**Table 1.** Description of entry fields used to annotate denitrifers based on denitrification genes identified.

|  |  |
| --- | --- |
| **Field Name** | **Description** |
| GenBank ID | Unique database identifier for a particular denitrification gene |
| Microorganism | Microorganism that possess the denitrifying gene |
| Isolation Source | The geographical source of the organism from which the sequence was derived |
| Taxonomy | Identification and Classification of the microorganism |
| Encoding Gene | Approved name of the gene |
| Enzyme Name | Approved common name of the protein encoded for by the gene |
| DNA size(bp) | Size of the DNA of the gene |
| Nucleotide FASTA sequence | External link to NCBI to access the nucleotide sequence of the gene in FASTA format |
| UniProtKB ID | External link to UniProtKB database |
| Protein GenBank IB | External link to the NCBI protein sequence |
| Length (aa) | Number of amino acids in the canonical sequence |
| Protein FASTA sequence | External link to the NCBI amino acid sequence of the gene in FASTA format |
| Reference | Name of authors of the research article |
| Title | The name of the academic paper that summarizes the main ideas of the study |
| PMID | External link to PubMed |
| Research Link | External link to full article |
| Abstract | Quick overview of the academic paper |

**Table 2**. Description of fields used to annotate denitrifers based on the final product of nitrate reduction.

|  |  |
| --- | --- |
| **Field Name** | **Description** |
| GenBank ID | Unique database identifier for denitrifers identified by their ability to reduce nitrate |
| Microorganism | Microorganism that has the ability to reduce nitrate |
| Isolation Source | The geographical source from which the microorganism was taken |
| Taxonomy | Identification and Classification of the microorganism |
| Electron Donor/ Energy Source | A reactant that donates electrons in an oxidation-reaction in an oxidation-reduction reaction |
| Final product | The intermediary and final end products of denitrification |
| Respiration | Ability of the denitrifer to perform denitrification in anaerobic or aerobic conditions |
| Electron Acceptor | The nitrous intermediate consumed or reduced |
| Reference | Name of authors of the research article |
| Title | The name of the academic paper that summarizes the main ideas of the study |
| PMID | External link to PubMed |
| Research Link | External link to full article |
| Abstract | Quick overview of the academic paper |