

**S5 Table. Bundle sheath cell characters of *Oryza* species.**

BSC parameters are measured examining at least 3 different sections from 10 different leaves per species (N = 30). All traits except the BSC height showed significant ( $P < 0.0001$ ) difference in wild rice.

Genome	<i>Oryza</i> species	IRGC accession number	Bundle sheath cell number (BSCN***, count)	Bundle sheath cell width (BSCW***, $\mu\text{m}$ )	Bundle sheath cell height (BSCH, $\mu\text{m}$ )	Bundle sheath cell length (BSCL***, $\mu\text{m}$ )
KKLL	<i>O. coarctata</i>	104502	7.91 $\pm$ 0.9 (fg)	45.05 $\pm$ 8.6 (a)	38.32 $\pm$ 12.01	29.13 $\pm$ 2.5 (j)
HHKK	<i>O. schlechteri</i>	82047	6.80 $\pm$ 0.3 (h)	13.19 $\pm$ 3.67 (c)	16.92 $\pm$ 3.03	40.13 $\pm$ 8.47 (efgh)
HHJJ	<i>O. longiglumis</i>	105148	6.64 $\pm$ 0.4 (h)	13.51 $\pm$ 2.6 (de)	15.02 $\pm$ 2.86	69.14 $\pm$ 11.2 (bc)
HHJJ	<i>O. ridleyi</i>	100821	7.00 $\pm$ 1.1 (h)	10.32 $\pm$ 1.6 (hijk)	12.77 $\pm$ 1.26	46.89 $\pm$ 9.03 (fghi)
GG	<i>O. meyeriana</i>	89241	7.25 $\pm$ 0.9 (gh)	10.96 $\pm$ 1.8 (ijk)	12.18 $\pm$ 2.43	67.35 $\pm$ 8.7 (bc)
GG	<i>O. granulata</i>	102118	7.10 $\pm$ 0.8 (h)	10.00 $\pm$ 3.3 (fghij)	11.61 $\pm$ 2.13	57.00 $\pm$ 5.9 (cd)
FF	<i>O. brachyantha</i>	101232	8.00 $\pm$ 0.9 (ef)	12.01 $\pm$ 2.5 (def)	13.75 $\pm$ 2.81	46.74 $\pm$ 4.9 (efgh)
EE	<i>O. australiensis</i>	100882	8.14 $\pm$ 0.3 (def)	12.00 $\pm$ 1.7 (efghi)	14.84 $\pm$ 2.38	61.02 $\pm$ 14.9 (cde)
CCDD	<i>O. grandiglumis</i>	106241	8.80 $\pm$ 0.3 (cd)	13.00 $\pm$ 2.04 (efghi)	13.28 $\pm$ 2.25	59.73 $\pm$ 13.9 (cdef)
CCDD	<i>O. latifolia</i>	105173	9.50 $\pm$ 1 (c)	13.86 $\pm$ 2.28 (cde)	15.24 $\pm$ 2.31	67.78 $\pm$ 11.2 (bcd)
CCDD	<i>O. alta</i>	105143	11.50 $\pm$ 0.9 (a)	20.18 $\pm$ 3.7 (b)	20.93 $\pm$ 2.97	66.43 $\pm$ 15.2 (cdef)
CC	<i>O. rhizomatis</i>	105659	8.33 $\pm$ 0.7 (def)	11.54 $\pm$ 2.5 (efghi)	12.20 $\pm$ 1.98	47.63 $\pm$ 6.5 (fgh)
CC	<i>O. officinalis</i>	100896	8.14 $\pm$ 0.6 (def)	11.93 $\pm$ 1.5 (efgh)	13.91 $\pm$ 3.56	62.57 $\pm$ 9.8 (bcd)
CC	<i>O. eichingeri</i>	101422	8.20 $\pm$ 0.3 (def)	11.56 $\pm$ 2.3 (cd)	12.86 $\pm$ 2.63	83.77 $\pm$ 10.1 (a)
BBCC	<i>O. minuta</i>	101141	8.16 $\pm$ 1.1 (d)	15.81 $\pm$ 0.92 (c)	15.84 $\pm$ 3.83	59.00 $\pm$ 8.7 (cdef)
BB	<i>O. punctata</i>	105690	7.60 $\pm$ 1.1 (de)	9.65 $\pm$ 2.8 (ghij)	10.26 $\pm$ 1.57	72.47 $\pm$ 10.09 (ab)
AA	<i>O. glumaepatula</i>	106242	11.60 $\pm$ 0.5 (a)	12.40 $\pm$ 1.8 (efg)	14.31 $\pm$ 2.13	41.00 $\pm$ 12.5 (hi)
AA	<i>O. longistaminata</i>	110404	11.25 $\pm$ 1.1 (a)	10.93 $\pm$ 2.2 (ijk)	12.08 $\pm$ 2.83	57.16 $\pm$ 6.2 (ghi)
AA	<i>O. rufipogon</i>	106424	12.50 $\pm$ 0.7 (a)	10.18 $\pm$ 2.4 (ijk)	10.64 $\pm$ 2.02	60.65 $\pm$ 15.04 (cdef)
AA	<i>O. meridionalis</i>	105301	11.60 $\pm$ 0.9 (a)	10.49 $\pm$ 2.1 (hijk)	11.93 $\pm$ 2.28	65.33 $\pm$ 10.7 (bcd)
AA	<i>O. barthii</i>	106017	10.20 $\pm$ 0.5 (b)	8.95 $\pm$ 1.9 (jk)	10.42 $\pm$ 2.4	53.31 $\pm$ 15.8 (defg)
AA	<i>O. nivara</i>	80723	11.50 $\pm$ 0.7 (a)	8.78 $\pm$ 1.4 (k)	10.35 $\pm$ 1.5	49.06 $\pm$ 10.9 (ghi)
AA	<i>O. glaberrima</i>	103544	11.18 $\pm$ 1.3 (a)	9.36 $\pm$ 1.9 (fghij)	10.90 $\pm$ 1.8	45.12 $\pm$ 12.3 (ij)
AA	<i>O. sativa</i> cv IR64	IR64-21	12.50 $\pm$ 0.5 (a)	9.57 $\pm$ 2.01 (jk)	11.24 $\pm$ 2.01	53.55 $\pm$ 11.01 (ghi)

\*\*\* Represents significant difference among the species for the trait at  $P < 0.001$ . Different letters suggest significant differences.

N = 30