|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table ST2A:** Bacterial isolates grown on undiluted TSB-nitrate medium. Nitrate (NO3-) utilisation, ammonium (NH4+) produced and nitrous oxide (N2O) emission data represents 48 hours from isolates grown in liquid TSB media compared to uninoculated controls. | | | | | | | | |
| **Isolate Accessions:** | **Putative Identification via 16S rRNA gene:** | **No. of isolates** | **NO3 utilised -**  **range (mg L-1)**  *(median)* | **NH4 produced -range (mg L-1)**  *(median)* | **N2O emission -**  **range (mg L-1)**  *(median)* | **CO2 respiration**  **range (g L-1)**  *(median)* | **GenBank accession numbers: SUB3915485** | **Notes:**  **Possible N metabolism:** |
| **150401\_SRB**\_1, 3, 6, 8, 9-12, 14, 15, 19, 20, 24, 26-28, 32a, 32b | *Bacillus sp.* | 18 | 84 - 223  *(216)* | 17 - 439  *(251)* | 13 - 1222  *(431)* | 10 - 45  *(30)* | **MH211**452, 456, 453, 457, 458, 455, 454, 459, 460, 451, 446, 449, 461, 444, 447, 450, 441, 462 | Mostly DNRA, 1 N2-fixer |
| **150401\_SRB**\_16, 25a, 33 | *Paenibacillus sp.* | 3 | 111 - 216  *(211)* | 35 - 134  *(59)* | 14 - 704  *(109)* | 10 - 32  *(15)* | **MH211**436, 437,438 | 2 denitrifiers, 1 DNRA |
| **150401\_SRB**\_18 | *Brevibacillus sp.* | 1 | 187 | 84 | 101 | 16 | **MH211**439 | Denitrifier |
| **150401\_SRB**\_2, 5, 7, 13, 21\*, 22, 23, 25B, 29, 30, 31 | Not identified | 11 | 12 - 223  *(36)* | -6 - 258  *(5)* | 0 - 675  *(4)* | 233 - 34  *(4)* |  | 2 possible DNRA, 7 low/slow growth, 2 respiring with no N use. |
|  | **Total** | **33** |  |  |  |  |  |  |
| **Table ST2B:** 1/10 diluted TSB-nitrate medium | | | | | | | | |
| **Isolate Accessions:** | **Putative Identification via 16S rRNA gene:** | **No. of isolates** | **NO3 utilised -**  **range (mg L-1)**  *(median)* | **NH4 produced -range (mg L-1)**  *(median)* | **N2O emission -**  **range (mg L-1)**  *(median)* | **CO2 respiration range (g L-1)**  *(median)* | **GenBank accession numbers: SUB3915485** | **Notes:**  **Possible N metabolism:** |
| **150422\_SRB**\_1, 18\*, 21, 27, 29, 31 | *Bacillus sp.* | 6 | 19 - 193  *(162)* | -9 - 536  *(121)* | 0 - 426  *(179)* | -0.028 - 48  *(18)* | **MH211443,** 445, 442, 463, 448 | 2 isolates showed minimal growth. |
| **150422\_SRB**\_11, 14, 17, 19, 20, 24 | *Acidovorax sp.* | 6 | 192 - 193  *(193)* | 11 - 43  *(21)* | 0 - 2840  *(0)* | 7 - 24  *(8)* | **MH211**427, 430, 429, 431, 428, 426 | All denitrifers |
| **150422\_SRB**\_12 | *Bosea sp.* | 1 | 145 | 8 | 97 | 26 | **MH211**435 | Denitrifier |
| **150422\_SRB**\_36\* | *Rhodanobacter sp.* | 1 | 73 | 110 | 1071 | 21 |  | DNRA |
| **150422\_SRB**\_37, 39a, 40 | *Achromobacter sp.* | 3 | 192 - 193  *(193)* | 40 - 89  *(41)* | 0 - 136  *(40)* | 7 - 41  *(8)* | **MH211**433,434,432 | All denitrifiers |
| **150422\_SRB**\_3, 4-10, 13, 15, 16, 22, 23, 25, 26, 28, 30a, 30b, 32-35, 38, 39b, 41, 43, 44 | Not identified | 27 | -27 - 189  *(11)* | -12 - 486  *(11)* | 0 - 610  *(2)* | 0.05 - 57  *(14)* |  | Mostly low/slow growth isolates, 4 respiring with no N-use. |
|  | **Total** | **44** |  |  |  |  |  |  |
| \*Sequences not of sufficient quality for submission to Genbank. | | | | | | | | |
| **Table ST2C:** Isolates selected for genome sequencing. | | | | | | | | |
| **Isolate Accessions:** | **Putative Identification via 16S rRNA gene:** | **No. of isolates** | **NO3 utilised**  **(mg L-1)** | **NH4 produced (mg L-1)** | **N2O emission**  **(mg L-1)** | **CO2 respiration**  **(g L-1)** | **GenBank accession numbers: SUB3915485** | **Notes:**  **Possible N metabolism:** |
| **150401\_SRB\_08** | *Bacillus sp.* | 1 | 223 | 267 | 1222 | 35 | MH211457 | DNRA, high N2O, No N2O-R? |
| **150401\_SRB\_28** | *Bacillus sp.* | 1 | 84 | 439 | 87 | 45 | MH211450 | N2-fixer |
| **150422\_SRB\_31** | *Bacillus sp.* | 1 | 183 | 536 | 436 | 48 | MH211448 | DNRA |
| **150422\_SRB\_14** | *Acidovorax sp.* | 1 | 193 | 11 | 2840 | 8 | MH211430 | Denitrifier, No N2O-R? |
| **150422\_SRB\_17** | *Acidovorax sp.* | 1 | 193 | 43 | 1 | 24 | MH211429 | Denitrifier |
| **150422\_SRB\_24** | *Acidovorax sp.* | 1 | 192 | 19 | 35 | 7 | MH211426 | Denitrifier |
|  |  |  |  |  |  |  |  |  |