Supplementary Materials

Supplementary Materials_1. Branch-site aBSRELL (adaptive Branch-Site Random Effects Likelihood) and BUSTED (Branch-Site Unrestricted Statistical Test for Episodic Diversification) and site MEME (Mixed Effects Model of Evolution) tests models for potential positive selections in each of the 10 Bdhn genes across the four studied species of *Brachypodium* (five genomes/subgenomes) conducted with Datamonkey2 (https://www.datamonkey.org/). Results from all selection tests are shown for **(a)** aBSRELL and **(b)** BUSTED models, which searched for positive selection at branch-site across the entire phylogeny and at internal nodes or leaf nodes, and for **(c)** MEME (Mixed Effects Model of Evolution) model, which tested for potential diversifying selection at individual sites under a proportion of branches. Significant p-values (positive selection) are highlighted in bold.

(a) aBSRELL

aBSREL							
		All branches		internal branches		leaf branches	
Bdhn	Name	Test p-value	ω distribution over sites	Test p-value	ω distribution over sites	Test p-value	ω distribution over sites
Bdhn1_2	BDHNBDIS1	1	10000000000	1	10000000000	1	10000000000
Bdhn1_2	BDHNBDIS2	1	10000000000	1	10000000000	1	10000000000
Bdhn1_2	BDHNBHYBD1	1	10000000000	1	10000000000	1	10000000000
Bdhn1_2	BDHNBHYBD2	1	0.00	1	0.00	1	0.00
Bdhn1_2	BDHNBHYBS1	1	1.00	1	1.00	1	1.00
Bdhn1_2	BDHNBHYBS2	1	10000000000	1	10000000000	1	10000000000
Bdhn1_2	BDHNBSTA1	1	0.00	1	0.00	1	0.00
Bdhn1_2	BDHNBSTA2	1	10000000000	1	10000000000	1	10000000000
Bdhn1_2	BDHNBSYL1A	1	0.123	1	0.123	1	0.123

Bdhn1_2	BDHNBSYL1B	1	0.264	1	0.264	1	0.264
Bdhn1_2	BDHNBSYL2	1	0.00	1	0.00	1	0.00
Bdhn1_2	BDHNBSYL2		3.65		3.65		3.65
Bdhn1_2	Node10	1	0.151	1	0.151	1	0.151
Bdhn1_2	Node14	1	0.253	1	0.253	1	0.253
Bdhn1_2	Node17	1	0.00	1	0.00	1	0.00
Bdhn1_2	Node2	1	0.332	1	0.332	1	0.332
Bdhn1_2	Node5	1	0.152	1	0.152	1	0.152
Bdhn1_2	Node6	1	0.778	1	0.778	1	0.778
	Node7	1	0.00	0,8289	0.00	1	0.00
Bdhn1_2	Node7		7.74		7.74		7.74
Bdhn3	BDHNBDIS3	1	0.00	1	0.00	1	0.00
Bdhn3	BDHNBHYBD3	1	0.00	1	0.00	1	0.00
Bdhn3	BDHNBHYBS3	1	10000000000	1	10000000000	1	10000000000
Bdhn3	BDHNBSTA3	1	10000000000	1	10000000000	1	10000000000
Bdhn3	BDHNBSYL3	1	0.00	1	0.00	1	0.00
Bdhn3	Node1	1	0.121	1	0.121	1	0.121
	Node5	1	0.126	1	0.126	1	0.126
Bdhn4_5	BDHNBDIS4	1	0.592	1	0.592	1	0.592
Bdhn4_5	BDHNBDIS5	1	0.00	1	0.00	1	0.00
Bdhn4_5	BDHNBHYBS5	1	1.00	1	1.00	1	1.00
Bdhn4_5	BDHNBSTA5	1	0.0778	1	0.0778	1	0.0778
Bdhn4_5	BDHNBSYL5	1	0.261	1	0.261	1	0.261
Bdhn4_5	Node3	1	0.0646	1	0.0646	1	0.0646
Bdhn4_5	Node5	1	0.00	0,3577	0.00	1	0.00
Bdhn4_5	Node5		5.37		5.37		5.37
Bdhn6	BDHNBDIS6	1	0.593	1	0.593	1	0.593

Bdhn6	BDHNBHYBD6	1	0.239	1	0.239	1	0.239
Bdhn6	BDHNBHYBS6	0,278	0.00	1	0.00	0,2316	0.00
Bdhn6	BDHNBHYBS6		225		225		225
Bdhn6	BDHNBSTA6	1	0.00	1	0.00	1	0.00
Bdhn6	BDHNBSYL6	1	0.120	1	0.120	1	0.120
Bdhn6	Node1	0,5211	0.00	0,1042	0.00	1	0.00
Bdhn6	Node1		3.58		3.58		3.58
Bdhn6	Node5	0,1398	0.140	**0,0399**	**0.140**	1	0.140
Bdhn6	Node5		53.7		53.7		53.7
Bdhn7	BDHNBDIS7	1	0.279	1	0.0565	1	0.279
Bdhn7	BDHNBHYBD7	1	1.00	1	0.279	1	1.00
Bdhn7	BDHNBSTA7	1	0.0707	1	1.00	1	0.0707
Bdhn7	BDHNBSYL7	1	0.0180	1	0.0707	1	0.0180
Bdhn7	Node1	1	0.0565	1	0.0180	1	0.0565
Bdhn8	BDHNBDIS8	1	1.00	1	0.288	1	1.00
Bdhn8	BDHNBHYBD8	1	0.00	1	0.289	1	0.00
Bdhn8	BDHNBHYBS8	1	10000000000	1	1.00	1	10000000000
Bdhn8	BDHNBSTA8	1	1.00	1	0.00	1	1.00
Bdhn8	BDHNBSYL8	1	0.166	1	10000000000	1	0.166
Bdhn8	Node1	1	0.288	1	1.00	1	0.288
Bdhn8	Node2	1	0.289	1	0.166	1	0.289
Bdhn9	BDHNBDIS9	1	10000000000	1	0.417	1	10000000000
Bdhn9	BDHNBHYBD9	1	0.417	1	0.264	1	0.417
Bdhn9	BDHNBSTA9	0,1976	0.264	1	0.473	0,1581	0.264
Bdhn9	BDHNBSTA9		14.3	1	10000000000		14.3
Bdhn9	BDHNBSYL9	1	0.319		14.3	1	0.319
Bdhn9	Node1	1	0.473	1	0.319	1	0.473

Bdhn10	BDHBSYL10	1	0.00	1	0.00	1	1.00
Bdhn10	BDHNBDIS10	1	1.00	1	1.00	1	0.00
Bdhn10	BDHNBHYBD10	1	1.00	1	1.00	1	0.00
Bdhn10	BDHNBSTA10	1	0.00	1	0.00		100000
Bdhn10	Node1	0,1123	0.00	**0,0225**	**0.00**	1	0.00
Bdhn10	Node1		100000		100000	1	1.00

(b) BUSTED

ALL BRANCHES

BDHN1_2 all branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-1723,4	43	3534,81	0,308	Test	0.00 (13.23%)	0.00 (78.46%)	2.90 (8.30%)
Constrained model	-1724,42	42	3534,91	0,349	Test	0.00 (25.62%)	0.00 (54.32%)	1.00 (20.06%)

found no evidence

INTERNAL BRANCHES

Bdhn1_2 internal branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-1723,43	48	3544,863	0,303	Test	0.00 (79.87%)	0.00 (13.27%)	3.57 (6.86%)
					Background	0.00 (83.59%)	0.53 (11.03%)	3.36 (5.39%)
Constrained model	-1724,17	47	3535,347	0,332	Test	0.00 (71.10%)	0.00 (9.40%)	1.00 (19.50%)
					Background	0.00 (83.54%)	0.52 (10.93%)	3.31 (5.54%)

found no evidence

LEAF BRANCHES

Bdhn1_2 leaf branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-1723,43	48	3544,863	0,302	Test	0.00 (59.60%)	0.00 (30.84%)	2.51 (9.55%)
					Background	0.00 (12.11%)	0.00 (81.16%)	3.65 (6.73%)
Constrained model	-1724,17	47	3535,347	0,319	Test	0.00 (67.21%)	0.00 (12.04%)	1.00 (20.75%)
					Background	0.00 (12.25%)	0.00 (80.94%)	3.60 (6.80%)

found no evidence

BDHN3 all branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-1779,4	31	3620,853	0	Test	0.11 (100.00%)	0.14 (0.00%)	1.00 (0.00%)

Bdhn3 internal branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-1779,43	36	3631,663	2,901	Test	0.00 (55.36%)	0.00 (37.97%)	1.81 (6.68%)
					Background	0.19 (46.19%)	0.23 (53.81%)	0.67 (0.00%)

Bdhn3 leaf branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-1779,43	36	3631,663	0	Test	0.00 (21.45%)	0.03 (71.90%)	1.00 (6.65%)
					Background	0.12 (100.00%)	0.15 (0.00%)	0.17 (0.00%)

Model	log L	#. params	AICc	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-5,631	31	17 15,8	0	Test	0.00 (5.23%)	0.00 (3.58%)	1.69 (9.19%)
Constrained model	-5,835	30	17 14,8	0,218	Test	0.00 (6.08%)	0.00 (2.88%)	1.00 (14.04%)
					Background	0.00 (4.78%)	0.00 (2.92%)	5.43 (3.04%)

found no evidence

Model	log L	#. params	AICc	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-5,639	36	17 23,1	0	Test	0.00 (9.54%)	0.00 (87.40%)	5.40 (3.07%)
Constrained model	-5,845	35	17 23,2	0,451	Test	0.00 (20.44%)	0.00 (71.09%)	1.00 (8.47%)
					Background	0.18 (100.00%)	0.59 (0.00%)	2.79 (0.00%)
					Background	0.14 (96.77%)	1.00 (0.91%)	1.82 (2.32%)

found no evidence

Model	log L	#. params	AICc	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-5,639	36	17 23,1	0	Test	0.18 (100.00%)	0.24 (0.00%)	1.00 (0.00%)
Constrained model	-5,845	35	17 23,2	0,451	Test	0.00 (92.18%)	0.00 (92.18%)	5.43 (3.04%)
					Background	0.00 (4.78%)	0.00 (4.78%)	5.43 (3.04%)

found no evidence

Bdhn6 all branches

Model	log L	#. params	AICc	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-24 99,7	31	50 60,8	1,097	Test	0.03 (6.37%)	0.20 (2.91%)	4.43 (3.72%)
Constrained model	-24 99,7	30	50 60,3	1,006	Test	0.00 (1.72%)	0.00 (6.95%)	1.00 (19.33%)
					Background	0.00 (1.96%)	0.00 (2.97%)	2.17 (5.07%)
					Background	0.02 (3.89%)	0.02 (1.73%)	2.81 (4.38%)

found no evidence

Bdhn6 internal branches

Model	log L	#. params	AICc	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-24 95,7	36	50 64,5	8,319	Test	0.00 (1.56%)	0.00 (8.83%)	2.10 (13.60%)
Constrained model	-24 96,7	35	50 64,4	8,429	Test	0.00 (7.80%)	0.00 (0.00%)	1.00 (22.00%)
					Background	0.02 (1.96%)	0.02 (2.97%)	2.17 (5.07%)
					Background	0.02 (3.89%)	0.02 (1.73%)	2.81 (4.38%)

found no evidence

Bdhn6 leaf branches

Model	log L	#. params	AICc	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-24 94,8	36	50 62,7	7,669	Test	0.03 (6.36%)	0.03 (8.61%)	2.05 (5.03%)
					Background	0.00 (8.21%)	1.00 (18.39%)	23.84 (1.40%)
Constrained model	-24 95	35	50 61,1	9,451	Test	0.02 (8.26%)	0.02 (8.41%)	1.00 (1 0.33%)
					Background	0.00 (8.32%)	1.00 (18.26%)	23.58 (1.42%)

found no evidence

Bdhn7 all branches

Bdhn7 internal branches

Bdhn7 leaf branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-3,889	29	18 48,1	1,003	Test	0.04 (8 9.57%)	0.05 (1 0.43%)	1.51 (0.00 %)

Phylogenetic Alignment cannot be rendered for this job

found no evidence

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-3,892	29	18 55,4	0,994	Test	0.04 (1 00.00 %)	0.12 (0 .00%)	1.39 (0.00%)
					Background	0.00 (9 7.33%)	0.02 (0 .00%)	20.76 (2.67 %)

Phylogenetic Alignment cannot be rendered for this job.

found no evidence

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-3,892	29	18 55,4	0,994	Test	0.00 (3.75 %)	0.00 (93.59 %)	20.77 (2.66%)
					Background	0.04 (100.0 0%)	0.19 (0.00 %)	14.28 (0.00%)
Constrained model	-3,896	33	18 56,5	1,007	Test	0.00 (5.89 %)	0.00 (88.30 %)	1.00 (5.81%)
					Background	0.04 (100.0 0%)	0.18 (0.00 %)	14.64 (0.00%)

found no evidence

found no evidence

found no evidence

Bdhn8 all branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-3,889	31	19 04	0,436	Test	0.01 (4 5.60%)	0.02 (3 2.73%)	1.09 (21.67%)
			19			0.00 (3 9.91%)	0.00 (3 5.61%)	1.00 (24.48%)
Constrained model	-3,898	30	01, 8	0,441	Test			

found no evidence

Bdhn8 internal branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-3,894	36	19 14	0,453	Test	0.00 (75.71 %)	1.00 (3.37 %)	1.38 (20.92 %)
					Background	0.06 (77.14 %)	0.29 (18.09 %)	1.79 (4.77 %)
Constrained model	-3,904	35	19 11, 9	0,478	Test	0.00 (69.94 %)	1.00 (26.07 %)	1.00 (3.99 %)
					Background	0.06 (78.01 %)	0.32 (17.31 %)	1.75 (4.68 %)

found no evidence

Bdhn8 leaf branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-3,894	36	19 14	0,453	Test	0.09 (93.50 %)	1.00 (0.00 %)	1.57 (6.50%)
					Background	0.00 (76.27 %)	0.00 (0.00 %)	1.35 (23.72 %)
Constrained model	-3,904	35	19 11, 8	0,455	Test	0.06 (86.67 %)	0.92 (0.00 %)	1.00 (13.33 %)
					Background	0.00 (75.76 %)	0.00 (0.04 %)	1.32 (24.20 %)

found no evidence

Bdhn9 all branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-3,887	29	24 35,3	1,256	Test	0.00 (4 0.10%)	0.00 (1 5.17%)	1.00 (44.73%)

Bdhn9 internal branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-3,887	34	24 45,8	1,105	Test	0.40 (0.00 %)	0.41 (100.0 0%)	1.88 (0.00 %)

Bdhn9 leaf branches

Model	log L	#. params	AIC	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-3,887	29	24 45,4	1,271	Test	0.00 (48.79 %)	0.70 (33.75 %)	1.16 (17.46 %)
					Background	0.41 (100.0 0%)	0.47 (0.00 %)	0.83 (0.00%)
Constrained model	-3,911	33	24 43,8	1,321	Test	0.00 (45.67 %)	0.72 (41.39 %)	1.00 (12.95 %)

					Background	0.41 (99.39%)	0.42 (0.60%)	0.42 (0.01%)

found no evidence

found no evidence

found no evidence

Bdhn10 all branches

Model	log L	#. params	AICc	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-7,929	33	81,973	1,968	Test	0.00 (99.95%)	0.00 (9.52%)	99999991 (0.53%)
Constrained model	-8,836	33	76,047	1,463	Test	0.00 (0.00%)	1.00 (100.00%)	0.00 (0.00%)

found no evidence

Bdhn10 internal branches

Model	log L	#. params	AICc	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-7,329	33	74,869	4,159	Test	0.00 (0.00%)	0.07 (100.00%)	1.15 (0.00%)
					Background	0.00 (100.00%)	0.49 (0.00%)	1.14 (0.00%)

found no evidence

Bdhn10 leaf branches

Model	log L	#. params	AICc	CV(SRV)	Branch set	ω1	ω2	ω3
Unconstrained model	-7,134	33	74,283	2,353	Test	0.00 (100.00%)	0.03 (0.00%)	1.16 (0.00%)
					Background	0.00 (6.97%)	0.00 (81.95%)	10000.00 (1.09%)

found no evidence

(c) MEME

MEME results															
BDHN1_2		BDHN3		BDHN4_5		BDHN6		BDHN7		BDHN8		BDHN9		BDHN10	
Site	p-value	Site	p-value	Site	p-value	Site	p-value	Site	p-value	Site	p-value	Site	p-value	Site	p-value
139	**0,04**	1	1	1	1	**266**	**0,04**	1	1	1	1	1	1	1	1
163	**0,02**	2	1	2	1	**412**	**0,05**	2	0,67	2	1	2	1	2	1
1	1	3	1	3	1	1	1	3	1	3	0,67	3	1	3	1
2	1	4	1	4	1	2	1	4	1	4	1	4	1	4	1
3	0,67	5	0,67	5	1	3	0,67	5	1	5	1	5	1	5	1
4	1	6	1	6	1	4	1	6	0,67	6	0,67	6	1	6	1
5	0,67	7	1	7	1	5	1	7	1	7	1	7	1	7	1
6	0,33	8	0,67	8	0,67	6	0,67	8	1	8	0,55	8	0,67	8	1
7	0,67	9	1	9	1	7	1	9	1	9	1	9	1	9	1
8	1	10	1	10	1	8	1	10	1	10	0,5	10	1	10	1
9	0,45	11	1	11	1	9	1	11	1	11	1	11	1	11	1
10	1	12	1	12	0,67	10	0,67	12	1	12	1	12	1	12	1
11	1	13	1	13	1	11	1	13	1	13	1	13	1	13	1
12	1	14	0,67	14	1	12	1	14	0,55	14	0,55	14	1	14	1
13	0,37	15	1	15	1	13	0,34	15	1	15	1	15	1	15	1
14	1	16	1	16	1	14	1	16	1	16	1	16	1	16	0,67
15	1	17	1	17	0,67	15	0,67	17	1	17	1	17	1	17	1
16	0,67	18	1	18	1	16	1	18	1	18	1	18	0,67	18	1
17	1	19	1	19	1	17	1	19	1	19	0,67	19	1	19	1
18	0,67	20	1	20	1	18	1	20	1	20	1	20	1	20	1
19	1	21	1	21	1	19	1	21	0,67	21	0,67	21	1	21	1

20	1	22	1	22	1	20	0,52	22	1	22	0,67	22	1	22	1
21	1	23	1	23	1	21	1	23	0,67	23	0,67	23	1	23	1
22	1	24	1	24	1	22	1	24	0,67	24	0,67	24	1	24	1
23	0,67	25	1	25	0,32	23	0,67	25	0,67	25	0,67	25	1	25	1
24	0,67	26	0,48	26	1	24	0,67	26	1	26	1	26	1	26	1
25	0,67	27	0,67	27	1	25	0,67	27	1	27	1	27	1	27	1
26	1	28	1	28	1	26	0,36	28	1	28	0,67	28	1	28	0,67
27	1	29	1	29	1	27	0,35	29	1	29	0,31	29	1	29	1
28	0,67	30	1	30	1	28	1	30	1	30	1	30	1	30	1
29	1	31	1	31	1	29	1	31	1	31	1	31	1	31	1
30	1	32	0,67	32	1	30	0,67	32	1	32	1	32	1	32	1
31	1	33	1	33	1	31	1	33	0,67	33	1	33	1	33	1
32	1	34	1	34	1	32	1	34	0,67	34	0,67	34	1	34	1
33	0,67	35	0,67	35	1	33	0,34	35	1	35	1	35	1	35	1
34	1	36	1	36	0,67	34	1	36	1	36	1	36	0,4	36	1
35	0,52	37	1	37	1	35	0,37	37	1	37	0,55	37	1	37	1
36	1	38	1	38	1	36	1	38	0,37	38	1	38	0,67	38	1
37	1	39	1	39	0,67	37	0,67	39	0,67	39	0,38	39	0,67	39	1
38	1	40	1	40	1	38	1	40	1	40	0,67	40	1	40	0,67
39	1	41	1	41	1	39	0,67	41	1	41	1	41	0,42	41	0,67
40	1	42	1	42	1	40	0,67	42	1	42	1	42	1	42	1
41	1	43	1	43	1	41	1	43	1	43	1	43	1	43	1
42	1	44	1	44	1	42	1	44	1	44	1	44	1	44	1
43	1	45	1	45	1	43	1	45	1	45	0,67	45	1	45	1
44	1	46	1	46	1	44	0,67	46	1	46	1	46	0,67	46	1
45	1	47	1	47	1	45	1	47	1	47	1	47	1	47	1
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49	0,07	51	1	51	0,57	49	1	51	1	51	0,53	51	1	51	0,67
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63	0,45	65	0,67	65	1	63	0,39	65	1	65	1	65	0,12	65	1
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Supplementary Materials 2. BLAST results for *Bdhn*4 and *Bdhn*5 after manual curation of the original sequences.

Variety	BDHN	Location	% identity	Align len	Strands	Target from	Target to	Bitscore	# identical
ABR2	Bdhn4	pseudomolecule_3	96	494	+/+	21107895	21108383	791,162	473
ABR2	Bdhn5	pseudomolecule_3	95	540	+/+	21106163	21106698	843.46	513
ABR3	Bdhn4	pseudomolecule_4	96	423	+/-	20641618	20641198	677.55	405
ABR3	Bdhn5	pseudomolecule_4	96	423	+/-	20639924	20639505	677.55	405
ABR4	Bdhn4	pseudomolecule_3	100	435	+/-	19329768	19329334	785,752	435
ABR4	Bdhn5	pseudomolecule_3	100	544	+/-	19331564	19331021	982,319	544
ABR5	Bdhn4	pseudomolecule_3	100	435	+/-	18704044	18703610	785,752	435
ABR5	Bdhn5	pseudomolecule_3	100	435	+/-	18704044	18703610	785,752	435
ABR6	Bdhn4	pseudomolecule_8	100	435	+/+	29945020	29945454	785.752	435
ABR6	Bdhn5	pseudomolecule_3	100	544	+/-	23110805	23110262	982.319	544
ABR7	Bdhn4	pseudomolecule_3	100	435	+/-	21081433	21080999	785,752	435
ABR7	Bdhn5	pseudomolecule_3	100	544	+/-	21083229	21082686	982,319	544
ABR8	Bdhn4	pseudomolecule_8	100	432	+/+	54933510	54933941	780,342	432
ABR8	Bdhn5	pseudomolecule_8	100	544	+/+	54931705	54932248	982,319	544
ABR9	Bdhn4	pseudomolecule_3	100	432	+/-	21723159	21722728	780,342	432
ABR9	Bdhn5	pseudomolecule_3	100	544	+/-	21724964	21724421	982,319	544
Adi-10	Bdhn4	pseudomolecule_3	100	435	+/-	10831396	10830962	785,752	435
Adi-10	Bdhn5	pseudomolecule_3	100	544	+/-	10833192	10832649	982,319	544
Adi-12	Bdhn4	pseudomolecule_3	96	494	+/-	14671241	14670753	791,162	473
Adi-12	Bdhn5	pseudomolecule_3	95	540	+/-	14669556	14669021	843.46	513
Adi-2	Bdhn4	pseudomolecule_3	100	435	+/-	18208306	18207872	785,752	435
Adi-2	Bdhn5	pseudomolecule_3	100	544	+/-	18210102	18209559	982,319	544
Arn1	Bdhn4	pseudomolecule_3	100	432	+/-	21541017	21540586	780,342	432
Arn1	Bdhn5	pseudomolecule_3	100	544	+/-	21542822	21542279	982,319	544
Bd18-1	Bdhn4	pseudomolecule_4	95	426	+/-	25722056	25721634	672,139	406
Bd18-1	Bdhn5	pseudomolecule_4	100	629	+/-	25723949	25723321	1135.61	629

Bd21-3	Bdhn4	pseudomolecule_4	100	379	+/-	20822271	20821893	684,763	379
Bd21-3	Bdhn5	pseudomolecule_4	100	435	+/-	20820640	20820206	785,752	435
Bd2-3	Bdhn4	pseudomolecule_3	96	494	+/-	14370920	14370432	791,162	473
Bd2-3	Bfhn5	pseudomolecule_3	95	540	+/-	14369235	14368700	843.46	513
Bd29-1	Bdhn4	pseudomolecule_3	100	432	+/-	13503849	13503418	780,342	432
Bd29-1	Bdhn5	pseudomolecule_3	100	544	+/-	13505654	13505111	982,319	544
BdTR11a	Bdhn4	pseudomolecule_3	96	494	+/-	12991466	12990978	791,162	473
BdTR11a	Bdhn5	pseudomolecule_3	95	540	+/-	12989781	12989246	843.46	513
BdTR11g	Bdhn4	pseudomolecule_3	96	494	+/-	17897188	17896700	791,162	473
BdTR11g	Bdhn5	pseudomolecule_3	95	540	+/-	17895503	17894968	843.46	513
BdTR12c	Bdhn4	pseudomolecule_3	100	435	+/-	13785224	13784790	785,752	435
BdTR12c	Bdhn5	pseudomolecule_3	100	437	+/-	13785931	13785495	789,358	437
BdTR13a	Bdhn4	pseudomolecule_3	96	494	+/-	22341144	22340656	791,162	473
BdTR13a	Bdhn5	pseudomolecule_3	95	540	+/-	22339459	22338924	843.46	513
BdTR13c	Bdhn4	pseudomolecule_3	96	494	+/-	13768291	13767803	791,162	473
BdTR13c	Bdhn5	pseudomolecule_3	95	540	+/-	13766606	13766071	843.46	513
BdTR1i	Bdhn4	pseudomolecule_4	96	494	+/-	22473688	22473200	791,162	473
BdTR1i	Bdhn5	pseudomolecule_4	95	540	+/-	22472003	22471468	843.46	513
BdTR2b	Bdhn4	pseudomolecule_4	96	494	+/-	15389921	15389433	791,162	473
BdTR2b	Bdhn5	pseudomolecule_4	95	540	+/-	15388236	15387701	843.46	513
BdTR2g	Bdhn4	pseudomolecule_3	96	494	+/-	13205201	13204713	791,162	473
BdTR2g	Bdhn5	pseudomolecule_3	95	540	+/-	13203516	13202981	843.46	513
BdTR5i	Bdhn4	pseudomolecule_3	96	494	+/-	12824085	12823597	791,162	473
BdTR5i	Bdhn4	pseudomolecule_3	96	494	+/-	12824085	12823597	791,162	473
BdTR5i	Bdhn5	pseudomolecule_3	95	540	+/-	12822400	12821865	843.46	513
BdTR5i	Bdhn5	pseudomolecule_3	95	540	+/-	12822400	12821865	843.46	513
BdTR7a	Bdhn4	pseudomolecule_3	100	432	+/-	19078503	19078072	780,342	432
BdTR7a	Bdhn5	pseudomolecule_3	94	547	+/-	19078491	19077959	825,426	512
BdTR8i	Bdhn4	pseudomolecule_4	96	423	+/-	18828134	18827714	673,943	404

BdTR8i	Bdhn5	pseudomolecule_4	96	423	+/-	18826440	18826021	673,943	404
BdTR9k	Bdhn4	pseudomolecule_3	96	494	+/-	13048836	13048348	791,162	473
BdTR9k	Bdhn5	pseudomolecule_3	95	540	+/-	13047151	13046616	843.46	513
Bis-1	Bdhn4	pseudomolecule_3	96	494	+/-	15209617	15209129	785,752	472
Bis-1	Bdhn5	pseudomolecule_3	95	540	+/-	15207932	15207397	838,049	512
Foz1	Bdhn4a	pseudomolecule_4	100	423	+/-	17367198	17366776	764.111	423
Foz1	Bdhn4b	pseudomolecule_4	100	435	+/-	17380499	17380065	785.752	435
Jer1	Bdhn4	pseudomolecule_3	96	423	+/-	15415773	15415356	691,977	408
Jer1	Bdhn5	pseudomolecule_3	94	547	+/-	15414082	15413547	839,853	515
Kah-1	Bdhn4	pseudomolecule_7	100	435	+/-	73209957	73209523	785.752	435
Kah-1	Bdhn5	pseudomolecule_7	100	544	+/-	66459104	66458561	982.319	544
Kah-5	Bdhn4	pseudomolecule_3	96	494	+/-	17918740	17918252	791,162	473
Kah-5	Bdhn5	pseudomolecule_3	95	540	+/-	17917055	17916520	843.46	513
Koz-1	Bdhn4	pseudomolecule_3	96	494	+/-	18855091	18854603	791,162	473
Koz-1	Bdhn5	pseudomolecule_3	95	540	+/-	18853406	18852871	843.46	513
Luc1	Bdhn4	pseudomolecule_4	100	432	+/-	20923424	20922993	780.342	432
Luc1	Bdhn5	pseudomolecule_4	100	629	+/-	20925314	20924686	1135.61	629
Mig3	Bdhn4	pseudomolecule_3	96	494	+/-	19262494	19262006	791,162	473
Mig3	Bdhn5	pseudomolecule_3	95	540	+/-	19260809	19260274	843.46	513
Mur1	Bdhn4	pseudomolecule_8	97	434	+/+	62525719	62526149	710.01	419
Mur1	Bdhn5	pseudomolecule_8	98	539	+/+	62527300	62527835	913,791	527
Sig2	Bdhn4a	pseudomolecule_3	100	435	+/-	17897303	17896869	785,752	435
Sig2	Bdhn4b	pseudomolecule_3	100	435	+/-	17895616	17895182	780,342	434
Sig2	Bdhn5	pseudomolecule_3	99	934	+/-	17896001	17895069	1645.96	926
Uni2	Bdhn4	pseudomolecule_3	96	494	+/-	15702075	15701587	791,162	473
Uni2	Bdhn5	pseudomolecule_3	95	540	+/-	15700390	15699855	843.46	513

Supplementary Materials 3: *Brachypodium distachyon* drought and temperature stress experiments: grown and treatment conditions

As described in Des Marais et al. (2017) plants were grown in 600 ml of Profile porous ceramic rooting medium (Profile Products, Buffalo Grove, IL, USA) in Deepot D40H pots (650 ml; Stuewe & Sons, Tangent, OR, USA). The dry weight of each pot was recorded to provide a baseline for the calculation of soil water content (WC). Pots were saturated with a 1:50 dilution of Liquid Grow Plant Food (Dyna-Gro, Richmond, CA, USA) by bottom watering and allowed to drip overnight to field capacity (FC). Two seeds were sown per pot and the pots were weighed to determine FC. The WC of each pot was calculated as (FC) – (dry weight); these WCs provided daily watering targets during the dry-down. Pots were cold stratified at 6°C for 14 d to ensure synchronized germination.
Plants were moved as plots on sequential days from the cold to the glasshouse. All plants germinated within 3 d, after which each pot was thinned to a single plant. During the initial growth period of 21 d, all plants were exposed to ambient glasshouse temperatures with daily highs ranging from 23°C to 28°C and night-time lows from 14°C to 18°C. Natural sunlight was supplemented by artificial lighting to ensure light levels of 400–1000 lmol m_2 photosynthetically active radiation (PAR; mean of 825 lmol m_2) for 10 h d_1 (short-day conditions to prevent rapid flowering). Plants were bottom watered every second day with fresh water and once per week with fertilizer-supplemented water.

Following 21 d of initial growth, each plant received one of four treatments for 10 d in a split-plot design: Cool Wet (CW), Cool Dry (CD), Hot Wet (HW) or Hot Dry (HD), implemented as two plots of each temperature treatment with soil water treatment and genotype fully randomized within each plot. On the 22nd day of growth, each block of plants was transferred to one of four insulated open-top boxes measuring 100 cm wide by 240 cm long by 61 cm high. We placed Redi-Heat seedling mats in the bottom of two of these boxes, which resulted in an increase of c. 10°C above ambient glasshouse temperature; these plants constituted the ‘Hot’ treatment in which daytime highs were c. 35°C. The two plots of plants without seedling mats constituted the ‘Cool’ treatment, in which daytime highs were c. 25°C. Within each plot, plants were randomly

assigned to irrigation control (‘Wet’) or restriction (‘Dry’) treatments. Wet plants were watered to FC every second day with fresh water. Dry plants were hand watered daily by pipette such that the soil water was reduced by no more than 5% each day. Harvests began on the 11th day after the beginning of treatment and consisted of 8 d of phenotyping. Pot weights were recorded at harvest and showed that the pots of Dry plants averaged 45.7% soil WC (equivalent to 0.29 g H2Og_1 soil, SE = 0.3%), whereas Wet plants averaged 85.2% soil WC (0.54 g H2Og_1 soil, SE = 0.3%), regardless of temperature treatment. We have shown previously that 40–45% WC in Profile medium corresponds to soil water potentials of c._1.2 MPa and results in a significant reduction in leaf relative water content (RWC) in B. distachyon. Blocks were harvested on sequential days, such that plants had spent the same amount of time from germination through treatment. Control plants did not receive this initial period of stress treatment. On the 22nd day of growth, plants were placed in a 6°C walk-in growth chamber with 270 lmolm_2 PAR for 12 h d_1 to stimulate flowering. After 12 wk of vernalization, plants were returned to the glasshouse under identical conditions as the initial growth period, allowed to acclimate for 5 d, and assigned to temperature and water treatments, as earlier. On the 11th day of treatment, the seedling mats were turned off and water was withheld from all plants until senescence; for most plants, this occurred within 14 d.

Supplementary Materials 4. Values of 12 drought-response phenotypic traits [leaf_rwc (relative water content in leaf); leaf_wc (water content in leaf); lma (leaf mass per área); pro (leaf proline content); abvrgd (above ground biomass); blwgrd (below ground biomass); ttlmass (total mass); rmr (root mass ratio); delta13c (carbon isotope, a proxy for lifetime integrated WUE); leafc (leaf carbon content); leafn (leaf nitrogen content); cn (leaf carbon/nitrogen ratio)] assessed in 32 *Brachypodium distachyon* ecotypes under watered (W) and drought (D) conditions, and hot (H) and cold (C) conditions (Des Marais et al. 2017)

Watered:

	ecotype	leaf_rwc	leaf_wc	lma	pro	abvrgd	blwgrd	ttlmass	rmr	delta13c	leafc	leafn	cn
BA053_HW_ABR2	ABR2	99,153	308,91	28,068	20,0352	98,05	45,15	143,2	31,0668	-31,559	397,29	41,3905	9,6409
BA085_HW_ABR2	ABR2	99,153	308,91	28,068	20,0352	98,05	45,15	143,2	31,0668	-31,559	397,29	41,3905	9,6409
BA403_CW_ABR2	ABR2	99,0252	345,9	26,0716	14,9916	67,6	34,725	102,32	35,8975	-31,0204	391,14	37,0268	10,8998
BA447_CW_ABR2	ABR2	99,0252	345,9	26,0716	14,9916	67,6	34,725	102,32	35,8975	-31,0204	391,14	37,0268	10,8998
BA096_HW_ABR3	ABR3	99,1544	334,96	24,1441	5,3975	138,53	68,175	206,7	33,0524	-30,9512	392,31	37,6329	10,5542
BA413_CW_ABR3	ABR3	99,2622	344,45	22,9499	11,1867	100,68	44,675	145,35	30,4608	-31,7756	388,03	43,64	8,9042
BA419_CW_ABR3	ABR3	99,2622	344,45	22,9499	11,1867	100,68	44,675	145,35	30,4608	-31,7756	388,03	43,64	8,9042
BA040_HW_ABR4	ABR4	98,0294	348,33	27,9507	11,581	63,725	29,85	93,575	31,6254	-31,4833	405,79	42,1945	9,6571
BA043_HW_ABR4	ABR4	98,0294	348,33	27,9507	11,581	63,725	29,85	93,575	31,6254	-31,4833	405,79	42,1945	9,6571
BA477_CW_ABR4	ABR4	100,85	367,39	26,4197	5,9426	63,9332	28,836	92,6436	31,2371	-31,8883	389,73	42,6503	9,1625
BA508_CW_ABR4	ABR4	100,85	367,39	26,4197	5,9426	63,9332	28,836	92,6436	31,2371	-31,8883	389,73	42,6503	9,1625
BA161_HW_ABR5	ABR5	100,35	326,17	26,828	5,4634	103,47	47,075	150,55	31,0022	-32,0899	388,94	40,7959	9,5684
BA479_CW_ABR5	ABR5	100,04	369,42	22,095	8,7886	74,425	26,425	100,85	26,1643	-32,0318	390,46	44,5742	8,8093
BA502_CW_ABR5	ABR5	100,04	369,42	22,095	8,7886	74,425	26,425	100,85	26,1643	-32,0318	390,46	44,5742	8,8093
BA153_HW_ABR6	ABR6	99,7671	341,87	25,7345	12,5268	84,875	34,05	118,93	28,3888	-31,6356	394,87	41,1856	9,6499
BA437_CW_ABR6	ABR6	99,7067	330,68	25,8882	8,9714	77,6	29,4	107	26,7787	-32,0715	386,89	42,6801	9,0705
BA452_CW_ABR6	ABR6	99,7067	330,68	25,8882	8,9714	77,6	29,4	107	26,7787	-32,0715	386,89	42,6801	9,0705
BA008_HW_ABR8	ABR8	98,3205	348,4	27,9114	8,9252	201,2	46,475	247,68	19,0137	-31,1487	384,03	30,6539	12,5536
BA360_CW_ABR8	ABR8	99,4822	365,28	27,9182	7,53	158,13	38,15	196,27	19,5398	-31,7883	382,51	35,7896	10,8115
BA517_CW_ABR8	ABR8	99,4822	365,28	27,9182	7,53	158,13	38,15	196,27	19,5398	-31,7883	382,51	35,7896	10,8115

BA105_HW_Adi10	Adi10	99,5952	368,16	24,5397	11,9688	222,53	73,6296	294,77	24,8531	-31,5077	389,82	31,0325	12,6508
BA428_CW_Adi10	Adi10	99,4321	375,27	24,2527	10,4201	227,2	84,275	311,48	27,1766	-31,6098	387,13	33,1554	11,9649
BA520_CW_Adi10	Adi10	99,4321	375,27	24,2527	10,4201	227,2	84,275	311,48	27,1766	-31,6098	387,13	33,1554	11,9649
BA041_HW_Adi12	Adi12	99,6679	309,95	27,7541	11,0422	176,3	59,45	235,75	24,9133	-31,0063	390,76	36,9663	10,6362
BA044_HW_Adi12	Adi12	99,6679	309,95	27,7541	11,0422	176,3	59,45	235,75	24,9133	-31,0063	390,76	36,9663	10,6362
BA407_CW_Adi12	Adi12	99,1611	335,81	25,6211	9,891	161,4	56,125	217,52	24,964	-31,5626	391,09	40,6269	9,6303
BA423_CW_Adi12	Adi12	99,1611	335,81	25,6211	9,891	161,4	56,125	217,52	24,964	-31,5626	391,09	40,6269	9,6303
BA176_HW_Adi2	Adi2	98,717	301,12	26,5199	7,0812	157,53	52,625	210,15	24,545	-31,4804	390,68	33,8382	11,6383
BA357_CW_Adi2	Adi2	97,504	310,82	25,2906	9,3671	163,35	48,675	212,02	23,2089	-31,165	388,99	35,112	11,2449
BA468_CW_Adi2	Adi2	97,504	310,82	25,2906	9,3671	163,35	48,675	212,02	23,2089	-31,165	388,99	35,112	11,2449
BA354_CW_Bd1.1	Bd1.1	99,4871	340,96	26,0514	8,6774	70,85	28,025	98,875	28,2736	-31,6875	386,51	43,3848	8,9165
BA496_CW_Bd1.1	Bd1.1	99,4871	340,96	26,0514	8,6774	70,85	28,025	98,875	28,2736	-31,6875	386,51	43,3848	8,9165
BA060_HW_Bd18.1	Bd18.1	98,0056	330,2	26,3515	9,0038	166,53	52,55	219,08	23,6441	-31,8404	397,53	36,541	11,1618
BA063_HW_Bd18.1	Bd18.1	98,0056	330,2	26,3515	9,0038	166,53	52,55	219,08	23,6441	-31,8404	397,53	36,541	11,1618
BA375_CW_Bd18.1	Bd18.1	99,3363	359,22	26,0987	6,3918	175,23	75,775	251	29,9302	-31,5193	392,79	39,0647	10,1452
BA446_CW_Bd18.1	Bd18.1	99,3363	359,22	26,0987	6,3918	175,23	75,775	251	29,9302	-31,5193	392,79	39,0647	10,1452
BA086_HW_Bd2.3	Bd2.3	98,93	312,26	27,7804	4,9665	150,93	57,825	208,75	27,4164	-30,7961	384,77	34,4474	11,3351
BA114_HW_Bd2.3	Bd2.3	98,93	312,26	27,7804	4,9665	150,93	57,825	208,75	27,4164	-30,7961	384,77	34,4474	11,3351
BA487_CW_Bd2.3	Bd2.3	100,14	334,18	27,1921	9,3872	134,68	39,55	174,23	23,4222	-31,737	379	38,5101	9,953
BA492_CW_Bd2.3	Bd2.3	100,14	334,18	27,1921	9,3872	134,68	39,55	174,23	23,4222	-31,737	379	38,5101	9,953
BA069_HW_Bd21	Bd21	98,5239	362,35	30,453	7,6058	111,7	36,875	148,58	24,381	-31,4144	395,78	39,9974	9,8958
BA112_HW_Bd21	Bd21	98,5239	362,35	30,453	7,6058	111,7	36,875	148,58	24,381	-31,4144	395,78	39,9974	9,8958
BA386_CW_Bd21	Bd21	98,5417	379,23	25,9302	7,9891	98,175	32,925	131,1	27,3518	-31,4395	381,6	39,2661	9,7509
BA456_CW_Bd21	Bd21	98,5417	379,23	25,9302	7,9891	98,175	32,925	131,1	27,3518	-31,4395	381,6	39,2661	9,7509
BA054_HW_Bd21.3	Bd21.3	100,05	332,87	29,2984	7,2565	163,6	60,5	224,1	26,8571	-32,0124	391,3	35,0021	11,1932
BA171_HW_Bd21.3	Bd21.3	100,05	332,87	29,2984	7,2565	163,6	60,5	224,1	26,8571	-32,0124	391,3	35,0021	11,1932
BA458_CW_Bd21.3	Bd21.3	99,7714	333,71	30,3696	9,4632	172,53	51,775	224,3	21,8706	-31,7525	386,84	35,5076	10,928
BA007_HW_Bd3.1	Bd3.1	98,874	332,27	27,1868	13,1448	212,03	75,775	287,8	26,7347	-31,8078	389,5	36,0408	10,8927

BA012_HW_Bd3.1	Bd3.1	98,874	332,27	27,1868	13,1448	212,03	75,775	287,8	26,7347	-31,8078	389,5	36,0408	10,8927
BA429_CW_Bd3.1	Bd3.1	99,0539	374,33	25,8342	7,8476	182,28	49,1	231,38	21,25	-32,6372	383,12	36,6662	10,4676
BA434_CW_Bd3.1	Bd3.1	99,0539	374,33	25,8342	7,8476	182,28	49,1	231,38	21,25	-32,6372	383,12	36,6662	10,4676
BA005_HW_Bd30.1	Bd30.1	98,4703	359,5	23,884	8,8716	153,97	68,45	222,43	31,0447	-31,6055	375,12	36,2257	10,3997
BA018_HW_Bd30.1	Bd30.1	98,4703	359,5	23,884	8,8716	153,97	68,45	222,43	31,0447	-31,6055	375,12	36,2257	10,3997
BA417_CW_Bd30.1	Bd30.1	99,0166	362,25	24,4767	7,6702	146,13	72,575	218,7	33,5068	-32,6119	377,51	38,9337	9,7014
BA474_CW_Bd30.1	Bd30.1	99,0166	362,25	24,4767	7,6702	146,13	72,575	218,7	33,5068	-32,6119	377,51	38,9337	9,7014
BA384_CW_BdTR10c	BdTR10c	99,8547	346,45	24,4013	9,2635	179,83	78,85	258,67	30,1185	-31,6498	390,6	34,091	11,4878
BA436_CW_BdTR10c	BdTR10c	99,8547	346,45	24,4013	9,2635	179,83	78,85	258,67	30,1185	-31,6498	390,6	34,091	11,4878
BA021_HW_BdTR11g	BdTR11g	99,1281	342,14	28,9609	6,3157	170,22	60,925	231,15	26,2552	-31,9907	390,9	33,0382	12,0813
BA032_HW_BdTR11g	BdTR11g	99,1281	342,14	28,9609	6,3157	170,22	60,925	231,15	26,2552	-31,9907	390,9	33,0382	12,0813
BA406_CW_BdTR11g	BdTR11g	99,2126	355,56	28,0629	6,6034	154,58	58,075	212,65	27,246	-32,1586	391,45	36,1167	10,867
BA493_CW_BdTR11g	BdTR11g	99,2126	355,56	28,0629	6,6034	154,58	58,075	212,65	27,246	-32,1586	391,45	36,1167	10,867
BA042_HW_BdTR11i	BdTR11i	99,1827	340,06	27,1923	7,462	187,9	68,55	256,45	26,5132	-31,4161	392,72	31,2194	12,9344
BA377_CW_BdTR11i	BdTR11i	98,712	364,69	26,6228	7,9247	133,58	51,275	184,85	27,554	-32,162	380,52	38,5626	9,9428
BA526_CW_BdTR11i	BdTR11i	98,712	364,69	26,6228	7,9247	133,58	51,275	184,85	27,554	-32,162	380,52	38,5626	9,9428
BA022_HW_BdTR13a	BdTR13a	98,952	312,12	29,7385	9,0134	132,82	50,4	183,23	27,7306	-32,1181	385,73	36,5552	10,5869
BA174_HW_BdTR13a	BdTR13a	98,952	312,12	29,7385	9,0134	132,82	50,4	183,23	27,7306	-32,1181	385,73	36,5552	10,5869
BA371_CW_BdTR13a	BdTR13a	99,2984	358,92	26,589	6,1106	127,58	47,95	175,53	27,1558	-32,0346	401,71	39,5929	10,1458
BA405_CW_BdTR13a	BdTR13a	99,2984	358,92	26,589	6,1106	127,58	47,95	175,53	27,1558	-32,0346	401,71	39,5929	10,1458
BA070_HW_BdTR1i	BdTR1i	98,5431	310,66	24,9114	10,1893	147,75	54,4	202,15	25,0125	-30,7296	396,33	33,834	11,7319
BA155_HW_BdTR1i	BdTR1i	98,5431	310,66	24,9114	10,1893	147,75	54,4	202,15	25,0125	-30,7296	396,33	33,834	11,7319
BA469_CW_BdTR1i	BdTR1i	98,4507	310,13	26,3632	12,4554	196,35	77,3	273,65	28,3002	-31,4978	383,39	37,4971	10,2676
BA486_CW_BdTR1i	BdTR1i	98,4507	310,13	26,3632	12,4554	196,35	77,3	273,65	28,3002	-31,4978	383,39	37,4971	10,2676
BA378_CW_BdTR2b	BdTR2b	99,1642	334,79	25,5897	9,0804	184,43	74,325	258,75	28,4258	-31,974	396,22	40,6959	9,8107
BA503_CW_BdTR2b	BdTR2b	99,1642	334,79	25,5897	9,0804	184,43	74,325	258,75	28,4258	-31,974	396,22	40,6959	9,8107
BA107_HW_BdTR2g	BdTR2g	98,915	322,42	25,504	9,6107	205,55	75,675	281,23	26,9508	-30,797	390,86	29,8763	13,2668
BA167_HW_BdTR2g	BdTR2g	98,915	322,42	25,504	9,6107	205,55	75,675	281,23	26,9508	-30,797	390,86	29,8763	13,2668

BA445_CW_BdTR2g	BdTR2g	99,141	321,23	26,0647	11,9884	98,575	36,125	134,7	27,1502	-31,3031	394,67	36,8124	10,8874
BA527_CW_BdTR2g	BdTR2g	99,141	321,23	26,0647	11,9884	98,575	36,125	134,7	27,1502	-31,3031	394,67	36,8124	10,8874
BA071_HW_BdTR3c	BdTR3c	99,8607	313,18	26,5389	11,8327	173,03	64,825	237,85	27,34	-32,1045	391,97	32,472	12,0845
BA362_CW_BdTR3c	BdTR3c	99,8703	346,56	24,0444	6,7756	175,03	51,075	226,1	22,5456	-31,5366	393,11	34,2062	11,5274
BA427_CW_BdTR3c	BdTR3c	99,8703	346,56	24,0444	6,7756	175,03	51,075	226,1	22,5456	-31,5366	393,11	34,2062	11,5274
BA160_HW_BdTR5i	BdTR5i	99,7791	320,7	25,8099	6,1914	134,38	55,975	190,35	27,948	-32,0524	385,3	36,6785	10,646
BA372_CW_BdTR5i	BdTR5i	98,1287	326,87	27,244	10,9901	144,7	68,275	212,98	31,5617	-31,8874	392,29	38,8932	10,1175
BA464_CW_BdTR5i	BdTR5i	98,1287	326,87	27,244	10,9901	144,7	68,275	212,98	31,5617	-31,8874	392,29	38,8932	10,1175
BA125_HW_BdTR9k	BdTR9k	99,7491	303,76	28,6036	17,2965	142,33	40,2	182,53	22,0741	-31,5799	391,38	36,5103	10,7677
BA383_CW_BdTR9k	BdTR9k	98,5867	321,85	27,9127	13,0488	156,5	56,85	213,35	26,5012	-31,8205	382,92	39,3275	9,7471
BA515_CW_BdTR9k	BdTR9k	98,5867	321,85	27,9127	13,0488	156,5	56,85	213,35	26,5012	-31,8205	382,92	39,3275	9,7471
BA156_HW_Bis1	Bis1	98,3617	327,15	23,8597	4,6496	117	38,625	155,63	26,3028	-32,2874	390,43	37,3066	10,5286
BA385_CW_Bis1	Bis1	98,4401	329,93	26,5137	9,2391	111,93	43,575	155,5	28,3158	-32,284	392,75	38,7511	10,1582
BA390_CW_Bis1	Bis1	98,4401	329,93	26,5137	9,2391	111,93	43,575	155,5	28,3158	-32,284	392,75	38,7511	10,1582
BA169_HW_Kah1	Kah1	99,8647	295,11	32,0676	7,8515	124,48	39	163,48	23,3447	-31,9871	395,11	38,6626	10,2481
BA356_CW_Kah1	Kah1	98,9119	354,35	26,2315	10,063	142,6	53,875	196,48	27,3753	-31,6866	388,89	40,3501	9,6491
BA420_CW_Kah1	Kah1	98,9119	354,35	26,2315	10,063	142,6	53,875	196,48	27,3753	-31,6866	388,89	40,3501	9,6491
BA047_HW_Kah5	Kah5	98,5779	328,12	27,4317	8,0542	156,68	46,025	202,7	22,9428	-31,0487	391,78	36,9904	10,6068
BA158_HW_Kah5	Kah5	98,5779	328,12	27,4317	8,0542	156,68	46,025	202,7	22,9428	-31,0487	391,78	36,9904	10,6068
BA399_CW_Kah5	Kah5	99,1395	358,79	25,6867	6,6676	166,13	54,575	220,7	24,1437	-31,4011	394,39	37,4447	10,5928
BA482_CW_Kah5	Kah5	99,1395	358,79	25,6867	6,6676	166,13	54,575	220,7	24,1437	-31,4011	394,39	37,4447	10,5928
BA157_HW_Koz1	Koz1	100,34	346,18	24,6393	5,522	111,05	37,025	148,08	24,9715	-31,3085	399,44	37,1463	10,8321
BA501_CW_Koz1	Koz1	99,1951	330,62	27,2562	8,2662	148,05	51,025	199,08	25,7406	-31,9008	396,07	36,3917	10,9175
BA511_CW_Koz1	Koz1	99,1951	330,62	27,2562	8,2662	148,05	51,025	199,08	25,7406	-31,9008	396,07	36,3917	10,9175
BA057_HW_Koz3	Koz3	100,34	346,18	24,6393	5,522	111,05	37,025	148,08	24,9715	-31,3085	399,44	37,1463	10,8321
BA074_HW_Koz3	Koz3	99,2253	381,63	21,3916	3,8404	163,05	57,1	220,15	26,1094	-31,6468	394,63	34,0051	11,7823
BA411_CW_Koz3	Koz3	99,4638	369,31	23,8853	6,3061	197,3	66,325	263,62	24,9763	-32,1301	389,47	34,9537	11,1881
BA484_CW_Koz3	Koz3	99,4638	369,31	23,8853	6,3061	197,3	66,325	263,62	24,9763	-32,1301	389,47	34,9537	11,1881

BA026_HW_Ron2	Ron2	99,478618	362,4171	24,399536	7,125719	137,53043	65,785677	202,9648	31,672994	-31,23899	397,85106	38,796531	10,323291
BA151_HW_Ron2	Ron2	99,478618	362,4171	24,399536	7,125719	137,53043	65,785677	202,9648	31,672994	-31,23899	397,85106	38,796531	10,323291
BA409_CW_Ron2	Ron2	99,540782	374,22254	24,769726	9,395806	125,2623	55,360467	181,36405	30,77086	-31,47118	392,49618	41,641172	9,437255
BA431_CW_Ron2	Ron2	99,540782	374,22254	24,769726	9,395806	125,2623	55,360467	181,36405	30,77086	-31,47118	392,49618	41,641172	9,437255

Drought:

	ecotype	leaf_rwc	leaf_wc	lma	pro	abvrgd	blwgrd	ttlmass	rmr	delta13c	leafc	leafn	cn
BA030_HD_ABR2	ABR2	95,5672	275,21	32,1891	40,0867	88,4	64,925	153,32	41,368	-30,9942	402,01	35,3526	11,415
BA101_HD_ABR2	ABR2	95,5672	275,21	32,1891	40,0867	88,4	64,925	153,32	41,368	-30,9942	402,01	35,3526	11,415
BA366_CD_ABR2	ABR2	96,27	275,61	29,9968	38,994	76,375	44,475	120,85	36,4106	-31,0081	392,34	34,9823	11,23
BA439_CD_ABR2	ABR2	96,27	275,61	29,9968	38,994	76,375	44,475	120,85	36,4106	-31,0081	392,34	34,9823	11,23
BA006_HD_ABR3	ABR3	94,1465	296,47	26,5479	20,5059	101,18	62,475	163,65	38,0076	-30,9528	400,56	32,8802	12,1867
BA103_HD_ABR3	ABR3	94,1465	296,47	26,5479	20,5059	101,18	62,475	163,65	38,0076	-30,9528	400,56	32,8802	12,1867
BA418_CD_ABR3	ABR3	97,6832	354,52	23,1046	16,4585	87,375	52,4	139,78	37,0066	-30,3755	401,97	34,0628	11,8359
BA465_CD_ABR3	ABR3	97,6832	354,52	23,1046	16,4585	87,375	52,4	139,78	37,0066	-30,3755	401,97	34,0628	11,8359
BA038_HD_ABR4	ABR4	95,6684	299,6	30,4712	17,7323	59,125	33,625	92,75	36,419	-30,9893	406,96	34,8378	11,7046
BA170_HD_ABR4	ABR4	95,6684	299,6	30,4712	17,7323	59,125	33,625	92,75	36,419	-30,9893	406,96	34,8378	11,7046
BA368_CD_ABR4	ABR4	97,5747	326,08	27,4177	13,1446	48,725	30,75	79,475	39,3827	-30,98	397,56	36,1803	11,0352
BA521_CD_ABR4	ABR4	97,5747	326,08	27,4177	13,1446	48,725	30,75	79,475	39,3827	-30,98	397,56	36,1803	11,0352
BA024_HD_ABR5	ABR5	93,9699	301,28	28,602	15,5567	88,5	59,475	147,97	39,6646	-31,2665	403,55	37,5765	10,8271
BA104_HD_ABR5	ABR5	93,9699	301,28	28,602	15,5567	88,5	59,475	147,97	39,6646	-31,2665	403,55	37,5765	10,8271
BA454_CD_ABR5	ABR5	97,8872	326,65	25,3111	7,2641	72,297	46,4	118,49	39,1138	-31,0825	386,6	35,9327	10,7333
BA522_CD_ABR5	ABR5	97,8872	326,65	25,3111	7,2641	72,297	46,4	118,49	39,1138	-31,0825	386,6	35,9327	10,7333
BA037_HD_ABR6	ABR6	94,3688	291,38	28,1391	31,3657	81,25	41,45	122,7	33,747	-31,3617	401,51	35,7275	11,2734
BA099_HD_ABR6	ABR6	94,3688	291,38	28,1391	31,3657	81,25	41,45	122,7	33,747	-31,3617	401,51	35,7275	11,2734
BA416_CD_ABR6	ABR6	95,7619	309,23	27,7202	17,3763	64,675	39,5	104,18	37,3018	-31,2286	407,43	33,2924	12,275
BA523_CD_ABR6	ABR6	95,7619	309,23	27,7202	17,3763	64,675	39,5	104,18	37,3018	-31,2286	407,43	33,2924	12,275

BA100_HD_ABR8	ABR8	92,1823	307,46	32,7175	37,0386	129,1	33,25	162,35	20,5232	-31,3316	392,46	32,4176	12,2406
BA143_HD_ABR8	ABR8	92,1823	307,46	32,7175	37,0386	129,1	33,25	162,35	20,5232	-31,3316	392,46	32,4176	12,2406
BA415_CD_ABR8	ABR8	95,8411	348,43	29,1515	13,8568	95,75	33,2	128,95	26,3473	-31,325	393,59	31,1215	12,7443
BA506_CD_ABR8	ABR8	95,8411	348,43	29,1515	13,8568	95,75	33,2	128,95	26,3473	-31,325	393,59	31,1215	12,7443
BA049_HD_Adi10	Adi10	91,5314	335,69	28,3401	83,7468	138,23	60,8	199,02	30,4882	-30,8597	396,7	31,5821	12,5705
BA052_HD_Adi10	Adi10	91,5314	335,69	28,3401	83,7468	138,23	60,8	199,02	30,4882	-30,8597	396,7	31,5821	12,5705
BA478_CD_Adi10	Adi10	93,4741	330,73	29,3769	25,8306	129,5	74,5	204	36,3975	-30,8103	398,07	31,8895	12,499
BA513_CD_Adi10	Adi10	93,4741	330,73	29,3769	25,8306	129,5	74,5	204	36,3975	-30,8103	398,07	31,8895	12,499
BA036_HD_Adi12	Adi12	92,6729	290,48	29,3319	37,4857	158,68	75,7	234,37	32,3829	-30,3287	399,63	32,1182	12,5141
BA140_HD_Adi12	Adi12	92,6729	290,48	29,3319	37,4857	158,68	75,7	234,37	32,3829	-30,3287	399,63	32,1182	12,5141
BA455_CD_Adi12	Adi12	91,5266	291,54	29,3439	22,6328	124,07	65,375	189,45	34,5262	-30,3494	401,56	32,3216	12,4274
BA525_CD_Adi12	Adi12	91,5266	291,54	29,3439	22,6328	124,07	65,375	189,45	34,5262	-30,3494	401,56	32,3216	12,4274
BA050_HD_Adi2	Adi2	94,7074	280,35	29,122	44,1721	106,6	50,6	157,2	32,0808	-30,4593	397,18	30,3205	13,1419
BA094_HD_Adi2	Adi2	94,7074	280,35	29,122	44,1721	106,6	50,6	157,2	32,0808	-30,4593	397,18	30,3205	13,1419
BA500_CD_Adi2	Adi2	95,5478	286,92	28,7405	33,3583	95,05	64,975	160,03	40,5204	-30,9863	394,32	32,8584	12,1132
BA509_CD_Adi2	Adi2	95,5478	286,92	28,7405	33,3583	95,05	64,975	160,03	40,5204	-30,9863	394,32	32,8584	12,1132
BA025_HD_Bd1.1	Bd1.1	96,6513	318,06	27,8895	22,4793	69,95	32,675	102,62	32,6184	-30,7095	396,41	32,6329	12,2739
BA051_HD_Bd1.1	Bd1.1	96,6513	318,06	27,8895	22,4793	69,95	32,675	102,62	32,6184	-30,7095	396,41	32,6329	12,2739
BA442_CD_Bd1.1	Bd1.1	97,5714	338,57	26,4631	9,8706	72,9	34,675	107,58	31,9464	-30,8879	396,28	29,2359	13,6961
BA475_CD_Bd1.1	Bd1.1	97,5714	338,57	26,4631	9,8706	72,9	34,675	107,58	31,9464	-30,8879	396,28	29,2359	13,6961
BA093_HD_Bd18.1	Bd18.1	89,0917	287,91	32,5382	40,6435	132,28	54,4	186,67	29,1314	-30,5819	405,25	33,6488	12,0622
BA453_CD_Bd18.1	Bd18.1	95,8214	323,02	25,8254	12,4704	122,7	66,6	189,51	34,814	-30,5654	410,32	32,0128	12,8275
BA023_HD_Bd2.3	Bd2.3	92,9477	290,3	30,6912	32,8335	115,75	55,225	170,97	32,1404	-30,4738	397	29,9625	13,2597
BA088_HD_Bd2.3	Bd2.3	92,9477	290,3	30,6912	32,8335	115,75	55,225	170,97	32,1404	-30,4738	397	29,9625	13,2597
BA353_CD_Bd2.3	Bd2.3	96,4096	313,1	27,9172	16,2772	103,6	49,8667	153,26	32,3381	-30,9876	391,61	32,8971	11,9916
BA494_CD_Bd2.3	Bd2.3	96,4096	313,1	27,9172	16,2772	103,6	49,8667	153,26	32,3381	-30,9876	391,61	32,8971	11,9916
BA056_HD_Bd21	Bd21	92,1978	329,74	31,3491	19,6817	112,55	45,45	158	28,7482	-30,0903	404,42	32,2814	12,6108
BA163_HD_Bd21	Bd21	92,1978	329,74	31,3491	19,6817	112,55	45,45	158	28,7482	-30,0903	404,42	32,2814	12,6108

BA459_CD_Bd21	Bd21	97,234	367,57	28,5431	14,0697	96,7	52,45	149,15	35,0758	-30,3526	403,03	32,3337	12,5448
BA499_CD_Bd21	Bd21	97,234	367,57	28,5431	14,0697	96,7	52,45	149,15	35,0758	-30,3526	403,03	32,3337	12,5448
BA097_HD_Bd21.3	Bd21.3	86,9049	295,54	35,8918	58,7702	131,23	79,325	210,55	35,7497	-31,192	394,95	34,5557	11,4413
BA111_HD_Bd21.3	Bd21.3	86,9049	295,54	35,8918	58,7702	131,23	79,325	210,55	35,7497	-31,192	394,95	34,5557	11,4413
BA430_CD_Bd21.3	Bd21.3	90,9053	311,26	31,4101	20,4713	136,3	69,35	205,65	33,7667	-30,7154	398,97	33,7282	11,8389
BA512_CD_Bd21.3	Bd21.3	90,9053	311,26	31,4101	20,4713	136,3	69,35	205,65	33,7667	-30,7154	398,97	33,7282	11,8389
BA166_HD_Bd3.1	Bd3.1	90,2132	299,88	29,9041	29,8525	124,08	60,5	184,57	33,1324	-30,6968	402,3	32,1438	12,552
BA398_CD_Bd3.1	Bd3.1	86,8178	321,96	30,5611	44,2785	158,58	66,425	225	29,9478	-30,6395	391,02	28,8347	13,5893
BA422_CD_Bd3.1	Bd3.1	86,8178	321,96	30,5611	44,2785	158,58	66,425	225	29,9478	-30,6395	391,02	28,8347	13,5893
BA079_HD_Bd30.1	Bd30.1	90,7217	272,28	32,0642	49,0163	128,28	60,325	188,6	32,1573	-31,1346	387,86	34,6917	11,3551
BA162_HD_Bd30.1	Bd30.1	90,7217	272,28	32,0642	49,0163	128,28	60,325	188,6	32,1573	-31,1346	387,86	34,6917	11,3551
BA425_CD_Bd30.1	Bd30.1	93,1622	309,6	27,8919	30,0273	88,65	51,325	139,98	36,8631	-31,1783	385,03	35,2732	10,9211
BA481_CD_Bd30.1	Bd30.1	93,1622	309,6	27,8919	30,0273	88,65	51,325	139,98	36,8631	-31,1783	385,03	35,2732	10,9211
BA121_HD_BdTR10c	BdTR10c	93,1128	277,44	29,1343	61,7782	131,55	52,475	184,02	28,5702	-30,7721	403,39	29,1462	14,0575
BA173_HD_BdTR10c	BdTR10c	93,1128	277,44	29,1343	61,7782	131,55	52,475	184,02	28,5702	-30,7721	403,39	29,1462	14,0575
BA421_CD_BdTR10c	BdTR10c	91,2539	307,27	27,9445	62,4874	114,12	57,2	171,33	33,5289	-30,65	402,13	31,7225	12,7066
BA440_CD_BdTR10c	BdTR10c	91,2539	307,27	27,9445	62,4874	114,12	57,2	171,33	33,5289	-30,65	402,13	31,7225	12,7066
BA059_HD_BdTR11g	BdTR11g	89,9507	294,07	31,8587	37,5698	120,03	60,225	180,25	33,1338	-31,1966	402,96	31,3896	12,8764
BA090_HD_BdTR11g	BdTR11g	89,9507	294,07	31,8587	37,5698	120,03	60,225	180,25	33,1338	-31,1966	402,96	31,3896	12,8764
BA397_CD_BdTR11g	BdTR11g	95,3823	312,72	28,7297	15,1499	116,6	57,7	174,3	33,1039	-31,4914	400,42	34,3049	11,7522
BA510_CD_BdTR11g	BdTR11g	95,3823	312,72	28,7297	15,1499	116,6	57,7	174,3	33,1039	-31,4914	400,42	34,3049	11,7522
BA102_HD_BdTR11i	BdTR11i	89,3787	295,88	32,3145	63,7474	126,55	57,3	183,85	31,4774	-31,1197	399,71	30,9229	12,9344
BA128_HD_BdTR11i	BdTR11i	89,3787	295,88	32,3145	63,7474	126,55	57,3	183,85	31,4774	-31,1197	399,71	30,9229	12,9344
BA408_CD_BdTR11i	BdTR11i	94,9355	306,93	30,6664	24,7061	121,07	52,35	173,43	30,7026	-31,104	399,6	33,201	12,1142
BA450_CD_BdTR11i	BdTR11i	94,9355	306,93	30,6664	24,7061	121,07	52,35	173,43	30,7026	-31,104	399,6	33,201	12,1142
BA361_CD_BdtR12c	BdtR12c	95,5726	328,56	25,4422	24,1003	105,52	53,1	158,63	33,6257	-31,4268	396,58	33,3719	11,8987
BA061_HD_BdTR13a	BdTR13a	92,1344	297,05	30,5101	27,5649	104,93	44,75	149,67	30,0713	-31,4933	394,35	35,1597	11,2545
BA394_CD_BdTR13a	BdTR13a	94,9504	299,69	29,8083	16,802	99,975	54	153,98	34,9891	-31,1377	402,13	33,0339	12,2083

BA460_CD_BdTR13a	BdTR13a	94,9504	299,69	29,8083	16,802	99,975	54	153,98	34,9891	-31,1377	402,13	33,0339	12,2083
BA108_HD_BdTR1i	BdTR1i	90,9792	285,17	28,2368	54,0095	128,2	55,85	184,05	29,9311	-30,355	401,84	30,8815	13,0362
BA134_HD_BdTR1i	BdTR1i	90,9792	285,17	28,2368	54,0095	128,2	55,85	184,05	29,9311	-30,355	401,84	30,8815	13,0362
BA457_CD_BdTR1i	BdTR1i	92,2691	298,73	27,4487	30,9165	137,37	79,3	216,68	36,5266	-30,3089	401,02	31,1322	12,9409
BA480_CD_BdTR1i	BdTR1i	92,2691	298,73	27,4487	30,9165	137,37	79,3	216,68	36,5266	-30,3089	401,02	31,1322	12,9409
BA003_HD_BdTR2b	BdTR2b	88,3067	275,41	30,6612	46,3035	142,63	62,4602	205,23	30,4213	-30,4491	401,48	32,0488	12,6043
BA091_HD_BdTR2b	BdTR2b	88,3067	275,41	30,6612	46,3035	142,63	62,4602	205,23	30,4213	-30,4491	401,48	32,0488	12,6043
BA389_CD_BdTR2b	BdTR2b	92,8529	297,14	29,4203	18,8064	128,22	76,15	204,38	36,9819	-30,4727	403,21	33,3256	12,1192
BA472_CD_BdTR2b	BdTR2b	92,8529	297,14	29,4203	18,8064	128,22	76,15	204,38	36,9819	-30,4727	403,21	33,3256	12,1192
BA124_HD_BdTR2g	BdTR2g	83,6304	255,64	30,6727	80,7185	141,48	74,775	216,25	34,4993	-30,5584	388,58	30,9619	12,6063
BA165_HD_BdTR2g	BdTR2g	83,6304	255,64	30,6727	80,7185	141,48	74,775	216,25	34,4993	-30,5584	388,58	30,9619	12,6063
BA364_CD_BdTR2g	BdTR2g	92,8345	295,51	29,707	28,9141	140,7	82,275	222,98	36,2953	-30,2991	406,68	32,9221	12,4293
BA369_CD_BdTR2g	BdTR2g	92,8345	295,51	29,707	28,9141	140,7	82,275	222,98	36,2953	-30,2991	406,68	32,9221	12,4293
BA073_HD_BdTR3c	BdTR3c	87,8504	267,87	30,6517	44,774	103,1	53,15	156,25	34,0107	-30,8192	409,45	28,5468	14,4109
BA172_HD_BdTR3c	BdTR3c	87,8504	267,87	30,6517	44,774	103,1	53,15	156,25	34,0107	-30,8192	409,45	28,5468	14,4109
BA370_CD_BdTR3c	BdTR3c	94,1643	307,36	27,969	14,2319	109,42	63,775	173,2	36,8347	-30,8598	398,76	29,8799	13,3589
BA424_CD_BdTR3c	BdTR3c	94,1643	307,36	27,969	14,2319	109,42	63,775	173,2	36,8347	-30,8598	398,76	29,8799	13,3589
BA065_HD_BdTR5i	BdTR5i	91,8255	282,44	32,7004	53,7029	100,55	65,95	166,5	38,6272	-31,1833	399,66	33,8388	11,906
BA082_HD_BdTR5i	BdTR5i	91,8255	282,44	32,7004	53,7029	100,55	65,95	166,5	38,6272	-31,1833	399,66	33,8388	11,906
BA470_CD_BdTR5i	BdTR5i	94,8835	312	29,218	19,9079	90,6	55,7	146,3	37,1162	-30,8629	401,42	32,836	12,3188
BA473_CD_BdTR5i	BdTR5i	94,8835	312	29,218	19,9079	90,6	55,7	146,3	37,1162	-30,8629	401,42	32,836	12,3188
BA002_HD_BdTR9k	BdTR9k	95,6189	297,03	28,4399	17,6973	143,73	65,025	208,75	32,7704	-30,5734	409,21	32,5471	12,7073
BA033_HD_BdTR9k	BdTR9k	95,6189	297,03	28,4399	17,6973	143,73	65,025	208,75	32,7704	-30,5734	409,21	32,5471	12,7073
BA363_CD_BdTR9k	BdTR9k	94,807	309,37	26,8249	21,5214	122,8	51,775	174,58	29,77	-30,9229	401,68	33,5643	12,0002
BA410_CD_BdTR9k	BdTR9k	94,807	309,37	26,8249	21,5214	122,8	51,775	174,58	29,77	-30,9229	401,68	33,5643	12,0002
BA110_HD_Bis1	Bis1	91,5204	276,88	34,1313	34,8535	117,17	54,9398	171,97	32,1238	-31,0275	399,55	32,1223	12,4379
BA373_CD_Bis1	Bis1	94,8878	312,91	26,9505	14,4399	87,15	41,475	128,63	33,8045	-31,4936	401,23	33,1728	12,1146
BA519_CD_Bis1	Bis1	94,8878	312,91	26,9505	14,4399	87,15	41,475	128,63	33,8045	-31,4936	401,23	33,1728	12,1146

BA046_HD_Kah1	Kah1	93,0147	310,34	29,7299	39,7369	110,85	55,575	166,42	33,7495	-30,7397	402,08	30,9699	13,0816
BA168_HD_Kah1	Kah1	93,0147	310,34	29,7299	39,7369	110,85	55,575	166,42	33,7495	-30,7397	402,08	30,9699	13,0816
BA382_CD_Kah1	Kah1	95,019	320,6	28,6329	22,407	107,22	55,45	162,68	33,7389	-31,0315	403,87	31,9183	12,7028
BA495_CD_Kah1	Kah1	95,019	320,6	28,6329	22,407	107,22	55,45	162,68	33,7389	-31,0315	403,87	31,9183	12,7028
BA048_HD_Kah5	Kah5	91,6097	292,11	29,2052	46,3743	122,93	48,325	171,25	28,4994	-30,3344	404,2	31,2071	12,9653
BA095_HD_Kah5	Kah5	91,6097	292,11	29,2052	46,3743	122,93	48,325	171,25	28,4994	-30,3344	404,2	31,2071	12,9653
BA401_CD_Kah5	Kah5	94,604	331,21	26,7106	20,6909	121,47	48,75	170,23	28,6406	-30,663	402,6	33,2662	12,1173
BA489_CD_Kah5	Kah5	94,604	331,21	26,7106	20,6909	121,47	48,75	170,23	28,6406	-30,663	402,6	33,2662	12,1173
BA089_HD_Koz.3	Koz.3	82,1711	293,25	34,5124	67,5646	103,62	43,625	147,25	29,6711	-30,9751	406,79	29,9398	13,6053
BA395_CD_Koz1	Koz1	95,9543	332,48	26,6403	16,1547	82,2	56,775	138,98	40,0757	-31,2827	404,89	32,4497	12,5778
BA507_CD_Koz1	Koz1	95,9543	332,48	26,6403	16,1547	82,2	56,775	138,98	40,0757	-31,2827	404,89	32,4497	12,5778
BA081_HD_Koz3	Koz3	82,1711	293,25	34,5124	67,5646	103,62	43,625	147,25	29,6711	-30,9751	406,79	29,9398	13,6053
BA388_CD_Koz3	Koz3	88,6229	328	25,7217	20,9671	141,17	80,425	221,6	36,4373	-30,5143	403,35	31,5167	12,7978
BA467_CD_Koz3	Koz3	88,6229	328	25,7217	20,9671	141,17	80,425	221,6	36,4373	-30,5143	403,35	31,5167	12,7978
BA035_HD_Ron2	Ron2	92,82645	327,96356	28,296603	46,865344	97,16903	67,562792	164,90518	38,5043	-30,60872	404,18678	34,5693	12,098827
BA379_D_Ron2	Ron2	95,496932	339,58655	26,694638	22,464309	91,12377	61,060894	153,78871	39,112	-30,60334	404,29112	35,929524	11,507316
BA432_D_Ron2	Ron2	95,496932	339,58655	26,694638	22,464309	91,12377	61,060894	153,78871	39,112	-30,60334	404,29112	35,929524	11,507316