

**Supplementary Table 2 Distribution of ORFs with closest similarity**

		A.c	B.j	B	B.f	C.c	C.v	E.c	M.m	M.l	N.a	P	R	R.s	R.p	R.r	S.l	V	X	X.f	etc
Information storage & processing	J (141)	0	4	3	0	3	1	0	0	1	120	0	0	1	2	4	1	0	0	0	1
		0%	3%	2%	0%	2%	1%	0%	0%	1%	85%	0%	0%	1%	1%	3%	1%	0%	0%	0%	1%
	K (85)	3	4	3	3	2	1	0	3	4	43	1	0	5	2	3	0	1	1	0	4
		4%	5%	4%	4%	2%	1%	0%	4%	5%	51%	1%	0%	6%	2%	4%	0%	1%	1%	0%	5%
	L (87)	3	1	3	0	3	1	0	4	1	51	4	1	3	1	2	2	0	2	0	5
	3%	1%	3%	0%	3%	1%	0%	5%	1%	59%	5%	1%	3%	1%	2%	2%	0%	2%	0%	6%	
sum	<b>6</b>	<b>9</b>	<b>9</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>6</b>	<b>214</b>	<b>5</b>	<b>1</b>	<b>9</b>	<b>5</b>	<b>9</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>10</b>	
	<b>2%</b>	<b>3%</b>	<b>3%</b>	<b>1%</b>	<b>3%</b>	<b>1%</b>	<b>0%</b>	<b>2%</b>	<b>2%</b>	<b>68%</b>	<b>2%</b>	<b>0%</b>	<b>3%</b>	<b>2%</b>	<b>3%</b>	<b>1%</b>	<b>0%</b>	<b>1%</b>	<b>0%</b>	<b>3%</b>	
Cellular processes	D (20)	0	0	1	0	0	0	1	0	15	1	1	1	0	0	0	0	0	0	0	
		0%	0%	5%	0%	0%	0%	5%	0%	75%	5%	5%	5%	0%	0%	0%	0%	0%	0%	0%	
	V (25)	0	1	0	4	1	0	1	0	1	5	1	0	0	1	1	0	1	0	0	6
		0%	4%	0%	16%	4%	0%	4%	0%	4%	20%	4%	0%	0%	4%	4%	0%	4%	0%	0%	24%
	T (60)	2	1	0	1	9	0	0	2	0	27	4	0	3	0	2	2	1	1	0	3
		3%	2%	0%	2%	15%	0%	0%	3%	0%	45%	7%	0%	5%	0%	3%	3%	2%	2%	0%	5%
	M (120)	2	1	0	12	2	3	2	9	1	53	6	6	1	3	0	1	0	1	0	11
		2%	1%	0%	10%	2%	3%	2%	8%	1%	44%	5%	5%	1%	3%	0%	1%	0%	1%	0%	9%
	N (40)	2	0	0	3	6	1	0	0	0	2	2	2	8	1	0	2	4	2	0	3
		5%	0%	0%	8%	15%	3%	0%	0%	0%	5%	5%	5%	20%	3%	0%	5%	10%	5%	0%	8%
U (47)	0	0	1	1	0	2	0	0	0	23	2	5	3	0	0	1	3	0	0	5	
	0%	0%	2%	2%	0%	4%	0%	0%	0%	49%	4%	11%	6%	0%	0%	2%	6%	0%	0%	11%	
O (81)	0	2	1	1	2	0	1	3	0	48	1	2	1	2	3	0	0	2	1	8	
	0%	2%	1%	1%	2%	0%	1%	4%	0%	59%	1%	2%	1%	2%	4%	0%	0%	2%	1%	10%	
sum	<b>6</b>	<b>5</b>	<b>3</b>	<b>22</b>	<b>20</b>	<b>6</b>	<b>4</b>	<b>15</b>	<b>2</b>	<b>173</b>	<b>17</b>	<b>16</b>	<b>17</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>9</b>	<b>6</b>	<b>1</b>	<b>36</b>	
	<b>2%</b>	<b>1%</b>	<b>1%</b>	<b>6%</b>	<b>5%</b>	<b>2%</b>	<b>1%</b>	<b>4%</b>	<b>1%</b>	<b>44%</b>	<b>4%</b>	<b>4%</b>	<b>4%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>0%</b>	<b>9%</b>	
Metabolism	C (85)	3	1	0	7	3	0	1	9	3	27	5	2	2	1	1	0	0	2	2	9
		4%	1%	0%	8%	4%	0%	1%	11%	4%	32%	6%	2%	2%	1%	1%	0%	0%	2%	2%	11%
	G (76)	1	1	2	6	4	1	1	2	3	24	3	1	1	2	4	1	0	3	1	10
		1%	1%	3%	8%	5%	1%	1%	3%	4%	32%	4%	1%	1%	3%	5%	1%	0%	4%	1%	13%
	E (171)	2	5	2	8	12	1	1	9	2	83	6	0	3	4	1	2	0	4	1	19
		1%	3%	1%	5%	7%	1%	1%	5%	1%	49%	4%	0%	2%	2%	1%	1%	0%	2%	1%	11%
	F (54)	1	1	2	0	4	0	0	3	1	32	0	0	1	0	3	2	0	0	0	2
		2%	2%	4%	0%	7%	0%	0%	6%	2%	59%	0%	0%	2%	0%	6%	4%	0%	0%	0%	4%
	H (96)	1	3	3	0	4	0	0	8	1	51	0	0	1	5	2	1	0	2	0	9
		1%	3%	3%	0%	4%	0%	0%	8%	1%	53%	0%	0%	1%	5%	2%	1%	0%	2%	0%	9%
I (53)	0	2	0	3	2	0	0	6	3	21	1	1	0	1	2	0	1	4	0	5	
	0%	4%	0%	6%	4%	0%	0%	11%	6%	40%	2%	2%	0%	2%	4%	0%	2%	8%	0%	9%	
P (93)	1	1	1	9	2	5	3	1	3	17	7	3	1	2	6	0	1	2	2	19	
	1%	1%	1%	10%	2%	5%	3%	1%	3%	18%	8%	3%	1%	2%	6%	0%	1%	2%	2%	20%	
Q (32)	0	1	0	0	3	0	1	1	3	10	1	1	0	0	3	0	1	2	0	3	
	0%	3%	0%	0%	9%	0%	3%	3%	9%	31%	3%	3%	0%	0%	9%	0%	3%	6%	0%	9%	
sum	<b>9</b>	<b>15</b>	<b>10</b>	<b>33</b>	<b>34</b>	<b>7</b>	<b>7</b>	<b>39</b>	<b>19</b>	<b>265</b>	<b>23</b>	<b>8</b>	<b>9</b>	<b>15</b>	<b>22</b>	<b>6</b>	<b>3</b>	<b>19</b>	<b>6</b>	<b>76</b>	
	<b>1%</b>	<b>2%</b>	<b>2%</b>	<b>5%</b>	<b>5%</b>	<b>1%</b>	<b>1%</b>	<b>6%</b>	<b>3%</b>	<b>40%</b>	<b>3%</b>	<b>1%</b>	<b>1%</b>	<b>2%</b>	<b>3%</b>	<b>1%</b>	<b>0%</b>	<b>3%</b>	<b>1%</b>	<b>12%</b>	
Poorly characterized	R (198)	6	4	2	6	8	2	3	9	4	70	6	4	4	3	9	0	2	9	0	37
		3%	2%	1%	3%	4%	1%	2%	5%	2%	35%	3%	2%	2%	2%	5%	0%	1%	5%	0%	19%
	S (104)	1	1	5	2	6	1	0	4	3	46	6	2	2	3	3	3	0	3	0	6
	1%	1%	5%	2%	6%	1%	0%	4%	3%	44%	6%	2%	2%	3%	3%	3%	0%	3%	0%	6%	
sum	<b>7</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>14</b>	<b>3</b>	<b>3</b>	<b>13</b>	<b>7</b>	<b>116</b>	<b>12</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>12</b>	<b>3</b>	<b>2</b>	<b>12</b>	<b>0</b>	<b>43</b>	
	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>3%</b>	<b>5%</b>	<b>1%</b>	<b>1%</b>	<b>4%</b>	<b>2%</b>	<b>38%</b>	<b>4%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>4%</b>	<b>1%</b>	<b>1%</b>	<b>4%</b>	<b>0%</b>	<b>14%</b>	
<b>Total</b>	<b>28</b>	<b>34</b>	<b>29</b>	<b>66</b>	<b>76</b>	<b>19</b>	<b>14</b>	<b>74</b>	<b>34</b>	<b>768</b>	<b>57</b>	<b>31</b>	<b>41</b>	<b>33</b>	<b>49</b>	<b>18</b>	<b>15</b>	<b>40</b>	<b>7</b>	<b>165</b>	
	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>4%</b>	<b>5%</b>	<b>1%</b>	<b>1%</b>	<b>4%</b>	<b>2%</b>	<b>46%</b>	<b>3%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>3%</b>	<b>1%</b>	<b>1%</b>	<b>2%</b>	<b>0%</b>	<b>10%</b>	

A.c, *Agrobacterium tumefaciens*; B.j, *Bradyrhizobium japonicum*; B, *Brucella* sp.; B.f, *Burkholderia fungorum*; C.c, *Caulobacter crescentus*; C.v, *Chromobacterium violaceum*; E.c, *Escherichia coli*; M.m, *Magnetospirillum magnetotacticum*; M.l, *Mesorhizobium loti*; N.a, *Novosphingobium aromaticivorans*; P, *Pseudomonas* sp.; R, *Ralstonia* sp.; R.s, *Rhodobacter sphaeroides*; R.p, *Rhodopseudomonas palustris*; R.r, *Rhodospirillum rubrum*; S.l, *Sinorhizobium meliloti*; V, *Vibrio* sp.; X, *Xanthomonas* sp.; X.f, *Xylella fastidiosa*