

Supplementary data:

Evolution of the defensin-like gene family in grass genomes

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Table 1. Information about *DEFL* genes in *B. distachyon*, *O. sativa*, *S. bicolor* and *Z. mays*.

Species	Gene name	Gene identifier	ORF (aa)	MW (Da)	pI	Genomic location
<i>B. distachyon</i>	<i>BdDf-01</i>	Bradi1g56893.1	76	8315.71	6.04	BdChr1: 55547823–55548155
	<i>BdDf-02</i>	Bradi3g01020.1	111	12175.27	8.62	BdChr3: 595086–595549
	<i>BdDf-03</i>	Bradi3g05330.1	97	9975.60	8.14	BdChr3: 3743420–3743830
	<i>BdDf-04</i>	Bradi3g17842.1	80	8814.28	8.41	BdChr3: 16224795–16225243
	<i>BdDf-05</i>	Bradi3g17850.1	77	8338.73	8.71	BdChr3: 16226224–16227062
	<i>BdDf-06</i>	Bradi3g49380.1	80	8770.39	9.22	BdChr3: 50741855–50742585
	<i>BdDf-07</i>	Bradi4g01945.1	78	8777.42	5.20	BdChr4: 1275404–1275776
	<i>BdDf-08</i>	Bradi4g34720.1	80	8670.26	9.30	BdChr4: 40242062–40244722
	<i>BdDf-09</i>	Bradi5g02840.1	75	8340.80	6.69	BdChr5: 3107932–3109231
<i>O. sativa</i>	<i>OsDf-01</i>	LOC_Os01g70680.1	106	10975.84	9.30	OsChr1: 40921899–40922318
	<i>OsDf-02</i>	LOC_Os02g07550.1	93	9739.90	5.68	OsChr2: 3909437–3910014
	<i>OsDf-03</i>	LOC_Os02g07600.1	85	9029.37	8.49	OsChr2: 3932584–3933222
	<i>OsDf-04</i>	LOC_Os02g07624.1	94	9870.37	5.78	OsChr2: 3946045–3946543
	<i>OsDf-05</i>	LOC_Os02g07628.1	93	9678.20	6.78	OsChr2: 3948762–3949211
	<i>OsDf-06</i>	LOC_Os02g12060.1	92	10026.93	8.14	OsChr2: 6261071–6261623
	<i>OsDf-07</i>	LOC_Os02g41904.1	80	8784.33	9.08	OsChr2: 25190484–25191221
	<i>OsDf-08</i>	LOC_Os03g03810.1	81	8757.34	8.92	OsChr3: 1714572–1715230
	<i>OsDf-09</i>	LOC_Os04g11130.1	72	7906.37	8.50	OsChr4: 6053935–6054853
	<i>OsDf-10</i>	LOC_Os04g11165.1	71	8000.39	7.52	OsChr4: 6069815–6070433
	<i>OsDf-11</i>	LOC_Os04g11195.1	78	8639.23	7.49	OsChr4: 6096222–6096871
	<i>OsDf-12</i>	LOC_Os04g44130.1	81	9274.11	9.30	OsChr4: 26120333–26120839
<i>S. bicolor</i>	<i>SbDf-01</i>	Sb01g048380.1	80	9047.65	9.60	SbChr1: 71403382–71404114
	<i>SbDf-02</i>	Sb02g007390.1	79	8543.05	9.08	SbChr2: 9403815–9404448
	<i>SbDf-03</i>	Sb02g036850.1	93	10138.83	9.03	SbChr2: 71283877–71284245
	<i>SbDf-04</i>	Sb03g044940.1	127	13021.58	8.80	SbChr3: 72265358–72265914
	<i>SbDf-05</i>	Sb04g012170.1	81	8989.69	8.82	SbChr4: 18894001–18894825
	<i>SbDf-06</i>	Sb04g026670.1	82	8809.40	8.92	SbChr4: 56576114–56576739
	<i>SbDf-07</i>	Sb04g026680.1	104	11548.62	7.46	SbChr4: 56578122–56578915
	<i>SbDf-08</i>	Sb06g002510.1	77	8433.99	8.72	SbChr6: 4669668–4670731
	<i>SbDf-09</i>	Sb06g022870.1	82	9115.70	9.30	SbChr6: 52085298–52085916
	<i>SbDf-10</i>	Sb07g006020.1	82	9007.49	8.66	SbChr7: 8559088–8559469
<i>Z. mays</i>	<i>ZmDf-01</i>	GRMZM2G392863_T01	79	8870.45	10.05	ZmChr1: 6809044–6809867
	<i>ZmDf-02</i>	AC211996.4_FGT002	100	10604.21	6.78	ZmChr1: 84634731–84635246
	<i>ZmDf-03</i>	GRMZM2G064698_T01	73	8256.70	8.76	ZmChr2: 100511132–100511848
	<i>ZmDf-04</i>	AC196417.3_FGT008	89	9623.18	8.42	ZmChr3: 155345465–155345816
	<i>ZmDf-05</i>	GRMZM2G091445_T01	84	9252.86	8.48	ZmChr3: 155381664–155382256
	<i>ZmDf-06</i>	GRMZM2G158407_T01	88	9376.76	5.17	ZmChr3: 155457171–155458057
	<i>ZmDf-07</i>	GRMZM2G048353_T01	107	11195.03	6.15	ZmChr4: 210804216–210804889
	<i>ZmDf-08</i>	GRMZM2G010097_T01	129	13861.77	6.40	ZmChr4: 235742379–235743268
	<i>ZmDf-09</i>	AC208126.3_FGT001	101	10142.66	7.53	ZmChr4: 235746306–235746728
	<i>ZmDf-10</i>	GRMZM2G153488_T01	80	8679.32	9.08	ZmChr5: 186963664–186964712
	<i>ZmDf-11</i>	GRMZM2G153368_T01	111	12451.59	5.91	ZmChr5: 186965962–186966859
	<i>ZmDf-12</i>	GRMZM2G101584_T01	89	9919.48	8.69	ZmChr6: 159783970–159784645
	<i>ZmDf-13</i>	GRMZM2G046532_T01	78	8387.87	9.01	ZmChr7: 24151509–24152227
	<i>ZmDf-14</i>	GRMZM2G009359_T01	91	9656.48	8.89	ZmChr9: 125911239–125911822
	<i>ZmDf-15</i>	GRMZM2G128301_T01	91	9671.45	8.48	ZmChr9: 125997833–125998439
	<i>ZmDf-16</i>	GRMZM2G012012_T01	92	9731.53	8.71	ZmChr9: 126716273–126717058
	<i>ZmDf-17</i>	GRMZM2G359064_T01	93	9906.68	8.15	ZmChr9: 134363193–134363476
	<i>ZmDf-18</i>	GRMZM2G368861_T01	82	9057.57	8.10	ZmChr10: 63619774–63622627
	<i>ZmDf-19</i>	GRMZM2G368890_T01	79	8611.23	8.73	ZmChr10: 63621744–63622615
	<i>ZmDf-20</i>	GRMZM2G146809_T01	82	9322.92	9.14	ZmChr10: 131044656–131045541

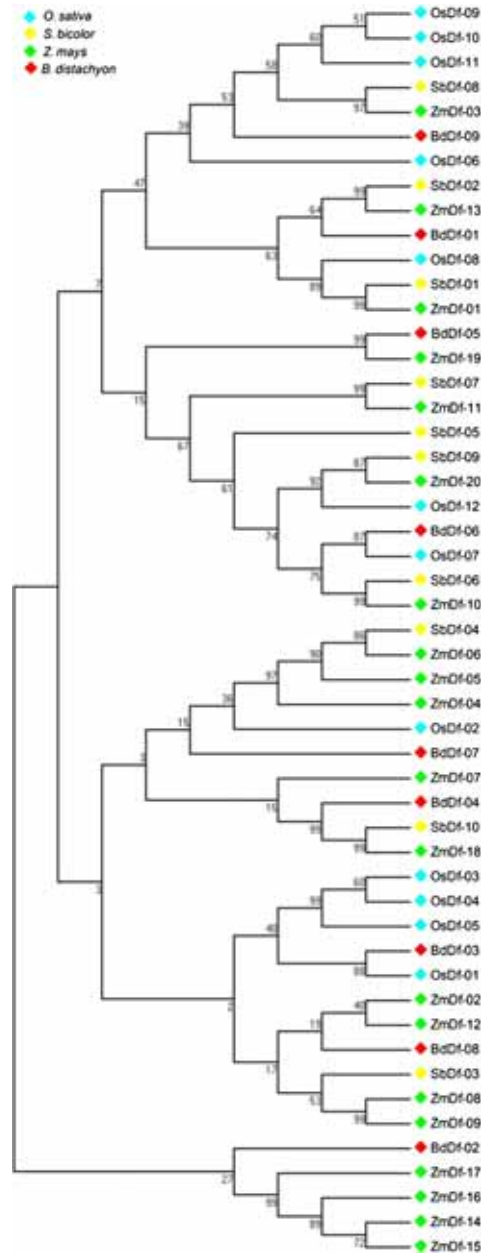


Figure 1. Phylogenetic tree of 51 DEFL proteins from *O. sativa*, *Z. mays*, *B. distachyon* and *S. bicolor*.

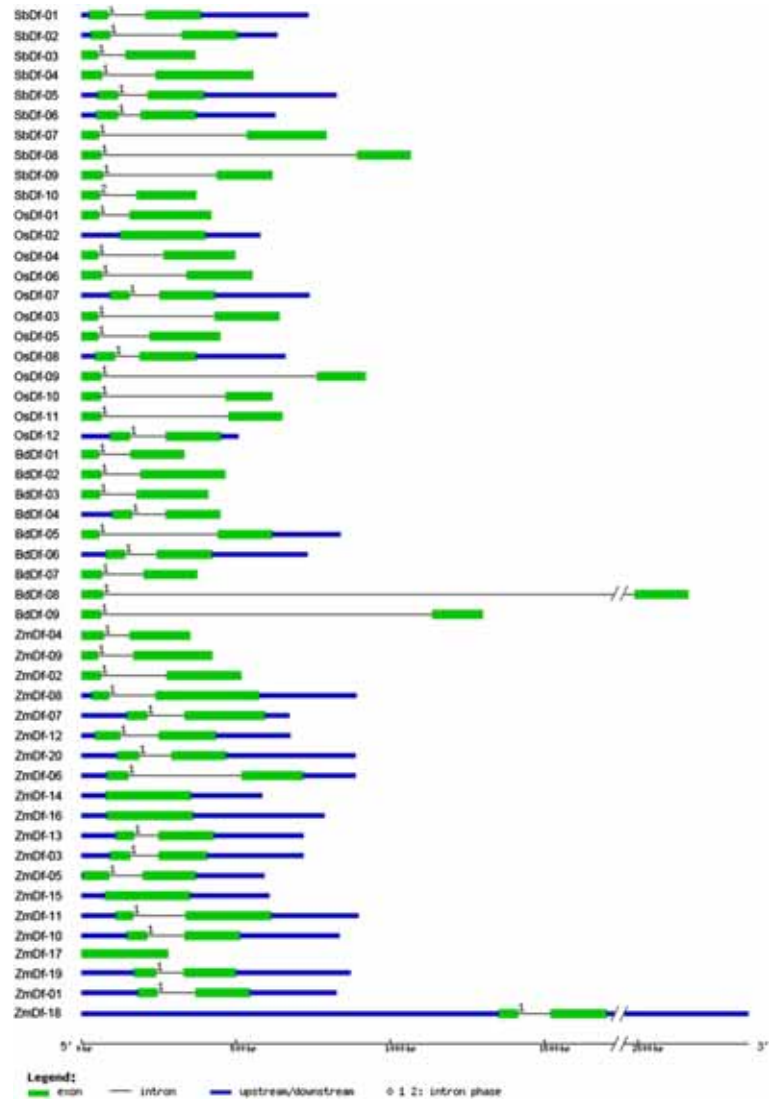


Figure 2. Exon–intron distribution of all *DEFL* genes.

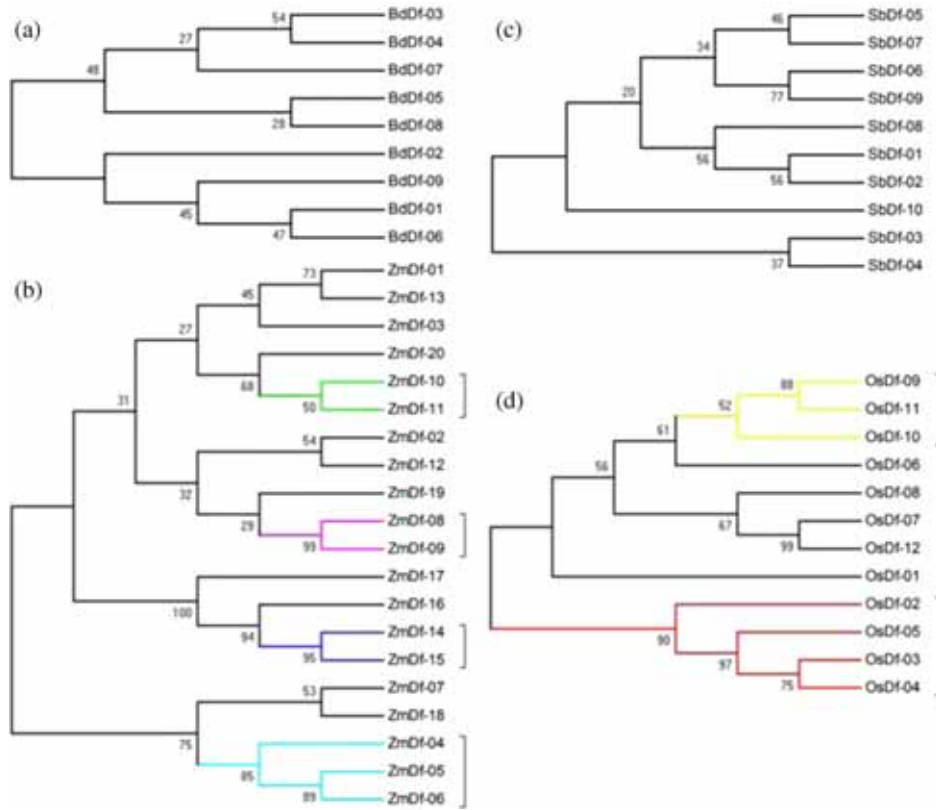


Figure 3. Comparison of genetic relationships for each species. The highlighted lines suggest tandem duplication genes. (a) *B. distachyon*; (b) *Z. mays*; (c) *S. bicolor*; (d) *O. sativa*.