

**Supplementary Table S2.** Subpolar and lateral flagellar systems distribution in sequenced *Bradyrhizobium* genomes used in this study.

Genome name	Subpolar flagellum	Lateral flagellum	Subpolar flagellum ascc. No.	Lateral flagellum ascc. No.
<i>Bradyrhizobium liaoningense</i> CCBau 05525	+	+	AJQC01000206.1	AJQC01000679.1
<i>Bradyrhizobium liaoningense</i> CCBau 83689	+	+	AJQD01000348.1	AJQD01000052.1
<i>Bradyrhizobium japonicum</i> USDA 135	+	-	AXAT01000174.1	-
<i>Bradyrhizobium liaoningense</i> CCNWSX0360	+	+	LUKO01000219.1	LUKO01000044.1
<i>Bradyrhizobium</i> sp. CCBau 43298	+	+	AJQE01000185.1	AJQE01000346.1
<i>Bradyrhizobium</i> sp. CCH5-F6	+	+	LSIC01000115.1	LSIC01000022.1
<i>Bradyrhizobium japonicum</i> is5	+	+	ATWP01000009.1	ATWP01000005.1
<i>Bradyrhizobium japonicum</i> in8p8	+	+	AUGD01000009.1	AUGD01000005.1
<i>Bradyrhizobium</i> sp. Leaf396	+	+	LMQJ01000065.1	LMQJ01000012.1
<i>Bradyrhizobium yuanmingense</i> CGMCC 1.3531 <sup>b</sup>	+	+	IQ15DRAFT_scaffol d00012.12	IQ15DRAFT_scaffol d00011.11
<b><i>Bradyrhizobium yuanmingense</i> CCBau 10071<sup>T</sup></b>	<b>+</b>	<b>+</b>	<b>FMAE01000011.1</b>	<b>FMAE01000001.1</b>
<i>Bradyrhizobium yuanmingense</i> CCBau 25021	±	+	AJQK01000243.1	AJQK01000228.1
<i>Bradyrhizobium yuanmingense</i> CCBau 35157	+	+	AJQL01000348.1	AJQL01000201.1
<i>Bradyrhizobium yuanmingense</i> BR3267	+	+	LJYF01000050.1	LJYF01000042.1
<i>Bradyrhizobium yuanmingense</i> CCBau 05623	+	+	AJQJ01000382.1	AJQJ01000476.1
<i>Bradyrhizobium</i> sp. DOA9	+	+	DF820425.1	DF820425.1
<i>Bradyrhizobium</i> sp. WSM1743	+	+	AXAZ01000061.1	AXAZ01000012.1
<i>Bradyrhizobium</i> sp. DOA1	+	+	JXJM01000001.1	JXJM01000001.1
<i>Bradyrhizobium</i> sp. CCGE-LA001	+	+	CP013949.1	CP013949.1
<b><i>Bradyrhizobium daqingense</i> CGMCC 1.10947<sup>Tb</sup></b>	<b>+</b>	<b>+</b>	<b>IQ17DRAFT_scaffol d00002.2</b>	<b>IQ17DRAFT_scaffol d00009.9</b>
<i>Bradyrhizobium</i> sp. Rc2d	+	+	FNCU01000064.1	FNCU01000001.1
<i>Bradyrhizobium</i> sp. CCBau 15615	+	+	AJQG01000101.1	AJQG01000149.1
<i>Bradyrhizobium japonicum</i> USDA 4	+	+	AXAF01000018.1	KI421457.1
<i>Bradyrhizobium</i> sp. CCBau 15635	+	+	AJQH01000144.1	AJQH01000061.1
<i>Bradyrhizobium</i> sp. CCBau 15544	+	+	AJQF01000166.1	AJQF01000373.1
<i>Bradyrhizobium</i> sp. Rc3b	+	+	FOUS01000025.1	FOUS01000003.1
<i>Bradyrhizobium</i> sp. WSM2793	+	+	KB902809.1	KB902780.1
<i>Bradyrhizobium</i> sp. ERR11	+	+	FMAI01000022.1	FMAI01000011.1
<i>Bradyrhizobium</i> sp. AT1	+	+	JXDL01000001.1	JXDL01000001.1
<i>Bradyrhizobium japonicum</i> 22	+	-	KI519399.1	-
<i>Bradyrhizobium japonicum</i> USDA 124	+	+	KB893818.1	KB893805.1
<i>Bradyrhizobium huanghuaihaiense</i> CGMCC 1.10948 <sup>b</sup>	+	+	IQ16DRAFT_scaffol d00014.14	IQ16DRAFT_scaffol d00006.6
<b><i>Bradyrhizobium stylosanthis</i> BR 446<sup>T</sup></b>	<b>+</b>	<b>+</b>	<b>LVEM01000001.1</b>	<b>LVEM01000003.1</b>
<i>Bradyrhizobium</i> sp. USDA 3384	+	+	AXAD01000004.1	AXAD01000005.1
<b><i>Bradyrhizobium arachidis</i> LMG 26795<sup>T</sup></b>	<b>+</b>	<b>+</b>	<b>FPBQ01000003.1</b>	<b>FPBQ01000002.1</b>
<i>Bradyrhizobium japonicum</i> FN1	+	+	JGCL01000027.1	JGCL01000003.1
<i>Bradyrhizobium japonicum</i> E109	+	+	CP010313.1	CP010313.1
<b><i>Bradyrhizobium japonicum</i> USDA 6<sup>T</sup></b>	<b>+</b>	<b>+</b>	<b>AP012206.1</b>	<b>AP012206.1</b>
<i>Bradyrhizobium japonicum</i> CCBau 25435	+	+	AJQA01000196.1	AJQA01000242.1
<i>Bradyrhizobium japonicum</i> SEMIA 5079	+	+	CP007569.1	CP007569.1

<i>Bradyrhizobium japonicum</i> CCBAU 15618	+	+	AJPZ01000150.1	AJPZ01000249.1
<i>Bradyrhizobium japonicum</i> USDA 38	+	+	AXAG01000016.1	KI421458.1
<i>Bradyrhizobium japonicum</i> Is-34	+	+	JRPN01000005.1	JRPN01000001.1
<i>Bradyrhizobium japonicum</i> CCBAU 83623	+	+	AJQB01000715.1	AJQB01000642.1
<i>Bradyrhizobium japonicum</i> CCBAU 15354	+	+	AJPX01000310.1	AJPX01000508.1
<i>Bradyrhizobium japonicum</i> CCBAU 15517	+	+	AJPY01000263.1	AJPY01000027.1
<i>Bradyrhizobium japonicum</i> USDA 123	+	+	AXVP01000018.1	AXVP01000003.1
<i>Bradyrhizobium</i> sp. G22	+	+	LN907826.1	LN907826.1
<i>Bradyrhizobium japonicum</i> Is-1	+	+	LGUJ01000012.1	LGUJ01000001.1
<i>Bradyrhizobium diazoefficiens</i> USDA 122	+	+	CP013127.1	CP013127.1
<i>Bradyrhizobium diazoefficiens</i> SEMIA 5080	+	+	ADOU02000005.1	ADOU02000005.1
<i>Bradyrhizobium</i> sp. CCBAU 41267	+	+	AJQI01000329.1	AJQI01000093.1
<b><i>Bradyrhizobium diazoefficiens</i> USDA 110<sup>T</sup></b>	+	+	<b>BA000040.2</b>	<b>BA000040.2</b>
<i>Bradyrhizobium diazoefficiens</i> NK6	+	-	AP014685.1	-
<i>Bradyrhizobium</i> sp. CF659	+	+	FOQJ01000013.1	FOQJ01000002.1
<i>Bradyrhizobium</i> sp. WSM2254	+	+	KI421444.1	AXAB01000032.1
<i>Bradyrhizobium</i> sp. YR681	+	+	AKIY01000099.1	AKIY01000020.1
<i>Bradyrhizobium</i> sp. OK095	+	+	FOBX01000006.1	FOBX01000014.1
<i>Bradyrhizobium</i> sp. S23321	+	+	AP012279.1	AP012279.1
<i>Bradyrhizobium</i> sp. WSM471	+	+	CM001442.1	CM001442.1
<i>Bradyrhizobium</i> sp. BF49	+	+	LN901633.1	LN901633.1
<i>Bradyrhizobium</i> sp. WSM1253	+	+	JH600073.1	JH600073.1
<i>Bradyrhizobium</i> sp. WSM1417	+	+	KI911783.1	KI911783.1
<i>Bradyrhizobium</i> sp. URHA0013	+	+	JADK01000009.1	KI912427.1
<i>Bradyrhizobium</i> sp. WSM4349	+	+	KB890518.1	KB890499.1
<i>Bradyrhizobium</i> sp. LTSP849	+	+	JYMR01000051.1	JYMR01000052.1
<i>Bradyrhizobium</i> sp. LTSP857	+	+	JYMS01000049.1	JYMS01000047.1
<i>Bradyrhizobium</i> sp. WSM3983	+	+	AXAY01000034.1	KI421489.1
<i>Bradyrhizobium</i> sp. Gha	+	+	FOQM01000005.1	-
<i>Bradyrhizobium</i> sp. Ghvi	+	+	FOVU01000004.1	-
<b><i>Bradyrhizobium manausense</i> BR3351<sup>T</sup></b>	+	+	<b>LJYG01000054.1</b>	<b>LJYG01000026.1</b>
<i>Bradyrhizobium</i> sp. Cp5.3	+	+	AUFA01000010.1	KE384515.1
<b><i>Bradyrhizobium neotropicale</i> BR 10247<sup>T</sup></b>	+	+	<b>LSEF01000057.1</b>	<b>LSEF01000114.1</b>
<i>Bradyrhizobium</i> sp. BR 10245	+	+	LUUB01000034.1	LUUB01000096.1
<i>Bradyrhizobium</i> sp. Ec3.3	+	+	AXAS01000048.1	AXAS01000025.1
<i>Bradyrhizobium elkanii</i> CCBAU 43297	+	-	AJPW01000504.1	-
<b><i>Bradyrhizobium elkanii</i> USDA 76<sup>T</sup></b>	+	-	<b>KB900701.1</b>	-
<i>Bradyrhizobium elkanii</i> 587	+	-	AJJK01002424	-
<i>Bradyrhizobium elkanii</i> BLY6-1	+	-	LXEM01000041.1	-
<i>Bradyrhizobium elkanii</i> BLY3-8	+	-	LWUI01000007.1	-
<i>Bradyrhizobium elkanii</i> CCBAU 05737	+	-	AJPV01000282.1	-
<i>Bradyrhizobium elkanii</i> USDA 94	+	-	JAF01000011.1	-
<i>Bradyrhizobium elkanii</i> USDA 3254	+	-	AXAH01000036.1	-
<i>Bradyrhizobium elkanii</i> USDA 3259	+	-	AXAW01000035.1	-
<b><i>Bradyrhizobium pachyrhizi</i> PAC48<sup>T</sup></b>	+	-	<b>LFIQ01000120.1</b>	-
<i>Bradyrhizobium</i> sp. R5	+	-	FMZW01000021.1	-

<i>Bradyrhizobium pachyrhizi</i> BR3262	+	-	LJYE01000083.1	-
<i>Bradyrhizobium erythrophlei</i> MT12	+	-	<b>FNTH01000001.1</b>	-
<b><i>Bradyrhizobium embrapense</i> SEMIA 6208<sup>T</sup></b>	+	-	<b>LFIP02000003.1</b>	-
<b><i>Bradyrhizobium tropiciagri</i> SEMIA 6148<sup>T</sup></b>	+	-	<b>LFIP02000003.1</b>	-
<b><i>Bradyrhizobium viridifuturi</i> SEMIA 690<sup>T</sup></b>	+	-	<b>LGTB01000070.1</b>	-
<i>Bradyrhizobium</i> sp. 17-4	+	-	BBEX01000323	-
<i>Bradyrhizobium</i> sp. DFCI-1	+	-	KE747856.1	-
<i>Bradyrhizobium</i> sp. th.b2	+	-	KE384569.1	-
<i>Bradyrhizobium elkanii</i> UASWS1015	+	-	JXOF01000179.1	-
<i>Bradyrhizobium</i> sp. OHSU III	+	-	APJD01000008.1	-
<i>Bradyrhizobium</i> sp. LTSP885	+	-	JYMT01000040.1	-
<i>Bradyrhizobium</i> sp. LTSPM299	+	-	JYMU01000006.1	-
<i>Bradyrhizobium</i> sp. BR 10303	+	-	LNCU01000116.1	-
<i>Bradyrhizobium elkanii</i> WSM2783	+	-	AXAP01000001.1	-
<i>Bradyrhizobium</i> sp. Ai1a-2	+	-	AUEZ01000036.1	-
<i>Bradyrhizobium</i> sp. STM 3809	+	-	CAFJ010000695.1	-
<i>Bradyrhizobium</i> sp. ORS 278	+	-	CU234118.1	-
<i>Bradyrhizobium</i> sp. ORS 375	+	-	CAFI01000219.1	-
<i>Bradyrhizobium</i> sp. ORS 285	+	-	LT859959.1	-
<b><i>Bradyrhizobium oligotrophicum</i> S58<sup>T</sup></b>	+	-	<b>NC_020453.1</b>	-
<i>Bradyrhizobium</i> sp. BTAi1	+	-	CP000494.1	-
<i>Bradyrhizobium</i> sp. STM 3843	+	-	CAFK01000334.1	-
<i>Bradyrhizobium</i> sp. Tv2a-2	+	-	AXAI01000011.1	-
<i>Bradyrhizobium</i> sp. ARR65	+	-	AWZU01000062.1	-
<i>Bradyrhizobium</i> sp. LMTR 3	+	-	MAXC01000053.1	-
<b><i>Bradyrhizobium retamae</i> Ro19<sup>T</sup></b>	+	-	<b>LLYA01000191.1</b>	-
<i>Bradyrhizobium elkanii</i> WSM1741	+	-	AXAU01000009.1	-
<b><i>Bradyrhizobium icense</i> LMTR 13<sup>T</sup></b>	+	-	<b>CP016428</b>	-
<i>Bradyrhizobium valentinum</i> LmjM6	+	-	LLXY01000001.1	-
<b><i>Bradyrhizobium valentinum</i> LmjM3<sup>T</sup></b>	+	-	<b>LLXX01000235.1</b>	-
<b><i>Bradyrhizobium paxllaeri</i> LMTR 21<sup>T</sup></b>	+	-	<b>MAXB01000079.1</b>	-
<b><i>Bradyrhizobium jicamae</i> PAC68<sup>T</sup></b>	+	-	LLXZ01000016.1	-
<i>Bradyrhizobium lablabi</i> GAS522	+	-	FNTI01000001.1	-
<i>Bradyrhizobium ottawaense</i> GAS524	+	-	LT629693.1	-
<i>Bradyrhizobium</i> sp. URHA0002	+	-	AUES01000035.1	-
<i>Bradyrhizobium erythrophlei</i> GAS138	+	-	LT670817.1	-
<i>Bradyrhizobium</i> sp. URHD0069	+	-	JNIJ01000018.1	-
<i>Bradyrhizobium erythrophlei</i> GAS242	+	-	LT670818.1	-
<i>Bradyrhizobium canariense</i> GAS369	+	-	LT629750.1	-
<i>Bradyrhizobium erythrophlei</i> GAS401	+	-	LT670849.1	-
<i>Bradyrhizobium</i> sp. CCH4-A6	+	-	LSIM01000119.1	-
<i>Bradyrhizobium</i> sp. CCH10-C7	+	-	LSIN01000025.1	-

<sup>b</sup>Genomes downloaded from the JGI IMG.  
Type strains are indicated with <sup>T</sup> and bold.