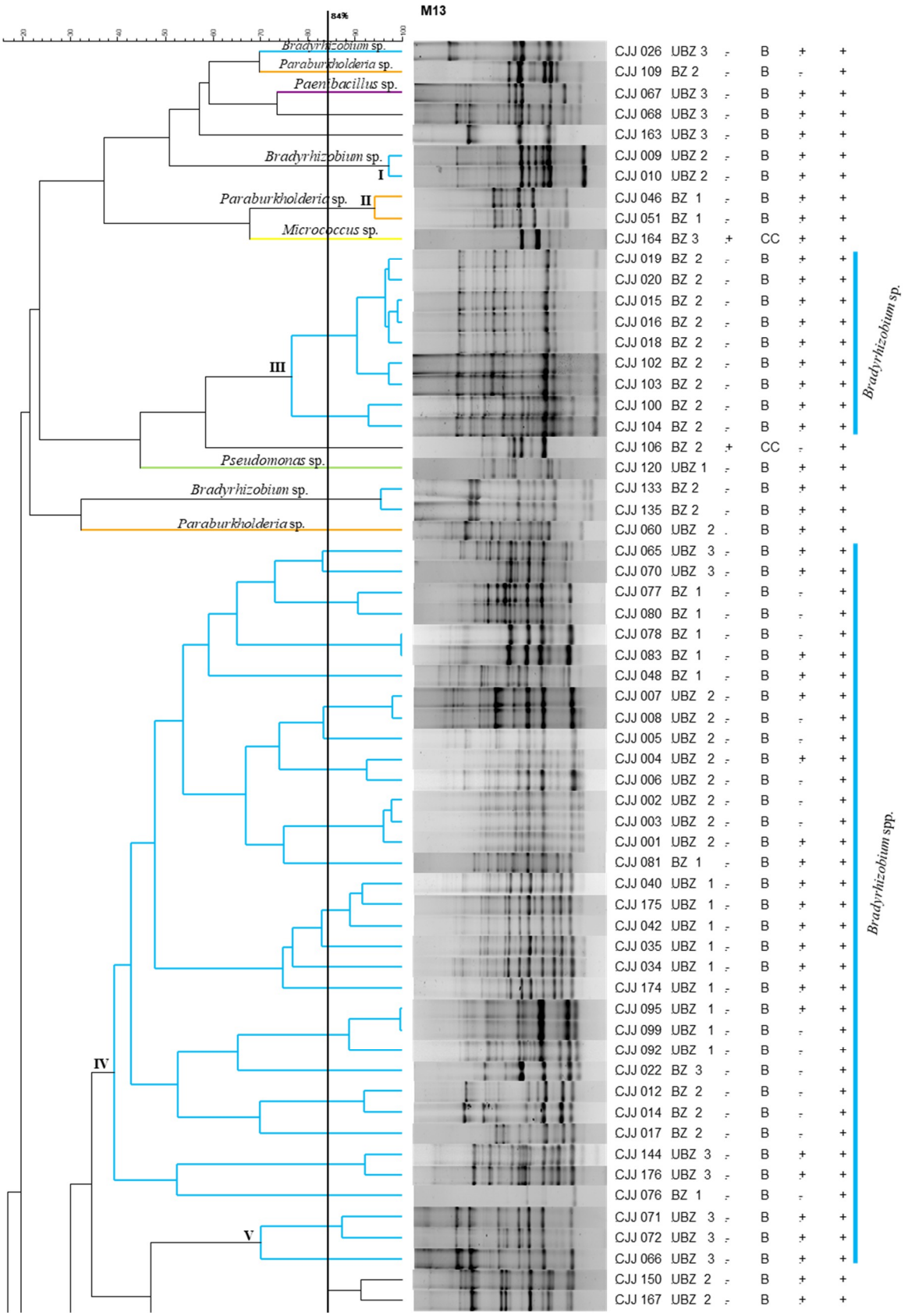
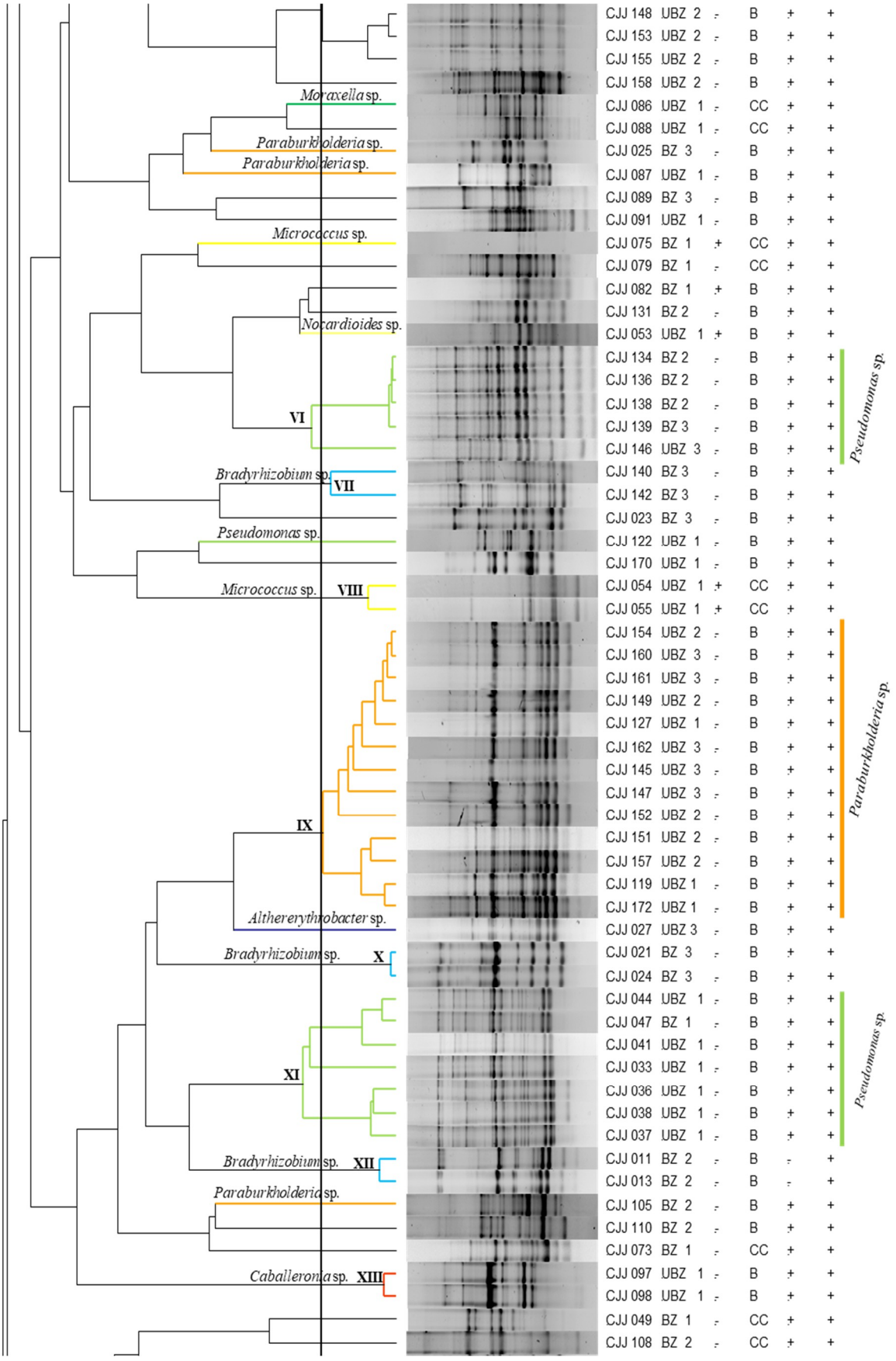

M13
84%
Bradyrhizobium sp.
Paraburkholderia sp.
Paenibacillus sp.
Bradyrhizobium sp.
I
Paraburkholderia sp.
II
Micrococcus sp.
III
Pseudomonas sp.
Bradyrhizobium sp.
Paraburkholderia sp.
IV
V
CJJ 026 UBZ 3 - B + +
CJJ 109 BZ 2 - B - +
CJJ 067 UBZ 3 - B + +
CJJ 068 UBZ 3 - B + +
CJJ 163 UBZ 3 - B + +
CJJ 009 UBZ 2 - B + +
CJJ 010 UBZ 2 - B + +
CJJ 046 BZ 1 - B + +
CJJ 051 BZ 1 - B + +
CJJ 164 BZ 3 + CC + +
CJJ 019 BZ 2 - B + +
CJJ 020 BZ 2 - B + +
CJJ 015 BZ 2 - B + +
CJJ 016 BZ 2 - B + +
CJJ 018 BZ 2 - B + +
CJJ 102 BZ 2 - B + +
CJJ 103 BZ 2 - B + +
CJJ 100 BZ 2 - B + +
CJJ 104 BZ 2 - B + +
CJJ 106 BZ 2 + CC - +
CJJ 120 UBZ 1 - B + +
CJJ 133 BZ 2 - B + +
CJJ 135 BZ 2 - B + +
CJJ 060 UBZ 2 . B + +
CJJ 065 UBZ 3 - B + +
CJJ 070 UBZ 3 - B + +
CJJ 077 BZ 1 - B - +
CJJ 080 BZ 1 - B - +
CJJ 078 BZ 1 - B - +
CJJ 083 BZ 1 - B + +
CJJ 048 BZ 1 - B + +
CJJ 007 UBZ 2 - B + +
CJJ 008 UBZ 2 - B - +
CJJ 005 UBZ 2 - B - +
CJJ 004 UBZ 2 - B + +
CJJ 006 UBZ 2 - B - +
CJJ 002 UBZ 2 - B - +
CJJ 003 UBZ 2 - B - +
CJJ 001 UBZ 2 - B + +
CJJ 081 BZ 1 - B + +
CJJ 040 UBZ 1 - B + +
CJJ 175 UBZ 1 - B + +
CJJ 042 UBZ 1 - B + +
CJJ 035 UBZ 1 - B + +
CJJ 034 UBZ 1 - B + +
CJJ 174 UBZ 1 - B + +
CJJ 095 UBZ 1 - B + +
CJJ 099 UBZ 1 - B - +
CJJ 092 UBZ 1 - B - +
CJJ 022 BZ 3 - B - +
CJJ 012 BZ 2 - B - +
CJJ 014 BZ 2 - B - +
CJJ 017 BZ 2 - B - +
CJJ 144 UBZ 3 - B + +
CJJ 176 UBZ 3 - B + +
CJJ 076 BZ 1 - B - +
CJJ 071 UBZ 3 - B + +
CJJ 072 UBZ 3 - B + +
CJJ 066 UBZ 3 - B + +
CJJ 150 UBZ 2 - B + +
CJJ 167 UBZ 2 - B + +
Bradyrhizobium sp.
Bradyrhizobium spp.


Moraxella sp.
Paraburkholderia sp.
Paraburkholderia sp.
Micrococcus sp.
Nocardioides sp.
VI
Bradyrhizobium sp.
VII
Pseudomonas sp.
Micrococcus sp.
VIII
IX
Althererythrobacter sp.
Bradyrhizobium sp.
X
XI
Bradyrhizobium sp.
XII
Paraburkholderia sp.
Caballeronia sp.
XIII
CJJ 148 UBZ 2 - B + +
CJJ 153 UBZ 2 - B + +
CJJ 155 UBZ 2 - B + +
CJJ 158 UBZ 2 - B + +
CJJ 086 UBZ 1 - CC + +
CJJ 088 UBZ 1 - CC + +
CJJ 025 BZ 3 - B + +
CJJ 087 UBZ 1 - B + +
CJJ 089 BZ 3 - B + +
CJJ 091 UBZ 1 - B + +
CJJ 075 BZ 1 + CC + +
CJJ 079 BZ 1 - CC + +
CJJ 082 BZ 1 + B + +
CJJ 131 BZ 2 - B + +
CJJ 053 UBZ 1 + B + +
CJJ 134 BZ 2 - B + +
CJJ 136 BZ 2 - B + +
CJJ 138 BZ 2 - B + +
CJJ 139 BZ 3 - B + +
CJJ 146 UBZ 3 - B + +
CJJ 140 BZ 3 - B + +
CJJ 142 BZ 3 - B + +
CJJ 023 BZ 3 - B + +
CJJ 122 UBZ 1 - B + +
CJJ 170 UBZ 1 - B + +
CJJ 054 UBZ 1 + CC + +
CJJ 055 UBZ 1 + CC + +
CJJ 154 UBZ 2 - B + +
CJJ 160 UBZ 3 - B + +
CJJ 161 UBZ 3 - B + +
CJJ 149 UBZ 2 - B + +
CJJ 127 UBZ 1 - B + +
CJJ 162 UBZ 3 - B + +
CJJ 145 UBZ 3 - B + +
CJJ 147 UBZ 3 - B + +
CJJ 152 UBZ 2 - B + +
CJJ 151 UBZ 2 - B + +
CJJ 157 UBZ 2 - B + +
CJJ 119 UBZ 1 - B + +
CJJ 172 UBZ 1 - B + +
CJJ 027 UBZ 3 - B + +
CJJ 021 BZ 3 - B + +
CJJ 024 BZ 3 - B + +
CJJ 044 UBZ 1 - B + +
CJJ 047 BZ 1 - B + +
CJJ 041 UBZ 1 - B + +
CJJ 033 UBZ 1 - B + +
CJJ 036 UBZ 1 - B + +
CJJ 038 UBZ 1 - B + +
CJJ 037 UBZ 1 - B + +
CJJ 011 BZ 2 - B - +
CJJ 013 BZ 2 - B - +
CJJ 105 BZ 2 - B + +
CJJ 110 BZ 2 - B + +
CJJ 073 BZ 1 - CC + +
CJJ 097 UBZ 1 - B + +
CJJ 098 UBZ 1 - B + +
CJJ 049 BZ 1 - CC + +
CJJ 108 BZ 2 - CC + +
Pseudomonas sp.
Paraburkholderia sp.
Pseudomonas sp.

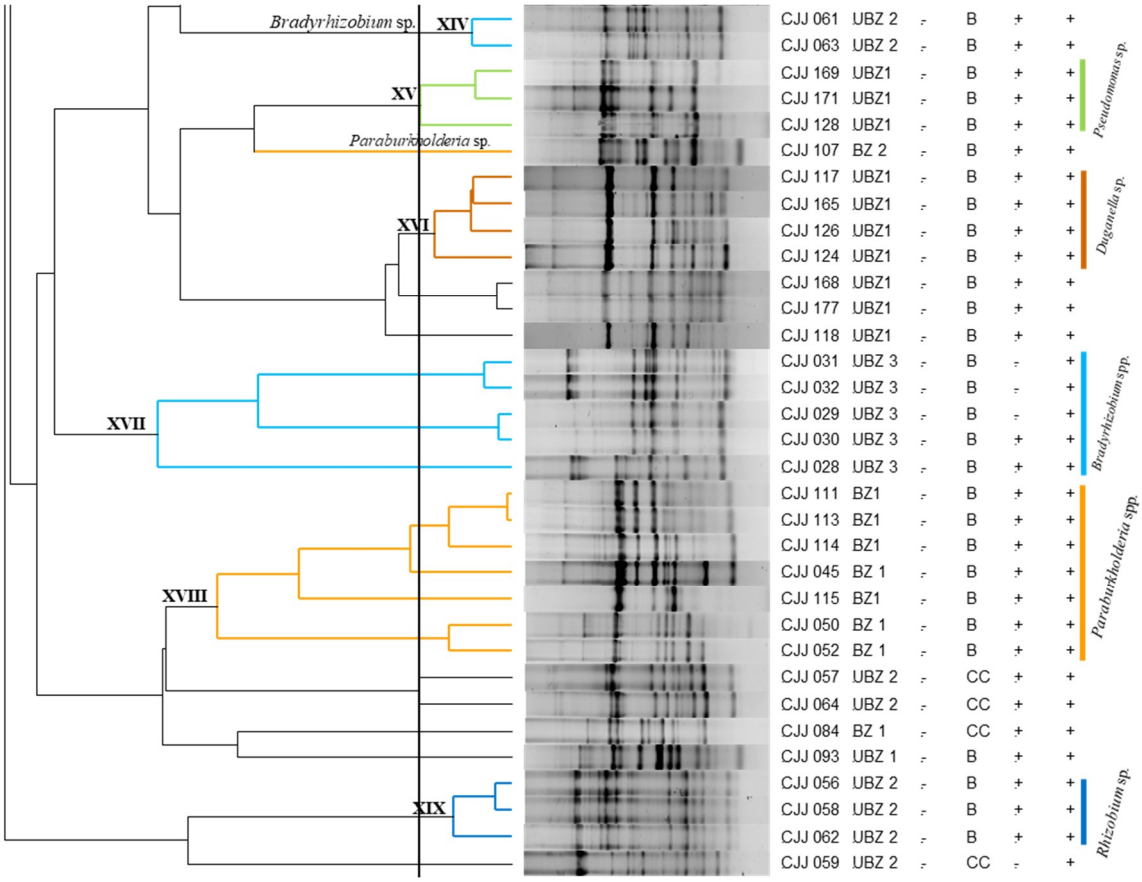


Figure S1. Dendrogram based on cluster analysis of fingerprinting PCR profiles of the isolates from *A. longifolia* nodules, using the Pearson correlation coefficient and the unweighted pair-group method with arithmetic mean algorithm (UPGMA). 84% was the cut-off level below which isolates could be considered different. On the right are represented: isolate identification (CJJ xxx), zone from where it was isolated (UBZ/BZ x), Gram test result, morphology (rods (B) or cocci (CC)), catalase test result and oxidase test result, both (+) or (-). Colours are according to the phylum/class into each genus belong to: Proteobacteria/α-proteobacteria (blue), Proteobacteria/β-proteobacteria (orange), Proteobacteria/γ-proteobacteria (green), firmicutes/Bacilli (purple) and actinobacteria/Actinobacteria (yellow). Roman numbering identifies clusters. Isolates are identified up to genus level.

Table S1. Identification of bacterial isolates obtained from unburnt and burnt zones by BLAST analysis of the 16S rRNA gene sequences. GenBank accession numbers are also indicated.

Isolate ID	Identification	GenBank accession numbers	Closest hit by BLAST analysis[1]	% Pairwise Identity
CJJ 003	*Bradyrhizobium* sp.	MT465339	*Bradyrhizobium* sp. MH612954	100%
CJJ 008	*Bradyrhizobium* sp.	MT465340	*Bradyrhizobium* sp. Z94815	100%
CJJ 010	*Bradyrhizobium* sp.	MT465341	*Bradyrhizobium cytisi* MK370569	98.1%
CJJ 013	*Bradyrhizobium pachyrhizi*	MT465342	*Bradyrhizobium pachyrhizi* KP769443	100%
CJJ 017	*Bradyrhizobium* sp.	MT465343	*Bradyrhizobium cytisi* MK370569	99.3%
CJJ 020	*Bradyrhizobium* sp.	MT465344	*Bradyrhizobium* sp. DQ202229	99.5%
CJJ 024	*Bradyrhizobium cytisi*	MT465345	*Bradyrhizobium cytisi* MK30569	100%
CJJ 025	*Paraburkholderia phytofirmans*	MT465346	*Paraburkholderia phytofirmans* NR_102845	100%
CJJ 026	*Bradyrhizobium* sp.	MT465347	*Bradyrhizobium ganzhouense* NR_133706	99.8%
			Bradyrhizobium rifense NR_116361	99.8%
CJJ 027	*Althererythrobacter* sp.	MT465348	*Althererythrobacter* sp. MG450544	99.4%
CJJ 028	*Bradyrhizobium cytisi*	MT465349	*Bradyrhizobium cytisi* MK370569	100%
CJJ 030	*Bradyrhizobium cytisi*	MT465350	*Bradyrhizobium cytisi* MG588695	100%
CJJ 032	*Bradyrhizobium* sp.	MT465351	*Bradyrhizobium* sp. MH698652	100%
CJJ 038	*Pseudomonas moorei*	MT465352	*Pseudomonas moorei* KF704108	99.3%
CJJ 044	*Pseudomonas* sp.	MT465353	*Pseudomonas* sp. LN995693	99.6%
CJJ 046	*Caballeronia* sp.	MT465354	*Caballeronia turbans* NR_145604.1	100%
CJJ 050	*Paraburkholderia* sp.[2]	MT465355	*Burkholderia* sp. KR154612	94.2%
CJJ 053	*Nocardioides oleivorans*	MT465356	Uncultured bacterium HM330647	99.5%
			Nocardioides oleivorans KY753200	99.4%
CJJ 054	*Micrococcus* sp.	MT465357	*Micrococcus aloeverae* MG966301	99.8%
			Micrococcus luteus NR_05062	
CJJ 056	*Rhizobium rhizogenes* [3]	MT465358	*Agrobacterium rhizogenes* EU420078	100%
CJJ 060	*Paraburkholderia caledonica*	MT465359	*Micrococcus yunnanensis* LN774334	99.8%
CJJ 063	*Bradyrhizobium* sp.	MT465360	*Bradyrhizobium* sp. MH698652	100%
CJJ 065	*Bradyrhizobium cytisi*	MT465361	*Bradyrhizobium cytisi* MK370569	99.8%
CJJ 067	*Paenibacillus glucanolyticus*	MT465362	*Paenibacillus glucanolyticus* NR_113748	99.7%
CJJ 072	*Bradyrhizobium cytisi*	MT465363	*Bradyrhizobium cytisi* MK370569	98.8%
CJJ 075	*Micrococcus* sp.	MT465364	*Micrococcus* sp. KF054881	99.4%
CJJ 076	*Bradyrhizobium cytisi*	MT465365	*Bradyrhizobium cytisi* MK370569	99.8%
CJJ 080	*Bradyrhizobium cytisi*	MT465366	*Bradyrhizobium cytisi* MK370569	99.6%
CJJ 081	*Bradyrhizobium* sp.	MT465367	*Bradyrhizobium* sp. KX838338	99.2%
CJJ 083	*Bradyrhizobium* sp.	MT465368	*Bradyrhizobium* sp. MH698652	99.8%
CJJ 086	*Moraxella osloensis*[4]	MT465369	*Moraxella osloensis* DSM6998^T AB643599.1	98.6%
			Enhydrobacter aerosaccus PAGU1624^T AB641399	81.1%
CJJ 087	*Paraburkholderia* sp.[2]	MT465370	*Burkholderia* sp. KY681989	99.3%
CJJ 097	*Caballeronia* sp.	MT465371	*Caballeronia udeis* MK302235	94.7%
			Caballeronia sp. MH018897	94.7%
			Uncultured Burkholderiales LC213287	94.7%
CJJ 099	*Bradyrhizobium cytisi*	MT465372	*Bradyrhizobium cytisi* MK370569	99.8%
CJJ 105	*Paraburkholderia* sp.	MT465373	*Paraburkholderia* sp. MK373510	99.8%
CJJ 107	*Paraburkholderia* sp.	MT465374	*Paraburkholderia* sp. MK373510	100%
CJJ 109	*Burkholderia fungorum*	MT465375	*Burkholderia fungorum* LC104284	96.7%
			Uncultured Burkholderia JN590614	96.7%
CJJ 119	*Paraburkholderia* sp.[2]	MT465376	*Burkholderia* sp. MK574764	99.6%
			Pseudomonas baetica KC90260	99.9%
CJJ 120	*Pseudomonas* sp.	MT465377	*Pseudomonas fluorescens* MF618323	99.9%
			Pseudomonas helmanticensis MG269630	99.9%
CJJ 122	*Pseudomonas* sp.	MT465378	*Pseudomonas* sp. MK559942	99.8%
CJJ 124	*Duganella* sp.	MT465379	*Duganella* sp. JF904873	98.2%
CJJ 133	*Bradyrhizobium canariense*	MT465380	*Bradyrhizobium canariense* MG588599	99.2%
CJJ 139	*Pseudomonas* sp.	MT465381	*Pseudomonas fluorescens* MK355572	98.1%
			Pseudomonas koreensis MK026822	98.1%
			Pseudomonas sp. MK610664	98.1%
			Uncultured bacterium JF200701	98.1%
CJJ 142	*Bradyrhizobium cytisi*	MT465382	*Bradyrhizobium cytisi* MK370569	99.8%
CJJ 144	*Bradyrhizobium cytisi*	MT465383	*Bradyrhizobium cytisi* MG588679	99.9%
CJJ 146	*Pseudomonas* sp.	MT465384	*Pseudomonas fluorescens* MK355572	100%
			Pseudomonas koreensis MK026822	100%
			Pseudomonas moraviensis MK240436	100%
			Pseudomonas sp. MK610664	100%
CJJ 149	*Paraburkholderia sedimicola*	MT465385	*Paraburkholderia sedimicola* MK574764	99.7%
CJJ 164	*Micrococcus yunnanensis*	MT465386	*Micrococcus yunnanensis* KP406728	99.1%

CJJ 171	*Pseudomonas* sp.	MT465387	*Pseudomonas baetica* KC90260	100%
			Pseudomonas fluorescens MF618323	100%
			Pseudomonas helmanticensis MG269630	100%
CJJ 174	*Bradyrhizobium* sp.	MT465388	*Bradyrhizobium ganzhouense* NR_133706	99.7%
			Bradyrhizobium rifense NR_116361	99.7%

[1] The closest hit showed is the one that presented the higher percentage of pairwise identity; two or three results are shown only when equal percentage of identity were obtained for the same sequence. [2] Isolates identified as *Burkholderia* spp. were reclassified as *Paraburkholderia* spp. according to the novel classification, due to its association with plants [1]. [3] *Agrobacterium rhizogenes* was transferred for *Rhizobium* genus [2]. [4] Since some incorrect identification may exist for sequences of *Moraxella osloensis* and *Enhydrobacter aerosaccus* deposited in GenBank due to a taxonomic problem associated with type strains [3], identification of this isolate was based on a direct comparison of the correct type strains form both species.

References

1. **Dobritsa, A. and Samadpour, M.** (2016) Transfer of eleven species of the genus *Burkholderia* to the genus *Paraburkholderia* and proposal of *Caballeronia* gen. nov. to accommodate twelve species of the genera *Burkholderia* and *Paraburkholderia*. International Journal of Systematic and Evolutionary Microbiology, 66: 2835-2846;

2. **Young, JM,, Kuykendall, LD., Martínez-Romero, E., Kerr, A. and Sawada, H.** (2001) A revision of *Rhizobium* Frank 1889, with an emended description of the genus, and the inclusion of all species of Agrobacterium Conn 1942 and *Allorhizobium undicola* de Lajudie *et al*. 1998 as new combinations: *Rhizobium radiobacter*, *R. rhizogenes*, *R. rubi*, *R. undicola*, and *R. vitis*. International Journal of Systematic and Evolutionary Microbiology, 51: 89–103;

3. **Kawamura, Y., Fujiwara, N., Naka, T., Mitani, A., Kubota, H., Tomida, J., Morita, Y. and Hitomi, J.** (2012) Genus *Enhydrobacter* Staley *et al.* 1987 should be recognized as a member of the family Rhodospirillaceae within the class Alphaproteobacteria. Microbiology and Immunology, 56: 21-26.