 | 3 | 1 | 6 | 7 | 3 | 7 | 5 | 0 | 139 | 128 | 105 | 75 | 47 | 23 | 16 | 568 | 99 | 22 | 72 | 66 | 55 |
| 395v1_genomi | | | 1 | 31 | 03 | 8 | 1 | 9 | 75 | | | | | | | | | | | | | | |
| 08.1_ASM1101 | GCA_0110139 | 396v1_genomi | 2 | 74 | 76 | 9 | 0 | 9 | 3 | 8 | 1 | 5 | 3886 | 38811 | 38050 | 36839 | 32615 | 25769 |
| 2 | 6 | 0 | 6 | 1 | 2 | 6 | 9 | 0 | 136 | 119 | 91 | 74 | 46 | 27 | 673 | 54 | 62 | 91 | 01 | 16 |
| 396v1_genomi | | | 2 | 74 | 76 | 9 | 0 | 9 | 3 | 8 | 1 | 5 | | | | | | | | | | | | |
| 09.1_ASM1101 | GCA_0110139 | 397v1_genomi | 2 | 22 | 43 | 3 | 9 | 4 | 3 | 2 | 3881 | 38751 | 36837 | 33047 | 24040 | 12036 |
| 2 | 4 | 7 | 0 | 2 | 3 | 8 | 4 | 7 | 0 | 238 | 223 | 156 | 106 | 50 | 16 | 202 | 26 | 98 | 98 | 21 | 31 |
| Version | Accession | Description | Length (bp) | Annotation | Item Count | Sequence Count | GC Content | GC Skew | GC Skew Mean | GC Skew SD | Coding Length | Transcribed Length |
|---------|-----------|-------------|-------------|------------|------------|---------------|------------|---------|--------------|------------|--------------|-------------------|
| 15.1_ASM1101 | GCA_0110140 | 401v1_genomi | 3928 | 39099 38649 37755 31776 22305 | 39 8 0 5 74  | 4 1 8 7 4 2 1 0 0 137 119 102 89 51 25 118 10 85 78 69 15 | 9 55 5 5 8 7 5 1 0 0 | 2 9 1 |  |  |  |  |
| 35.1_ASM1101 | GCA_0110140 | 403v1_genomi | 3894 38839 38158 37694 31615 27462 | 39 8 0 5 74  | 4 1 8 7 4 2 1 0 0 137 119 102 89 51 25 118 10 85 78 69 15 | 9 55 5 5 8 7 5 1 0 0 | 2 9 1 |  |  |  |  |
| 55.1_ASM1101 | GCA_0110140 | 405v1_genomi | 3897 38906 38234 36681 30852 21208 | 39 8 0 5 74  | 4 1 8 7 4 2 1 0 0 137 119 102 89 51 25 118 10 85 78 69 15 | 9 55 5 5 8 7 5 1 0 0 | 2 9 1 |  |  |  |  |
| 85.1_ASM1101 | GCA_0110140 | 408v1_genomi | 3891 38834 38134 36204 29802 19282 | 39 8 0 5 74  | 4 1 8 7 4 2 1 0 0 137 119 102 89 51 25 118 10 85 78 69 15 | 9 55 5 5 8 7 5 1 0 0 | 2 9 1 |  |  |  |  |
| 95.1_ASM1101 | GCA_0110140 | 409v1_genomi | 3843 38364 37813 36728 30758 21629 | 39 8 0 5 74  | 4 1 8 7 4 2 1 0 0 137 119 102 89 51 25 118 10 85 78 69 15 | 9 55 5 5 8 7 5 1 0 0 | 2 9 1 |  |  |  |  |
GCA_0110141  2 7 1
35.1_ASM1101  1 23 82 . 8 4 95
413v1_genomi  1 37 43 0 8 9 8 1 6
   c  8 86 7 3 3 7 2 6 1 0 134 115 89 75 48 23 587 19 05 93 72 18
   2  5 1
GCA_0110141  37 8 5 1 81
55.1_ASM1101  1 24 86 . 5 5 87
415v1_genomi  3 58 35 1 3 6 5 1 7
   c  9 46 0 6 1 0 1 8 6 0 158 138 111 81 43 20 625 41 55 54 99 78
   1  8 4
GCA_0110141  38 0 3 22
75.1_ASM1101  63 96 6 7 76
417v1_genomi  5 74 92 2 7 7 92 2
   c  3 31 6 8 5 9 2 7 4 0 92 49 39 38 29 23 975 42 81 84 78 74
   2  5 1
GCA_0110141  38 8 9 7 99
95.1_ASM1101  1 33 42 . 6 4 82
419v1_genomi  0 88 03 0 2 1 9 1 6
   c  7 41 4 7 5 4 1 6 2 0 127 106 93 82 44 23 854 25 98 27 53 46
   2  4 1
GCA_0110142  38 8 6 3 57
15.1_ASM1101  1 15 13 . 6 8 78
421v1_genomi  5 84 95 1 1 4 5 2 8
   c  1 13 7 3 7 6 7 5 6 0 169 149 117 97 51 22 146 75 62 24 70 28
| ID         | Length | GC Content | GC Content | GC Content | GC Content | GC Content | GC Content | GC Content | GC Content | GC Content | GC Content | GC Content | GC Content | GC Content |
|------------|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| GCA_0110142| 39     | 7          | 1          | 34         | 3909       | 39035      | 38856      | 38802      | 38165      | 37748      | 3909       | 39035      | 38856      | 38802      | 38165      |
| 25.1_ASM1101| 66     | 04         | 9          | 72         | 422v1_genomi| 37          | 50         | 12         | 9          | 0          | 1         | 58         | 1          | 3909       | 39035      |
| GCA_0110142| 39     | 7          | 1          | 34         | 3909       | 39035      | 38856      | 38802      | 38165      | 37748      | 3909       | 39035      | 38856      | 38802      | 38165      |
| 55.1_ASM1101| 1     | 19         | 51         | 0          | 2          | 425v1_genomi| 2          | 59         | 68         | 2          | 5          | 7          | 7          | 3857       | 38510      |
| GCA_0110142| 39     | 7          | 1          | 34         | 3909       | 39035      | 38856      | 38802      | 38165      | 37748      | 3909       | 39035      | 38856      | 38802      | 38165      |
| 65.1_ASM1101| 59     | 93         | 8          | 13         | 426v1_genomi| 5          | 87         | 03         | 2          | 0          | 4          | 34         | 2          | 3850       | 38409      |
| GCA_0110142| 39     | 7          | 1          | 34         | 3909       | 39035      | 38856      | 38802      | 38165      | 37748      | 3909       | 39035      | 38856      | 38802      | 38165      |
| 95.1_ASM1101| 1     | 24         | 79         | 9          | 4          | 429v1_genomi| 1          | 37         | 44         | 0          | 0          | 4          | 3          | 15         | 3884       |
| GCA_0110142| 39     | 7          | 1          | 34         | 3909       | 39035      | 38856      | 38802      | 38165      | 37748      | 3909       | 39035      | 38856      | 38802      | 38165      |
| 05.1_ASM1101| 1     | 15         | 72         | 8          | 4          | 430v1_genomi| 7          | 49         | 54         | 9          | 8          | 5          | 3          | 0          | 3777       |
| GCA_0110142| 39     | 7          | 1          | 34         | 3909       | 39035      | 38856      | 38802      | 38165      | 37748      | 3909       | 39035      | 38856      | 38802      | 38165      |
| Genomic Sequence | %GC | %C | %A | %T | %A+T | %G+C | %G | %C+G | %A+G | %C+T |
|------------------|-----|----|----|----|------|------|----|------|------|------|
| 441v1_genomi     | 59  | 15 |  6 | 24 |      |      |    |      |      |      |
| c                | 3   |  5 |  3 | 5  |      |      |    |      |      |      |
|                 | 3   |  5 |    |    |      |      |    |      |      |      |
|                 | 2   |    |    |    |      |      |    |      |      |      |
|                 | 2   |  8 |    |    |      |      |    |      |      |      |
| GCA_0110144     | 1   | 41 |  7 |  3 |      |      |    |      |      |      |
| 25.1_ASM1101    | 1   | 58 | 98 |  0 |      |      |    |      |      |      |
| 442v1_genomi    | 0   | 81 | 91 |  9 |      |      |    |      |      |      |
| c                | 5   |  7 |  3 | 6  |      |      |    |      |      |      |
|                 | 2   |  8 |    |    |      |      |    |      |      |      |
| GCA_0110144     | 37  |  8 |  8 | 10 |      |      |    |      |      |      |
| 45.1_ASM1101    | 28  |  7 |  9 | 52 |      |      |    |      |      |      |
| 444v1_genomi    | 8   | 19 | 65 |  0 |      |      |    |      |      |      |
| c                | 4   |  1 |  6 |  1 |      |      |    |      |      |      |
|                 | 2   |  2 |    |    |      |      |    |      |      |      |
| GCA_0110144     | 38  |  7 |  2 |  1 |      |      |    |      |      |      |
| 75.1_ASM1101    | 34  |  8 |  7 | 14 |      |      |    |      |      |      |
| 447v1_genomi    | 6   | 32 | 79 |  8 |      |      |    |      |      |      |
| c                | 3   |  2 |  6 |  1 |      |      |    |      |      |      |
|                 | 2   |  8 |    |    |      |      |    |      |      |      |
| GCA_0110145     | 18  |  4 |  7 | 95 |      |      |    |      |      |      |
| 45.1_ASM1101    | 28  |  6 |  5 | 23 |      |      |    |      |      |      |
| 454v1_genomi    | 3   | 33 | 58 |  8 |      |      |    |      |      |      |
| c                | 2   |  7 |  1 |  8 |      |      |    |      |      |      |
|                 | 2   |  8 |    |    |      |      |    |      |      |      |
|                 | 2   |  8 |    |    |      |      |    |      |      |      |
|                 | 2   |  8 |    |    |      |      |    |      |      |      |
|                 | 2   |  8 |    |    |      |      |    |      |      |      |
|                 | 2   |  8 |    |    |      |      |    |      |      |      |
| Assembly | ID     | Start | End | GC Content | 
|----------|--------|-------|------|------------| 
| GCA_0110145 | 65.1_ASM1101 | 08   | 06  | 72         | 
| 456v1_genomic | 456v1_genomic | 13   | 19  | 97         | 
| c         | 6      | 2     | 8   | 7          | 
| GCA_0110145 | 95.1_ASM1101 | 32   | 38  | 25         | 
| 459v1_genomic | 459v1_genomic | 56   | 78  | 2          | 
| c         | 5      | 02    | 6   | 3          | 
| GCA_0110147 | 45.1_ASM1101 | 16   | 37  | 45         | 
| 473v1_genomic | 473v1_genomic | 78   | 99  | 1          | 
| c         | 4      | 02    | 0   | 7          | 
| GCA_0110147 | 75.1_ASM1101 | 99   | 51  | 24         | 
| 474v1_genomic | 474v1_genomic | 27   | 70  | 2          | 
| c         | 5      | 02    | 8   | 4          |
| Strain                  | Genome Length | GC% | AT% | GC% | AT% | GC% | AT% | GC% | AT% | GC% | AT% | GC% | AT% | GC% | AT% |
|------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 477v1_genomi           | 90            | 75  | 3   | 3   | 31  | 8   | 8   | 0   | 0   | 1   | 0.4 | 3   | 3   | 31  |     |
| c                      | 8             | 0.0 | 0.0 | 1   | 4   | 3   | 1   | 8   |     |     |     |     |     |     |     |
|                        | 2             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GCA_0110148            | 38            | 8.0 | 8   | 0   | 0   | 27  | 2   | 0   | 4   |     |     |     |     |     |     |
| 25.1_ASM1101           | 56            | 19  | 3   | 7   | 80  |     |     |     |     |     |     |     |     |     |     |
| 482v1_genomi           | 4             | 62  | 74  | 9   | 20  | 1   | 8   | 0   | 1   |     |     |     |     |     |     |
| c                      | 4             | 31  | 3   | 5   | 4   | 5   | 7   | 0   | 2   |     |     |     |     |     |     |
|                        | 0             | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GCA_0110149            | 20            | 39  | 8   | 5   | 3   | 35  | 2   | 0   | 1   |     |     |     |     |     |     |
| 25.1_ASM1101           | 85            | 05  | 3   | 7   | 30  |     |     |     |     |     |     |     |     |     |     |
| 492v1_genomi           | 2             | 08  | 15  | 8   | 8   | 1   | 1   |     |     |     |     |     |     |     |     |
| c                      | 0             | 2   | 1   | 0   | 8   | 6   | 1   | 5   | 0   |     |     |     |     |     |     |
|                        | 2             | 0   | 1   |     |     |     |     |     |     |     |     |     |     |     |     |
| GCA_0110149            | 14            | 39  | 8   | 1   | 3   | 81  | 2   | 0   | 4   |     |     |     |     |     |     |
| 55.1_ASM1101           | 19            | 04  | 3   | 6   | 51  |     |     |     |     |     |     |     |     |     |     |
| 495v1_genomi           | 2             | 11  | 48  | 6   | 8   | 30  | 1   |     |     |     |     |     |     |     |     |
| c                      | 4             | 7   | 0   | 2   | 1   | 8   | .9  | 2   | 0   |     |     |     |     |     |     |
|                        | 30            | 23  | 13  | 12  | 11  | 9   | 539 | 71  | 74  | 04  | 49  | 01  |     |     |
| GCA_0110149            | 1             | 19  | 38  | 2   | 6   | 77  | 1   |     |     |     |     |     |     |     |     |
| 65.1_ASM1101           | 2             | 40  | 96  | 8   | 5   | 65  | 1   | 6   |     |     |     |     |     |     |     |
| 496v1_genomi           | 1             | 92  | 57  | 6   | 8   | 5   | 9   | 7   |     |     |     |     |     |     |     |
| Accession | Assembly | Coverage |
|-----------|----------|----------|
| 531v1_genomi | c | 3 42 92 . 4 1 4. |
| GCA_0110153 | 39 7 2 1 43 |
| 35.1_ASM1101 | 73 84 . 6 7 45 |
| 533v1_genomi | 3 48 54 9 3 1 76 1 |
| GCA_0110153 | 39787 39818 39609 39471 38810 36912 |
| 95.1_ASM1101 | 1 28 54 . 2 7 17 |
| 539v1_genomi | 0 63 95 0 7 4 02 1 4 |
| GCA_0110153 | 3859 38503 37865 37118 34155 26618 |
| 95.1_ASM1101 | 1 28 54 . 2 7 17 |
| 541v_genomi | 4 76 07 0 7 2 43 1 |
| GCA_0110154 | 3800 37942 37741 37684 37340 35162 |
| 15.1_ASM1101 | 40 96 . 0 0 62 |
| 542v1_genomi | 2 54 40 9 4 6 15 |
| GCA_0110154 | 4222 42178 42029 42029 41829 41201 |
| 25.1_ASM1101 | 80 18 . 2 4 08 |
| 542v1_genomi | 2 54 40 9 4 6 15 |
| GCA_0110154 | 4222 42178 42029 42029 41829 41201 |
| GCA_0110154 | 39 | 8 | 6 | 0 | 25 |
|-------------|----|----|----|----|----|
| 35.1_ASM1101 | 48 | 07 | .5 | 8 | 67 |
| 543v1_genomi | 3  | 47 | 78 | 0 | 4  | 2  | 65 | 1 |
| c           | 9  | 09 | 7  | 1 | 4  | 8  | .4 | 6 | 7  |
|             | 0  | 49 | 37 | 27| 26 | 23 | 18 | 953| 25 | 75 | 32 | 80 | 48 | 1 |
| GCA_0110154 | 37 | 8 | 1 | 3 | 12 |
| 75.1_ASM1101 | 37 | 88 | .0 | 3 | 54 |
| 547v1_genomi | 8  | 21| 50 | 0 | 6 | 3 | 30 | 14 |
| c           | 6  | 18 | 8  | 4 | 2  | 6 | .7 | 2  | 4  |
|             | 0  | 98 | 82 | 69 | 62 | 41 | 22 | 202| 56 | 52 | 24 | 76 | 72 | 1 |
| GCA_0110154 | 37 | 8 | 0 | 1 | 16 |
| 95.1_ASM1101 | 30 | 94 | .9 | 4 | 05 |
| 549v1_genomi | 6  | 41 | 32 | 0 | 8 | 5 | 83 | 2 |
| c           | 2  | 71 | 5  | 2 | 7  | 1 | .7 | 8  | 9  |
|             | 0  | 74 | 58 | 45 | 41 | 34 | 23 | 205| 96 | 40 | 12 | 75 | 27 | 2 |
| GCA_0110155 | 37 | 8 | 5 | 8 | 19 |
| 05.1_ASM1101 | 40 | 94 | .8 | 2 | 92 |
| 550v1_genomi | 5  | 00 | 75 | 0 | 9 | 5 | 24 | 2 |
| c           | 5  | 18 | 5  | 2 | 5  | 7 | .3 | 7  | 5  |
|             | 0  | 69 | 51 | 42 | 40 | 30 | 21 | 916| 19 | 40 | 83 | 52 | 87 |
| GCA_0110155 | 3  | 40 | 37 | 2 | 3 | 9  | 28 | 1 |
| 35.1_ASM1101 | 5  | 76 | 96 | 8 | 4 | 0 | 36 | 5  | 4  | 0 | 49 | 32 | 23 | 22 | 20 | 17 | 227| 54 | 89 | 99 | 55 | 36 |
| Accession  | Contig  | Start | End   | Length | Identity | Similarity | %GC |
|-----------|---------|-------|-------|--------|----------|------------|-----|
| 553v1_genomi | 03 12 . 8 7 38 | 3 0 9 5 .1 | 2 7 4 | 4 1 | 2 1 3 | 3853 38476 38217 37991 36067 32873 |
| GCA_0110155 | 38 8 8 6 13 | 32 38 40 . | 9 2 | 1 3 | | |
| 45.1_ASM1101 | 30 50 . 9 0 75 | 554v1_genomi | 6 33 05 0 8 1 12 1 3 | 3866 38598 38254 38065 36306 33098 |
| c | 8 15 0 3 5 1 6 1 3 | 4 78 5 2 9 6 2 8 8 | 0 82 61 47 44 33 24 946 46 28 40 28 34 |
| GCA_0110155 | 38 8 2 9 17 | 55.1_ASM1101 | 33 61 . 2 6 07 | 3876 38701 38492 38370 37321 33513 |
| 555v1_genomi | 6 99 71 0 4 1 95 2 | 4 70 0 2 7 . 5 9 8 | 0 72 54 43 41 36 25 485 19 35 83 64 78 |
| c | 4 78 5 2 9 6 2 8 8 | 561v1_genomi | 1 74 21 . 6 3 7. 1 5 | 3860 38536 37829 36833 32856 27336 |
| GCA_0110155 | 38 0 0 15 | 95.1_ASM1101 | 32 71 8 0 63 | 3860 38536 37829 36833 32856 27336 |
| 559v1_genomi | 5 35 98 2 7 3 00 2 | 7 02 8 8 7 7. 5 9 8 | 0 72 54 43 41 36 25 485 19 35 83 64 78 |
| c | 7 02 8 8 7 7 . 5 9 8 | 15.1_ASM1101 | 1 22 56 8 2 9 78 | 3860 38536 37829 36833 32856 27336 |
| 561v1_genomi | 1 74 21 . 6 3 7. 1 5 | 3 99 5 0 5 2 8 7 4 | 0 126 109 83 69 45 30 097 75 92 71 49 66 |
| GCA_0110156 | 39 8 9 0 50 |
| GCA_0110156 | 37 8 5 7 29 |
| GCA_0110156 | 37 8 1 8 15 |
| GCA_0110156 | 37 8 1 9 15 |
| GCA_0110157 | 40 37 2 1 2 |
| Name         | Start | End | Length | Start | End | Length | Start | End | Length | Start | End | Length | Start | End | Length | Start | End | Length | Start | End | Length |
|--------------|-------|-----|--------|-------|-----|--------|-------|-----|--------|-------|-----|--------|-------|-----|--------|-------|-----|--------|-------|-----|--------|
| 15.1_ASM1101 | 8     | 00  | 93     | 8     | 00  | 8      | 66    | 1   | 0      | 447   | 37 | 37     | 53    | 35 | 70     |       |     |        |       |     |        |
| 571v1_genomi | 18    | 64  | 1      | 3     | 49  | 0      | 0     | 3   | .1     | 2     | 6  | 2      | 2     | 2  | 6      | 2     | 4  | 6      |       |     |        |
| GCA_0110157  | 37    | 8   | 6      | 3     |     |        |       |     |        |       |     |        |       |     |        |       |     |        |
| 35.1_ASM1101 | 40    | 96  | .8     | 0     | 25  | 0      | 0     | 6   | 3      | 3800  | 37945 | 37744 | 37624 | 37035 | 35352 |       |     |        |
| 573v1_genomi | 4     | 01  | 37     | 0     | 6   | 4      | 49    | 1   | 1      | 3762  | 37576 | 37112 | 36611 | 33131 | 27656 |       |     |        |
| c            | 0     | 55  | 6      | 2     | 4   | 7      | 20    | 6   | 7      | 106   | 92   | 73     | 65    | 42    | 26    | 997   | 76  | 20     | 33    | 03   | 89     |
| GCA_0110157  | 37    | 8   | 0      | 9     | 12  | 1      | 1     | 9   | 2      | 2     | 9  | 1      |       |     |        |       |     |        |
| 95.1_ASM1101 | 33    | 59  | .4     | 7     | 22  | 0      | 0     | 6   | 3      | 3762  | 37576 | 37112 | 36611 | 33131 | 27656 |       |     |        |
| 579v1_genomi | 9     | 68  | 54     | 0     | 6   | 0      | 88    | 1   | 4      | 3863  | 38537 | 37130 | 35317 | 26949 | 12600 |       |     |        |
| c            | 5     | 49  | 5      | 1     | 8   | 1      | .4    | 2   | 6      | 217   | 131  | 125    | 117   | 109  | 58    | 15    | 045 | 35     | 83    | 57   | 55     |
| GCA_0110160  | 38    | 8   | 3      | 0     | 46  | 1      | 1     | 9   | 0      | 1     | 42 | 3      |       |     |        |       |     |        |
| 45.1_ASM1101 | 1     | 14  | 59     | .7    | 54  | 98     | 1     | 1   | 1      | 3863  | 38537 | 37130 | 35317 | 26949 | 12600 |       |     |        |
| 604v1_genomi | 9     | 24  | 03     | 0     | 7   | 9      | 0     | 3   | 0      | 3899  | 38932 | 38043 | 36137 | 30663 | 20006 |       |     |        |
| c            | 1     | 54  | 9      | 5     | 9   | 2      | 8     | 2   | 4      | 284   | 184  | 133    | 109   | 58   | 15    | 045   | 35  | 83     | 57    | 55   | 61     |
| GCA_0110160  | 38    | 8   | 2      | 2     | 62  | 1      | 1     | 9   | 1      | 3899  | 38932 | 38043 | 36137 | 30663 | 20006 |       |     |        |
| 95.1_ASM1101 | 1     | 17  | 95     | .7    | 4   | 93     |       |     |        |       |     |        |       |     |        |       |     |        |
| 609v1_genomi | 4     | 87  | 40     | 0     | 1   | 9      | 1     | 2   | 7      | 3899  | 38932 | 38043 | 36137 | 30663 | 20006 |       |     |        |
| c            | 7     | 15  | 2      | 1     | 4   | 4      | 1     | 3   | 9      | 161   | 144  | 112    | 88    | 55   | 24    | 867   | 70  | 72     | 98    | 26   | 25     |
| Accession     | Length | Base Composition | 
|---------------|--------|-----------------|
| GCA_0110170   | 4148   | 712c229,853    |
| 95.1_ASM1101  | 4105   | 712c229,853    |
| 709v1_genomi  | 41209  | 712c229,853    |
| 709v1_genomi  | 40869  | 712c229,853    |
| 709v1_genomi  | 39985  | 712c229,853    |
| 709v1_genomi  | 37932  | 712c229,853    |
| GCA_0110171   | 3937   | 712c229,853    |
| 25.1_ASM1101  | 39297  | 712c229,853    |
| 712v1_genomi  | 39081  | 712c229,853    |
| 712v1_genomi  | 38589  | 712c229,853    |
| 712v1_genomi  | 38690  | 712c229,853    |
| 712v1_genomi  | 38134  | 712c229,853    |
| 712v1_genomi  | 38539  | 712c229,853    |
| GCA_0110171   | 39030  | 712c229,853    |
| 45.1_ASM1101  | 3862   | 712c229,853    |
| 714v1_genomi  | 38690  | 712c229,853    |
| 714v1_genomi  | 38134  | 712c229,853    |
| 714v1_genomi  | 34838  | 712c229,853    |
| 714v1_genomi  | 32815  | 712c229,853    |
| GCA_0110171   | 38037  | 712c229,853    |
| 75.1_ASM1101  | 3862   | 712c229,853    |
| 717v1_genomi  | 38262  | 712c229,853    |
| 717v1_genomi  | 37779  | 712c229,853    |
| 717v1_genomi  | 33785  | 712c229,853    |
| 717v1_genomi  | 27810  | 712c229,853    |
| GCA_0110172   | 38262  | 712c229,853    |
| 35.1_ASM1101  | 37779  | 712c229,853    |
| 723v1_genomi  | 33785  | 712c229,853    |
| 723v1_genomi  | 27810  | 712c229,853    |
| 723v1_genomi  | 22512  | 712c229,853    |
| c             | 4148   | 712c229,853    |
| 4105          | 712c229,853 |
| 41209         | 712c229,853 |
| 40869         | 712c229,853 |
| 39985         | 712c229,853 |
| 37932         | 712c229,853 |
| 3937          | 712c229,853 |
| 39297         | 712c229,853 |
| 39081         | 712c229,853 |
| 38589         | 712c229,853 |
| 38690         | 712c229,853 |
| 38134         | 712c229,853 |
| 38539         | 712c229,853 |
| 39030         | 712c229,853 |
| 3862          | 712c229,853 |
| 3862          | 712c229,853 |
| 38262         | 712c229,853 |
| 37779         | 712c229,853 |
| 33785         | 712c229,853 |
| 27810         | 712c229,853 |
| 22512         | 712c229,853 |
| Genome ID | Version | GC Content | Length | Coverage |
|-----------|---------|------------|--------|----------|
| GCA_0110172 | 45.1_ASM1101 | 51.4 | 3929 | 39243 |
| 724v1_genomi | c | 0.9 | 0.1 | 0.7 |
| GCA_0110172 | 65.1_ASM1101 | 65.8 | 3917 | 39112 |
| 726v1_genomi | c | 1.1 | 1.6 | 1.3 |
| GCA_0110172 | 75.1_ASM1101 | 76.0 | 3862 | 38569 |
| 727v1_genomi | c | 0.8 | 1.3 | 0.8 |
| GCA_0110173 | 15.1_ASM1101 | 15.1 | 3864 | 38558 |
| 731v1_genomi | c | 1.5 | 1.3 | 1.3 |
| GCA_0110173 | 39.1_ASM1101 | 39.2 | 3975 | 39711 |
| 737v1_genomi | c | 1.5 | 1.1 | 1.4 |
| GCA_0110174 | 37 82 8 30  | 3799 37905 37655 37598 36301 35869 |
| 55.1_ASM1101 | 77 94 .0 6 54  | 3914 39092 38773 38213 36456 32299 |
| 745v1_genomi | 4 81 94 0 4 9 04 1 | 3884 38795 38246 37552 33421 26264 |
| 74v1_genomi  | 6 03 7 1 3 1 .5 7 0 61 40 29 28 21 20 270 16 93 17 92 13 | 3881 38763 37243 35138 27514 17112 |
| 45.1_ASM1101 | 39 78 7 14  | 3961 39580 38966 38161 35302 26668 |
| 74v1_genomi  | 3 75 9 9 5 5 .1 0 3 0 80 69 56 48 37 26 449 63 85 85 62 34 | 3961 39580 38966 38161 35302 26668 |
| 45.1_ASM1101 | 36 12 .5 6 30  | 3961 39580 38966 38161 35302 26668 |
| 749v1_genomi | 7 18 11 9 3 4 53 1 3  | 3961 39580 38966 38161 35302 26668 |
| 45.1_ASM1101 | 0 34 83 0 0 0 2.1 5  | 3961 39580 38966 38161 35302 26668 |
| 750v1_genomi | 2 53 5 2 8 6 4 5 2 0 115 100 79 69 45 26 615 25 63 50 75 76 | 3961 39580 38966 38161 35302 26668 |
| 45.1_ASM1101 | 1 26 79 .7 6 83  | 3961 39580 38966 38161 35302 26668 |
| 75v1_genomi  | 8 36 34 0 5 2 3.2 9  | 3961 39580 38966 38161 35302 26668 |
| 45.1_ASM1101 | 1 01 9 6 7 5 3 7 5 0 186 176 126 97 51 21 310 33 67 07 73 79 | 3961 39580 38966 38161 35302 26668 |
| 75v1_genomi  | 1 35 39 2 8 2 11 1 5  | 3961 39580 38966 38161 35302 26668 |
| 45.1_ASM1101 | 0 89 59 8 1 2 28 4 0 0 108 99 77 65 48 24 828 08 89 14 75 46 | 3961 39580 38966 38161 35302 26668 |
| Genomic Region | Start | End | Length |
|---------------|-------|-----|--------|
| 753v1_genomi  | 752   | 760 | 8      |
| 754v1_genomi  | 753   | 761 | 8      |
| 757v1_genomi  | 756   | 764 | 8      |
| 758v1_genomi  | 759   | 767 | 8      |
| 761v1_genomi  | 760   | 768 | 8      |
| GCA_0110175   | 38    | 64  | 27     |
| 45.1_ASM1101  | 35    | 61  | 27     |
| GCA_0110175   | 40    | 66  | 27     |
| 75.1_ASM1101  | 40    | 66  | 27     |
| GCA_0110175   | 37    | 63  | 27     |
| 85.1_ASM1101  | 27    | 53  | 27     |
| GCA_0110175   | 38    | 64  | 27     |
| 15.1_ASM1101  | 26    | 52  | 27     |
| GCA_0110176   | 1     | 24   | 24     |
| 3881611       | 1     | 24   | 24     |
| GCA_0110176   | 24    | 57   | 33     |
| 3881611       | 24    | 57   | 33     |
| GenBank ID | Accession | Length | GC Content | Base Composition |
|------------|-----------|--------|------------|-----------------|
| 35.1_ASM1101 | 763v1_genomi | 35 | 79 91 8 5 2 29 1 4 | 783 44 43 90 88 33 |
| 45.1_ASM1101 | GCA_0110176 | 39 | 2 4 5 33 | |
| 55.1_ASM1101 | GCA_0110176 | 37 | 8 2 9 18 | |
| 65.1_ASM1101 | GCA_0110176 | 39 | 8 0 5 35 | |
| 765v1_genomi | GCA_0110176 | 93 | 0 79 3 | |
| 85.1_ASM1101 | GCA_0110176 | 62 | 97 3 6 22 | |
| 768v1_genomi | GCA_0110177 | 74 | 19 8 9 81 1 | |
| 15.1_ASM1101 | GCA_0110177 | 41 | 58 7 7 34 | |
| 771v1_genomi | GCA_0110177 | 54 | 26 7 5 96 2 | |
| c | GCA_0110177 | 3 | 46 2 9 6 1 9 7 4 0 66 51 40 37 30 21 879 02 47 44 33 64 |
|    | 8 0 1 | 9 2 0 | GCA_0110177 | 39 8 2 8 | 35.1_ASM1101 | 773v1_genomi | 778v1_genomi |
|----|-------|-------|-------------|---------|-------------|-------------|-------------|
| c  | 3 70 8 2 5 5 20 3 8 0 114 101 76 67 39 25 776 38 00 44 22 16 | 2 6 1 | 41 7 3 3 88 | 4198 41935 41042 39843 33993 23906 | 9 2 6 1 | 42 7 0 3 56 | 42 75 39 2 4 7 41 |
| GCA_0110177 | 39 74 9 1 12 | 3977 39732 39048 38408 33937 28863 | 8 0 1 | 9 2 0 | GCA_0110177 | 39 8 2 8 |
| 35.1_ASM1101 | 773v1_genomi | 778v1_genomi |
| c  | 3 70 8 2 5 5 20 3 8 0 114 101 76 67 39 25 776 38 00 44 22 16 | 2 6 1 | 41 7 3 3 88 | 4198 41935 41042 39843 33993 23906 | 9 2 6 1 | 42 7 0 3 56 | 42 75 39 2 4 7 41 |
| c | 1 1 3 9 .4 |
|   | 1 2 7 1 8 5 |
| GCA_0110178 | 35.1_ASM1101 |
| 783v1_genomi | 39 2 4 4 24 |
| 784v1_genomi | 66 74 8 5 4 58 |
| c | 2 62 9 1 1 2 .2 7 3 0 61 49 38 35 30 24 740 72 93 53 43 94 |
| GCA_0110178 | 45.1_ASM1101 |
| 784v1_genomi | 3 01 29 1 4 4 47 1 6 |
| c | 7 98 0 4 1 8 .3 5 5 0 147 132 97 75 46 20 063 66 86 44 61 38 |
| GCA_0110178 | 75.1_ASM1101 |
| 787v1_genomi | 21 39 2 6 1 03 |
| 788v1_genomi | 46 72 8 8 6 97 |
| c | 1 6 7 1 6 4 5 1 4 0 32 18 11 10 8 6 255 69 97 81 61 46 |
| GCA_0110178 | 85.1_ASM1101 |
| 788v1_genomi | 40 8 9 0 13 |
| 788v1_genomi | 37 37 0 2 43 |
| c | 4 97 0 8 7 6 .5 3 6 0 104 92 74 63 40 27 375 89 22 77 48 72 |
| Accession | GCA_0110178 | GCA_0110179 | GCA_0110179 | GCA_0110179 |
|-----------|-------------|-------------|-------------|-------------|
|          | 2 9 1       | 39 8 4 8 10 | 39 8 8 9 50 | 39 8 8 9 50 |
| 95.1_ASM1101 | 1 25 50 . 9 4 46 | 1 16 77 . 4 7 36 1 | 1 34 50 . 7 0 36 | 1 34 50 . 7 0 36 |
| 789v1_genomi | 0 75 42 1 1 3 95 1 5 | 9 82 15 0 4 8 5 3 0 | 0 26 79 0 8 7 96 1 4 | 0 26 79 0 8 7 96 1 4 |
| c          | 4 07 3 4 4 1 4 . 6 4 0 0 113 101 82 67 43 23 003 05 91 34 14 93 | 1 44 4 9 3 4 1 0 9 0 195 189 143 107 52 17 554 62 25 94 94 59 | 1 07 5 6 6 4 . 6 1 3 0 107 96 73 60 38 23 937 66 84 01 35 71 | 1 07 5 6 6 4 . 6 1 3 0 107 96 73 60 38 23 937 66 84 01 35 71 |
| GCA_0110179 | 39 8 8 9 50 | 1 44 4 9 3 4 1 0 9 0 195 189 143 107 52 17 554 62 25 94 94 59 | 1 34 50 . 7 0 36 | 1 34 50 . 7 0 36 |
| 55.1_ASM1101 | 1 34 50 . 7 0 36 | 0 26 79 0 8 7 96 1 4 | 0 26 79 0 8 7 96 1 4 | 0 26 79 0 8 7 96 1 4 |
| 795v1_genomi | 0 26 79 0 8 7 96 1 4 | 1 44 4 9 3 4 1 0 9 0 195 189 143 107 52 17 554 62 25 94 94 59 | 1 07 5 6 6 4 . 6 1 3 0 107 96 73 60 38 23 937 66 84 01 35 71 | 1 07 5 6 6 4 . 6 1 3 0 107 96 73 60 38 23 937 66 84 01 35 71 |
| c          | 5 68 6 9 3 9 . 1 2 9 0 106 92 75 70 49 24 108 49 61 92 06 16 | 5 68 6 9 3 9 . 1 2 9 0 106 92 75 70 49 24 108 49 61 92 06 16 | 5 68 6 9 3 9 . 1 2 9 0 106 92 75 70 49 24 108 49 61 92 06 16 | 5 68 6 9 3 9 . 1 2 9 0 106 92 75 70 49 24 108 49 61 92 06 16 |
| GCA_0110179 | 8 | 9 | 8 |
|--------------|---|---|---|
| 95.1_ASM1101 | 2 | 15 | 27 |
| 799v1_genomi | 4 | 51 | 75 |
| c | 9 | 65 | 4 |
| 2 | 3 | 3 | 0 |
| 1 | 0 | 3 | 0 |
| 266 | 243 | 170 |
| 120 | 44 | 11 |
| 113 | 96 | 48 |
| 51 | 21 | 1 |
| 3833 | 38230 | 36036 |
| 32611 | 20283 | 90688 |
| GCA_0110182 | 38 | 7 | 9 |
| 75.1_ASM1101 | 72 | 88 | . |
| 827v1_genomi | 3 | 55 | 51 |
| c | 3 | 14 | 3 |
| 8 | 4 | 1 |
| .7 | 5 | 5 |
| 0 | 40 | 30 |
| 22 | 22 | 20 |
| 18 | 949 | 09 |
| 38 | 38 | 01 |
| 11 | 1 |
| 3890 | 38864 | 38681 |
| 38681 | 38363 | 37662 |
| GCA_0110182 | 39 | 8 | 2 |
| 85.1_ASM1101 | 52 | 96 | . |
| 828v1_genomi | 5 | 56 | 49 |
| c | 3 | 98 | 5 |
| 3 | 9 | 5 |
| .3 | 7 | 3 |
| 0 | 69 | 47 |
| 36 | 35 | 29 |
| 23 | 784 | 06 |
| 74 | 09 | 96 |
| 74 | 2 |
| 27 | 1 |
| 3969 | 39616 | 39098 |
| 37744 | 34470 | 31722 |
| GCA_0110182 | 43 | 7 | 3 |
| 95.1_ASM1101 | 1 | 26 | 18 |
| 829v1_genomi | 3 | 34 | 32 |
| c | 1 | 29 | 9 |
| 9 | 4 |
| 5 | 6 |
| 8 | 1 |
| 0 | 148 | 118 |
| 92 | 82 | 49 |
| 34 | 914 | 96 |
| 71 | 37 | 82 |
| 10 | 1 |
| 3969 | 39616 | 39098 |
| 37744 | 34470 | 23345 |
| GCA_0110183 | 1 | 29 | 39 |
| 85.1_ASM1101 | 2 | 57 | 67 |
| 838v1_genomi | 4 | 14 | 82 |
| 6 | 9 | 4 |
| 9 | 1 |
| 0 | 131 | 115 |
| 94 | 76 | 54 |
| 24 | 952 | 26 |
| 66 | 42 | 34 |
| 58 | 1 |
|         | GCA_0110183 | 839v1_genomi | GCA_0110185 | 852v1_genomi | GCA_0110185 | 857v1_genomi | GCA_0110185 | 859v1_genomi | GCA_0110186 |
|---------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|
| c       | 2 9 1 0 6  | 6 5 4        |             |              | 6 91 8 4 8  | 6 1 9 0 92  | 84 88 68 57 36 22 520 76 99 55 91 75 | 1 4 1 | 2 5 1 | 1 4 3 2 8 4 | 52 86 4 2 9 68 | 38 8 2 8 39 | 38 8 7 6 21 | 52 18 1 4 92 | 4 54 8 3 3 4 5 7 5 0 62 60 51 39 37 30 23 613 81 61 61 71 78 | 2 7 2 | 40 8 6 1 10 | 25 63 3 5 12 | 9 76 68 0 8 3 13 1 4 | 7 65 5 3 9 1 7 5 9 0 104 95 80 86 46 30 063 02 47 90 98 01 | 1 26 39 2 8 1 11 1 4 0 113 100 80 61 38 25 3905 38996 38445 36956 33214 28168 |
|                |          |          |          |          |          |          |
|----------------|----------|----------|----------|----------|----------|----------|
| 25.1_ASM1101   | 0 91 03  | 8 8 7 05 | 3 8      | 906      | 37 27    | 54 52 65 |
| 862v1_genomi   | 6 83 62  | 0 5 87   | 0 1 3 8  | 3        | 4 5      | 7 2      |
| c 163         | 0 1 3 8  | 3 4 5    | 7 2      |
| GCA_0110186    | 38 5 3 11|          |          | 3889 38832 | 38287 38000 | 34220 28130 |
| 75.1_ASM1101   | 31 86 0 2 48|          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| 867v1_genomi   | 9 02 22 2| 2 4 37 1 4|          | 4141 41312 | 41172 41032 | 40671 39655 |
| c 163         | 3 17 6 8 8 5 0 103 89 70 65 42 26 327 85 16 48 85 93|
| GCA_0110187    | 41 7 0 6 39|          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| 25.1_ASM1101   | 73 35 0 2 0 03|          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| 872v1_genomi   | 3 04 21 6 9 22 1|          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| c 163         | 5 45 1 7 2 3 0 103 89 70 65 42 26 327 85 16 48 85 93|
| GCA_0110187    | 38 7 0 0 12|          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| 95.1_ASM1101   | 33 90 7 2 79|          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| 879v1_genomi   | 9 84 70 9 9 5 59 1 4|          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| c 163         | 3 39 9 7 0 2 0 103 89 70 65 42 26 327 85 16 48 85 93|
| GCA_0110188    | 34 48 0 9 16|          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| 15.1_ASM1101   |          |          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| 881v1_genomi   | 7 30 27 8 6 3 05 3|          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| c 163         | 8 79 2 8 5 4 0 103 89 70 65 42 26 327 85 16 48 85 93|
|                |          |          |          | 4141 41312 | 41172 41032 | 40671 39655 |
| Assembly     | Length | Identity | GC Content | GC Skew | Mismatches | Total Mismatches |
|-------------|--------|----------|------------|---------|------------|-----------------|
| GCA_0110188 | 38     | 95.1     | 889v1_genomi |
| 95.1_ASM1101| 44     | 58.4     | 6          |
| GCA_0110189 | 40     | 45.1     | 894v1_genomi |
| 45.1_ASM1101| 37     | 64.7     | 7          |
| GCA_0110190 | 39     | 55.1     | 899v1_genomi |
| 05.1_ASM1101| 33     | 58.2     | 6          |
| 900v1_genomi| 6      | 63.1     | 7          |
| 55.1_ASM1101| 8      | 43.9     | 1          |
| Genomic Regions | Length (bp) | Coverage | Phred Score | GC Content |
|-----------------|-------------|----------|-------------|------------|
| GCA_0110190     | 4324        | 43113    | 42363       | 41288      | 37541     | 31023     |
| GCA_0110190     | 3973        | 39692    | 39415       | 39142      | 37361     | 33286     |
| GCA_0110190     | 3862        | 38534    | 38361       | 38245      | 37225     | 34977     |
| GCA_0110191     | 3967        | 39574    | 39400       | 39347      | 38877     | 37983     |

### Additional Details:

- **c**: Coverage
- **GC**: GC Content
- **Phred Score**: Phred Score

**Example:**

**905v1_genomi**

- Length: 73
- Coverage: 13
- Phred Score: 8
- GC Content: 6
- Phred Score: 78
- Coverage: 5
- Phred Score: 1

**906v1_genomi**

- Length: 2
- Coverage: 43
- Phred Score: 2
- GC Content: 8
- Phred Score: 0
- Coverage: 10

**GCA_0110190**

- Length: 43
- Coverage: 2
- Phred Score: 8
- GC Content: 0
- Phred Score: 10
- Coverage: 1
|                |         |         |         |         |         |         |         |         |         |         |         |         |         |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| **GCA_0110192**| 2       | 8       | 6       | 1       | 2       | 9       | 4       |         |         |         |         |         |         |
| 15.1_ASM1101  | 40      | 7       | 6       | 1       | 62      |         |         |         |         |         |         |         |         |
| 921v1_genomi  | 2       | 40      | 59      | 8       | 9       | 6       | 63      |         |         |         |         |         |         |
| c             | 8       | 89      | 1       | 7       | 6       | 6.8     | 3       | 8       | 0       | 41      | 27      | 17      | 15      |
|               |         |         |         |         |         |         |         |         |         |         |         |         |         |
| **GCA_0110194**| 39      | 8       | 4       | 7       | 95      |         |         |         |         |         |         |         |         |
| 15.1_ASM1101  | 1       | 25      | 96      | 2       | 0       | 2       | 26      | 4       | 7       | 0       | 2       | 14      | 31      |
| 941v1_genomi  | 46      | 17      | 1       | 7       | 6       | 4       | 1       | 6       |         |         |         |         |         |
| c             | 1       | 24      | 0       | 1       | 7       | 6       | 2       | 7       | 3       | 0       | 120     | 110     | 95      |
|               |         |         |         |         |         |         |         |         |         |         |         |         |         |
| **GCA_0110194**| 19      | 38      | 7       | 3       | 2       | 39      |         |         |         |         |         |         |         |
| 25.1_ASM1101  | 53      | 90      | 5       | 3       | 94      |         |         |         |         |         |         |         |         |
| 942v1_genomi  | 2       | 56      | 55      | 9       | 6       | 1       | 9       |         |         |         |         |         |         |
| c             | 3       | 8       | 2       | 8       | 8       | 6       | 1       | 1       | 6       | 0       | 32      | 20      | 12      |
|               |         |         |         |         |         |         |         |         |         |         |         |         |         |
| **GCA_0110194**| 38      | 8       | 5       | 5       |         |         |         |         |         |         |         |         |         |
| 55.1_ASM1101  | 1       | 29      | 57      | 0       | 5       | 99      |         |         |         |         |         |         |         |
| 945v1_genomi  | 1       | 94      | 54      | 0       | 5       | 3       | 17      | 1       | 6       |         |         |         |         |
| c             | 4       | 36      | 1       | 4       | 7       | 6       | 9       | 5       | 0       | 0       | 134     | 109     | 93      |
|               |         |         |         |         |         |         |         |         |         |         |         |         |         |
| **GCA_0110195**| 8       | 19      | 38      | 2       | 1       | 2       | 10      | 1       | 4       |         |         |         |         |
| 25.1_ASM1101  | 0       | 4       | 59      | 5       | 0       | 5       | 21      | 4       | 1       | 0       | 99      | 76      | 62      |
|               |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Set                  | Quality | Phred Score | Length (bp) | Gene Length | GC Content (%) |
|---------------------|---------|-------------|-------------|-------------|----------------|
| 952v1_genomi        | 84      | 32          | 3           | 9           | 64             |
| c                   | 6       | 1           | 7           | .5          | 6              |
| 962v1_genomi        | 8       | 10          | 55          | 0           | 2              |
| c                   | 0       | 69          | 2           | 7           | 9              |
| GCA_0110196         | 38      | 8           | 5           | 6           | 14             |
| 25.1_ASM1101        | 36      | 22          | .9          | 7           | 98             |
| 974v1_genomi        | 4       | 96          | 31          | 0           | 1              |
| c                   | 9       | 77          | 2           | 4           | 1              |
| GCA_0110197         | 38      | 8           | 2           | 3           |                |
| 45.1_ASM1101        | 51      | 64          | .2          | 2           | 27             |
| 977v1_genomi        | 2       | 61          | 57          | 9           | 5              |
| c                   | 3       | 2           | 5           | 8           | 1              |
| GCA_0110198         | 39      | 2           | 1           | 3           | 16             |
| 95.1_ASM1101        | 33      | 03          | 7           | 4           | 7              |
| 989v1_genomi        | 6       | 61          | .0          | 3           | 37             |
| c                   | 9       | 81          | 0           | 9           | 0              |
| Accession | Threshold 1 | Threshold 2 | Threshold 3 | Threshold 4 | Threshold 5 | Threshold 6 | Threshold 7 | Threshold 8 | Threshold 9 | Threshold 10 |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| GCA_0110199 | 39          | 8           | 3           | 15          |              |              |              |              |              |              |
| 15.1_ASM1101 | 46          | 00          | 6           | 6           | 09          |              |              |              |              |              |
| 991v1_genomi | 7           | 73          | 35          | 2           | 3           | 3           | 54          | 1           | 3           |              |
| c           | 5           | 71          | 6           | 8           | 6           | 3           | .7          | 1           | 9           | 0            |
| GCA_0110199 | 38          | 8           | 0           | 1           |              |              |              |              |              |              |
| 45.1_ASM1101 | 52          | 96          | .2          | 7           | 20          |              |              |              |              |              |
| 994v1_genomi | 5           | 48          | 53          | 0           | 9           | 2           | 70          | 2           |              |              |
| c           | 5           | 87          | 4           | 3           | 9           | 5           | 64          | 8           | 5           | 0            |
| GCA_0110199 | 39          | 7           | 7           | 3           | 18          |              |              |              |              |              |
| 75.1_ASM1101 | 49          | 01          | .2          | 2           | 83          |              |              |              |              |              |
| 997v1_genomi | 5           | 58          | 74          | 9           | 0           | 0           | 40          | 2           |              |              |
| c           | 3           | 09          | 5           | 9           | 7           | 8           | .4          | 8           | 7           | 0            |
| GCA_0110200 | 40          | 8           | 1           | 7           |              |              |              |              |              |              |
| 05.1_ASM1102 | 57          | 65          | .9          | 4           | 28          |              |              |              |              |              |
| 000v1_genomi | 3           | 54          | 61          | 0           | 0           | 8           | 00          | 1           |              |              |
| c           | 9           | 32          | 8           | 2           | 5           | 5           | 43          | 6           | 7           | 0            |
| GCA_0110200 | 1           | 28          | 40          | 2           | 7           | 2           | 89          | 1           | 5           | 0            |

| Accession | Threshold 1 | Threshold 2 | Threshold 3 | Threshold 4 | Threshold 5 | Threshold 6 | Threshold 7 | Threshold 8 | Threshold 9 | Threshold 10 |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 3905      | 38997       | 38711       | 38493       | 36311       | 29642       |              |              |              |              |              |
| 3899      | 38946       | 38690       | 38587       | 37078       | 34291       |              |              |              |              |              |
| 3907      | 39011       | 38805       | 38679       | 37378       | 35074       |              |              |              |              |              |
| 4069      | 40650       | 40496       | 40369       | 38786       | 37861       |              |              |              |              |              |
| 384       | 10          | 28          | 68          | 09          | 21          |              |              |              |              |              |
| 4033      | 40287       | 39523       | 38844       | 34915       | 29210       |              |              |              |              |              |
| Assembly   | Accession | Organism | Genus | Species | Length | Coverage | Identity | Similarity | E-value |
|------------|-----------|----------|-------|---------|--------|----------|----------|------------|---------|
| GCA_0110200 | 15.1_ASM1102 | 001v1 | genomi | c | 683 | 94 | 67 | 91 | 90 | 15 |
| GCA_0110201 | 75.1_ASM1102 | 007v1 | genomi | c | 3861 | 3851 | 1 | 38014 | 36625 | 32843 | 25007 |
| GCA_0110201 | 15.1_ASM1102 | 011v1 | genomi | c | 3831 | 38277 | 37837 | 37140 | 33281 | 30291 |
| GCA_0110201 | 75.1_ASM1102 | 017v1 | genomi | c | 3871 | 38647 | 37316 | 34402 | 26859 | 19029 |
| GCA_0110201 | 95.1_ASM1102 | 019v1 | genomi | c | 3890 | 38854 | 38584 | 38125 | 35401 | 33054 |
| Accession   | Assembly | Release | Genomic Coverage | Mapped Coverage | Genomic Coverage | Mapped Coverage | Genomic Coverage | Mapped Coverage | Genomic Coverage | Mapped Coverage |
|-------------|----------|---------|------------------|----------------|------------------|----------------|------------------|----------------|----------------|----------------|
| GCA_0110202 | 39       | 7       | 3               | 2              | 3906             | 39010          | 38811            | 38561          | 37292          | 35153          |
| 55.1_ASM1102 | 30       | 01      | 7               | 7              | 18               | 18             | 18               | 18             | 18             | 18             |
| 025v1_genomi | 4        | 94      | 66              | 9              | 4                | 6              | 70               | 2              | 2              | 2              |
| c           | 7        | 51      | 9               | 9              | 2                | 4              | 19               | 8              | 2              | 0              | 61             | 46             | 38             | 34             | 27             | 22             | 24             | 22             | 60             | 50             | 78             | 25             | 59             |
| GCA_0110202 | 39       | 7       | 6               | 5              | 24               | 24             | 24               | 24             | 24             | 24             |
| 75.1_ASM1102 | 58       | 88      | 3               | 3              | 65               | 65             | 65               | 65             | 65             | 65             |
| 027v1_genomi | 5        | 83      | 78              | 9              | 1                | 4              | 07               | 2              | 2              | 2              |
| c           | 1        | 43      | 3               | 9              | 5                | 8              | .9               | 6              | 2              | 0              | 59             | 49             | 38             | 35             | 29             | 19             | 19             | 347            | 73             | 29             | 82             | 22             | 63             |
| GCA_0110202 | 38       | 7       | 7               | 4              | 11               | 11             | 11               | 11             | 11             | 11             |
| 85.1_ASM1102 | 27       | 83      | 8               | 9              | 40               | 40             | 40               | 40             | 40             | 40             |
| 028v1_genomi | 8        | 69      | 67              | 9              | 4                | 8              | 23               | 1              | 4              | 4              |
| c           | 7        | 14      | 0               | 9              | 7               | 5              | .9               | 3              | 2              | 0              | 94             | 84             | 66             | 58             | 41             | 28             | 28             | 62             | 60             | 07             | 32             | 57             | 43             |
| GCA_0110205 | 38       | 8       | 6               | 0              | 0                | 0              | 0                | 0              | 0              | 0              |
| 25.1_ASM1102 | 24       | 90      | 5               | 9              | 11               | 11             | 11               | 11             | 11             | 11             |
| 052v1_genomi | 8        | 83      | 94              | 0              | 7                | 5              | 35               | 1              | 4              | 4              |
| c           | 8        | 41      | 1               | 1              | 5                | 4              | 42               | 2              | 7              | 0              | 102            | 87             | 75             | 68             | 41             | 24             | 24             | 460            | 34             | 33             | 28             | 76             | 51             |
| GCA_0110205 | 41       | 2       | 2               | 4              | 22               | 22             | 22               | 22             | 22             | 22             |
| 35.1_ASM1102 | 55       | 37      | 7               | 0              | 6                | 45             | 45               | 45             | 45             | 45             |
| 053v1_genomi | 5        | 07      | 43              | 1              | 7                | 60             | 2                | 2              | 2              | 2              |
| c           | 5        | 11      | 3               | 8              | 8                | 2              | 6               | 7              | 5              | 0              | 70             | 52             | 43             | 38             | 31             | 24             | 381            | 14             | 54             | 21             | 85             | 14             |
| Genbank   | Start | End | GC | AT |
|-----------|-------|-----|----|----|
| GCA_0110205 | 8 | 3 | 9 | 1 |
| 95.1_ASM1102 | 2 | 3 | 2 | |
| 059v1_genomi | 8 | 4 | 54 | 45 |
| 31 | 27 | 6 | 4 | 74 | 3 |
| c | 3 | 21 | 3 | 9 | 0 | 1 | 6 | 9 | 6 | 0 | 96 | 80 | 64 | 52 | 34 | 26 | 150 | 14 | 96 | 65 | 67 | 04 | 1 |
| GCA_0110206 | 38 | 8 | 4 | 20 |
| 55.1_ASM1102 | 60 | 71 | 1 | 6 | 60 |
| 065v1_genomi | 5 | 0 | 9 | 16 | 1 | 7 | 6 | 07 | 2 |
| c | 8 | 17 | 8 | 2 | 9 | 0 | 4 | 8 | 6 | 0 | 65 | 57 | 47 | 39 | 28 | 24 | 546 | 60 | 36 | 88 | 66 | 96 | 1 |
| GCA_0110206 | 38 | 7 | 4 | 14 |
| 65.1_ASM1102 | 29 | 33 | 3 | 6 | 41 |
| 066v1_genomi | 7 | 6 | 8 | 39 | 9 | 9 | 7 | 15 | 1 | 3 |
| c | 4 | 25 | 2 | 8 | 8 | 8 | .7 | 0 | 3 | 0 | 85 | 70 | 53 | 49 | 36 | 26 | 926 | 47 | 37 | 53 | 94 | 69 | 1 |
| GCA_0110207 | 34 | 2 | 9 | 0 | 41 |
| 36.1_ASM1102 | 1 | 18 | 36 | 8 | 6 | 0 | 54 | 1 |
| 073v1_genomi | 8 | 73 | 28 | 5 | 0 | 4 | 3 | 1 |
| c | 7 | 81 | 8 | 3 | 5 | 1 | 5 | 5 | 2 | 0 | 199 | 184 | 143 | 112 | 44 | 8 | 104 | 87 | 49 | 46 | 06 | 5 |
| GCA_0110208 | 9 | 30 | 38 | 2 | 9 | 2 | 12 | 1 | 4 | 0 | 100 | 87 | 70 | 60 | 41 | 24 | 3860 | 38534 | 38116 | 37416 | 34185 | 28306 |
|         |  081v1_genomi |           |  087v1_genomi |           |  089v1_genomi |           |
|---------|--------------|-----------|--------------|-----------|--------------|-----------|
|         | c            | GCA_0110208 | c            | GCA_0110208 | c            | GCA_0110208 |
|         |              | 75.1_ASM1102 |              | 95.1_ASM1102 |              | 65.1_ASM1102 |
|         |              | 087v1_genomi |              | 089v1_genomi |              | 091v_genomi |
|         |              | 096v1_genomi |              | 091v_genomi |              | 096v1_genomi |
|         |              | 3804       |              | 3804       |              | 3804       |
|         |              | 37965      |              | 37965      |              | 37965      |
|         |              | 37727      |              | 37727      |              | 37727      |
|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
|         |              | 3804       |              | 3804       |              | 3804       |
|         |              | 37965      |              | 37965      |              | 37965      |
|         |              | 37727      |              | 37727      |              | 37727      |
|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
|         |              | 3804       |              | 3804       |              | 3804       |
|         |              | 37965      |              | 37965      |              | 37965      |
|         |              | 37727      |              | 37727      |              | 37727      |
|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
|         |              | 3804       |              | 3804       |              | 3804       |
|         |              | 37965      |              | 37965      |              | 37965      |
|         |              | 37727      |              | 37727      |              | 37727      |
|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
|         |              | 3804       |              | 3804       |              | 3804       |
|         |              | 37965      |              | 37965      |              | 37965      |
|         |              | 37727      |              | 37727      |              | 37727      |
|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
|         |              | 3804       |              | 3804       |              | 3804       |
|         |              | 37965      |              | 37965      |              | 37965      |
|         |              | 37727      |              | 37727      |              | 37727      |
|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
|         |              | 3804       |              | 3804       |              | 3804       |
|         |              | 37965      |              | 37965      |              | 37965      |
|         |              | 37727      |              | 37727      |              | 37727      |
|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
|         |              | 3804       |              | 3804       |              | 3804       |
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|         |              | 37727      |              | 37727      |              | 37727      |
|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
|         |              | 3804       |              | 3804       |              | 3804       |
|         |              | 37965      |              | 37965      |              | 37965      |
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|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
|         |              | 3804       |              | 3804       |              | 3804       |
|         |              | 37965      |              | 37965      |              | 37965      |
|         |              | 37727      |              | 37727      |              | 37727      |
|         |              | 37424      |              | 37424      |              | 37424      |
|         |              | 34566      |              | 34566      |              | 34566      |
|         |              | 32394      |              | 32394      |              | 32394      |
| GCA_0110209 | 95.1_ASM1102 | 099v1_genomi | c |
|-------------|-------------|--------------|---|
| 202         | 8           | 4            | 11|
| 3873        | 38685       | 38416        | 37499|
| 34826       | 28556       |              |   |
| GCA_0110211 | 25.1_ASM1102| 112v1_genomi| c |
| 240         | 40          | 8            | 2 |
| 3423        | 43115       | 42586        | 42303|
| 41554       | 37806       |              |   |
| GCA_0110212 | 15.1_ASM1102| 121v1_genomi| c |
| 270         | 8            | 6            | 80|
| 3920        | 39119       | 38681        | 38072|
| 33408       | 23742       |              |   |
| GCA_0110213 | 25.1_ASM1102| 132v1_genomi| c |
| 397         | 8            | 8            | 15|
| 3961        | 39519       | 39022        | 38069|
| 35637       | 31527       |              |   |
| GCA_0110213 | 35.1_ASM1102| 133v1_genomi| c |
| 202         | 8            | 6            | 15|
| 3960        | 39508       | 38654        | 37358|
| 33245       | 24813       |              |   |
| ID             | Length | Genotype | Success Rate | Confidence Score |
|----------------|--------|----------|--------------|------------------|
| GCA_0110213    | 370    | 1        | 0.98         | 1.1              |
| 75.1_ASM1102   | 82     | 8        | 0.97         | 0.9              |
| 137v1_genomi   | 20     | 3        | 0.97         | 0.9              |
| GCA_0110214    | 390    | 2        | 0.84         | 2.1              |
| 15.1_ASM1102   | 82     | 6        | 0.97         | 1.1              |
| 141v1_genomi   | 79     | 2        | 0.97         | 1.1              |
| GCA_0110214    | 400    | 3        | 0.84         | 2.1              |
| 35.1_ASM1102   | 82     | 5        | 0.97         | 1.1              |
| 143v1_genomi   | 24     | 6        | 0.97         | 1.1              |
| GCA_0110214    | 440    | 4        | 0.84         | 2.1              |
| 95.1_ASM1102   | 82     | 6        | 0.97         | 1.1              |
| 149v1_genomi   | 17     | 9        | 0.97         | 1.1              |
| GCA_0110215    | 410    | 2        | 0.84         | 2.1              |
| Accession  | Start  | End    | Length | GC % | TACG % |
|-----------|--------|--------|--------|------|--------|
| 15.1_ASM1102 | 5 24 | 84 7 3 5 58 9 | 780 30 | 77 | 18 16 42 |
| 151v1_genomi | 03 40 | 2 4 77 | 2 9 6 9 | 2 9 5 |
| GCA_0110215 | 39 7 | 8 2 40 | 3 3 6 7 3 1 |
| 35.1_ASM1102 | 80 46 | 3 6 87 | 3 3 6 7 3 1 |
| 153v1_genomi | 3 30 71 9 1 7 09 9 | 3951 39432 39214 39214 39698 38124 |
| GCA_0110215 | 43 7 | 5 2 29 | 2 3 6 |
| 45.1_ASM1102 | 65 20 | 3 3 77 | 2 3 6 |
| 154v1_genomi | 6 67 19 8 2 6 55 1 | 4325 43131 42585 42397 41699 39094 |
| GCA_0110215 | 38 7 | 8 6 17 | 2 3 6 |
| 65.1_ASM1102 | 38 72 | 7 1 03 | 2 3 6 |
| 156v1_genomi | 4 21 87 9 4 9 86 2 | 3877 38708 38482 38398 37464 36704 |
| GCA_0110216 | 90 37 | 2 2 7 38 | 90 37 2 2 7 38 |
| 15.1_ASM1102 | 3 22 88 8 8 2 24 1 | 3791 37882 37684 37633 37054 35670 |
| 161v1_genomi | 5 11 99 | 2 5 72 4 5 0 43 34 25 24 21 17 | 445 94 84 99 73 42 |
|       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 0 1 6 .6 | 4 8 5 | 6 | 4 1 | 2 8 4 |
| 39 7 7 5 53 | 90 60 .0 8 83 |
| 2 80 77 9 2 5 87 | 12 38 7 4 0 64 |
| 165v1_genomic | 55.1_ASM1102 | GCA_0110216 |
| 2 80 77 9 2 5 87 | 75 89 .8 7 03 |
| 173v1_genomic | 35.1_ASM1102 | GCA_0110217 |
| 2 30 04 9 6 1 27 | 3 5 5 8 3 6 .7 3 8 0 35 23 15 15 12 10 108 44 04 04 26 37 |
| 4 1 | 3 5 5 8 3 6 .7 3 8 0 35 23 15 15 12 10 108 44 04 04 26 37 |
| 3 | 2 0 9 | 2 0 9 | 3 5 5 8 3 6 .7 3 8 0 35 23 15 15 12 10 108 44 04 04 26 37 |
| 1 3 | 1 3 | 1 3 | 1 3 |
| 39 8 6 5 34 | 73 03 .2 2 71 |
| 175v1_genomic | 55.1_ASM1102 | GCA_0110217 |
| 3 73 66 0 7 2 07 1 | 3905 39030 38768 38680 38279 37246 |
| 3 04 1 2 4 5 .1 5 3 0 40 32 22 21 19 16 967 52 55 19 73 43 |
| 1 3 | 1 3 | 1 3 | 1 3 |
| 38 3 5 14 | 39 96 .0 7 48 |
| 176v1_genomic | 65.1_ASM1102 | GCA_0110217 |
| 6 05 72 2 7 2 87 1 3 | 3900 38954 38556 38106 36548 33321 |
| 6 70 2 8 5 3 .8 1 1 0 79 64 50 44 35 26 573 40 26 18 07 58 |
|                | GCA_0110218 | GCA_0110219 | GCA_0110219 | GCA_0110220 |
|----------------|-------------|-------------|-------------|-------------|
| 95.1_ASM1102   |             |             |             |             |
| 189v1_genomic  | 8 91 76 2  9 5 14 1 4 | 7 14 25 2  6 1 21 1 3 | 8 41 67 9  8 6 08 1 3 | 5 36 30 0  1 0 01 2 |
| c              | 6 67 7 8  5 6 .6 4 3 | 3 69 6 8  6 1 .2 1 7 | 2 75 8 9  8 7 .1 0 7 | 0 52 0 5  2 7 .8 7 2 |
|                |             | 2 3 2       |             |             |
| 05.1_ASM1102   |             |             |             |             |
| 190v1_genomic  |             |             |             |             |
| c              |             |             |             |             |
|                | 2 7 5       | 3 8 5 5 23  |             |             |
| 15.1_ASM1102   |             | 2 7 5       |             |             |
| 191v1_genomic  |             |             |             |             |
| c              |             |             |             |             |
|                | 1 0 1       |             |             |             |
| 55.1_ASM1102   |             |             |             |             |
| 195v1_genomic  |             |             |             |             |
| c              |             |             |             |             |
|                | 1 0 1       |             |             |             |
| GCA_0110220    |             |             |             |             |
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| Accession   | GCA_0110220 | GCA_0113631 | GCA_0113894 | GCA_0140686 |
|-------------|-------------|-------------|-------------|-------------|
| GCA_0110220 |             |             |             |             |
| GCA_0113631 |             |             |             |             |
| GCA_0113894 |             |             |             |             |
| GCA_0140686 |             |             |             |             |
| GCA_0140686 |             |             |             |             |

| Accession   | GCA_0110220 | GCA_0113631 | GCA_0113894 | GCA_0140686 |
|-------------|-------------|-------------|-------------|-------------|
| GCA_0110220 |             |             |             |             |
| GCA_0113631 |             |             |             |             |
| GCA_0113894 |             |             |             |             |
| GCA_0140686 |             |             |             |             |
| GCA_0140686 |             |             |             |             |

| Accession   | GCA_0110220 | GCA_0113631 | GCA_0113894 | GCA_0140686 |
|-------------|-------------|-------------|-------------|-------------|
| GCA_0110220 |             |             |             |             |
| GCA_0113631 |             |             |             |             |
| GCA_0113894 |             |             |             |             |
| GCA_0140686 |             |             |             |             |
| GCA_0140686 |             |             |             |             |

| Accession   | GCA_0110220 | GCA_0113631 | GCA_0113894 | GCA_0140686 |
|-------------|-------------|-------------|-------------|-------------|
| GCA_0110220 |             |             |             |             |
| GCA_0113631 |             |             |             |             |
| GCA_0113894 |             |             |             |             |
| GCA_0140686 |             |             |             |             |
| GCA_0140686 |             |             |             |             |

| Accession   | GCA_0110220 | GCA_0113631 | GCA_0113894 | GCA_0140686 |
|-------------|-------------|-------------|-------------|-------------|
| GCA_0110220 |             |             |             |             |
| GCA_0113631 |             |             |             |             |
| GCA_0113894 |             |             |             |             |
| GCA_0140686 |             |             |             |             |
| GCA_0140686 |             |             |             |             |

| Accession   | GCA_0110220 | GCA_0113631 | GCA_0113894 | GCA_0140686 |
|-------------|-------------|-------------|-------------|-------------|
| GCA_0110220 |             |             |             |             |
| GCA_0113631 |             |             |             |             |
| GCA_0113894 |             |             |             |             |
| GCA_0140686 |             |             |             |             |
| GCA_0140686 |             |             |             |             |
| Assembly  | Start | End | Length | Identity | Accession | Contigs | Total Mismatches |
|-----------|-------|-----|--------|----------|-----------|---------|-----------------|
| GCA_0148050 | 14    | 40  | 26     | 94.5     | GCA_0148050 | 65.1_ASM1480 | 4064 40633 40465 40397 40196 39423 |
| 506v1_genomi | 2     | 42  | 40     | 87.9     | c         | 5       | 4064 40633 40465 40397 40196 39423 |
| GCA_0148050 | 28    | 41  | 13     | 91.7     | GCA_0148050 | 85.1_ASM1480 | 4064 40633 40465 40397 40196 39423 |
| 508v1_genomi | 2     | 19  | 6      | 87.9     | c         | 1      | 4064 40633 40465 40397 40196 39423 |
| GCA_0148050 | 40    | 8   | 32     | 94.5     | GCA_0148050 | 95.1_ASM1480 | 4064 40633 40465 40397 40196 39423 |
| 509v1_genomi | 2     | 40  | 6      | 95.1     | c         | 2      | 4064 40633 40465 40397 40196 39423 |
| GCA_0148051 | 40    | 8   | 32     | 94.5     | GCA_0148050 | 05.1_ASM1480 | 4064 40633 40465 40397 40196 39423 |
| 510v1_genomi | 8     | 21  | 13     | 94.5     | c         | 1      | 4064 40633 40465 40397 40196 39423 |
| Dataset   | ID       | Chromosome 1 | Chromosome 2 | Chromosome 3 | Chromosome 4 | Chromosome 5 | Chromosome 6 | Chromosome 7 | Chromosome 8 | Chromosome 9 | Chromosome 10 | Chromosome 11 | Chromosome 12 |
|-----------|----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 45.1_ASM1480 | 5  91  67  8  2  2  34 | 487  20  31  31  13  30 |
| 514v1_genomi | 63  48  .  2  7  60 |
| c         | 7  0  3  9  2  6  5  9  5  6  1  2  9  1 |
| GCA_0148051 | 40  8  3  9  61 |
| 65.1_ASM1480 | 96  63  .  2  8  13 |
| 516v1_genomi | 2  35  96  0  8  2  31 |
| c         | 6  07  7  4  6  7  .5  3  7  0  26  24  14  14  13  9  967  99  48  48  68  61 |
| GCA_0148051 | 40  2  6 |
| 85.1_ASM1480 | 73  62  7  5  44 |
| 518v1_genomi | 2  97  36  2  8  9  55 |
| c         | 9  31  5  8  1  5  29  4  9  0  29  27  19  17  14  12  365  89  10  27  99  02 |
| GCA_0148051 | 13  40  8  8  6  67 |
| 95.1_ASM1480 | 58  62  .  7  4  39 |
| 519v1_genomi | 2  28  15  0  5  8  56  1 |
| c         | 8  6  2  1  8  5  .3  3  0  0  28  26  18  16  15  13  152  77  84  66  07  15 |
| GCA_0148052 | 80  41  2  5  2  53 |
| 15.1_ASM1480 | 2  85  20  7  1  5  26 |
| 521v1_genomi | 2  77  53  .  9  1  04  3  8  0  22  21  13  13  11  9  534  88  13  13  13  24 |
| GenBank ID   | Accession | Length | Completeness | Annotation |
|-------------|-----------|--------|--------------|------------|
| GCA_0148052| 1         | 8      | 97%          | 523v1_genomi |
| 35.1_ASM1480| 2         | 2      | 97%          | 523v1_genomi |
| 75.1_ASM1480| 3         | 2      | 97%          | 523v1_genomi |
| GCA_0148053| 4         | 2      | 97%          | 527v1_genomi |
| 05.1_ASM1480| 5         | 2      | 97%          | 530v1_genomi |

### Table 1: GenBank Accession Details

| Accession | Length | Completeness | Annotation |
|-----------|--------|--------------|------------|
| GCA_0148052| 8      | 97%          | 523v1_genomi |
| 35.1_ASM1480| 2      | 97%          | 523v1_genomi |
| 75.1_ASM1480| 2      | 97%          | 523v1_genomi |
| GCA_0148053| 4      | 97%          | 527v1_genomi |
| 05.1_ASM1480| 5      | 97%          | 530v1_genomi |
| Reference        | GCA_0148729          | 05.1_ASM1487          | 290v1_genomic          | GCA_0160853          | 75.1_PDT0001          | 62924.3_genomic       | mic          | GCA_0160854          | 75.1_PDT0001          | 62920.3_genomic       | mic          | GCA_0160854          | 75.1_PDT0001          |
|-----------------|----------------------|----------------------|------------------------|----------------------|----------------------|------------------------|--------------|----------------------|----------------------|------------------------|--------------|----------------------|----------------------|
| Accession       |                      |                      |                        |                      |                      |                        |              |                      |                      |                        |              |                      |                      |
|                 | 1                    | 3                    | 0                      |                      |                      |                        |              | 1                    | 3                    | 0                      |              | 1                    | 3                    |
|                 | 2                    | 3                    | 3                      |                      |                      |                        |              | 2                    | 3                    | 4                      |              | 2                    | 4                    |
|                 |                      |                      |                        |                      |                      |                        |              |                      |                      |                        |              |                      |                      |
|                 | GCA_0148729          | 41                   | 7                      | 5                    | 1                    | 0                      | 77           | 71                   | 58                   | 53                     | 42           | 24                   | 425                  |
|                 | 05.1_ASM1487          | 29                   | 55                     | 3                    | 4                    | 13                     |              |                      |                      |                        |              |                      |                      |
|                 | 290v1_genomic         | 7                    | 39                     | 42                   | 9                    | 5                      | 7            | 98                   | 1                    | 3                      |              |                      |                      |
|                 | c                    | 7                    | 27                     | 5                    | 9                    | 2                      | 4            | 90                   | 1                    | 7                      | 0            | 77                   | 71                   |
|                 |                      |                      |                        |                      |                      |                        |              |                      |                      |                        |              |                      |                      |
|                 | GCA_0160853          | 38                   | 7                      | 3                    | 5                    | 24                     |              | 4                    | 0                    | 24                     |              | 17                   | 549                  |
|                 | 75.1_PDT0001         | 46                   | 16                     | 6                    | 7                    | 80                     |              |                      |                      |                        |              |                      |                      |
|                 | 62924.3_genomic       | 4                    | 54                     | 97                   | 9                    | 7                      | 0            | 97                   | 1                    |                        |              |                      |                      |
|                 | mic                  | 0                    | 22                     | 2                    | 8                    | 4                      | 9            | 6                    | 6                    | 0                      | 44           | 33                   | 28                   |
|                 |                      |                      |                        |                      |                      |                        |              |                      |                      |                        |              |                      |                      |
|                 | GCA_0160854          | 38                   | 7                      | 8                    | 4                    | 21                     |              | 2                    | 2                    | 5                      |              |                      |                      |
|                 | 55.1_PDT0001         |                      |                        |                      |                      |                        |              |                      |                      |                        |              |                      |                      |
|                 | 62920.3_genomic       | 4                    | 93                     | 63                   | 9                    | 7                      | 5            | 04                   | 1                    |                        |              |                      |                      |
|                 | mic                  | 6                    | 98                     | 5                    | 8                    | 6                      | 4            | 2                    | 7                    | 9                      | 0            | 49                   | 38                   |
|                 |                      |                      |                        |                      |                      |                        |              |                      |                      |                        |              |                      |                      |
|                 | GCA_0160854          | 38                   | 7                      | 8                    | 1                    | 28                     |              | 2                    | 6                    | 9                      |              |                      |                      |
|                 | 75.1_PDT0001         | 46                   | 29                     | 7                    | 6                    | 38                     |              |                      |                      |                        |              |                      |                      |
|                 | 62923.3_genomic       | 3                    | 54                     | 90                   | 9                    | 6                      | 8            | 11                   | 1                    |                        |              |                      |                      |
|                 | mic                  | 5                    | 40                     | 8                    | 8                    | 9                      | 1            | 6                    | 4                    | 0                      | 37           | 29                   | 24                   |
|                 |                      |                      |                        |                      |                      |                        |              |                      |                      |                        |              |                      |                      |
|                 | GCA_0160854          | 3                    | 46                     | 3                    | 8                    | 2                      | 3            | 1                    | 29                   | 5                    | 1            | 0                    | 33                   |
|                 |                      |                      |                        |                      |                      |                        |              |                      |                      |                        |              |                      |                      |
|                 |                      |                      |                        |                      |                      |                        |              |                      |                      |                        |              |                      |                      |
|         | 1   | 53  | 31  | 7   | 0   | 4   | 92  | 2   | 024 | 69  | 71  | 71  | 91  | 65  |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 95.1_PDT0001 | 1   | 53  | 31  | 7   | 0   | 4   | 92  | 2   |     |     |     |     |     |     |
| 62918.3_geno | 14  | 22  | .4  | 0   | 59  |     |     |     |     |     |     |     |     |     |
| mic     | 5   | 9   | 2   | 2   | .5  |     |     |     |     |     |     |     |     |     |
| GCA_0160855 | 37  | 8   | 7   | 6   | 33  |     |     |     |     |     |     |     |     |     |
| 15.1_PDT0001 | 2   | 97  | 73  | .4  | 1   | 75  | 1   |     |     |     |     |     |     |     |
| 62922.3_geno | 8   | 40  | 64  | 0   | 0   | 3   | 2.4 | 5   |     |     |     |     |     |     |
| mic     | 8   | 3   | 8   | 9   | 2   | 6   | 1   | 0.5 |     |     |     |     |     |     |
| GCA_0160855 | 38  | 7   | 9   | 6   | 26  |     |     |     |     |     |     |     |     |     |
| 35.1_PDT0001 | 46  | 21  | .2  | 3   | 89  |     |     |     |     |     |     |     |     |     |
| 62917.3_geno | 3   | 54  | 08  | 9   | 5   | 8   | 21  | 1   |     |     |     |     |     |     |
| mic     | 5   | 06  | 1   | 8   | 2   | 0.1 | 6   | 4   |     |     |     |     |     |     |
| GCA_0160855 | 38  | 7   | 3   | 8   | 27  |     |     |     |     |     |     |     |     |     |
| 55.1_PDT0001 | 45  | 21  | .5  | 1   | 57  |     |     |     |     |     |     |     |     |     |
| 62921.3_geno | 3   | 24  | 35  | 9   | 1   | 8   | 31  | 1   |     |     |     |     |     |     |
| mic     | 7   | 45  | 7   | 6   | 0   | 5.9 | 6   | 4   |     |     |     |     |     |     |
| GCA_0160856 | 38  | 2   | 3   | 9   | 30  |     |     |     |     |     |     |     |     |     |
| 25.1_PDT0001 | 46  | 27  | 7   | 0   | 1   | 01  |     |     |     |     |     |     |     |     |
| 62916.3_geno | 3   | 52  | 16  | .4  | 7   | 38  |    | 1   |     |     |     |     |     |     |
| mic     | 3   | 97  | 8   | 3   | 7.6 | 5   | 3   | 0   |     |     |     |     |     |     |
| Accession  | Length | Gaps | Mismatches | C    | A    | T    | G    |
|-----------|--------|------|------------|------|------|------|------|
| GCA_0160857 | 15.1_PDT0001  | 362915.2_genomic  | 9    | 7    | 19   | 33   | 20   | 20   | 18   | 3881 | 38761 | 38647 | 38647 | 37264 | 36406 |
| GCA_0167983 | 45.1_ASM1679   | 834v1_genomic     | 185   | 15   | 65   | 2    | 2    | 1    | 37   | 652  | 52    | 52    | 52    | 52    | 52    | 52    |
| GCA_0168386 | 65.1_ASM1683   | 866v1_genomic     | 38    | 38   | 8    | 5    | 5    | 5    | 38   | 3815 | 38156 | 38156 | 38156 | 38156 | 38156 | 38156 |
| GCA_0169895 | 65.1_ASM1698   | 956v1_genomic     | 41    | 16   | 77   | 6    | 2    | 35   | 2    | 3867 | 38638 | 38453 | 38152 | 37255 | 34093 |
| GenBank ID   | Version | Assembly | Accession | Length | Identity | Coverage |
|-------------|---------|----------|-----------|--------|----------|----------|
| GCA_0169897 | 75.1    | ASM1698  | 977v1_genomi | 42      | 93       | 100      |
| GCA_0169897 | 85.1    | ASM1698  | 978v1_genomi | 52      | 62       | 100      |
| GCA_0169898 | 25.1    | ASM1698  | 982v1_genomi | 60      | 75       | 100      |
| GCA_0169898 | 55.1    | ASM1698  | 985v1_genomi | 60      | 58       | 100      |

The table above provides information on the GenBank ID, version, assembly, and accession details along with the length, identity, and coverage for each entry.
| Sequence     | Nucleotides | Total Count | Read Count | Quality Score |
|--------------|-------------|-------------|------------|---------------|
| 95.1_ASM1698 | 1 60 94 8 4 4 06 | 296 47 43 43 43 29 |
| 989v1_genomi | 31 80 . 3 0 07 |
|             | 4 9 0 4 7 6 . 3 5 7 0 3 5 1 2 8 3 |
| GCA_0169899 | 42 7 9 3 53 |
| 75.1_ASM1698 | 88 57 . 2 2 09 |
| 997v1_genomi | 4 24 73 8 0 5 75 |
|             | 5 57 2 9 9 9 . 6 3 9 0 61 35 15 15 15 12 384 32 03 03 03 64 8 3 |
|             | 2 1 1 |
| GCA_0169900 | 16 40 8 5 1 97 |
| 15.1_ASM1699 | 10 13 . 9 1 41 |
| 001v1_genomi | 1 76 48 0 5 2 21 |
|             | 7 2 5 7 7 2 . 7 2 5 0 27 16 8 8 8 7 700 45 26 26 26 12 7 1 3 4 10 |
| GCA_0169900 | 19 42 2 8 6 81 |
| 25.1_ASM1699 | 12 03 7 1 4 23 |
| 002v1_genomi | 3 78 88 . 3 2 1 . |
|             | 0 9 0 9 8 4 7 2 7 0 43 24 11 11 11 10 851 51 99 99 99 85 |
| GCA_0169900 | 70 39 2 2 6 29 |
| 55.1_ASM1699 | 4 58 44 7 3 6 71 1 |
| 005v1_genomi | 0 06 68 . 5 7 18 6 6 0 46 37 26 25 22 18 920 18 37 86 02 68 |
c

 6 9 2 0 .3
 9 4 6
 5 1
 006v1_genomi 4 80 81 0 9 2 56 1
                4105 40953 40583 40412 40156 39868
 65.1_ASM1699  59 01 . 8 2 39
 5 1
 011v1_genomi 4 41 81 0 3 0 12 1
            4167 41588 41264 41264 41082 39137
 15.1_ASM1699  82 62 . 2 4 06
 3 3
 015v1_genomi 3 34 96 9 8 7 62 1
            3904 39012 38794 38794 38155 37366
 55.1_ASM1699  74 01 . 6 7 35
 2 6 8
 019v1_genomi 4 36 83 9 0 3 29 1
            4270 42590 42188 42188 42032 41416
 95.1_ASM1699  91 65 . 0 1 57
 2 4 1
 13

|        | GCA_0169903 | 15.1_ASM1699 | 031v1_genomi | c       | 2 | 9 | 3 | 8 | 3 |
|--------|-------------|--------------|--------------|---------|---|---|---|---|---|
|        | 16          | 40           | 8            | 6       | 0 | 95|   |   |   |
|        | 20          | 35           | .2           | 2       | 1 | 80|   |   |   |
| 031v1_genomi | 2          | 23           | 22           | 0       | 5 | 9 | 83|   |   |
| c       | 9           | 7            | 6            | 3       | 3 | 8 | .2| 2 | 5 |
|         |             | 40           | 25           | 9       | 9 | 9 | 9 | 9 | 9 |
|         | 8           | 662          | 26           | 99      | 99| 99| 99| 95| 85|
|        | 2           | 9            | 3            | 2       | 8 | 15|   |   |   |
|        | 41          | 8            | 2            | 5       |   |   |   |   |   |
| GCA_0169903 | 89          | 07           | .1           | 9       | 46|   |   |   |   |
| 35.1_ASM1699 | 4          | 58           | 04           | 0       | 9 | 0 | 92| 1 |   |
| 033v1_genomi | 8           | 33           | 2            | 2       | 6 | 0 | 85| 4 | 0 |
| c       |             | 60           | 38           | 18      | 16| 14| 13| 538| 01 |
|         | 7           | 1            |   |   |   |   |   |   |   |
|         | 2           | 9            | 3            | 11      |   |   |   |   |   |
| GCA_0169903 | 18          | 38           | 8            | 2       | 5 | 47|   |   |   |
| 45.1_ASM1699 | 80          | 31           | .3           | 6       | 71|   |   |   |   |
| 034v1_genomi | 2          | 05           | 48           | 0       | 4 | 1 | 5 |   |   |
| c       | 1           | 3            | 2            | 4       | 3 | 2 | 8 | 2 | 6 |
|         |             | 31           | 20           | 10      | 10| 10| 9 | 757| 42 |
|         | 7           | 1            |   |   |   |   |   |   |   |
|         | 2           | 9            | 1            |   |   |   |   |   |   |
| GCA_0169903 | 41          | 8            | 7            | 8       | 54|   |   |   |   |
| 75.1_ASM1699 | 93          | 09           | .7           | 0       | 62|   |   |   |   |
| 037v1_genomi | 3          | 71           | 13           | 0       | 5 | 8 | 18| 1 |   |
| c       | 9           | 38           | 2            | 2       | 1 | 0 | .8| 3 | 0 |
|         |             | 52           | 32           | 14      | 14| 14| 13| 819| 58 |
|         | 8           | 19           | 11           | 10      | 10| 10| 9 | 232| 85 |
|         | 2           | 9            | 8            | 7       | 9 | 37| 3 | 6 | 0 |
| GCA_0169903 | 2          | 81           | 38           | 2       | 6 | 2 | 58|   |   |
| 95.1_ASM1699 | 0          | 00           | 47           | 8       | 7 | 9 | 37| 3 | 6 |
|         | 27          | 19           | 11           | 10      | 10| 10| 9 | 232| 85 |
|         | 8           | 21           | 82           | 82      | 79|   |   |   |   |
| Genomic Region | 039v1_genomi | GCA_0169904 | 041v1_genomi | GCA_0173306 | 066v1_genomi | GCA_0173306 | 068v1_genomi | GCA_0173306 | 069v1_genomi |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| c             | 10 82 3 3 34 | 15.1_ASM1699 | 3 78 94 0 7 2 92 | 65.1_ASM1733 | 6 97 55 7 0 5 58 3 | 85.1_ASM1733 | 2 36 06 9 8 1 5 2 6 | 95.1_ASM1733 | 5 60 90 0 2 2 92 1 | 056v1_genomi | 3 77 5 3 3 2 6 9 0 0 67 61 49 46 36 24 555 38 48 73 60 36 |
|               | 5 3 5 9 | 93 50 1 9 88 | 5 1 1 1 | 43 7 2 2 18 | 38 7 3 9 71 | 1 25 43 5 0 29 | 2 43 6 6 5 4 5 2 9 0 122 116 95 89 54 23 066 51 74 49 08 18 | 39 8 7 4 30 | 68 78 7 8 01 | 5 68 5 1 6 0 .9 5 8 0 55 42 35 33 23 17 095 26 85 94 94 97 |
| GCA_0173307          | 41   | 7   | 5   | 1   | 31  |
|----------------------|------|-----|-----|-----|-----|
| 15.1_ASM1733         | 63   | 85  | .   | 8   | 3   |
| 071v1_genomi         | 41   | 7   | 6   | 0   | 1   |
| c                    | 0    | 62  | 6   | 5   | 8   |
|                      | 0    | 40  | 35  | 28  | 28  |
|                      | 20   | 706 | 21  | 44  | 44  |
|                      | 44   | 44  | 14  | 14  | 70  |
| GCA_0173307          | 41   | 7   | 5   | 7   | 78  |
| 25.1_ASM1733         | 1    | 21  | 87  | .   | 5   |
| 072v1_genomi         | 3    | 52  | 70  | 6   | 2   |
| c                    | 1    | 57  | 6   | 1   | 7   |
|                      | 0    | 131 | 125 | 101 | 85  |
|                      | 25   | 706 | 21  | 90  | 68  |
|                      | 80   | 80  | 78  | 78  |     |
| GCA_0173307          | 41   | 7   | 2   | 8   | 44  |
| 65.1_ASM1733         | 2    | 14  | 62  | .   | 5   |
| 076v1_genomi         | 5    | 87  | 32  | 6   | 5   |
| c                    | 6    | 60  | 0   | 9   | 6   |
|                      | 0    | 256 | 237 | 163 | 117 |
|                      | 46   | 17  | 320 | 58  | 69  |
|                      | 95   | 11  | 54  | 54  |     |
| GCA_0173307          | 41   | 7   | 4   | 7   | 12  |
| 85.1_ASM1733         | 27   | 99  | .   | 0   | 96  |
| 078v1_genomi         | 8    | 36  | 79  | 1   | 5   |
| c                    | 0    | 68  | 7   | 1   | 0   |
|                      | 0    | 80  | 69  | 57  | 55  |
|                      | 43   | 29  | 797 | 53  | 11  |
|                      | 38   | 11  | 38  | 43  | 91  |
| GCA_0173307          | 58   | 43  | 2   | 2   | 4   |
| 95.1_ASM1733         | 8    | 74  | 31  | 7   | 2   |
| 079v1_genomi         | 6    | 11  | 52  | .   | 5   |
| c                    | 0    | 51  | 05  | 7   | 3   |
|                      | 0    | 86  | 66  | 43  | 33  |
|                      | 28   | 22  | 526 | 56  | 16  |
|                      | 43   | 10  | 61  |     |     |
| c         | 6 7 9 2 .3 |
|-----------|------------|
| 5 0 5     | 1          |
| 2 2       | GCA_0173308|
| 41 7 6 8 33| 15.1_ASM1733|
| 2 10 63 .6 2 29 1 | 081v1_genomi|
| 5 49 37 6 8 2 4 4 4 | 04163 41591 39948 36431 23431 95280 |
| c         | 2 53 7 6 2 9 8 6 9 0 252 247 186 137 56 15 377 63 23 70 84 1 |
| 2 9 2     | GCA_0173308|
| 42 7 0 2  | 45.1_ASM1733|
| 21 03 . 5 0 99 | 084v1_genomi|
| 9 35 61 6 1 7 22 1 5 | 4203 41992 41669 41385 37521 29260 |
| c         | 7 89 4 7 8 4 3 5 2 0 97 90 78 74 50 27 614 70 21 58 93 80 |
|           | 1 2 1 2 |
| GCA_0173308|
| 41 7 1 7 14 | 65.1_ASM1733|
| 32 98 . 9 7 43 | 086v1_genomi|
| 8 21 11 7 4 3 01 1 3 | 4198 41899 41562 41143 38305 33151 |
| c         | 7 99 7 1 9 7 6 1 8 0 87 75 62 56 39 24 117 11 24 28 06 37 |
| 2 4 1     | GCA_0173308|
| 41 7 6 2 55 | 85.1_ASM1733|
| 1 17 41 . 1 1 81 | 088v1_genomi|
| 9 73 30 7 2 1 2 2 9 | 4141 41315 40035 38351 29881 20061 |
| c         | 3 84 6 5 7 0 5 8 8 0 193 180 131 107 54 26 306 64 33 66 72 18 |
| GCA_0173309| 5 54 42 2 1 5 23 2 | 4217 42153 41853 41416 40888 38198 |
| 085v1_genomi|
| 9 08 17 7 9 5 36 7 4 0 59 55 41 35 32 24 736 49 21 47 81 64 |
| Genomic Location | Start | End | Length |
|------------------|-------|-----|--------|
| 090v1_genomi     | 02    | 73  | 71     |
| c                | 02    | 73  | 71     |
| GCA_0173309-25.1_ASM1733 | 1    | 41  | 40     |
| 092v1_genomi     | 02    | 73  | 71     |
| GCA_0173309-45.1_ASM1733 | 1    | 41  | 40     |
| 094v1_genomi     | 02    | 73  | 71     |
| GCA_0173309-65.1_ASM1733 | 1    | 41  | 40     |
| 096v1_genomi     | 02    | 73  | 71     |
| GCA_0173309-85.1_ASM1733 | 1    | 41  | 40     |
| 098v1_genomi     | 02    | 73  | 71     |
| GCA_0173309-85.1_ASM1733 | 1    | 41  | 40     |
| Accession | Version | Strain | Length | Start | End | GC Content | GC Start | GC End | GC % |
|-----------|---------|--------|--------|-------|------|-------------|-----------|--------|------|
| GCA_0173310 | 05.1_ASM1733 | 100v1_genomic | 2,182,576 | 8 | 15 | 56 | 3 | 8,549 | 16,976 | 2,337 | 1,923 | 2,727 | 24,150 | 16,710 | 4,227 | 42,087 | 35,745 |
| GCA_0173310 | 25.1_ASM1733 | 102v1_genomic | 2,182,576 | 7 | 8 | 43 | 6 | 59 | 48 | 98 | 41 | 53 | 24 | 41 | 82 | 1,543 | 845 | 43,938 | 38,187 | 34,632 |
| GCA_0173310 | 45.1_ASM1733 | 104v1_genomic | 2,182,576 | 6 | 8 | 48 | 36 | 8 | 6 | 52 | 3 | 8 | 4 | 51 | 80 | 1,540 | 845 | 43,938 | 38,187 | 34,632 |
| GCA_0175901 | 75.1_ASM1759 | 017v1_genomic | 2,182,576 | 3 | 8 | 80 | 53 | 0 | 2 | 9 | 8 | 2 | 8 | 79 | 84 | 1,540 | 845 | 43,938 | 38,187 | 34,632 |
| GCA_0175911 | 15.1_ASM1759 | 017v1_genomic | 2,182,576 | 2 | 7 | 83 | 57 | 8 | 8 | 1 | 2 | 72 | 2 | 4 | 0 | 274 | 232 | 179 | 128 | 52 | 17 | 568 | 90 | 17 | 99 | 29 | 33 |
| Sample          | Count | Percentile | Size1 | Size2 | Size3 | Size4 | Size5 | Size6 | Size7 | Size8 | Size9 | Size10 | Size11 | Size12 | Size13 | Size14 | Size15 | Size16 | Size17 | Size18 | Size19 | Size20 | Size21 | Size22 | Size23 | Size24 |
|-----------------|-------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 111v1_genomi    | 4     | 21         | 56    | 7     | 0     | 5     | 3     |       |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| c               | 8     | 0          | 1     | 7     | 4     | 5     | 5     | 2     | 4     | 1     |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| GCA_0177732     | 41    | 8          | 8     | 2     | 69    |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 55.1_PDT0009    | 85     | 5          | 0     | 9     | 03    |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 85504.1_genomic| 6     | 86          | 97    | 1     | 3     | 0     | 3     | 2     | 8     |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| mic             | 7     | 45          | 0     | 3     | 1     | 4     | 3     | 4     | 8     | 0     | 171    | 161    | 121    | 99     | 53     | 22     | 227    | 56     | 17     | 28     | 23     | 39     |       |        |        |        |        |
| GCA_9023862     | 27    | 38          | 8     | 2     | 9     | 74    |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 35.1_UHGG_M     | 52    | 08          | 8     | 3     | 85    |       |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| GYG-HGUT-0      | 1     | 80          | 26    | 0     | 0     | 9     | 8     |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 2355_genomic    | 1     | 9           | 2     | 1     | 9     | 4     | 9     | 1     | 3     | 0.03  | 11     | 11     | 7      | 6      | 6      | 5      | 262    | 62     | 68     | 17     | 17     | 94     |       |        |        |        |        |

**Note:** The table represents counts and percentiles for different samples, with specific values for each column indicating size measurements.
| Strains  | Complete | Complete and single copy | Complete and duplicated | Fragmented | Missing | Total BUSCO groups |
|----------|----------|--------------------------|-------------------------|------------|---------|-------------------|
| XJFE01   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFE02   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFE03   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFE04   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFE05   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFE06   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD01   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD02   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD03   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD04   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD05   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD06   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD07   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD08   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD09   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD10   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD11   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD12   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD13   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD14   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD15   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD16   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| XJFD17   | C:99.7%  | S:98.9%                  | D:0.8%                  | F:0.0%     | M:0.3%  | n:264             |
| Code  | C  | S  | D  | F  | M  | n  |
|-------|----|----|----|----|----|----|
| XJFD18| 99.6% | 98.1% | 1.5% | 0.0% | 0.4% | 264 |
| XJFD19| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJFD20| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJFD21| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJFD22| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJFD23| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJFD24| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJFD25| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJFD26| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJFD27| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL01| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL02| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL03| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL04| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL05| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL06| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL07| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL08| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL09| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL10| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL11| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL12| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL13| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL14| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL15| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| XJSL16| 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| Accession | C%  | S%   | D%  | F%  | M%  | N  |
|-----------|-----|------|-----|-----|-----|----|
| XJSL17    | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264|
| XJSL18    | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264|
| XJSL19    | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264|
| XJSL20    | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264|
| XJSL21    | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264|
| XJSL22    | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264|
| XJSL23    | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264|
| XJSL24    | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264|
| XJSL25    | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264|
| XJSL26    | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264|
| GCA_000017045.1_ASM1704v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264|
| GCA_000017065.1_ASM1706v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264|
| GCA_000019305.1_ASM1930v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264|
| GCA_000019545.1_ASM1954v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264|
| GCA_000020345.1_ASM2034v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264|
| GCA_000022765.1_ASM2276v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264|
| GCA_000063585.1_ASM6358v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264|
| GCA_000092345.1_ASM9234v1_genomic | 94.7 | 93.9 | 0.8 | 3.8 | 1.5 | 264|
| GCA_000171055.1_ASM17105v1_genomic | 99.2 | 97.7 | 1.5 | 0.0 | 0.8 | 264|
| GCA_000171075.1_ASM17107v1_genomic | 98.1 | 97.0 | 1.1 | 0.8 | 1.1 | 264|
| GCA_000253195.1_ASM25319v1_genomic | 98.5 | 97.7 | 0.8 | 8.0 | 0.7 | 264|
| GCA_000307635.1_ASM30763v1_genomic | 80.3 | 80.3 | 0.0 | 15.2 | 4.5 | 264|
| GCA_000307655.2_CFSAN0001628_2.0_genomic | 89.1 | 88.3 | 0.8 | 6.1 | 4.8 | 264|
| GCA_000439615.1_CFSAN0002367_1.0_genomic | 54.2 | 54.2 | 0.0 | 35.2 | % | 264|
| GCA_000439635.1_CFSAN0002368_1.0_genomic | 53.8 | 53.8 | 0.0 | 33.7 | 12.5 | 264|
| Accession                                      | C覆盖率 | S覆盖率 | D覆盖率 | F覆盖率 | M覆盖率 | n值 |
|-----------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----|
| GCA_000439655.1_CFSAN002369_1.0_genomic      | 49.6%     | 49.6%     | 0.0%      | 36.0%     |           | 264 |
| GCA_000439815.2_ASM43981v2_genomic           | 93.5%     | 92.4%     | 1.1%      | 0.8%      | 5.7%      | 264 |
| GCA_000503815.1_ASM50381v1_genomic           | 98.8%     | 97.3%     | 1.5%      | 0.4%      | 0.8%      | 264 |
| GCA_000503815.1_ASM50381v1_genomic           | 92.4%     | 92.4%     | 0.8%      | 9.1%      | 1.5%      | 264 |
| GCA_000503815.1_ASM50381v1_genomic           | 94.7%     | 93.9%     | 0.8%      | 4.5%      | 0.8%      | 264 |
| GCA_000503815.1_ASM50381v1_genomic           | 56.5%     | 56.1%     | 0.4%      | 27.3%     |           | 264 |
| GCA_000710975.1_B2_331_genomic               | 99.6%     | 98.5%     | 1.1%      | 0.0%      | 0.4%      | 264 |
| GCA_000710985.1_B2_275_genomic               | 99.6%     | 98.5%     | 1.1%      | 0.0%      | 0.4%      | 264 |
| GCA_000710995.1_A2B3_87_genomic              | 99.7%     | 98.9%     | 0.8%      | 0.0%      | 0.3%      | 264 |
| GCA_000711005.1_A2B7_92_genomic              | 99.6%     | 98.1%     | 1.1%      | 0.4%      | 0.4%      | 264 |
| GCA_000711055.1_A2_117_genomic               | 99.6%     | 98.5%     | 1.1%      | 0.0%      | 0.4%      | 264 |
| GCA_000711065.1_B2_128_genomic               | 99.6%     | 98.5%     | 1.1%      | 0.0%      | 0.4%      | 264 |
| GCA_000711105.1_F_357_genomic                | 98.8%     | 97.7%     | 1.1%      | 0.8%      | 0.4%      | 264 |
| GCA_000711115.1_B2_433_genomic               | 99.6%     | 98.5%     | 1.1%      | 0.0%      | 0.4%      | 264 |
| GCA_000730705.1_ASM73070v1_genomic           | 94.7%     | 93.9%     | 0.8%      | 4.5%      | 0.8%      | 264 |
| GCA_000730715.1_ASM73071v1_genomic           | 94.4%     | 93.6%     | 0.8%      | 3.8%      | 1.8%      | 264 |
| GCA_000730725.1_ASM73072v1_genomic           | 95.5%     | 94.7%     | 0.8%      | 3.4%      | 1.1%      | 264 |
| GCA_000730735.1_ASM73073v1_genomic           | 91.3%     | 90.2%     | 1.1%      | 5.7%      | 3.0%      | 264 |
| GCA_000730785.1_ASM73078v1_genomic           | 96.6%     | 95.8%     | 0.8%      | 2.3%      | 1.1%      | 264 |
| GCA_000730795.1_ASM73079v1_genomic           | 95.5%     | 94.7%     | 0.8%      | 3.8%      | 0.7%      | 264 |
| GCA_000730805.1_ASM73080v1_genomic           | 93.2%     | 92.4%     | 0.8%      | 5.7%      | 1.1%      | 264 |
| Accession            | C     | S     | D     | F    | M    | n  |
|----------------------|-------|-------|-------|------|------|----|
| GCA_000730835.1_ASM73083v1_genomic | 89.8% | 88.3% | 1.5%  | 6.8% | 3.4% | 264|
| GCA_000730865.1_ASM73086v1_genomic | 89.1% | 88.3% | 0.8%  | 6.8% | 4.1% | 264|
| GCA_000730875.1_ASM73087v1_genomic | 93.2% | 92.4% | 0.8%  | 5.7% | 1.1% | 264|
| GCA_000730885.1_ASM73088v1_genomic | 93.2% | 92.4% | 0.8%  | 4.5% | 2.3% | 264|
| GCA_000730925.1_ASM73092v1_genomic | 94.0% | 93.2% | 0.8%  | 4.2% | 1.8% | 264|
| GCA_000730945.1_ASM73094v1_genomic | 80.7% | 79.9% | 0.8%  | 13.6%| 5.7% | 264|
| GCA_000730955.1_ASM73095v1_genomic | 88.6% | 87.5% | 1.1%  | 7.6% | 3.8% | 264|
| GCA_000730965.1_ASM73096v1_genomic | 95.9% | 95.5% | 0.4%  | 3.0% | 1.1% | 264|
| GCA_000769495.1_CFSAN024410_01.0_genomic | 99.6% | 99.2% | 0.4%  | 0.0% | 0.4% | 264|
| GCA_000816945.1_ASM81694v1_genomic | 99.7% | 98.9% | 0.8%  | 0.0% | 0.3% | 264|
| GCA_000816965.1_ASM81696v1_genomic | 99.6% | 98.1% | 1.5%  | 0.0% | 0.4% | 264|
| GCA_000817935.1_ASM81793v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0% | 0.4% | 264|
| GCA_000829015.1_ASM82901v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0% | 0.4% | 264|
| GCA_000830755.1_ASM83075v1_genomic | 99.6% | 99.2% | 0.4%  | 0.0% | 0.4% | 264|
| GCA_000876495.2_ASM87649v2_genomic | 99.6% | 98.5% | 1.1%  | 0.0% | 0.4% | 264|
| GCA_000965295.1_ASM96529v1_genomic | 66.3% | 65.5% | 0.8%  | 26.9%| 6.8% | 264|
| GCA_000965325.1_ASM96532v1_genomic | 37.1% | 36.7% | 0.4%  | 44.7%| 18.2| 264|
| GCA_000965345.1_ASM96534v1_genomic | 41.3% | 40.9% | 0.4%  | 36.7%| 11.4| 264|
| GCA_000965375.1_ASM96537v1_genomic | 62.5% | 62.1% | 0.4%  | 26.1%| 13.6| 264|
| GCA_000965385.1_ASM96538v1_genomic | 58.7% | 58.7% | 0.0%  | 27.7%| 12.8| 264|
| GCA_000965445.1_ASM96544v1_genomic | 61.8% | 61.0% | 0.8%  | 25.4%| 12.0| 264|
| Accession                        | Completeness | Similarity | Discordancy | Faunal | Maturity | n  |
|---------------------------------|--------------|------------|-------------|--------|----------|----|
| GCA_000965465.1_ASM96546v1_genomic | 42.0%        | 42.0%      | 0.0%        | 35.2%  | 22.8     | 264|
| GCA_000965505.1_ASM96550v1_genomic | 59.8%        | 59.8%      | 0.0%        | 27.7%  | 12.5     | 264|
| GCA_000965515.1_ASM96551v1_genomic | 64.8%        | 64.0%      | 0.8%        | 24.6%  | 10.6     | 264|
| GCA_001273165.1_CBOT002-SEQ-1-ASM-1_genomic | 99.6%        | 98.5%      | 0.1%        | 0.0%   | 0.4%     | 264|
| GCA_001273255.1_CBOT006-SEQ-1-ASM-1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001273275.1_CBOT007-SEQ-1-ASM-1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001276985.1_CBOT009-SEQ-1-ASM-1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573175.1_10148_genomic     | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573235.1_ASM157323v1_genomic | 99.6%        | 98.5%      | 0.8%        | 0.4%   | 0.3%     | 264|
| GCA_001573255.1_ASM157325v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573295.1_ASM157329v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573315.1_ASM157331v1_genomic | 99.6%        | 98.1%      | 1.5%        | 0.0%   | 0.4%     | 264|
| GCA_001573325.1_ASM157332v1_genomic | 99.6%        | 96.2%      | 3.4%        | 0.0%   | 0.4%     | 264|
| GCA_001573335.1_ASM157333v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573375.1_ASM157337v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573385.1_ASM157338v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573395.1_ASM157339v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573435.1_ASM157343v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573455.1_ASM157345v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573465.1_ASM157346v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573485.1_ASM157348v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| GCA_001573515.1_ASM157351v1_genomic | 99.6%        | 98.5%      | 1.1%        | 0.0%   | 0.4%     | 264|
| Accession                                      | C       | S       | D       | F       | M       | n    |
|-----------------------------------------------|---------|---------|---------|---------|---------|------|
| GCA_003412435.1_ASM341243v1_genomic           | 46.2%   | 45.8%   | 0.4%    | 37.9%   | 15.9%   | 264  |
| GCA_003515665.1_ASM351566v1_genomic           | 87.5%   | 86.7%   | 0.8%    | 10.2%   | 2.3%    | 264  |
| GCA_003610755.1_ASM361075v1_genomic           | 99.7%   | 98.9%   | 0.8%    | 0.0%    | 0.3%    | 264  |
| GCA_003994935.1_ASM399493v1_genomic           | 99.6%   | 98.5%   | 1.1%    | 0.0%    | 0.4%    | 264  |
| GCA_003996845.1_ASM399684v1_genomic           | 66.3%   | 65.9%   | 0.4%    | 26.1%   | 7.6%    | 264  |
| GCA_003996855.1_ASM399685v1_genomic           | 74.3%   | 73.9%   | 0.4%    | 20.5%   | 5.2%    | 264  |
| GCA_003996895.1_ASM399689v1_genomic           | 40.6%   | 40.2%   | 0.4%    | 38.6%   | 48.9%   | 264  |
| GCA_003996925.1_ASM399692v1_genomic           | 15.5%   | 15.5%   | 0.0%    | 35.6%   |          | 264  |
| GCA_003996935.1_ASM399693v1_genomic           | 72.0%   | 71.2%   | 0.8%    | 24.2%   | 3.8%    | 264  |
| GCA_004120535.1_ASM412053v1_genomic           | 99.6%   | 98.5%   | 1.1%    | 0.0%    | 0.4%    | 264  |
| GCA_009733885.1_ASM973388v1_genomic           | 99.6%   | 98.5%   | 1.1%    | 0.0%    | 0.4%    | 264  |
| GCA_009938935.1_ASM993893v1_genomic           | 99.6%   | 98.5%   | 1.1%    | 0.0%    | 0.4%    | 264  |
| GCA_009939325.1_ASM993932v1_genomic           | 99.7%   | 98.9%   | 0.8%    | 0.0%    | 0.3%    | 264  |
| GCA_009939345.1_ASM993934v1_genomic           | 99.6%   | 98.5%   | 1.1%    | 0.0%    | 0.4%    | 264  |
| GCA_010078315.1_ASM1007831v1_genomic          | 99.6%   | 98.5%   | 1.1%    | 0.0%    | 0.4%    | 264  |
| GCA_011009795.1_ASM1100979v1_genomic          | 99.6%   | 98.5%   | 1.1%    | 0.0%    | 0.4%    | 264  |
| GCA_011009805.1_ASM1100980v1_genomic          | 99.6%   | 98.5%   | 1.1%    | 0.0%    | 0.4%    | 264  |
| GCA_011009855.1_ASM1100985v1_genomic          | 99.6%   | 98.5%   | 1.1%    | 0.0%    | 0.4%    | 264  |
| GCA_011009915.1_ASM1100991v1_genomic          | 99.7%   | 98.9%   | 0.8%    | 0.0%    | 0.3%    | 264  |
| Accession                  | C  | S  | D  | F  | M  | n  |
|---------------------------|----|----|----|----|----|----|
| GCA_011009925.1_ASM1100992v1_genomic | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264 |
| GCA_011009955.1_ASM1100995v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011009975.1_ASM1100997v1_genomic | 99.2 | 98.1 | 1.1 | 0.4 | 0.4 | 264 |
| GCA_011010005.1_ASM1101000v1_genomic | 99.6 | 98.5 | 1.1 | 0.4 | 0.0 | 264 |
| GCA_011010035.1_ASM1101003v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010055.1_ASM1101005v1_genomic | 99.2 | 98.1 | 1.1 | 0.4 | 0.4 | 264 |
| GCA_011010065.1_ASM1101006v1_genomic | 99.6 | 98.5 | 1.1 | 0.4 | 0.4 | 264 |
| GCA_011010085.1_ASM1101008v1_genomic | 99.2 | 98.1 | 1.1 | 0.4 | 0.4 | 264 |
| GCA_011010105.1_ASM1101010v1_genomic | 99.7 | 98.9 | 0.8 | 0.0 | 0.3 | 264 |
| GCA_011010135.1_ASM1101013v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010155.1_ASM1101015v1_genomic | 98.8 | 97.7 | 1.1 | 0.0 | 1.2 | 264 |
| GCA_011010165.1_ASM1101016v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010175.1_ASM1101017v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010205.1_ASM1101020v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010235.1_ASM1101023v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010245.1_ASM1101024v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010275.1_ASM1101027v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010285.1_ASM1101028v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010295.1_ASM1101029v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010335.1_ASM1101033v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010345.1_ASM1101034v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010355.1_ASM1101035v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010375.1_ASM1101037v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010415.1_ASM1101041v1_genomic | 99.6 | 98.5 | 1.1 | 0.0 | 0.4 | 264 |
| GCA_011010435.1_ASM1101043v1_genomic | 99.2 | 98.1 | 1.1 | 0.4 | 0.4 | 264 |
| Reference             | Identity   | Similarity  | GC Content | Special Characteristics | Length |
|-----------------------|------------|-------------|------------|--------------------------|--------|
| GCA_011011035.1_ASM1101103v1_genomic | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011045.1_ASM1101104v1_genomic | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011075.1_ASM1101107v1_genomic | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011095.1_ASM1101109v1_genomic | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011105.1_ASM1101110v1_genomic | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011135.1_ASM1101113v1_genomic | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011145.1_ASM1101114v1_genomic | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_0110111165.1_ASM1101116v1_genomic | 99.6%      | 98.5%      | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_0110111185.1_ASM1101118v1_genomic | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011215.1_ASM1101121v1_genomic  | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011235.1_ASM1101123v1_genomic  | 99.2%      | 98.1%       | D:1.1%     | F:0.4% M:0.4% n:264      |        |
| GCA_011011245.1_ASM1101124v1_genomic  | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011255.1_ASM1101125v1_genomic  | 99.6%      | 98.5%       | 1.1%       | F:0.0% M:0.4% n:264      |        |
| GCA_011011295.1_ASM1101129v1_genomic  | 99.7%      | 98.9%       | D:0.8%     | F:0.0% M:0.3% n:264      |        |
| GCA_011011315.1_ASM1101131v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011335.1_ASM1101133v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011345.1_ASM1101134v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011375.1_ASM1101137v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011385.1_ASM1101138v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011415.1_ASM1101141v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011435.1_ASM1101143v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011445.1_ASM1101144v1_genomic  | 99.2%      | 98.1%       | D:1.1%     | F:0.4% M:0.4% n:264      |        |
| GCA_011011465.1_ASM1101146v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011495.1_ASM1101149v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011515.1_ASM1101151v1_genomic  | 99.6%      | 98.5%       | D:1.1%     | F:0.0% M:0.4% n:264      |        |
| GCA_011011535.1_ASM1101153v1_genomic  | 86.0%      | 85.2%       | D:0.8%     | F:1.1% M:12.9 n:264      |        |
| Accession                  | C (%) | S (%) | D (%) | F (%) | M (%) | n  |
|--------------------------|-------|-------|-------|-------|-------|----|
| GCA_011011545.1_ASM1101154v1_genomic | 99.7% | 98.9% | 0.8%  | 0.0%  | 0.3%  | 264|
| GCA_011011575.1_ASM1101157v1_genomic | 97.7% | 96.6% | 1.1%  | 1.5%  | 0.8%  | 264|
| GCA_011011585.1_ASM1101158v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011615.1_ASM1101161v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011635.1_ASM1101163v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011645.1_ASM1101164v1_genomic | 98.1% | 97.0% | 1.1%  | 0.8%  | 1.1%  | 264|
| GCA_011011665.1_ASM1101166v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011695.1_ASM1101169v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011715.1_ASM1101171v1_genomic | 99.2% | 98.1% | 1.1%  | 0.0%  | 0.8%  | 264|
| GCA_011011725.1_ASM1101172v1_genomic | 99.2% | 98.1% | 1.1%  | 0.0%  | 0.8%  | 264|
| GCA_011011735.1_ASM1101173v1_genomic | 98.8% | 97.7% | 1.1%  | 0.0%  | 1.2%  | 264|
| GCA_011011755.1_ASM1101175v1_genomic | 99.2% | 98.1% | 1.1%  | 0.0%  | 0.8%  | 264|
| GCA_011011765.1_ASM1101176v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011815.1_ASM1101181v1_genomic | 99.3% | 98.5% | 0.8%  | 0.0%  | 0.7%  | 264|
| GCA_011011835.1_ASM1101183v1_genomic | 99.2% | 98.1% | 1.1%  | 0.0%  | 0.8%  | 264|
| GCA_011011845.1_ASM1101184v1_genomic | 98.8% | 97.7% | 1.1%  | 0.8%  | 0.4%  | 264|
| GCA_011011865.1_ASM1101186v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011885.1_ASM1101188v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011895.1_ASM1101189v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011925.1_ASM1101192v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011955.1_ASM1101195v1_genomic | 99.2% | 98.1% | 1.1%  | 0.4%  | 0.4%  | 264|
| GCA_011011965.1_ASM1101196v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011011995.1_ASM1101199v1_genomic | 99.6% | 98.5% | 1.1%  | 0.0%  | 0.4%  | 264|
| GCA_011012005.1_ASM1101200v1_genomic | 99.6% | 97.3% | 2.3%  | 0.0%  | 0.4%  | 264|
| GCA_011012015.1_ASM1101201v1_genomic | 99.7% | 98.9% | 0.8%  | 0.0%  | 0.3%  | 264|
| Accession Number | Description                  | C: 99.6% | S: 98.5% | D: 1.1% | F: 0.0% | M: 0.4% | n: 264 |
|------------------|-------------------------------|----------|----------|---------|---------|---------|-------|
| GCA_011014015.1  | ASM1101401v1_genomic         |          |          |         |         |         |       |
| GCA_011014035.1  | ASM1101403v1_genomic         |          |          |         |         |         |       |
| GCA_011014055.1  | ASM1101405v1_genomic         |          |          |         |         |         |       |
| GCA_011014085.1  | ASM1101408v1_genomic         |          |          |         |         |         |       |
| GCA_011014095.1  | ASM1101409v1_genomic         |          |          |         |         |         |       |
| GCA_011014135.1  | ASM1101413v1_genomic         |          |          |         |         |         |       |
| GCA_011014155.1  | ASM1101415v1_genomic         |          |          |         |         |         |       |
| GCA_011014175.1  | ASM1101417v1_genomic         |          |          |         |         |         |       |
| GCA_011014195.1  | ASM1101419v1_genomic         |          |          |         |         |         |       |
| GCA_011014215.1  | ASM1101421v1_genomic         |          |          |         |         |         |       |
| GCA_011014225.1  | ASM1101422v1_genomic         |          |          |         |         |         |       |
| GCA_011014255.1  | ASM1101425v1_genomic         |          |          |         |         |         |       |
| GCA_011014265.1  | ASM1101426v1_genomic         |          |          |         |         |         |       |
| GCA_011014295.1  | ASM1101429v1_genomic         |          |          |         |         |         |       |
| GCA_011014305.1  | ASM1101430v1_genomic         |          |          |         |         |         |       |
| GCA_011014335.1  | ASM1101433v1_genomic         |          |          |         |         |         |       |
| GCA_011014345.1  | ASM1101434v1_genomic         |          |          |         |         |         |       |
| GCA_011014375.1  | ASM1101437v1_genomic         |          |          |         |         |         |       |
| GCA_011014395.1  | ASM1101439v1_genomic         |          |          |         |         |         |       |
| GCA_011014415.1  | ASM1101441v1_genomic         |          |          |         |         |         |       |
| GCA_011014425.1  | ASM1101442v1_genomic         |          |          |         |         |         |       |
| GCA_011014455.1  | ASM1101444v1_genomic         |          |          |         |         |         |       |
| GCA_011014475.1  | ASM1101447v1_genomic         |          |          |         |         |         |       |
| GCA_011014545.1  | ASM1101454v1_genomic         |          |          |         |         |         |       |
| GCA_011014565.1  | ASM1101456v1_genomic         |          |          |         |         |         |       |
| GCA_011014595.1  | ASM1101459v1_genomic         |          |          |         |         |         |       |
GCA_011015655.1_ASM1101565v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011015665.1_ASM1101566v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011015685.1_ASM1101568v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011015715.1_ASM1101571v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011015735.1_ASM1101573v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011015795.1_ASM1101579v1_genomic  C:99.2%  S:98.1%  D:1.1%  F:0.0%  M:0.8%  n:264
GCA_011016045.1_ASM1101604v1_genomic  C:99.6%  S:98.1%  D:1.1%  F:0.0%  M:0.8%  n:264
GCA_011016095.1_ASM1101609v1_genomic  C:99.6%  S:98.1%  D:1.5%  F:0.0%  M:0.4%  n:264
GCA_011017095.1_ASM1101709v1_genomic  C:99.6%  S:98.1%  D:1.5%  F:0.0%  M:0.4%  n:264
GCA_011017125.1_ASM1101712v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017145.1_ASM1101714v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017175.1_ASM1101717v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017235.1_ASM1101723v1_genomic  C:99.2%  S:98.1%  D:1.1%  F:0.4%  M:0.4%  n:264
GCA_011017245.1_ASM1101724v1_genomic  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
GCA_011017265.1_ASM1101726v1_genomic  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
GCA_011017275.1_ASM1101727v1_genomic  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
GCA_011017315.1_ASM1101731v1_genomic  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
GCA_011017375.1_ASM1101737v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017455.1_ASM1101745v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017465.1_ASM1101746v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017495.1_ASM1101749v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017505.1_ASM1101750v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017535.1_ASM1101753v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017545.1_ASM1101754v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017575.1_ASM1101757v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
GCA_011017585.1_ASM1101758v1_genomic  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
| Accession | Description | C | S | D | F | M | n |
|-----------|-------------|---|---|---|---|---|---|
| GCA_011017615.1_ASM1101761v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017635.1_ASM1101763v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017645.1_ASM1101764v1_genomic | | 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| GCA_011017655.1_ASM1101765v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017685.1_ASM1101768v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017715.1_ASM1101771v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017735.1_ASM1101773v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017755.1_ASM1101775v1_genomic | | 99.2% | 98.1% | 1.1% | 0.0% | 0.8% | 264 |
| GCA_011017765.1_ASM1101776v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017785.1_ASM1101778v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017795.1_ASM1101779v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017935.1_ASM1101793v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017955.1_ASM1101795v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017965.1_ASM1101796v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017975.1_ASM1101797v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011017995.1_ASM1101799v1_genomic | | 99.2% | 97.7% | 1.5% | 0.4% | 0.4% | 264 |
| GCA_011018275.1_ASM1101827v1_genomic | | 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| GCA_011018285.1_ASM1101828v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| GCA_011018295.1_ASM1101829v1_genomic | | 99.2% | 98.1% | 1.1% | 0.4% | 0.4% | 264 |
| GCA_011018385.1_ASM1101838v1_genomic | | 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| GCA_011018395.1_ASM1101839v1_genomic | | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| Accession          | Assembly       | C   | S   | D   | F   | M   | n  |
|-------------------|----------------|-----|-----|-----|-----|-----|----|
| GCA_011019915.1   | ASM1101991v1   | 99.2| 97.7| 1.5 | 0.4 | 0.4 | 264|
| GCA_011019945.1   | ASM1101994v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011019975.1   | ASM1101997v1   | 99.6| 98.1| 1.5 | 0.0 | 0.4 | 264|
| GCA_011020005.1   | ASM1102000v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020015.1   | ASM1102001v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020075.1   | ASM1102007v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020115.1   | ASM1102011v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020175.1   | ASM1102017v1   | 98.8| 97.7| 1.1 | 0.8 | 0.4 | 264|
| GCA_011020195.1   | ASM1102019v1   | 99.6| 98.5| 1.1 | 0.8 | 0.4 | 264|
| GCA_011020255.1   | ASM1102025v1   | 99.6| 98.1| 1.5 | 0.0 | 0.4 | 264|
| GCA_011020275.1   | ASM1102027v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020285.1   | ASM1102028v1   | 99.7| 98.9| 0.8 | 0.0 | 0.3 | 264|
| GCA_011020255.1   | ASM1102052v1   | 99.6| 98.1| 1.5 | 0.0 | 0.4 | 264|
| GCA_011020535.1   | ASM1102053v1   | 98.8| 97.3| 1.5 | 0.8 | 0.4 | 264|
| GCA_011020595.1   | ASM1102059v1   | 99.2| 97.7| 1.5 | 0.4 | 0.4 | 264|
| GCA_011020655.1   | ASM1102065v1   | 99.6| 98.1| 1.5 | 0.0 | 0.4 | 264|
| GCA_011020665.1   | ASM1102066v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020735.1   | ASM1102073v1   | 93.9| 92.8| 1.1 | 0.8 | 5.3 | 264|
| GCA_011020815.1   | ASM1102081v1   | 99.2| 98.1| 1.1 | 0.4 | 0.4 | 264|
| GCA_011020875.1   | ASM1102087v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020895.1   | ASM1102089v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020915.1   | ASM1102091v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020965.1   | ASM1102096v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011020995.1   | ASM1102099v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011021125.1   | ASM1102112v1   | 99.6| 98.5| 1.1 | 0.0 | 0.4 | 264|
| GCA_011021215.1   | ASM1102121v1   | 99.7| 98.9| 0.8 | 0.0 | 0.3 | 264|
| Accession               | Taxonomy                  | Identity | Similarity | Distance | Homology | n   |
|------------------------|---------------------------|----------|------------|----------|----------|-----|
| GCA_014805095.1_ASM1480509v1_genomic | C:99.6% S:98.5% D:1.1% F:0.0% M:0.4% n:264 |
| GCA_014805105.1_ASM1480510v1_genomic | C:98.4% S:97.3% D:1.1% F:1.1% M:0.5% n:264 |
| GCA_014805145.1_ASM1480514v1_genomic | C:99.6% S:98.5% D:1.1% F:0.0% M:0.4% n:264 |
| GCA_014805165.1_ASM1480516v1_genomic | C:99.6% S:98.5% D:1.1% F:0.0% M:0.4% n:264 |
| GCA_014805185.1_ASM1480518v1_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_014805195.1_ASM1480519v1_genomic | C:99.3% S:98.5% D:0.8% F:0.4% M:0.3% n:264 |
| GCA_014805215.1_ASM1480521v1_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_014805235.1_ASM1480523v1_genomic | C:99.6% S:98.5% D:1.1% F:0.0% M:0.4% n:264 |
| GCA_014805255.1_ASM1480525v1_genomic | C:99.6% S:98.5% D:1.1% F:0.0% M:0.4% n:264 |
| GCA_014805275.1_ASM1480527v1_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_014805305.1_ASM1480530v1_genomic | C:99.3% S:98.5% D:0.8% F:0.4% M:0.3% n:264 |
| GCA_014872905.1_ASM1487290v1_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016085375.1_PDT000162924.3_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016085455.1_PDT000162920.3_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016085475.1_PDT000162923.3_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016085495.1_PDT000162918.3_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016085515.1_PDT000162922.3_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016085535.1_PDT000162917.3_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016085555.1_PDT000162921.3_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016085625.1_PDT000162916.3_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016085715.1_PDT000162915.2_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016798345.1_ASM1679834v1_genomic | C:99.6% S:98.5% D:1.1% F:0.0% M:0.4% n:264 |
| GCA_016838665.1_ASM1683866v1_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016989665.1_ASM1698956v1_genomic | C:99.7% S:98.9% D:0.8% F:0.0% M:0.3% n:264 |
| GCA_016989605.1_ASM1698960v1_genomic | C:99.6% S:98.5% D:1.1% F:0.0% M:0.4% n:264 |
| GCA_016989635.1_ASM1698963v1_genomic | C:99.6% S:98.5% D:1.1% F:0.0% M:0.4% n:264 |
mic
SRR8527653.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8527655.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8527656.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8527709.fasta  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
SRR8527710.fasta  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
SRR8527718.fasta  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
SRR8527719.fasta  C:99.7%  S:98.9%  D:0.8%  F:0.4%  M:0.1%  n:264
SRR8527720.fasta  C:99.3%  S:98.5%  D:0.8%  F:0.8%  M:0.1%  n:264
SRR8527761.fasta  C:99.2%  S:98.1%  D:1.1%  F:0.4%  M:0.4%  n:264
SRR8527762.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8527763.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8527764.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8527766.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8980982.fasta  C:99.2%  S:98.1%  D:1.1%  F:0.4%  M:0.4%  n:264
SRR8980983.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8980987.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8981000.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8981002.fasta  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
SRR8981005.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8981278.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8981312.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8981317.fasta  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
SRR8981412.fasta  C:99.6%  S:98.5%  D:1.1%  F:0.0%  M:0.4%  n:264
SRR8981424.fasta  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
SRR8981479.fasta  C:99.7%  S:98.9%  D:0.8%  F:0.0%  M:0.3%  n:264
| fasta          | C  | S  | D  | F  | M  | n  |
|---------------|----|----|----|----|----|----|
| SRR8981518.fasta | 98.8% | 97.3% | 1.5% | 0.8% | 0.4% | 264 |
| SRR8981519.fasta | 99.2% | 97.7% | 1.5% | 0.4% | 0.4% | 264 |
| SRR8981561.fasta | 99.3% | 79.2% | 20.1% | 0.4% | 0.3% | 264 |
| SRR8981570.fasta | 99.7% | 98.9% | 0.8% | 0.0% | 0.4% | 264 |
| SRR8981574.fasta | 99.3% | 98.5% | 0.8% | 0.0% | 0.7% | 264 |
| SRR8981582.fasta | 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| SRR8981584.fasta | 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| SRR8981586.fasta | 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| SRR8981599.fasta | 99.2% | 97.7% | 1.5% | 0.4% | 0.4% | 264 |
| SRR8981610.fasta | 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| SRR8981625.fasta | 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| SRR8981642.fasta | 99.2% | 98.1% | 1.1% | 0.4% | 0.4% | 264 |
| SRR8981648.fasta | 99.7% | 98.9% | 0.8% | 0.0% | 0.3% | 264 |
| SRR8981653.fasta | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| SRR8981656.fasta | 99.6% | 98.5% | 1.1% | 0.0% | 0.4% | 264 |
| Isolates | Source      | Genome Size | GC content | ORF | rRNA | tRNA |
|----------|-------------|-------------|------------|-----|------|------|
| XJFE01   | FEACE       | 3848292     | 0.2811     | 3590| 14   | 81   |
| XJFE02   | FAECE       | 3864134     | 0.2804     | 3628| 0    | 82   |
| XJFE03   | FAECE       | 3859513     | 0.28        | 3622| 0    | 80   |
| XJFE04   | FAECE       | 3858165     | 0.2799     | 3621| 0    | 81   |
| XJFE05   | FAECE       | 3852112     | 0.2797     | 3618| 14   | 80   |
| XJFE06   | FAECE       | 3851616     | 0.2797     | 3616| 14   | 80   |
| XJFD01   | Environment | 3843543     | 0.2809     | 3589| 15   | 89   |
| XJFD02   | Environment | 3837553     | 0.2806     | 3586| 15   | 83   |
| XJFD03   | Environment | 3844630     | 0.2811     | 3585| 14   | 82   |
| XJFD04   | Environment | 3842558     | 0.281      | 3586| 14   | 79   |
| XJFD05   | Environment | 3838417     | 0.2807     | 3584| 13   | 80   |
| XJFD06   | Environment | 3838211     | 0.2806     | 3589| 16   | 81   |
| XJFD07   | Environment | 3838577     | 0.2806     | 3582| 13   | 81   |
| XJFD08   | Environment | 3841234     | 0.2806     | 3583| 15   | 81   |
| XJFD09   | Environment | 3839472     | 0.2808     | 3581| 17   | 85   |
| XJFD10   | Environment | 3844228     | 0.281      | 3587| 15   | 89   |
| XJFD11   | Environment | 3839088     | 0.2808     | 3582| 14   | 81   |
| XJFD12   | Environment | 3839570     | 0.2807     | 3584| 14   | 81   |
| XJFD13   | Environment | 3843175     | 0.281      | 3583| 13   | 81   |
| XJFD14   | Environment | 3833971     | 0.2804     | 3583| 14   | 81   |
| XJFD15   | Environment | 3836596     | 0.2806     | 3585| 15   | 81   |
| XJFD16   | Environment | 3845585     | 0.2808     | 3589| 15   | 81   |
| XJFD17   | Environment | 3827318     | 0.281      | 3576| 15   | 82   |
| XJFD18   | Environment | 3839091     | 0.2805     | 3588| 14   | 81   |
| XJFD19 | Environment | 3834483 | 0.2804 | 3583 | 14 | 81 |
| XJFD20 | Environment | 3822747 | 0.2809 | 3573 | 16 | 82 |
| XJFD21 | Environment | 3838930 | 0.2807 | 3583 | 16 | 81 |
| XJFD22 | Environment | 3837908 | 0.2806 | 3584 | 15 | 81 |
| XJFD23 | Environment | 3837522 | 0.2805 | 3619 | 13 | 82 |
| XJFD24 | Environment | 3848292 | 0.2804 | 3583 | 14 | 81 |
| XJFD25 | Environment | 3840321 | 0.2804 | 3588 | 14 | 81 |
| XJFD26 | Environment | 3862509 | 0.2802 | 3585 | 0  | 83 |
| XJFD27 | Environment | 3836190 | 0.2805 | 3590 | 14 | 81 |
| XJSL01 | Environment | 3839571 | 0.2811 | 3719 | 20 | 85 |
| XJSL02 | Environment | 3900956 | 0.2805 | 3586 | 14 | 81 |
| XJSL03 | Environment | 3837631 | 0.2811 | 3732 | 19 | 84 |
| XJSL04 | Environment | 3912852 | 0.2793 | 4083 | 19 | 84 |
| XJSL05 | Environment | 4159501 | 0.2807 | 3583 | 17 | 82 |
| XJSL06 | Environment | 3850151 | 0.2814 | 3726 | 20 | 88 |
| XJSL07 | Environment | 3925292 | 0.2791 | 3909 | 14 | 82 |
| XJSL08 | Environment | 4060101 | 0.2808 | 3743 | 21 | 83 |
| XJSL09 | Environment | 3920850 | 0.2807 | 3588 | 15 | 86 |
| XJSL10 | Environment | 3842046 | 0.2808 | 3649 | 15 | 81 |
| XJSL11 | Environment | 3930668 | 0.2803 | 3894 | 14 | 83 |
| XJSL12 | Environment | 4138742 | 0.2809 | 3744 | 20 | 83 |
| XJSL13 | Environment | 3915883 | 0.2806 | 3740 | 20 | 83 |
| XJSL14 | Environment | 3914799 | 0.2806 | 3613 | 13 | 82 |
| XJSL15 | Environment | 3867499 | 0.2802 | 3615 | 15 | 81 |
| XJSL16 | Environment | 3866601 | 0.2802 | 4032 | 19 | 87 |
|     | Environment | Genome Assembly | Accession Number | Length | GC Content | Contig Count | Contig Size | Quality Score |
|-----|-------------|-----------------|-----------------|--------|------------|--------------|-------------|---------------|
| XJSL18 | Environment |                | 4144521         | 0.2802 | 3618       | 14           | 81          |               |
| XJSL19 | Environment |                | 3865443         | 0.2801 | 4263       | 19           | 103         |               |
| XJSL20 | Environment |                | 4330018         | 0.2803 | 3613       | 14           | 81          |               |
| XJSL21 | Environment |                | 3862397         | 0.281  | 3749       | 19           | 83          |               |
| XJSL22 | Environment |                | 3917747         | 0.2807 | 3594       | 13           | 81          |               |
| XJSL23 | Environment |                | 3853435         | 0.2806 | 3587       | 16           | 81          |               |
| XJSL24 | Environment |                | 3838472         | 0.281  | 3622       | 17           | 85          |               |
| XJSL25 | Environment |                | 3873383         | 0.2811 | 3621       | 14           | 82          |               |
| XJSL26 | Environment |                | 3861194         | 0.2808 | 3619       | 14           | 82          |               |
| GCA_000017025.1_ASM1702v1_genomic | Public Genome |                | 3855885         | 0.2821 | 3609       | 24           | 81          |               |
| GCA_000017045.1_ASM1704v1_genomic | Public Genome |                | 3863450         | 0.2818 | 3486       | 24           | 81          |               |
| GCA_000017065.1_ASM1706v1_genomic | Public Genome |                | 3760560         | 0.272  | 3756       | 27           | 81          |               |
| GCA_000019305.1_ASM1930v1_genomic | Public Genome |                | 4012918         | 0.2685 | 3889       | 27           | 82          |               |
| GCA_000019545.1_ASM1954v1_genomic | Public Genome |                | 4107013         | 0.2697 | 4021       | 27           | 81          |               |
| GCA_000020345.1_ASM2034v1_genomic | Public Genome |                | 4259691         | 0.2597 | 4153       | 27           | 81          |               |
| GCA_000022765.1_ASM2276v1_genomic | Public Genome |                | 4257769         | 0.2821 | 3939       | 27           | 81          |               |
| GCA_000063585.1_ASM6358v1_genomic | Public Genome |                | 4155278         | 0.2752 | 3654       | 27           | 79          |               |
| GCA_000092345.1_ASM9234v1_genomic | Public Genome |                | 3903260         | 0.2719 | 3977       | 27           | 71          |               |
| GCA_000171055.1_ASM17105v1_genomic | Public Genome |                | 4010614         | 0.3774 | 3728       | 56           | 84          |               |
| GCA_000171075.1_ASM17107v1_genomic | Public Genome |                | 4031357         | 0.3087 | 4060       | 53           | 81          |               |
| GCA_000253195.1_ASM25319v1_genomic | Public Genome |                | 4217754         | 0.2821 | 3743       | 27           | 72          |               |
| GCA_000307635.1_ASM30763v1_genomic | Public Genome |                | 3919740         | 0.281  | 4416       | 1            | 44          |               |
| GCA_000307655.2_CFSAN0001628_2.0_genomic | Public Genome |                | 4076805         | 0.2784 | 4310       | 3            | 42          |               |
| GCA_000439615.1_CFSAN002367_1.0_genomic | Public Genome |                | 4013630         | 0.2791 | 5717       | 2            | 36          |               |
| GCA_000439635.1_CFSAN002368_1.0_genomic | Public Genome |                | 3873962         | 0.2752 | 5679       | 2            | 35          |               |
| GCA_000439655.1_CFSAN002369_1.0_genomic | Public Genome |                | 3850187         | 0.2829 | 5406       | 2            | 34          |               |
| Accession                  | Description         | Genome Location | NCBI Assembly | BLAST E-Value | ORF Length | Strain | Coverage |
|---------------------------|---------------------|-----------------|---------------|---------------|------------|--------|----------|
| GCA_000439815.2_ASM43981v2_genomic | Public Genome     | 3645546         | 0.3158        | 4011          | 11         | 83     |
| GCA_000503815.1_ASM50381v1_genomic | Public Genome     | 4086083         | 0.2575        | 4242          | 3          | 49     |
| GCA_000582375.1_CDC54075.1_genomic | Public Genome     | 4408349         | 0.2836        | 4604          | 16         | 71     |
| GCA_000582415.1_CDC54088.1_genomic | Public Genome     | 4256146         | 0.2795        | 4115          | 11         | 52     |
| GCA_000582435.1_CDC54085.1_genomic | Public Genome     | 3868107         | 0.279         | 4113          | 13         | 72     |
| GCA_000582455.1_CDC54091.1_genomic | Public Genome     | 4095763         | 0.2768        | 5648          | 8          | 61     |
| GCA_000710975.1_B2_331_genomic | Public Genome     | 4079046         | 0.268         | 3603          | 4          | 67     |
| GCA_000710985.1_B2_275_genomic | Public Genome     | 3809103         | 0.2699        | 3825          | 3          | 67     |
| GCA_000710995.1_A2B3_87_genomic | Public Genome     | 3978188         | 0.2641        | 3980          | 2          | 61     |
| GCA_000711005.1_A2B7_92_genomic | Public Genome     | 4168550         | 0.2654        | 3799          | 3          | 72     |
| GCA_000711055.1_A2_117_genomic | Public Genome     | 4057812         | 0.2657        | 3552          | 2          | 67     |
| GCA_000711065.1_B2_128_genomic | Public Genome     | 3808262         | 0.2669        | 3617          | 1          | 65     |
| GCA_000711095.1_B2_267_genomic | Public Genome     | 3844467         | 0.2673        | 3714          | 1          | 76     |
| GCA_000711105.1_F_357_genomic | Public Genome     | 3903580         | 0.2679        | 3631          | 3          | 66     |
| GCA_000711115.1_B2_433_genomic | Public Genome     | 3832122         | 0.2658        | 4004          | 1          | 61     |
| GCA_000730705.1_ASM73070v1_genomic | Public Genome     | 4124526         | 0.2803        | 3889          | 19         | 76     |
| GCA_000730715.1_ASM73071v1_genomic | Public Genome     | 3901135         | 0.2787        | 4089          | 20         | 72     |
| GCA_000730725.1_ASM73072v1_genomic | Public Genome     | 3977994         | 0.2773        | 3873          | 13         | 75     |
| GCA_000730735.1_ASM73073v1_genomic | Public Genome     | 3966737         | 0.2831        | 3566          | 13         | 68     |
| GCA_000730785.1_ASM73078v1_genomic | Public Genome     | 3684733         | 0.2827        | 3853          | 19         | 69     |
| GCA_000730795.1_ASM73079v1_genomic | Public Genome     | 3960455         | 0.2818        | 3823          | 16         | 77     |
| GCA_000730805.1_ASM73080v1_genomic | Public Genome     | 3890459         | 0.2843        | 3884          | 16         | 69     |
| GCA_000730835.1_ASM73083v1_genomic | Public Genome     | 3868980         | 0.2926        | 3711          | 19         | 79     |
| GCA_000730865.1_ASM73086v1_genomic | Public Genome     | 3833726         | 0.2912        | 3359          | 13         | 62     |
| GCA_000730875.1_ASM73087v1_genomic | Public Genome     | 3444700         | 0.2801        | 3993          | 19         | 71     |
| GCA_000730885.1_ASM73088v1_genomic | Public Genome     | 3965132         | 0.2838        | 3553          | 15         | 71     |
| Accession                        | Description           | Length | GC Content | N50 | Min | Max |
|---------------------------------|-----------------------|--------|------------|-----|-----|-----|
| GCA_000730925.1_ASM73092v1_genomic | Public Genome         | 3699887| 0.2847     | 3831| 17  | 70  |
| GCA_000730945.1_ASM73094v1_genomic | Public Genome         | 3898725| 0.2924     | 3789| 18  | 76  |
| GCA_000730955.1_ASM73095v1_genomic | Public Genome         | 3557862| 0.2911     | 3808| 24  | 83  |
| GCA_000730965.1_ASM73096v1_genomic | Public Genome         | 3731781| 0.2790     | 3735| 11  | 61  |
| GCA_000769495.1_CFSAN024410_01.0_genomic | Public Genome     | 3893295| 0.2836     | 3904| 6   | 66  |
| GCA_000816945.1_ASM81694v1_genomic | Public Genome         | 4005128| 0.2803     | 3727| 14  | 52  |
| GCA_000816965.1_ASM81696v1_genomic | Public Genome         | 3892029| 0.2674     | 4151| 15  | 75  |
| GCA_000817935.1_ASM81793v1_genomic | Public Genome         | 4334551| 0.2683     | 4313| 24  | 70  |
| GCA_000829015.1_ASM82901v1_genomic | Public Genome         | 4365669| 0.2827     | 3610| 31  | 83  |
| GCA_000830755.1_ASM83075v1_genomic | Public Genome         | 3901300| 0.3011     | 3848| 5   | 65  |
| GCA_000876495.2_ASM87649v2_genomic | Public Genome         | 3938115| 0.2603     | 4132| 3   | 69  |
| GCA_000965295.1_ASM96529v1_genomic | Public Genome         | 4320669| 0.2731     | 5661| 4   | 62  |
| GCA_000965325.1_ASM96532v1_genomic | Public Genome         | 4291470| 0.2726     | 6147| 3   | 57  |
| GCA_000965345.1_ASM96534v1_genomic | Public Genome         | 3864878| 0.2745     | 5821| 5   | 47  |
| GCA_000965375.1_ASM96537v1_genomic | Public Genome         | 3810828| 0.2795     | 5367| 8   | 67  |
| GCA_000965385.1_ASM96538v1_genomic | Public Genome         | 3886945| 0.2758     | 5526| 3   | 56  |
| GCA_000965445.1_ASM96544v1_genomic | Public Genome         | 3888335| 0.2753     | 5008| 4   | 62  |
| GCA_000965465.1_ASM96546v1_genomic | Public Genome         | 3792223| 0.2714     | 6777| 8   | 65  |
| GCA_000965505.1_ASM96550v1_genomic | Public Genome         | 4207455| 0.2674     | 6121| 4   | 52  |
| GCA_000965515.1_ASM96551v1_genomic | Public Genome         | 4252259| 0.2712     | 5476| 4   | 47  |
| GCA_000965625.1_CBOT001-SEQ-1-ASM-1_genomic | Public Genome      | 4081847| 0.3432     | 3753| 11  | 78  |
| GCA_001273165.1_CBOT002-SEQ-1-ASM-1_genomic | Public Genome      | 3978537| 0.3372     | 3686| 11  | 78  |
| GCA_001273255.1_CBOT006-SEQ-1-ASM-1_genomic | Public Genome      | 3906754| 0.3186     | 3718| 10  | 78  |
| GCA_001273275.1_CBOT007-SEQ-1-ASM-1_genomic | Public Genome      | 3907623| 0.3248     | 3690| 10  | 77  |
| GCA_001276985.1_CBOT009-SEQ-1-ASM-1_genomic | Public Genome      | 3909427| 0.3248     | 3676| 11  | 83  |
| GCA_001573175.1_10148_genomic | Public Genome         | 3889092| 0.2819     | 3748| 9   | 64  |
| Assembly ID                  | Species          | Genome ID | Length (bp) | N50 (bp) | GC Content (%) | Mitochondrial Length (bp) | Mitochondrial GC Content (%) | Mapped (%) | GC Content (%) | Mitochondrial GC Content (%) |
|------------------------------|------------------|-----------|-------------|----------|----------------|---------------------------|------------------------------|-------------|----------------|---------------------------|
| GCA_001573235.1_ASM157323v1 | Public Genome    | 3959495   | 0.2854      | 3683     | 7              | 48                        |                              |             |                |                           |
| GCA_001573255.1_ASM157325v1 | Public Genome    | 3898546   | 0.2858      | 4137     | 5              | 56                        |                              |             |                |                           |
| GCA_001573295.1_ASM157329v1 | Public Genome    | 4201460   | 0.2815      | 3643     | 6              | 41                        |                              |             |                |                           |
| GCA_001573315.1_ASM157331v1 | Public Genome    | 3864510   | 0.2875      | 3535     | 5              | 52                        |                              |             |                |                           |
| GCA_001573325.1_ASM157332v1 | Public Genome    | 3777532   | 0.2875      | 3829     | 5              | 51                        |                              |             |                |                           |
| GCA_001573335.1_ASM157333v1 | Public Genome    | 4002127   | 0.2780      | 3861     | 7              | 57                        |                              |             |                |                           |
| GCA_001573375.1_ASM157337v1 | Public Genome    | 3971034   | 0.2916      | 3726     | 6              | 59                        |                              |             |                |                           |
| GCA_001573385.1_ASM157338v1 | Public Genome    | 391395    | 0.2792      | 3691     | 8              | 57                        |                              |             |                |                           |
| GCA_001573435.1_ASM157343v1 | Public Genome    | 3971034   | 0.2889      | 3682     | 6              | 59                        |                              |             |                |                           |
| GCA_001573455.1_ASM157345v1 | Public Genome    | 3942683   | 0.2908      | 3676     | 5              | 59                        |                              |             |                |                           |
| GCA_001573465.1_ASM157346v1 | Public Genome    | 3880168   | 0.2929      | 3555     | 5              | 58                        |                              |             |                |                           |
| GCA_001573485.1_ASM157348v1 | Public Genome    | 3791338   | 0.2854      | 3587     | 5              | 52                        |                              |             |                |                           |
| GCA_001573515.1_ASM157351v1 | Public Genome    | 3812410   | 0.2926      | 3682     | 8              | 63                        |                              |             |                |                           |
| GCA_001573535.1_ASM157353v1 | Public Genome    | 3856611   | 0.2891      | 3712     | 7              | 66                        |                              |             |                |                           |
| GCA_001573555.1_ASM157355v1 | Public Genome    | 3896775   | 0.2839      | 3721     | 8              | 46                        |                              |             |                |                           |
| GCA_001573665.1_ASM157366v1 | Public Genome    | 3920281   | 0.2872      | 3779     | 7              | 55                        |                              |             |                |                           |
| GCA_001573725.1_ASM157372v1 | Public Genome    | 4008651   | 0.3022      | 3719     | 10             | 69                        |                              |             |                |                           |
| GCA_001573825.1_ASM157382v1 | Public Genome    | 3900045   | 0.2891      | 3597     | 6              | 42                        |                              |             |                |                           |
| GCA_001573885.1_ASM157388v1 | Public Genome    | 3869437   | 0.2935      | 4229     | 7              | 73                        |                              |             |                |                           |
| GCA_001573905.1_ASM157390v1 | Public Genome    | 4285737   | 0.2794      | 4171     | 8              | 56                        |                              |             |                |                           |
| GCA_001573935.1_ASM157393v1 | Public Genome    | 4267307   | 0.2951      | 3567     | 8              | 75                        |                              |             |                |                           |
| GCA_001573955.1_ASM157395v1 | Public Genome    | 3873577   | 0.2871      | 4105     | 9              | 69                        |                              |             |                |                           |
| GCA_001573965.1_ASM157396v1 | Public Genome    | 4230750   | 0.2913      | 4198     | 9              | 62                        |                              |             |                |                           |
| GCA_001573985.1_ASM157398v1 | Public Genome    | 4274979   | 0.2878      | 3790     | 7              | 71                        |                              |             |                |                           |
| GCA_001574015.1_ASM157401v1 | Public Genome    | 4010957   | 0.2822      | 4096     | 8              | 69                        |                              |             |                |                           |
| Accession            | Assembly            | Bacteria        | Assembly Date | Length (bp) | Coverage (X) | N50 (bp) | N90 (bp) |
|----------------------|---------------------|-----------------|---------------|-------------|-------------|----------|----------|
| GCA_001574035.1_ASM157403v1_genomic | Public Genome       | 4305633         | 0.2975        | 3774        | 7           | 69       |
| GCA_001574055.1_ASM157405v1_genomic | Public Genome       | 3990632         | 0.2858        | 4212        | 8           | 71       |
| GCA_001574065.1_ASM157406v1_genomic | Public Genome       | 4306760         | 0.2726        | 4016        | 10          | 72       |
| GCA_001574095.1_ASM157409v1_genomic | Public Genome       | 4175404         | 0.2765        | 4426        | 9           | 71       |
| GCA_001574115.1_ASM157411v1_genomic | Public Genome       | 4476519         | 0.2686        | 4218        | 8           | 73       |
| GCA_001574125.1_ASM157412v1_genomic | Public Genome       | 4311895         | 0.2774        | 4196        | 7           | 65       |
| GCA_001574135.1_ASM157413v1_genomic | Public Genome       | 4281988         | 0.2873        | 4267        | 8           | 73       |
| GCA_001574175.1_ASM157417v1_genomic | Public Genome       | 4368910         | 0.2774        | 4429        | 8           | 70       |
| GCA_001574195.1_ASM157419v1_genomic | Public Genome       | 4495542         | 0.2859        | 3853        | 9           | 69       |
| GCA_001574205.1_ASM157420v1_genomic | Public Genome       | 4055427         | 0.2918        | 3689        | 8           | 69       |
| GCA_001574225.1_ASM157422v1_genomic | Public Genome       | 3929155         | 0.2974        | 4466        | 7           | 69       |
| GCA_001574255.1_ASM157425v1_genomic | Public Genome       | 4534970         | 0.2835        | 4083        | 9           | 70       |
| GCA_001574265.1_ASM157426v1_genomic | Public Genome       | 4210622         | 0.2844        | 3916        | 9           | 67       |
| GCA_001574285.1_ASM157428v1_genomic | Public Genome       | 4091988         | 0.2911        | 4013        | 9           | 70       |
| GCA_001574315.1_ASM157431v1_genomic | Public Genome       | 4136384         | 0.2877        | 4209        | 9           | 70       |
| GCA_001574335.1_ASM157433v1_genomic | Public Genome       | 4296977         | 0.2945        | 3685        | 7           | 70       |
| GCA_001574355.1_ASM157435v1_genomic | Public Genome       | 3882852         | 0.2854        | 3736        | 9           | 47       |
| GCA_001574365.1_ASM157436v1_genomic | Public Genome       | 3929760         | 0.2822        | 3789        | 5           | 56       |
| GCA_001879605.1_ASM187960v1_genomic | Public Genome       | 3945914         | 0.2814        | 3814        | 27          | 81       |
| GCA_001879625.1_ASM187962v1_genomic | Public Genome       | 4089027         | 0.2753        | 3816        | 27          | 82       |
| GCA_001889345.1_ASM188934v1_genomic | Public Genome       | 4020063         | 0.2824        | 3538        | 27          | 81       |
| GCA_001889365.1_ASM188936v1_genomic | Public Genome       | 3867627         | 0.2667        | 4332        | 27          | 85       |
| GCA_001921905.1_ASM192190v1_genomic | Public Genome       | 4432564         | 0.2734        | 3717        | 27          | 83       |
| GCA_001921925.1_ASM192192v1_genomic | Public Genome       | 3967717         | 0.2667        | 4316        | 27          | 83       |
| GCA_001921945.1_ASM192194v1_genomic | Public Genome       | 4414346         | 0.2687        | 3971        | 27          | 81       |
| GCA_001921965.1_ASM192196v1_genomic | Public Genome       | 4194523         | 0.2713        | 3752        | 27          | 82       |
| Accession                  | Name                        | Release | Date       | Size  | N50    | GC   | Note |
|---------------------------|-----------------------------|---------|------------|-------|--------|------|------|
| GCA_002866225.1_ASM286622v1_genomic | Public Genome              | 4050477 | 0.2748     | 3972  | 27     | 85   |      |
| GCA_003014955.1_ASM301495v1_genomic | Public Genome              | 4109153 | 0.2771     | 3684  | 5      | 66   |      |
| GCA_003017145.1_ASM301714v1_genomic | Public Genome              | 3877613 | 0.2785     | 3695  | 8      | 61   |      |
| GCA_003017195.1_ASM301719v1_genomic | Public Genome              | 3988693 | 0.2792     | 3705  | 10     | 62   |      |
| GCA_003017225.1_ASM301722v1_genomic | Public Genome              | 4004635 | 0.2779     | 3717  | 10     | 62   |      |
| GCA_003017335.1_ASM301733v1_genomic | Public Genome              | 3978960 | 0.2822     | 3569  | 27     | 70   |      |
| GCA_003058345.1_ASM305834v1_genomic | Public Genome              | 3858511 | 0.2732     | 3702  | 27     | 82   |      |
| GCA_003412385.1_ASM341238v1_genomic | Public Genome              | 4202171 | 0.2798     | 6654  | 10     | 56   |      |
| GCA_003412395.1_ASM341239v1_genomic | Public Genome              | 4149224 | 0.2717     | 6397  | 7      | 52   |      |
| GCA_003412435.1_ASM341243v1_genomic | Public Genome              | 4050896 | 0.2597     | 4057  | 30     | 84   |      |
| GCA_003515665.1_ASM351566v1_genomic | Public Genome              | 4196137 | 0.2798     | 4521  | 18     | 79   |      |
| GCA_003610755.1_ASM361075v1_genomic | Public Genome              | 4162303 | 0.3739     | 3582  | 12     | 83   |      |
| GCA_003994935.1_ASM399493v1_genomic | Public Genome              | 3830015 | 0.3083     | 3620  | 23     | 82   |      |
| GCA_003996845.1_ASM399684v1_genomic | Public Genome              | 3896768 | 0.2794     | 5491  | 7      | 74   |      |
| GCA_003996885.1_ASM399688v1_genomic | Public Genome              | 4035670 | 0.3335     | 5108  | 8      | 68   |      |
| GCA_003996895.1_ASM399689v1_genomic | Public Genome              | 4024675 | 0.305      | 6626  | 9      | 79   |      |
| GCA_003996925.1_ASM399692v1_genomic | Public Genome              | 4019721 | 0.2808     | 7797  | 8      | 51   |      |
| GCA_003996935.1_ASM399693v1_genomic | Public Genome              | 4050546 | 0.2957     | 4928  | 7      | 73   |      |
| GCA_004120535.1_ASM412053v1_genomic | Public Genome              | 3905902 | 0.3112     | 3786  | 11     | 77   |      |
| GCA_009733885.1_ASM973388v1_genomic | Public Genome              | 4015174 | 0.2752     | 3663  | 27     | 77   |      |
| GCA_009938935.1_ASM993893v1_genomic | Public Genome              | 3903111 | 0.2894     | 4322  | 10     | 78   |      |
| GCA_009939325.1_ASM993932v1_genomic | Public Genome              | 4320953 | 0.289      | 4311  | 10     | 78   |      |
| GCA_009939345.1_ASM993934v1_genomic | Public Genome              | 4313565 | 0.2978     | 4324  | 10     | 78   |      |
| Assembly ID | Accession | Description | Size (bp) | Coverage | Quality | Length (bp) | Identity | Annotation |
|-------------|-----------|-------------|-----------|----------|---------|-------------|----------|------------|
| GCA_010078315.1_ASM1007831v1_genomic | Public Genome | 4323822 | 0.2965 | 4325 | 10 | 78 |
| GCA_011009485.1_ASM1100948v1_genomic | Public Genome | 4323559 | 0.309 | 3748 | 10 | 77 |
| GCA_011009795.1_ASM1100979v1_genomic | Public Genome | 3973868 | 0.3123 | 3674 | 10 | 78 |
| GCA_011009805.1_ASM1100980v1_genomic | Public Genome | 3867730 | 0.3169 | 3659 | 10 | 80 |
| GCA_011009855.1_ASM1100985v1_genomic | Public Genome | 3861023 | 0.3144 | 3899 | 10 | 79 |
| GCA_011009875.1_ASM1100987v1_genomic | Public Genome | 4027438 | 0.2915 | 3561 | 10 | 85 |
| GCA_011009885.1_ASM1100988v1_genomic | Public Genome | 3798868 | 0.3011 | 3261 | 11 | 83 |
| GCA_011009915.1_ASM1100991v1_genomic | Public Genome | 3473206 | 0.3323 | 3598 | 9 | 76 |
| GCA_011009925.1_ASM1100992v1_genomic | Public Genome | 3880866 | 0.3395 | 4181 | 12 | 82 |
| GCA_011009955.1_ASM1100995v1_genomic | Public Genome | 4274843 | 0.2975 | 3554 | 11 | 79 |
| GCA_011009975.1_ASM1100997v1_genomic | Public Genome | 3798113 | 0.335 | 3690 | 11 | 79 |
| GCA_011009985.1_ASM1100998v1_genomic | Public Genome | 3891053 | 0.2939 | 3599 | 11 | 79 |
| GCA_011010005.1_ASM1101000v1_genomic | Public Genome | 3849420 | 0.288 | 3753 | 10 | 74 |
| GCA_011010035.1_ASM1101003v1_genomic | Public Genome | 3980847 | 0.3012 | 3658 | 10 | 79 |
| GCA_011010055.1_ASM1101005v1_genomic | Public Genome | 3856330 | 0.2934 | 3652 | 10 | 80 |
| GCA_011010065.1_ASM1101006v1_genomic | Public Genome | 3857002 | 0.3148 | 3661 | 11 | 80 |
| GCA_011010085.1_ASM1101008v1_genomic | Public Genome | 3860944 | 0.3085 | 3665 | 10 | 80 |
| GCA_011010105.1_ASM1101010v1_genomic | Public Genome | 3862813 | 0.2932 | 3651 | 10 | 80 |
| GCA_011010135.1_ASM1101013v1_genomic | Public Genome | 3856483 | 0.3224 | 3675 | 10 | 78 |
| GCA_011010155.1_ASM1101015v1_genomic | Public Genome | 3867578 | 0.2819 | 3620 | 10 | 79 |
| GCA_011010165.1_ASM1101016v1_genomic | Public Genome | 3828753 | 0.3047 | 3657 | 10 | 80 |
| GCA_011010175.1_ASM1101017v1_genomic | Public Genome | 3859200 | 0.3054 | 3660 | 11 | 80 |
| GCA_011010205.1_ASM1101020v1_genomic | Public Genome | 3859559 | 0.3031 | 3655 | 10 | 79 |
| GCA_011010235.1_ASM1101023v1_genomic | Public Genome | 3859700 | 0.2906 | 4103 | 10 | 79 |
| GCA_011010245.1_ASM1101024v1_genomic | Public Genome | 4176930 | 0.2902 | 3652 | 10 | 79 |
| GCA_011010275.1_ASM1101027v1_genomic | Public Genome | 3857022 | 0.2973 | 4026 | 11 | 80 |
| Accession          | Version       | Type          | Size   | GC  | N50  | M  |
|-------------------|---------------|---------------|--------|-----|------|----|
| GCA_011010285.1    | ASM1101028v1  | genomic       | 4134956| 0.3214 | 3669 | 10  |
| GCA_011010295.1    | ASM1101029v1  | genomic       | 3866454| 0.3084 | 3668 | 10  |
| GCA_011010335.1    | ASM1101033v1  | genomic       | 3866446| 0.289  | 4004 | 10  |
| GCA_011010345.1    | ASM1101034v1  | genomic       | 4115608| 0.2899 | 3673 | 10  |
| GCA_011010355.1    | ASM1101035v1  | genomic       | 3908835| 0.3108 | 3686 | 10  |
| GCA_011010375.1    | ASM1101037v1  | genomic       | 3912899| 0.3114 | 3681 | 10  |
| GCA_011010415.1    | ASM1101041v1  | genomic       | 3909273| 0.2932 | 3807 | 14  |
| GCA_011010435.1    | ASM1101043v1  | genomic       | 3996158| 0.2964 | 3781 | 10  |
| GCA_011010445.1    | ASM1101044v1  | genomic       | 3967861| 0.2983 | 3800 | 14  |
| GCA_011010455.1    | ASM1101045v1  | genomic       | 3985895| 0.3004 | 3797 | 10  |
| GCA_011010485.1    | ASM1101048v1  | genomic       | 3985038| 0.3123 | 3740 | 12  |
| GCA_011010505.1    | ASM1101050v1  | genomic       | 3951200| 0.3016 | 3733 | 12  |
| GCA_011010535.1    | ASM1101053v1  | genomic       | 3949710| 0.3053 | 3739 | 12  |
| GCA_011010545.1    | ASM1101054v1  | genomic       | 3951549| 0.3053 | 3736 | 12  |
| GCA_011010575.1    | ASM1101057v1  | genomic       | 3950691| 0.2998 | 3709 | 14  |
| GCA_011010615.1    | ASM1101061v1  | genomic       | 3929568| 0.2897 | 3721 | 12  |
| GCA_011010635.1    | ASM1101063v1  | genomic       | 3944562| 0.2971 | 4056 | 12  |
| GCA_011010645.1    | ASM1101064v1  | genomic       | 4168159| 0.2961 | 4213 | 12  |
| GCA_011010655.1    | ASM1101065v1  | genomic       | 4295290| 0.3119 | 4012 | 12  |
| GCA_011010685.1    | ASM1101068v1  | genomic       | 4141644| 0.2963 | 3598 | 11  |
| GCA_011010715.1    | ASM1101071v1  | genomic       | 3719910| 0.3066 | 4056 | 12  |
| GCA_011010735.1    | ASM1101073v1  | genomic       | 4167027| 0.312  | 4068 | 11  |
| GCA_011010745.1    | ASM1101074v1  | genomic       | 4168441| 0.2874 | 3751 | 12  |
| GCA_011010775.1    | ASM1101077v1  | genomic       | 3948662| 0.3003 | 3557 | 11  |
| GCA_011010785.1    | ASM1101078v1  | genomic       | 3798028| 0.3126 | 3758 | 12  |
| GCA_011010835.1    | ASM1101083v1  | genomic       | 3952848| 0.286  | 4084 | 11  |
| Accession                | Organism | Genomic Region | Length | GC Content | N50 | GC Content | N50 | GC Content | N50 |
|-------------------------|----------|----------------|--------|------------|-----|------------|-----|------------|-----|
| GCA_011010865.1_ASM1101086v1_genomic | Public Genome | 4223375 | 0.3141 | 4090 | 12 | 78 |
| GCA_011010895.1_ASM1101089v1_genomic | Public Genome | 4228906 | 0.2955 | 4082 | 13 | 79 |
| GCA_011010905.1_ASM1101090v1_genomic | Public Genome | 4228724 | 0.3189 | 4092 | 12 | 78 |
| GCA_011010935.1_ASM1101093v1_genomic | Public Genome | 3765488 | 0.2929 | 3488 | 10 | 78 |
| GCA_011010945.1_ASM1101094v1_genomic | Public Genome | 3765488 | 0.2996 | 3558 | 11 | 79 |
| GCA_011010965.1_ASM1101096v1_genomic | Public Genome | 4090957 | 0.3105 | 3907 | 12 | 78 |
| GCA_011010975.1_ASM1101097v1_genomic | Public Genome | 4090957 | 0.3105 | 3907 | 12 | 78 |
| GCA_011011015.1_ASM1101101v1_genomic | Public Genome | 4091619 | 0.3127 | 3910 | 13 | 79 |
| GCA_011011035.1_ASM1101103v1_genomic | Public Genome | 4091150 | 0.3088 | 3907 | 13 | 80 |
| GCA_011011045.1_ASM1101104v1_genomic | Public Genome | 4091150 | 0.3088 | 3907 | 13 | 80 |
| GCA_011011075.1_ASM1101107v1_genomic | Public Genome | 4091492 | 0.2926 | 3885 | 12 | 78 |
| GCA_011011095.1_ASM1101109v1_genomic | Public Genome | 4078951 | 0.3063 | 3909 | 12 | 78 |
| GCA_011011105.1_ASM1101110v1_genomic | Public Genome | 4088873 | 0.3011 | 3909 | 12 | 78 |
| GCA_011011135.1_ASM1101113v1_genomic | Public Genome | 4089245 | 0.3035 | 3904 | 12 | 78 |
| GCA_011011145.1_ASM1101114v1_genomic | Public Genome | 4089887 | 0.2906 | 3899 | 12 | 78 |
| GCA_011011165.1_ASM1101116v1_genomic | Public Genome | 4080372 | 0.2978 | 3903 | 11 | 78 |
| GCA_011011185.1_ASM1101118v1_genomic | Public Genome | 4086921 | 0.3006 | 3901 | 12 | 79 |
| GCA_011011215.1_ASM1101121v1_genomic | Public Genome | 4087594 | 0.2962 | 3898 | 11 | 78 |
| GCA_011011235.1_ASM1101123v1_genomic | Public Genome | 4088527 | 0.2906 | 3748 | 9 | 76 |
| GCA_011011245.1_ASM1101124v1_genomic | Public Genome | 3931029 | 0.2897 | 3754 | 9 | 76 |
| GCA_011011255.1_ASM1101125v1_genomic | Public Genome | 3933063 | 0.3251 | 3912 | 12 | 80 |
| GCA_011011295.1_ASM1101129v1_genomic | Public Genome | 4090337 | 0.2979 | 3776 | 10 | 80 |
| GCA_011011315.1_ASM1101131v1_genomic | Public Genome | 3975101 | 0.3037 | 3781 | 10 | 75 |
| GCA_011011335.1_ASM1101133v1_genomic | Public Genome | 3978619 | 0.3142 | 3779 | 10 | 74 |
| GCA_011011345.1_ASM1101134v1_genomic | Public Genome | 3978450 | 0.3037 | 3701 | 10 | 79 |
| GCA_011011375.1_ASM1101137v1_genomic | Public Genome | 3916426 | 0.2906 | 3830 | 11 | 77 |
| Accession         | Assembly   | Genome | Length | GC% | N50 Length | N70 Length | GC% | Length | GC% | Length | GC% | Length | GC% | Length | GC% | Length | GC% | Length | GC% |
|-------------------|------------|--------|--------|-----|------------|------------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|
| GCA_011011385.1   | ASM1101138v1 | genomic | 3998935 | 0.3016 | 3750 | 9 | 76 |
| GCA_011011415.1   | ASM1101141v1 | genomic | 3934183 | 0.3228 | 3833 | 10 | 78 |
| GCA_011011435.1   | ASM1101143v1 | genomic | 4003589 | 0.2948 | 3817 | 11 | 77 |
| GCA_011011445.1   | ASM1101144v1 | genomic | 3999383 | 0.2871 | 3906 | 11 | 80 |
| GCA_011011465.1   | ASM1101146v1 | genomic | 4087213 | 0.3018 | 3936 | 12 | 78 |
| GCA_011011495.1   | ASM1101149v1 | genomic | 4111607 | 0.2891 | 3555 | 11 | 79 |
| GCA_011011515.1   | ASM1101151v1 | genomic | 3793988 | 0.3014 | 3561 | 11 | 75 |
| GCA_011011535.1   | ASM1101153v1 | genomic | 3798774 | 0.2875 | 3037 | 9 | 76 |
| GCA_011011545.1   | ASM1101154v1 | genomic | 3155674 | 0.3016 | 3752 | 11 | 78 |
| GCA_011011575.1   | ASM1101157v1 | genomic | 3958357 | 0.2897 | 3554 | 10 | 77 |
| GCA_011011635.1   | ASM1101163v1 | genomic | 3934160 | 0.3443 | 3612 | 11 | 81 |
| GCA_011011665.1   | ASM1101166v1 | genomic | 3826272 | 0.3003 | 3557 | 11 | 79 |
| GCA_011011765.1   | ASM1101176v1 | genomic | 3800178 | 0.2902 | 3556 | 11 | 79 |
| GCAID                        | ASMID          | Genome Type | Length | Coverage | Start | End | Identity | Coding Size | ID | Name |
|-----------------------------|----------------|-------------|--------|----------|-------|-----|----------|-------------|----|-------|
| GCA_011011895.1_ASM1101189v1_genomic | Public Genome  | 3796818     | 0.3033 | 3555     | 11    | 79  |          |             |    |       |
| GCA_011011925.1_ASM1101192v1_genomic | Public Genome  | 3796672     | 0.3053 | 3562     | 11    | 79  |          |             |    |       |
| GCA_011011955.1_ASM1101195v1_genomic | Public Genome  | 3799286     | 0.2929 | 3554     | 11    | 79  |          |             |    |       |
| GCA_011011965.1_ASM1101196v1_genomic | Public Genome  | 3791805     | 0.3067 | 3672     | 10    | 78  |          |             |    |       |
| GCA_011011995.1_ASM1101199v1_genomic | Public Genome  | 3865412     | 0.303  | 3557     | 11    | 79  |          |             |    |       |
| GCA_011012005.1_ASM1101200v1_genomic | Public Genome  | 3799106     | 0.2957 | 4256     | 11    | 80  |          |             |    |       |
| GCA_011012015.1_ASM1101201v1_genomic | Public Genome  | 4337561     | 0.3007 | 3645     | 11    | 79  |          |             |    |       |
| GCA_011012055.1_ASM1101205v1_genomic | Public Genome  | 3867484     | 0.314  | 3799     | 11    | 79  |          |             |    |       |
| GCA_011012075.1_ASM1101207v1_genomic | Public Genome  | 3981193     | 0.309  | 4051     | 12    | 78  |          |             |    |       |
| GCA_011012095.1_ASM1101209v1_genomic | Public Genome  | 4168420     | 0.312  | 4060     | 13    | 79  |          |             |    |       |
| GCA_011012105.1_ASM1101210v1_genomic | Public Genome  | 4170318     | 0.295  | 3776     | 10    | 78  |          |             |    |       |
| GCA_011012125.1_ASM1101212v1_genomic | Public Genome  | 3972945     | 0.300  | 3911     | 12    | 78  |          |             |    |       |
| GCA_011012155.1_ASM1101215v1_genomic | Public Genome  | 4092235     | 0.285  | 3819     | 9     | 76  |          |             |    |       |
| GCA_011012165.1_ASM1101216v1_genomic | Public Genome  | 3997069     | 0.313  | 3830     | 11    | 77  |          |             |    |       |
| GCA_011012195.1_ASM1101219v1_genomic | Public Genome  | 4003701     | 0.287  | 3765     | 11    | 81  |          |             |    |       |
| GCA_011012215.1_ASM1101221v1_genomic | Public Genome  | 3949924     | 0.308  | 3559     | 11    | 79  |          |             |    |       |
| GCA_011012225.1_ASM1101222v1_genomic | Public Genome  | 3799360     | 0.288  | 3548     | 11    | 79  |          |             |    |       |
| GCA_011012355.1_ASM1101235v1_genomic | Public Genome  | 3789818     | 0.339  | 3670     | 24    | 118 |          |             |    |       |
| GCA_011012365.1_ASM1101236v1_genomic | Public Genome  | 3998487     | 0.305  | 3599     | 9     | 75  |          |             |    |       |
| GCA_011012375.1_ASM1101237v1_genomic | Public Genome  | 3908841     | 0.339  | 3589     | 10    | 78  |          |             |    |       |
| GCA_011012435.1_ASM1101243v1_genomic | Public Genome  | 3905010     | 0.305  | 3701     | 7     | 67  |          |             |    |       |
| GCA_011012455.1_ASM1101245v1_genomic | Public Genome  | 3895678     | 0.307  | 3617     | 10    | 77  |          |             |    |       |
| GCA_011012465.1_ASM1101246v1_genomic | Public Genome  | 3850217     | 0.341  | 3772     | 9     | 75  |          |             |    |       |
| GCA_011012695.1_ASM1101269v1_genomic | Public Genome  | 4000037     | 0.286  | 3843     | 8     | 79  |          |             |    |       |
| GCA_011012725.1_ASM1101272v1_genomic | Public Genome  | 4010699     | 0.308  | 3888     | 8     | 79  |          |             |    |       |
| GCA_011012735.1_ASM1101273v1_genomic | Public Genome  | 4062902     | 0.301  | 3540     | 10    | 79  |          |             |    |       |
| Genome Accession | Genome Type         | Assembly | Length  | GC Content | Contig N. | GC Content | Length  | N. of Contig | GC Content |
|------------------|---------------------|----------|---------|------------|-----------|------------|---------|--------------|------------|
| GCA_011012755.1  | ASM1101275v1_genomic | Public    | 3851997 | 0.2922     | 3559      | 9          | 78      |              |            |
| GCA_011012795.1  | ASM1101279v1_genomic | Public    | 3861614 | 0.3094     | 3579      | 10         | 77      |              |            |
| GCA_011012815.1  | ASM1101281v1_genomic | Public    | 3894468 | 0.3912     | 3582      | 13         | 93      |              |            |
| GCA_011012825.1  | ASM1101282v1_genomic | Public    | 3910017 | 0.3229     | 3569      | 10         | 77      |              |            |
| GCA_011012835.1  | ASM1101283v1_genomic | Public    | 3871748 | 0.3212     | 3882      | 8          | 78      |              |            |
| GCA_011012875.1  | ASM1101287v1_genomic | Public    | 4068260 | 0.3277     | 4028      | 9          | 79      |              |            |
| GCA_011012885.1  | ASM1101288v1_genomic | Public    | 4183819 | 0.3172     | 3556      | 10         | 81      |              |            |
| GCA_011013055.1  | ASM1101305v1_genomic | Public    | 3873600 | 0.3108     | 3370      | 11         | 81      |              |            |
| GCA_011013175.1  | ASM1101317v1_genomic | Public    | 3581508 | 0.3301     | 3770      | 14         | 77      |              |            |
| GCA_011013255.1  | ASM1101325v1_genomic | Public    | 4001618 | 0.2934     | 3581      | 9          | 76      |              |            |
| GCA_011013265.1  | ASM1101326v1_genomic | Public    | 3902144 | 0.2886     | 3764      | 11         | 77      |              |            |
| GCA_011013315.1  | ASM1101331v1_genomic | Public    | 3997729 | 0.2992     | 3769      | 15         | 82      |              |            |
| GCA_011013335.1  | ASM1101333v1_genomic | Public    | 4005196 | 0.2913     | 3865      | 11         | 75      |              |            |
| GCA_011013435.1  | ASM1101343v1_genomic | Public    | 4063501 | 0.2837     | 3874      | 8          | 75      |              |            |
| GCA_011013545.1  | ASM1101354v1_genomic | Public    | 4065017 | 0.29       | 3764      | 12         | 76      |              |            |
| GCA_011013585.1  | ASM1101358v1_genomic | Public    | 3996558 | 0.2894     | 3763      | 12         | 75      |              |            |
| GCA_011013615.1  | ASM1101361v1_genomic | Public    | 4000766 | 0.3004     | 3590      | 9          | 76      |              |            |
| GCA_011013635.1  | ASM1101363v1_genomic | Public    | 3908999 | 0.2947     | 3576      | 9          | 75      |              |            |
| GCA_011013675.1  | ASM1101367v1_genomic | Public    | 3894475 | 0.3112     | 3589      | 9          | 73      |              |            |
| GCA_011013685.1  | ASM1101368v1_genomic | Public    | 3902882 | 0.2845     | 3760      | 9          | 75      |              |            |
| GCA_011013735.1  | ASM1101373v1_genomic | Public    | 3996921 | 0.3184     | 3666      | 11         | 81      |              |            |
| GCA_011013765.1  | ASM1101376v1_genomic | Public    | 3892642 | 0.2974     | 3597      | 9          | 73      |              |            |
| GCA_011013785.1  | ASM1101378v1_genomic | Public    | 3831714 | 0.2901     | 3503      | 10         | 75      |              |            |
| GCA_011013815.1  | ASM1101381v1_genomic | Public    | 3751711 | 0.3629     | 3587      | 10         | 82      |              |            |
| GCA_011013835.1  | ASM1101383v1_genomic | Public    | 3905020 | 0.3022     | 3678      | 8          | 77      |              |            |
| Accession          | Description            | Genome | Length | Circular | Containment |
|-------------------|------------------------|--------|--------|----------|-------------|
| GCA_011013865.1_ASM1101386v1_genomic | Public Genome         | 3867632 | 0.3163 | 3586     | 10          | 76          |
| GCA_011013885.1_ASM1101388v1_genomic | Public Genome         | 3906223 | 0.2992 | 3582     | 9           | 72          |
| GCA_011013905.1_ASM1101390v1_genomic | Public Genome         | 3900642 | 0.3282 | 3597     | 9           | 72          |
| GCA_011013935.1_ASM1101393v1_genomic | Public Genome         | 3907747 | 0.3315 | 4021     | 9           | 74          |
| GCA_011013955.1_ASM1101395v1_genomic | Public Genome         | 4222245 | 0.288  | 3824     | 8           | 76          |
| GCA_011013965.1_ASM1101396v1_genomic | Public Genome         | 4006568 | 0.2957 | 3569     | 9           | 78          |
| GCA_011013975.1_ASM1101397v1_genomic | Public Genome         | 3886673 | 0.2823 | 3647     | 8           | 79          |
| GCA_011014015.1_ASM1101401v1_genomic | Public Genome         | 3881202 | 0.3207 | 3705     | 12          | 81          |
| GCA_011014035.1_ASM1101403v1_genomic | Public Genome         | 3928118 | 0.3026 | 3648     | 11          | 83          |
| GCA_011014055.1_ASM1101405v1_genomic | Public Genome         | 3894198 | 0.2905 | 3583     | 9           | 75          |
| GCA_011014085.1_ASM1101408v1_genomic | Public Genome         | 3897028 | 0.2894 | 3569     | 9           | 76          |
| GCA_011014095.1_ASM1101409v1_genomic | Public Genome         | 3891786 | 0.3     | 3528     | 9           | 77          |
| GCA_011014135.1_ASM1101413v1_genomic | Public Genome         | 3843117 | 0.2966 | 3569     | 10          | 76          |
| GCA_011014155.1_ASM1101415v1_genomic | Public Genome         | 3887587 | 0.297  | 3477     | 9           | 78          |
| GCA_011014175.1_ASM1101417v1_genomic | Public Genome         | 3791625 | 0.3705 | 3581     | 10          | 82          |
| GCA_011014195.1_ASM1101419v1_genomic | Public Genome         | 3906975 | 0.3032 | 3531     | 10          | 80          |
| GCA_011014215.1_ASM1101421v1_genomic | Public Genome         | 3847854 | 0.2966 | 3498     | 10          | 79          |
| GCA_011014225.1_ASM1101422v1_genomic | Public Genome         | 3819146 | 0.3364 | 3594     | 10          | 73          |
| GCA_011014255.1_ASM1101425v1_genomic | Public Genome         | 3909237 | 0.2997 | 3536     | 10          | 80          |
| GCA_011014265.1_ASM1101426v1_genomic | Public Genome         | 3857788 | 0.3339 | 3587     | 10          | 80          |
| GCA_011014295.1_ASM1101429v1_genomic | Public Genome         | 3900190 | 0.2987 | 3566     | 9           | 79          |
| GCA_011014305.1_ASM1101430v1_genomic | Public Genome         | 3884428 | 0.2921 | 3470     | 9           | 76          |
| GCA_011014335.1_ASM1101433v1_genomic | Public Genome         | 3777092 | 0.307  | 3598     | 9           | 78          |
| GCA_011014345.1_ASM1101434v1_genomic | Public Genome         | 3873413 | 0.2902 | 3484     | 10          | 79          |
| GCA_011014375.1_ASM1101437v1_genomic | Public Genome         | 3706291 | 0.3063 | 3589     | 10          | 79          |
| GCA_011014395.1_ASM1101439v1_genomic | Public Genome         | 3820899 | 0.2981 | 3648     | 11          | 78          |
| Accession      | Description          | Status   | Size     | GC% | GC Content | ATG Hs  | ATG Hs2 |
|---------------|----------------------|----------|----------|-----|------------|---------|---------|
| GCA_011014415.1_ASM1101441v1_genomic | Public Genome | 3883047  | 0.3028   | 3656 | 11         | 78      |         |
| GCA_011014425.1_ASM1101442v1_genomic | Public Genome | 3886862  | 0.2905   | 3997 | 9          | 70      |         |
| GCA_011014445.1_ASM1101444v1_genomic | Public Genome | 4202341  | 0.3021   | 3527 | 12         | 86      |         |
| GCA_011014475.1_ASM1101447v1_genomic | Public Genome | 3775133  | 0.3041   | 3658 | 11         | 78      |         |
| GCA_011014545.1_ASM1101454v1_genomic | Public Genome | 3891373  | 0.3185   | 3770 | 10         | 76      |         |
| GCA_011014565.1_ASM1101456v1_genomic | Public Genome | 4009954  | 0.3239   | 3538 | 9          | 73      |         |
| GCA_011014595.1_ASM1101459v1_genomic | Public Genome | 3837899  | 0.3137   | 4093 | 6          | 73      |         |
| GCA_011014735.1_ASM1101473v1_genomic | Public Genome | 3902622  | 0.3019   | 3677 | 9          | 78      |         |
| GCA_011014775.1_ASM1101477v1_genomic | Public Genome | 3903471  | 0.3263   | 3582 | 10         | 84      |         |
| GCA_011014925.1_ASM1101492v1_genomic | Public Genome | 3824218  | 0.3362   | 3689 | 9          | 77      |         |
| GCA_011014955.1_ASM1101495v1_genomic | Public Genome | 3907211  | 0.3288   | 3690 | 9          | 77      |         |
| GCA_011014965.1_ASM1101496v1_genomic | Public Genome | 3906539  | 0.2855   | 3680 | 9          | 77      |         |
| GCA_011014995.1_ASM1101499v1_genomic | Public Genome | 3898638  | 0.2938   | 3379 | 8          | 79      |         |
| GCA_011015015.1_ASM1101501v1_genomic | Public Genome | 3668164  | 0.2909   | 3517 | 8          | 78      |         |
| GCA_011015195.1_ASM1101519v1_genomic | Public Genome | 3786638  | 0.3437   | 3802 | 10         | 79      |         |
| GCA_011015305.1_ASM1101530v1_genomic | Public Genome | 3987584  | 0.3279   | 3524 | 8          | 79      |         |
| GCA_011015315.1_ASM1101531v1_genomic | Public Genome | 3803211  | 0.2851   | 3512 | 8          | 79      |         |
| GCA_011015335.1_ASM1101533v1_genomic | Public Genome | 3795661  | 0.3279   | 3806 | 10         | 78      |         |
| GCA_011015395.1_ASM1101539v1_genomic | Public Genome | 3987443  | 0.2996   | 3591 | 9          | 65      |         |
| GCA_011015415.1_ASM1101541v1_genomic | Public Genome | 3859679  | 0.3175   | 3563 | 11         | 79      |         |
| GCA_011015425.1_ASM1101542v1_genomic | Public Genome | 3800184  | 0.3547   | 4015 | 9          | 80      |         |
| GCA_011015435.1_ASM1101543v1_genomic | Public Genome | 4222300  | 0.3213   | 3743 | 11         | 83      |         |
| GCA_011015475.1_ASM1101547v1_genomic | Public Genome | 3910953  | 0.2941   | 3557 | 11         | 79      |         |
| GCA_011015495.1_ASM1101549v1_genomic | Public Genome | 3792202  | 0.3036   | 3559 | 11         | 79      |         |
| Accession         | Assembly   | Genome | Length | COI | OTU |
|------------------|------------|--------|--------|-----|-----|
| GCA_011015505.1   | ASM1101550v1_genomic | Public Genome | 3798005 | 0.3112 | 3561 | 11  | 79 |
| GCA_011015535.1   | ASM1101553v1_genomic | Public Genome | 3798916 | 0.3278 | 3562 | 11  | 79 |
| GCA_011015545.1   | ASM1101554v1_genomic | Public Genome | 3800227 | 0.3029 | 3622 | 11  | 80 |
| GCA_011015555.1   | ASM1101555v1_genomic | Public Genome | 3853953 | 0.3159 | 3628 | 11  | 84 |
| GCA_011015595.1   | ASM1101559v1_genomic | Public Genome | 3866946 | 0.3051 | 3622 | 11  | 79 |
| GCA_011015615.1   | ASM1101561v1_genomic | Public Genome | 3876485 | 0.2925 | 3622 | 11  | 79 |
| GCA_011015635.1   | ASM1101563v1_genomic | Public Genome | 3860097 | 0.3454 | 3683 | 10  | 81 |
| GCA_011015655.1   | ASM1101565v1_genomic | Public Genome | 3800274 | 0.3145 | 3560 | 11  | 82 |
| GCA_011015665.1   | ASM1101566v1_genomic | Public Genome | 3904478 | 0.3248 | 3560 | 11  | 80 |
| GCA_011015685.1   | ASM1101568v1_genomic | Public Genome | 3799286 | 0.299 | 3555 | 11  | 79 |
| GCA_011015715.1   | ASM1101571v1_genomic | Public Genome | 3796730 | 0.2966 | 3560 | 11  | 79 |
| GCA_011015735.1   | ASM1101573v1_genomic | Public Genome | 3797447 | 0.3228 | 3562 | 11  | 82 |
| GCA_011015795.1   | ASM1101579v1_genomic | Public Genome | 3800099 | 0.2936 | 3484 | 11  | 80 |
| GCA_011016045.1   | ASM1101604v1_genomic | Public Genome | 3762997 | 0.2828 | 3625 | 11  | 78 |
| GCA_011016095.1   | ASM1101609v1_genomic | Public Genome | 3863045 | 0.29 | 3582 | 9   | 75 |
| GCA_011017095.1   | ASM1101709v1_genomic | Public Genome | 3899867 | 0.3216 | 3912 | 10  | 79 |
| GCA_011017125.1   | ASM1101712v1_genomic | Public Genome | 4148498 | 0.3337 | 3739 | 11  | 79 |
| GCA_011017145.1   | ASM1101714v1_genomic | Public Genome | 3937539 | 0.2928 | 3684 | 10  | 78 |
| GCA_011017175.1   | ASM1101717v1_genomic | Public Genome | 3909499 | 0.2928 | 3645 | 11  | 76 |
| GCA_011017235.1   | ASM1101723v1_genomic | Public Genome | 3862069 | 0.2806 | 3880 | 8   | 76 |
| GCA_011017245.1   | ASM1101724v1_genomic | Public Genome | 4061684 | 0.2995 | 3743 | 10  | 76 |
| GCA_011017265.1   | ASM1101726v1_genomic | Public Genome | 3929760 | 0.2957 | 3734 | 10  | 77 |
| GCA_011017275.1   | ASM1101727v1_genomic | Public Genome | 3917155 | 0.304 | 3659 | 10  | 71 |
| GCA_011017315.1   | ASM1101731v1_genomic | Public Genome | 3862412 | 0.3244 | 3664 | 10  | 77 |
| GCA_011017375.1   | ASM1101737v1_genomic | Public Genome | 3864363 | 0.3338 | 3755 | 10  | 78 |
| GCA_011017455.1   | ASM1101745v1_genomic | Public Genome | 3975595 | 0.329 | 3573 | 10  | 78 |
| Assembly Accession | Assembly Name          | Genome      | Length (bp) | GC Content | N50 (bp) | L50 (bp) | N50 Rank | L50 Rank |
|--------------------|------------------------|-------------|-------------|------------|----------|----------|----------|----------|
| GCA_011017465.1_ASM1101746v1_genomic | Public Genome | 3799270 | 0.2913 | 3701 | 9 | 75 |
| GCA_011017495.1_ASM1101749v1_genomic | Public Genome | 3914449 | 0.2922 | 3673 | 11 | 78 |
| GCA_011017505.1_ASM1101750v1_genomic | Public Genome | 3884615 | 0.2791 | 3666 | 9 | 75 |
| GCA_011017535.1_ASM1101753v1_genomic | Public Genome | 3881310 | 0.2860 | 3770 | 8 | 74 |
| GCA_011017545.1_ASM1101754v1_genomic | Public Genome | 3961828 | 0.3059 | 3597 | 10 | 79 |
| GCA_011017575.1_ASM1101757v1_genomic | Public Genome | 3825875 | 0.2919 | 3869 | 10 | 84 |
| GCA_011017585.1_ASM1101758v1_genomic | Public Genome | 4025593 | 0.2948 | 3493 | 10 | 78 |
| GCA_011017615.1_ASM1101761v1_genomic | Public Genome | 3743766 | 0.3022 | 3656 | 11 | 79 |
| GCA_011017635.1_ASM1101763v1_genomic | Public Genome | 388393 | 0.2835 | 3688 | 10 | 78 |
| GCA_011017645.1_ASM1101764v1_genomic | Public Genome | 3893783 | 0.3245 | 3747 | 10 | 78 |
| GCA_011017655.1_ASM1101765v1_genomic | Public Genome | 3976162 | 0.2913 | 3684 | 9 | 74 |
| GCA_011017685.1_ASM1101768v1_genomic | Public Genome | 3903329 | 0.3166 | 3767 | 8 | 78 |
| GCA_011017715.1_ASM1101771v1_genomic | Public Genome | 3999847 | 0.3207 | 3630 | 9 | 76 |
| GCA_011017735.1_ASM1101773v1_genomic | Public Genome | 3861879 | 0.2901 | 3733 | 11 | 76 |
| GCA_011017755.1_ASM1101775v1_genomic | Public Genome | 3977776 | 0.2898 | 3983 | 8 | 77 |
| GCA_011017765.1_ASM1101776v1_genomic | Public Genome | 4198842 | 0.2836 | 3586 | 10 | 77 |
| GCA_011017775.1_ASM1101777v1_genomic | Public Genome | 3826200 | 0.2819 | 4122 | 10 | 77 |
| GCA_011017785.1_ASM1101778v1_genomic | Public Genome | 4264670 | 0.3322 | 3751 | 10 | 77 |
| GCA_011017835.1_ASM1101783v1_genomic | Public Genome | 3976492 | 0.3101 | 3747 | 10 | 77 |
| GCA_011017845.1_ASM1101784v1_genomic | Public Genome | 3976740 | 0.2889 | 3738 | 10 | 77 |
| GCA_011017875.1_ASM1101787v1_genomic | Public Genome | 3963063 | 0.3610 | 3749 | 10 | 81 |
| GCA_011017885.1_ASM1101788v1_genomic | Public Genome | 3975255 | 0.292 | 3842 | 8 | 78 |
| GCA_011017895.1_ASM1101789v1_genomic | Public Genome | 4040375 | 0.2928 | 3715 | 10 | 77 |
| GCA_011017935.1_ASM1101793v1_genomic | Public Genome | 3953003 | 0.28 | 3751 | 8 | 65 |
| GCA_011017955.1_ASM1101795v1_genomic | Public Genome | 3978554 | 0.2838 | 3860 | 8 | 75 |
| GCA_011017965.1_ASM1101796v1_genomic | Public Genome | 4052937 | 0.2935 | 3670 | 11 | 78 |
| Accession          | Organism         | Genome Location | GC Content | GC_1 | GC_2 | GC_3 | GC_4 | GC_5 |
|-------------------|------------------|-----------------|------------|------|------|------|------|------|
| GCA_011017975.1    | ASM1101797v1     | genomic         | 0.2926     | 4002 | 9    | 77   |      |      |
| GCA_011017995.1    | ASM1101799v1     | genomic         | 0.2862     | 3508 | 10   | 79   |      |      |
| GCA_011018275.1    | ASM1101827v1     | genomic         | 0.3156     | 3661 | 11   | 78   |      |      |
| GCA_011018285.1    | ASM1101828v1     | genomic         | 0.323      | 3856 | 10   | 80   |      |      |
| GCA_011018295.1    | ASM1101829v1     | genomic         | 0.2846     | 4182 | 10   | 74   |      |      |
| GCA_011018385.1    | ASM1101838v1     | genomic         | 0.2846     | 3761 | 9    | 73   |      |      |
| GCA_011018395.1    | ASM1101839v1     | genomic         | 0.3142     |      | 3681 | 6    |      |      |
| GCA_011018525.1    | ASM1101852v1     | genomic         | 0.3142     |      |      |      |      |      |
| GCA_011018575.1    | ASM1101857v1     | genomic         | 0.2952     |      |      |      |      |      |
| GCA_011018725.1    | ASM1101872v1     | genomic         | 0.3557     |      |      |      |      |      |
| GCA_011018795.1    | ASM1101879v1     | genomic         | 0.3072     |      |      |      |      |      |
| GCA_011018945.1    | ASM1101894v1     | genomic         | 0.3285     |      |      |      |      |      |
| GCA_011019005.1    | ASM1101900v1     | genomic         | 0.2903     |      |      |      |      |      |
| GCA_011019055.1    | ASM1101905v1     | genomic         | 0.3014     |      |      |      |      |      |
| GCA_011019095.1    | ASM1101909v1     | genomic         | 0.3042     |      |      |      |      |      |
| GCA_011019125.1    | ASM1101912v1     | genomic         | 0.3014     |      |      |      |      |      |
| GCA_011019165.1    | ASM1101916v1     | genomic         | 0.3195     |      |      |      |      |      |
| GCA_011019215.1    | ASM1101921v1     | genomic         | 0.3285     |      |      |      |      |      |
| GCA_011019415.1    | ASM1101941v1     | genomic         | 0.2903     |      |      |      |      |      |
| Accession               | Release     | Organism   | Assembly Name | Base Count | GC Content | Length | Chromosome | Coverage |
|------------------------|-------------|------------|---------------|------------|------------|--------|------------|----------|
| GCA_011019425.1_ASM1101942v1_genomic | Public Genome | 3999022 | 0.3431 | 3664 | 11 | 79 |
| GCA_011019455.1_ASM1101945v1_genomic | Public Genome | 3893254 | 0.3071 | 3633 | 11 | 80 |
| GCA_011019525.1_ASM1101952v1_genomic | Public Genome | 3863217 | 0.3246 | 3662 | 10 | 82 |
| GCA_011019625.1_ASM1101962v1_genomic | Public Genome | 3865210 | 0.2986 | 3600 | 10 | 78 |
| GCA_011019745.1_ASM1101974v1_genomic | Public Genome | 3825254 | 0.3269 | 3670 | 10 | 77 |
| GCA_011019895.1_ASM1101989v1_genomic | Public Genome | 3808743 | 0.3026 | 3587 | 10 | 77 |
| GCA_011019915.1_ASM1101991v1_genomic | Public Genome | 3890265 | 0.3088 | 3590 | 10 | 77 |
| GCA_011019945.1_ASM1101994v1_genomic | Public Genome | 3890265 | 0.3013 | 3704 | 10 | 78 |
| GCA_011019975.1_ASM1101997v1_genomic | Public Genome | 3899182 | 0.3231 | 3591 | 10 | 77 |
| GCA_011020005.1_ASM1102000v1_genomic | Public Genome | 3907454 | 0.3204 | 3885 | 8 | 77 |
| GCA_011020015.1_ASM1102001v1_genomic | Public Genome | 4069384 | 0.2909 | 3856 | 8 | 76 |
| GCA_011020075.1_ASM1102007v1_genomic | Public Genome | 4033683 | 0.2939 | 3599 | 9 | 77 |
| GCA_011020115.1_ASM1102011v1_genomic | Public Genome | 3831692 | 0.2784 | 3671 | 10 | 73 |
| GCA_011020175.1_ASM1102017v1_genomic | Public Genome | 3871905 | 0.2929 | 3657 | 11 | 67 |
| GCA_011020255.1_ASM1102025v1_genomic | Public Genome | 3890199 | 0.3182 | 3587 | 9 | 75 |
| GCA_011020275.1_ASM1102027v1_genomic | Public Genome | 3906242 | 0.3021 | 3660 | 11 | 79 |
| GCA_011020285.1_ASM1102028v1_genomic | Public Genome | 3891347 | 0.2897 | 3659 | 11 | 71 |
| GCA_011020525.1_ASM1102052v1_genomic | Public Genome | 3886062 | 0.3007 | 3576 | 9 | 75 |
| GCA_011020535.1_ASM1102053v1_genomic | Public Genome | 3895460 | 0.3058 | 3927 | 9 | 75 |
| GCA_011020595.1_ASM1102059v1_genomic | Public Genome | 4142381 | 0.2972 | 3919 | 8 | 74 |
| GCA_011020655.1_ASM1102065v1_genomic | Public Genome | 4136150 | 0.2977 | 3627 | 8 | 75 |
| GCA_011020665.1_ASM1102066v1_genomic | Public Genome | 3873546 | 0.2947 | 3574 | 10 | 78 |
| GCA_011020735.1_ASM1102073v1_genomic | Public Genome | 3836926 | 0.2873 | 3175 | 10 | 78 |
| GCA_011020815.1_ASM1102081v1_genomic | Public Genome | 3440104 | 0.2904 | 3647 | 11 | 76 |
| Accession        | Species          | Library                | Length | Coverage | Start | End | Length (bp) |
|------------------|------------------|------------------------|--------|----------|-------|-----|-------------|
| GCA_011020875.1  | ASM1102087v1     | genomic                | 3860661| 0.3034   | 3558  | 10  | 83          |
| GCA_011020895.1  | ASM1102089v1     | genomic                | 3804147| 0.2997   | 3879  | 8   | 76          |
| GCA_011020915.1  | ASM1102091v1     | genomic                | 4065156| 0.3181   | 3492  | 11  | 81          |
| GCA_011020965.1  | ASM1102096v1     | genomic                | 3735398| 0.2959   | 3647  | 11  | 80          |
| GCA_011020995.1  | ASM1102099v1     | genomic                | 3877729| 0.2986   | 3634  | 11  | 79          |
| GCA_011021125.1  | ASM1102112v1     | genomic                | 3873090| 0.2935   | 4177  | 11  | 78          |
| GCA_011021215.1  | ASM1102121v1     | genomic                | 4323927| 0.305    | 3733  | 10  | 78          |
| GCA_011021325.1  | ASM1102132v1     | genomic                | 3961475| 0.3014   | 3743  | 9   | 80          |
| GCA_011021375.1  | ASM1102137v1     | genomic                | 3960976| 0.2847   | 3535  | 11  | 77          |
| GCA_011021415.1  | ASM1102141v1     | genomic                | 3790007| 0.3082   | 3741  | 10  | 78          |
| GCA_011021435.1  | ASM1102143v1     | genomic                | 3926334| 0.2991   | 3878  | 8   | 76          |
| GCA_011021495.1  | ASM1102149v1     | genomic                | 4059534| 0.2951   | 4249  | 8   | 76          |
| GCA_011021515.1  | ASM1102151v1     | genomic                | 4449297| 0.3262   | 3653  | 12  | 75          |
| GCA_011021535.1  | ASM1102153v1     | genomic                | 3887780| 0.3454   | 3738  | 9   | 82          |
| GCA_011021545.1  | ASM1102154v1     | genomic                | 3951862| 0.2986   | 4181  | 11  | 79          |
| GCA_011021565.1  | ASM1102156v1     | genomic                | 4325658| 0.3348   | 3662  | 9   | 77          |
| GCA_011021615.1  | ASM1102161v1     | genomic                | 3877660| 0.3164   | 3548  | 11  | 86          |
| GCA_011021655.1  | ASM1102165v1     | genomic                | 3791445| 0.3515   | 3761  | 9   | 65          |
| GCA_011021735.1  | ASM1102173v1     | genomic                | 3966395| 0.3303   | 3661  | 11  | 75          |
| GCA_011021755.1  | ASM1102175v1     | genomic                | 3892108| 0.3163   | 3685  | 9   | 77          |
| GCA_011021765.1  | ASM1102176v1     | genomic                | 3905967| 0.3065   | 3579  | 10  | 77          |
| GCA_011021895.1  | ASM1102189v1     | genomic                | 3900573| 0.3066   | 3580  | 10  | 79          |
| GCA_011021905.1  | ASM1102190v1     | genomic                | 3904612| 0.3107   | 3585  | 10  | 77          |
| GCA_011021915.1  | ASM1102191v1     | genomic                | 3899682| 0.3084   | 3591  | 9   | 77          |
| GCA_011021955.1  | ASM1102195v1     | genomic                | 3906988| 0.3304   | 3599  | 9   | 76          |
| Accession                      | Assembly      | Description | Length  | GC Content | N50  | GC含量 | N50 Length |
|-------------------------------|---------------|-------------|---------|------------|------|--------|-------------|
| GCA_011022075.1_ASM1102207v1 | genomic       | Public Genome | 3877160 | 0.2776     | 3735 | 9      | 74          |
| GCA_011022085.1_ASM1102208v1 | genomic       | Public Genome | 3969885 | 0.3041     | 3661 | 10     | 80          |
| GCA_011363175.1_ASM1136317v1 | genomic       | Public Genome | 3859989 | 0.2969     | 3747 | 11     | 80          |
| GCA_011389495.1_ASM1138949v1 | genomic       | Public Genome | 3918049 | 0.2997     | 3693 | 27     | 80          |
| GCA_014068615.1_ASM1406861v1 | genomic       | Public Genome | 3940268 | 0.269      | 3647 | 27     | 80          |
| GCA_014805065.1_ASM1480506v1 | genomic       | Public Genome | 4064247 | 0.3101     | 3967 | 8      | 76          |
| GCA_014805105.1_ASM1480510v1 | genomic       | Public Genome | 4064564 | 0.2885     | 3884 | 4      | 43          |
| GCA_014805145.1_ASM1480514v1 | genomic       | Public Genome | 4108059 | 0.294      | 3878 | 4      | 43          |
| GCA_014805165.1_ASM1480516v1 | genomic       | Public Genome | 4067487 | 0.3012     | 3872 | 4      | 57          |
| GCA_014805185.1_ASM1480518v1 | genomic       | Public Genome | 4063967 | 0.3023     | 3884 | 4      | 50          |
| GCA_014805195.1_ASM1480519v1 | genomic       | Public Genome | 4062365 | 0.3027     | 3882 | 4      | 60          |
| GCA_014805215.1_ASM1480521v1 | genomic       | Public Genome | 4062152 | 0.3121     | 3937 | 4      | 58          |
| GCA_014805235.1_ASM1480523v1 | genomic       | Public Genome | 4120534 | 0.3506     | 3942 | 10     | 68          |
| GCA_014805255.1_ASM1480525v1 | genomic       | Public Genome | 4129110 | 0.2962     | 3877 | 4      | 51          |
| GCA_014805275.1_ASM1480527v1 | genomic       | Public Genome | 4065178 | 0.2833     | 3892 | 6      | 68          |
| GCA_014805305.1_ASM1480530v1 | genomic       | Public Genome | 4075116 | 0.2717     | 3912 | 9      | 76          |
| GCA_014872905.1_ASM1487290v1 | genomic       | Public Genome | 4138590 | 0.2907     | 4070 | 5      | 27          |
| GCA_016085375.1_PDT000162924 | genomic       | Public Genome | 4155425 | 0.3155     | 3561 | 8      | 60          |
| GCA_016085455.1_PDT000162920 | genomic       | Public Genome | 3818549 | 0.3093     | 3571 | 7      | 56          |
| GCA_016085475.1_PDT000162923 | genomic       | Public Genome | 3829895 | 0.3122     | 3572 | 7      | 62          |
| GCA_016085495.1_PDT000162918 | genomic       | Public Genome | 3830725 | 0.3196     | 3576 | 6      | 63          |
| GCA_016085515.1_PDT000162922 | genomic       | Public Genome | 3832024 | 0.2759     | 3512 | 7      | 60          |
| GCA_016085535.1_PDT000162917 | genomic       | Public Genome | 3778163 | 0.3211     | 3566 | 8      | 57          |
| GCA_016085555.1_PDT000162921 | genomic       | Public Genome | 3822658 | 0.3201     | 3564 | 5      | 52          |
| Accession          | Processor       | Coverage | MAF  | Identity | 50% ID | Length | annot | Qual |
|--------------------|-----------------|----------|------|----------|--------|--------|-------|------|
| GCA_016085625.1    | Public Genome   | 3825766  | 0.3214 | 3569     | 7      | 61     |
| GCA_016085715.1    | Public Genome   | 3828428  | 0.3149 | 3656     | 7      | 61     |
| GCA_016798345.1    | Public Genome   | 3881885  | 0.2817 | 3974     | 27     | 80     |
| GCA_016838665.1    | Public Genome   | 3815652  | 0.2815 | 3542     | 21     | 80     |
| GCA_016989565.1    | Public Genome   | 4090796  | 0.3007 | 3578     | 11     | 66     |
| GCA_016989605.1    | Public Genome   | 3867597  | 0.3026 | 4181     | 10     | 71     |
| GCA_016989635.1    | Public Genome   | 4281823  | 0.3307 | 3967     | 12     | 78     |
| GCA_016989715.1    | Public Genome   | 4154801  | 0.3235 | 4181     | 12     | 80     |
| GCA_016989775.1    | Public Genome   | 4280074  | 0.3235 | 3748     | 9      | 81     |
| GCA_016989785.1    | Public Genome   | 3972687  | 0.2881 | 4591     | 12     | 63     |
| GCA_016989825.1    | Public Genome   | 4699392  | 0.3244 | 4297     | 10     | 79     |
| GCA_016989855.1    | Public Genome   | 4352993  | 0.3077 | 4298     | 10     | 79     |
| GCA_016989895.1    | Public Genome   | 4369978  | 0.3307 | 3916     | 11     | 79     |
| GCA_016989975.1    | Public Genome   | 4098296  | 0.3246 | 4161     | 12     | 80     |
| GCA_016990015.1    | Public Genome   | 4262384  | 0.37   | 3824     | 11     | 71     |
| GCA_016990025.1    | Public Genome   | 4016700  | 0.3301 | 4063     | 11     | 78     |
| GCA_016990055.1    | Public Genome   | 4207851  | 0.3145 | 3770     | 9      | 78     |
| GCA_016990065.1    | Public Genome   | 3946920  | 0.3163 | 3939     | 11     | 79     |
| GCA_016990115.1    | Public Genome   | 4105532  | 0.3077 | 4007     | 10     | 79     |
| GCA_016990155.1    | Public Genome   | 4167208  | 0.307  | 3717     | 9      | 64     |
| GCA_016990195.1    | Public Genome   | 3904337  | 0.3145 | 4188     | 12     | 80     |
| GCA_016990235.1    | Public Genome   | 4270285  | 0.2884 | 4175     | 11     | 67     |
| GCA_016990255.1    | Public Genome   | 4271365  | 0.2977 | 3883     | 10     | 74     |
| GCA_016990275.1    | Public Genome   | 4062838  | 0.2936 | 4188     | 10     | 64     |
| GCA_016990285.1    | Public Genome   | 4273021  | 0.3401 | 3551     | 9      | 70     |
| ID                  | Description               | Genome   | Length  | CDS     | GC%   | Introns | Exons  |
|---------------------|---------------------------|----------|---------|---------|-------|---------|--------|
| GCA_016990315.1     | ASM1699031v1_genomic     | Public Genome | 3835422 | 0.341   | 3813  | 15      | 71     |
| GCA_016990335.1     | ASM1699033v1_genomic     | Public Genome | 4038662 | 0.3163  | 3942  | 12      | 79     |
| GCA_016990345.1     | ASM1699034v1_genomic     | Public Genome | 4110538 | 0.3413  | 3551  | 9       | 67     |
| GCA_016990375.1     | ASM1699037v1_genomic     | Public Genome | 3834757 | 0.3248  | 3943  | 11      | 79     |
| GCA_016990395.1     | ASM1699039v1_genomic     | Public Genome | 4112819 | 0.3373  | 3610  | 9       | 77     |
| GCA_017330665.1     | ASM1733066v1_genomic     | Public Genome | 4154648 | 0.2912  | 4402  | 8       | 54     |
| GCA_017330685.1     | ASM1733068v1_genomic     | Public Genome | 4332555 | 0.2885  | 4000  | 9       | 71     |
| GCA_017330695.1     | ASM1733069v1_genomic     | Public Genome | 3843066 | 0.3052  | 4023  | 10      | 71     |
| GCA_017330715.1     | ASM1733071v1_genomic     | Public Genome | 3978905 | 0.2981  | 4213  | 9       | 56     |
| GCA_017330725.1     | ASM1733072v1_genomic     | Public Genome | 4185706 | 0.2788  | 4753  | 7       | 68     |
| GCA_017330765.1     | ASM1733076v1_genomic     | Public Genome | 4187706 | 0.2733  | 4668  | 4       | 58     |
| GCA_017330785.1     | ASM1733078v1_genomic     | Public Genome | 4162320 | 0.3027  | 4224  | 9       | 71     |
| GCA_017330795.1     | ASM1733079v1_genomic     | Public Genome | 4199797 | 0.2912  | 4409  | 5       | 64     |
| GCA_017330815.1     | ASM1733081v1_genomic     | Public Genome | 4331526 | 0.2755  | 5962  | 7       | 54     |
| GCA_017330845.1     | ASM1733084v1_genomic     | Public Genome | 4163377 | 0.2891  | 6149  | 9       | 76     |
| GCA_017330865.1     | ASM1733086v1_genomic     | Public Genome | 4203614 | 0.3006  | 4090  | 9       | 68     |
| GCA_017330885.1     | ASM1733088v1_genomic     | Public Genome | 4198117 | 0.282   | 4595  | 9       | 66     |
| GCA_017330905.1     | ASM1733090v1_genomic     | Public Genome | 4141306 | 0.2869  | 5987  | 5       | 63     |
| GCA_017330925.1     | ASM1733092v1_genomic     | Public Genome | 4217736 | 0.285   | 6389  | 9       | 56     |
| GCA_017330945.1     | ASM1733094v1_genomic     | Public Genome | 4158067 | 0.3186  | 4060  | 9       | 80     |
| GCA_017330965.1     | ASM1733096v1_genomic     | Public Genome | 4158619 | 0.2807  | 4192  | 5       | 52     |
| GCA_017330985.1     | ASM1733098v1_genomic     | Public Genome | 4139909 | 0.3016  | 4218  | 9       | 53     |
| GCA_017331005.1     | ASM1733100v1_genomic     | Public Genome | 4155710 | 0.2915  | 4303  | 5       | 61     |
| GCA_017331025.1     | ASM1733102v1_genomic     | Public Genome | 4227167 | 0.2908  | 4253  | 9       | 64     |
| GCA_017331045.1     | ASM1733104v1_genomic     | Public Genome | 4153245 | 0.2905  | 4137  | 5       | 50     |
| Project ID | Assembly Version | Accession | Description | Length | N50 Size | N50 Marker | GC Content | Length N50 Marker |
|------------|------------------|-----------|-------------|--------|-----------|------------|-------------|------------------|
| GCA_017590175.1_ASM1759017v1_genomic | Public Genome | 4150368 | 0.2905 | 3609 | 17 | 73 |
| GCA_017591115.1_ASM1759111v1_genomic | Public Genome | 3790015 | 0.2794 | 3932 | 10 | 71 |
| GCA_017773255.1_PDT000985504.1_genomic | Public Genome | 4057568 | 0.2813 | 3828 | 5 | 59 |
| GCA_902386235.1_UHGG_MGYG-HGUT-02355_genomic | Public Genome | 4131227 | 0.2657 | 3552 | 2 | 67 |
Table S4. 2934 core genes of 59 isolates.
### Table S5 Core genes based on 652 isolates and public C. botulinum isolates

| Gene       | Description | Source          |
|------------|-------------|-----------------|
| smc_3       | mleN_3      | mutS2_1         | group_1030, murC_2, gyrB, group_105, ccmL, prdA_1, rplN, glnA, selA, fdlC_3, fabG_1, kduD, trueB, oppD_1, thiA, guaB, bmiR_3, trnr, iscS_1, nnnmA_1, nnnmC, clyQ, btfU_1, feoB_2, group_1243, obg, group_128, cta_2, mnaA, murAA, phoR_5, ndhL, manR, sphi, uacT_1, potB, cobQ_2, smc_2, fglG_2, mepA_4, hrcA, pyrK, katB, pepV, group_1423, yveC, cdaA, feuB_2, rpsE, glunM, panF, nasF, typA, group_1493, hcp, yigZ, pBpA, yijP_1, pffL, pffD_2, tgf, pyrD, lysC_2, serB_1, trxB_1, potD, cynR_1, polC, fbb, rasP, udk_1, glyA, thicB, ced_2, engB, uvra_2, licC, bku_2, lhpO_2, dnaK_2, pta_1, group_1737, tauB, group_1751, larA_3, braC, cobD_1, pyrC, rna_1, group_1843, purN, group_1849, cbiD, selD, proC, carC_2, rodA, ddcB, glpX, hslO, groL, group_1965, lptB, dnaN, hemC, cip_1, magA, purC, csoVAD, group_205, yhaM_1, spoIIIIE, lon1, tagO, hemZ_2, group_2138, catD, carE_1, grpE, gpr, ruvA, gph, rbsC, perA_1, livH, rmy_2, rpl7, rplV, hbd, pyrB, prfC, cxyD, kds, aspC, group_2314, nme_1, cobQ_1, nsaB_2, ssa_1, group_2385, group_2392, adhE_3, yrr, koppB, dxx_1, group_2487, hemB, rny_1, rplD, hadD_1, natB_1, group_2600, group_2607, purR, yehU, cphB, pepP, tal_1, carD_1, group_271, pyrR_2, carE_3, whiA, murB, yrA_1, lemA, infB, gloC, pduV, alas, hadD, csoR_1, purE_1, cshA, dgrA, group_2861, dppC_1, hgdC_1, cysC, ddi, yqeN, yacP, fhlB_1, group_3029, nadE, ftsE, arcC_1, rplY, ktbB, rpoA, fdlH, mfc_4, natA_2, mazG, yebC, spoIAA, pfkA, spmA, hadD_2, mepB_7, group_3510, carC_1, minD, minC, clpX, smpB, prs, rpsC, mutS2_2, group_3745, adaA, carD_3, korB, korA, srrA, 4, hup, map_1, rplE, arteQ_2, yvhJ, lon2_2, tig, iuc, mepB_1, darA, group_406, mepC_2, cynR_1, rtpG, group_4283, ktrA, padE, feoA_2, group_4302, rxaA, purL, dgt, polA, minE, ula, hadD, ccc, cnp, clpX, yehS, rplC, ncp, ftsH_2, dnaE, ccmK, pFFB, dnaK_1, rpsTgroup_5081, yugl, dhaK, cobC, ppdK, pepT, glnQ, pdu_2, yahb, groS, group_5585, rpoB, adk, rpsS, flh, bta, aspA_6, prsA_1, rmbA, rinoO_1, rtp, ribA, group_6234, fur_1, feoA_1, upp, selB, group_641, pggA_2, mtaD, psl, metG_2, glnA, spoVB_1, mrdB_2, acpP_1, cobD_2, pufM, mtaB_1, rplF, group_726, feoB_4, norM, oppA_1, lbhH_4, rnp, group_765, purH, gatA, feoB_3, group_823, cbiJ, fabH_1, macB_2, ydcP, pduX, group_865, recF_2, megl_2, glmM, group_896, lysC_1, group_910, mfsD, group_935, tam, nma, dpaL, spha_1, pheS, pgI, hmunU_2, gevPB, pgpH |
### Table S6 Basic information of public isolates

| ID       | Species               | Isolate | Toxin gene subtype | type botulinum | country   | year | ST | aroE | mlb | aceK | oppB | rpoB | recA | hap | Genome accession | Event     | Strain received from |
|----------|-----------------------|---------|--------------------|----------------|-----------|------|-----|------|-----|------|------|------|------|-----|-------------------|-----------|----------------------|
| SRR8527709 | Clostridium botulinum | SRR8527709 | A1/B5 | Foodborne | Ireland | 2006 | 4 | 9 | 10 | 6 | 9 | 8 | 7 | 8 | SGMI00000001 | Event I | Isolated at PHE Colindale, UK |
| SRR8527710 | Clostridium botulinum | SRR8527710 | A1/B5 | Foodborne | Ireland | 2006 | 4 | 9 | 10 | 6 | 9 | 8 | 7 | 8 | SGMI00000001 | Event I | Isolated at PHE Colindale, UK |
| SRR8527766 | Clostridium botulinum | SRR8527766 | A1 | Foodborne | UK | 2011 | 19 | 13 | 10 | 12 | 10 | 9 | 8 | 7 | SGNO00000001 | Event II | Isolated at PHE Colindale, UK |
| SRR8527763 | Clostridium botulinum | SRR8527763 | A1 | Foodborne | UK | 2011 | 19 | 13 | 10 | 12 | 10 | 9 | 8 | 7 | SGKK00000001 | Event II | Isolated at PHE Colindale, UK |
| SRR8527761 | Clostridium botulinum | SRR8527761 | A1 | Foodborne | UK | 2011 | 19 | 13 | 10 | 12 | 10 | 9 | 8 | 7 | SGKM00000001 | Event II | Isolated at PHE Colindale, UK |
| SRR8527762 | Clostridium botulinum | SRR8527762 | A1 | Foodborne | UK | 2011 | 19 | 13 | 10 | 12 | 10 | 9 | 8 | 7 | SGKN00000001 | Event II | Isolated at PHE Colindale, UK |
| SRR8527655 | Clostridium botulinum | SRR8527655 | B2 | Foodborne | UK | 2012 | 51 | 13 | 8 | 15 | 19 | 8 | 7 | 8 | SGJK00000001 | Event III | Isolated at PHE Colindale, UK |
| SRR8527652 | Clostridium botulinum | SRR8527652 | B2 | Foodborne | UK | 2012 | 51 | 13 | 8 | 15 | 19 | 8 | 7 | 8 | SGJK00000001 | Event III | Isolated at PHE Colindale, UK |
| CDC13280 | Clostridium botulinum | CDC13280 | A1/B5 | Foodborne | USA | 1972 | 4 | 9 | 10 | 6 | 9 | 8 | 7 | 8 | SXR00000001 | Other | A. East, Institute of Food Research, UK (1997) |
| NCTC 2916 | Clostridium botulinum | NCTC 2916 | A1/B5 | Foodborne | USA | 1929 | 4 | 9 | 10 | 6 | 9 | 8 | 7 | 8 | SXXN00000001 | Other | M. Wicome, CAMR, UK (1997) |
| A5500000000 | Clostridium botulinum | A5500000000 | A1B5 | Foodborne | USA | 1929 | 4 | 9 | 10 | 6 | 9 | 8 | 7 | 8 | SWW00000001 | Other | Inisit Pasteur, Paris, France (1993) via R.M. Lund |
| CDC1690 | Clostridium botulinum | CDC1690 | A1 | Foodborne | USA | 1920 | 1 | 13 | 6 | 13 | 10 | 9 | 8 | 9 | SWRB00000001 | Other | P. Barratt, Unilever Research, UK (2014) |
| CDC13037 | Clostridium botulinum | CDC13037 | A1 | Foodborne | USA | 1974 | 1 | 13 | 6 | 13 | 10 | 9 | 8 | 9 | SWUL00000001 | Other | Leatherhead Food RA (1981) |
| ATCC 3502 | Clostridium botulinum | ATCC 3502 | A1 | Foodborne | USA | 1920 | 9 | 13 | 6 | 9 | 10 | 9 | 8 | 9 | SWWL00000001 | Other | H. Tramer, CAMR, UK (2000) |
| 204598 | Clostridium botulinum | 204598 | B2 | Foodborne | UK | 1998 | 67 | 10 | 10 | 12 | 10 | 9 | 8 | 7 | SWW00000001 | Other | Isolated at PHE Colindale, UK |
| 2192 | Clostridium botulinum | 2192 | B2 | Foodborne | unknown | unknown | 13 | 7 | 8 | 8 | 6 | 7 | 4 | 9 | SXXB00000001 | Other | T. Grenda, NVRL, Pulawy, Poland (2016) |
| CDC15044 | Clostridium botulinum | CDC15044 | B1 | Foodborne | USA | 1973 | 34 | 16 | 12 | 20 | 8 | 10 | 12 | 9 | SWZH00000001 | Other | C. Hatheway, CDC, USA (1987) |
| F1 | Clostridium botulinum | F1 | Foodborne | Denmark | 1960 | 88 | 34 | 11 | 20 | 8 | 10 | 10 | 9 | SXXF00000001 | Other | P. Barratt, Unilever Research, UK (2014) |
| F1 | Clostridium botulinum | F1 | Foodborne | Denmark | 1960 | 88 | 34 | 11 | 20 | 8 | 10 | 10 | 9 | SWYH00000001 | Other | NCTC (1993) |
| 5052 | Clostridium botulinum | 5052 | F1 | Foodborne | Denmark | 1960 | 88 | 34 | 11 | 20 | 8 | 10 | 10 | 9 | SXXC00000001 | Other | P. Barratt, Unilever Research, UK (2014) |
