

a

Legend

Sample Ancestry

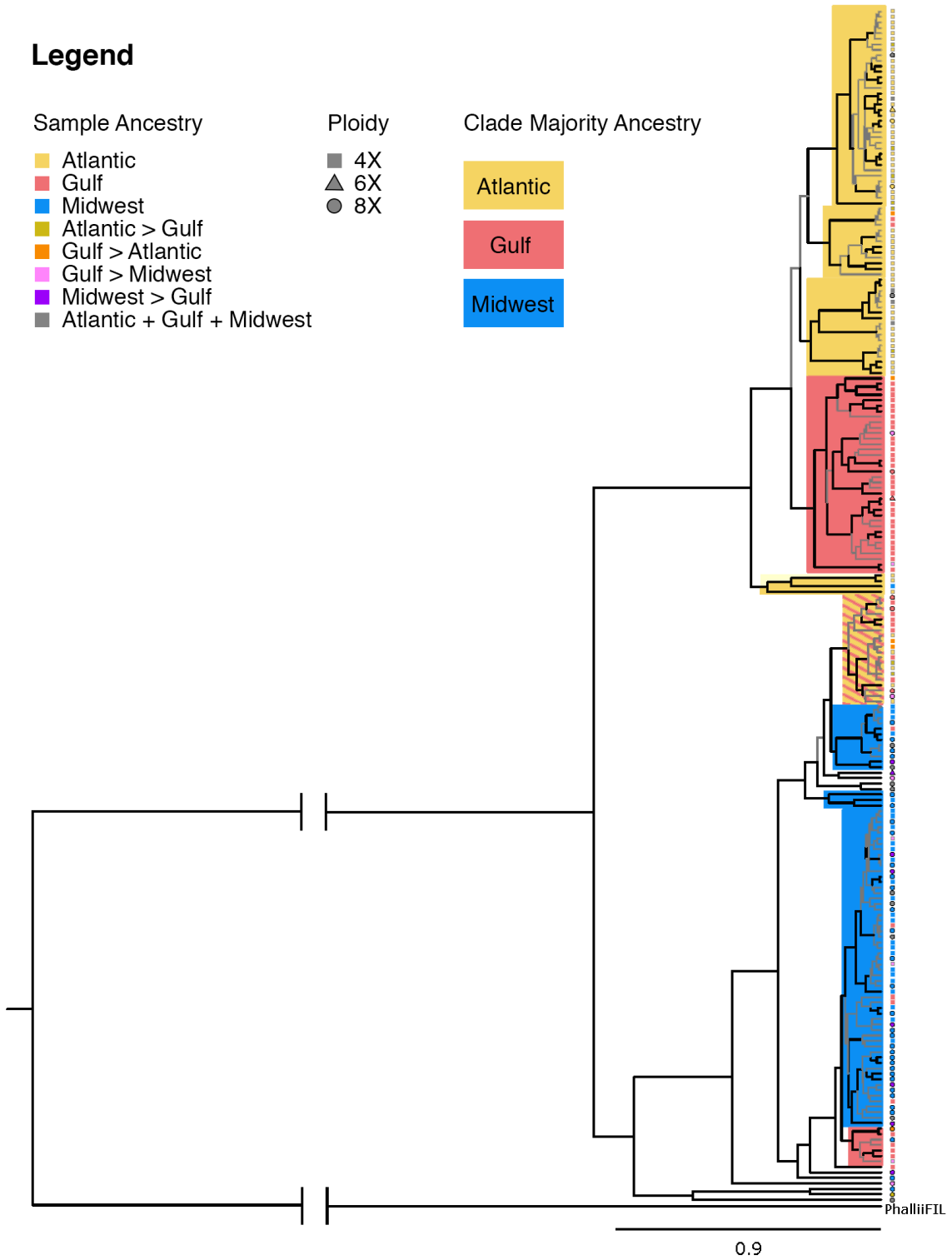
- Atlantic
- Gulf
- Midwest
- Atlantic > Gulf
- Gulf > Atlantic
- Gulf > Midwest
- Midwest > Gulf
- Atlantic + Gulf + Midwest

Ploidy

- 4X
- 6X
- 8X

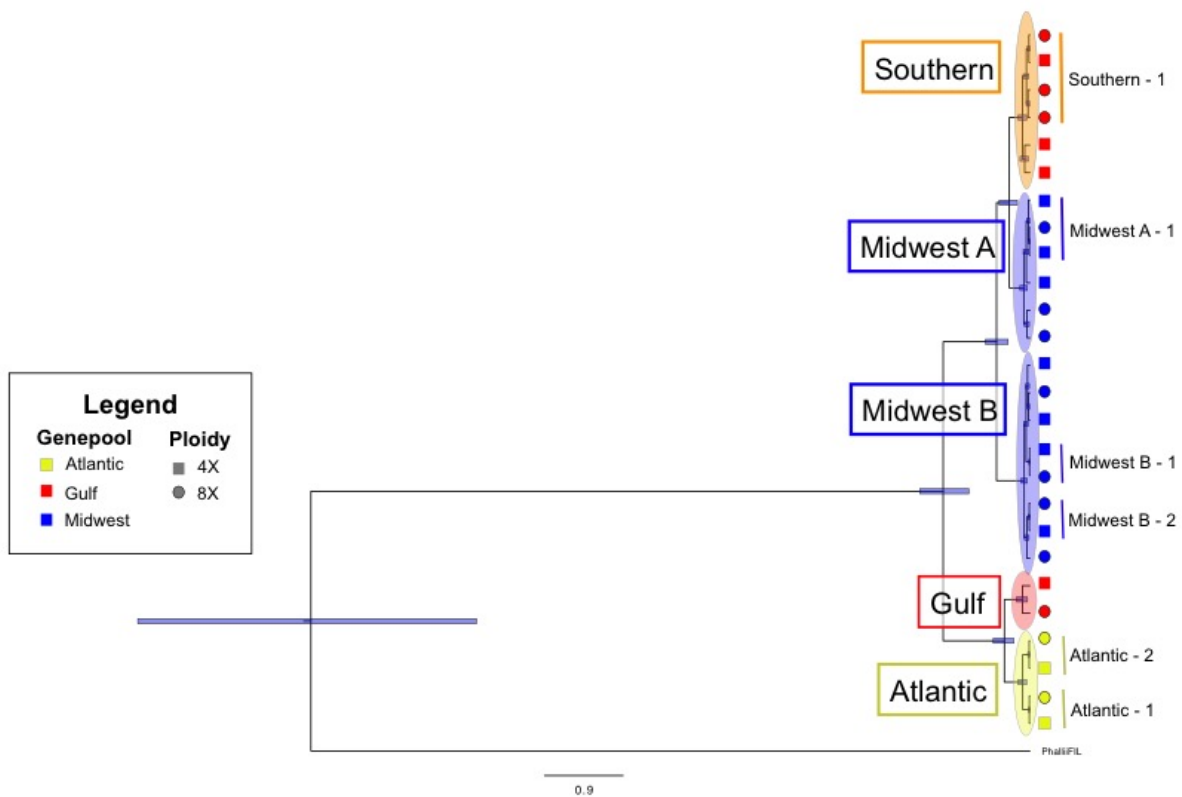
Clade Majority Ancestry

- Atlantic
- Gulf
- Midwest

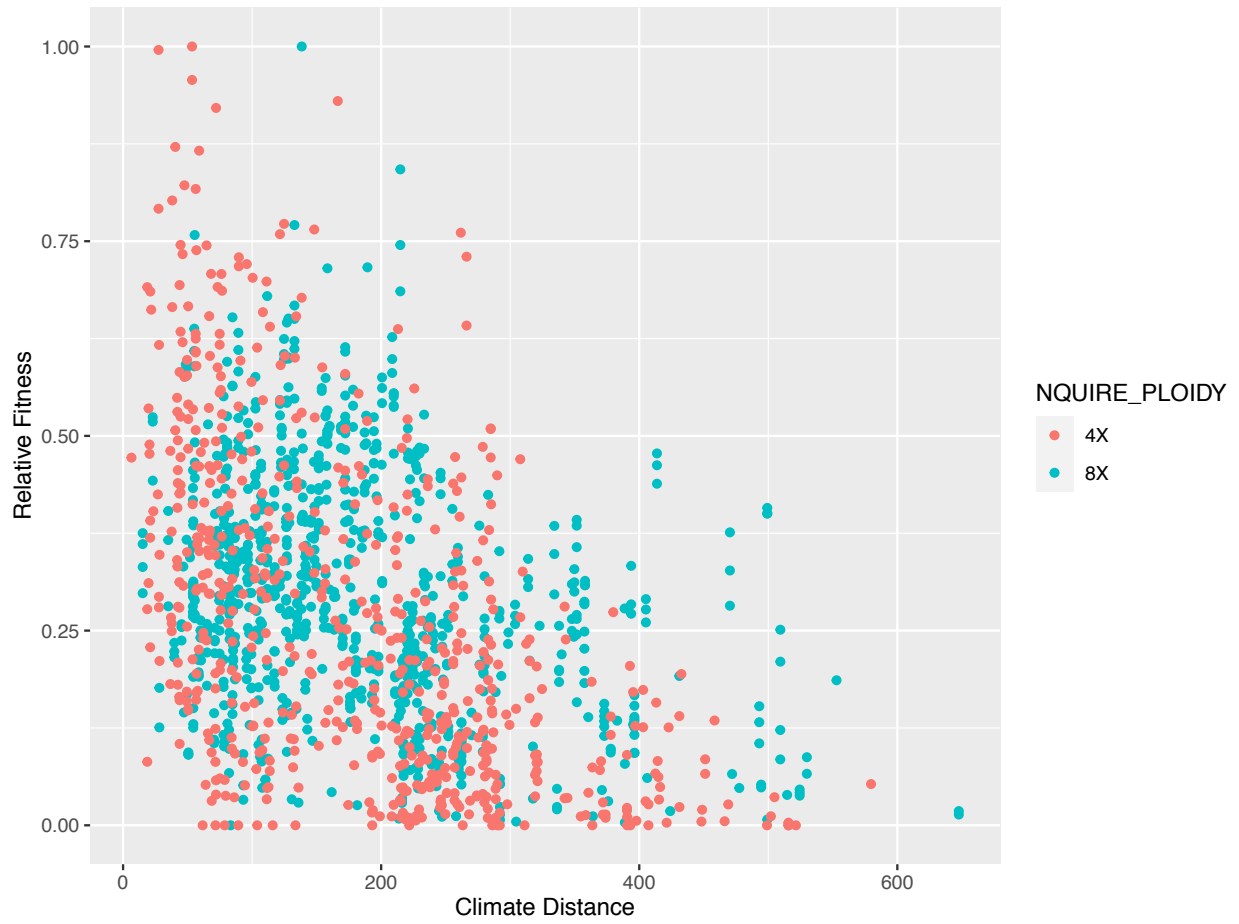


Supplemental Figure 1. Enlarged version of figure 2a with individual points that indicate the nuclear ancestry and ploidy of each sample. Gray branches indicate less than .95 posterior

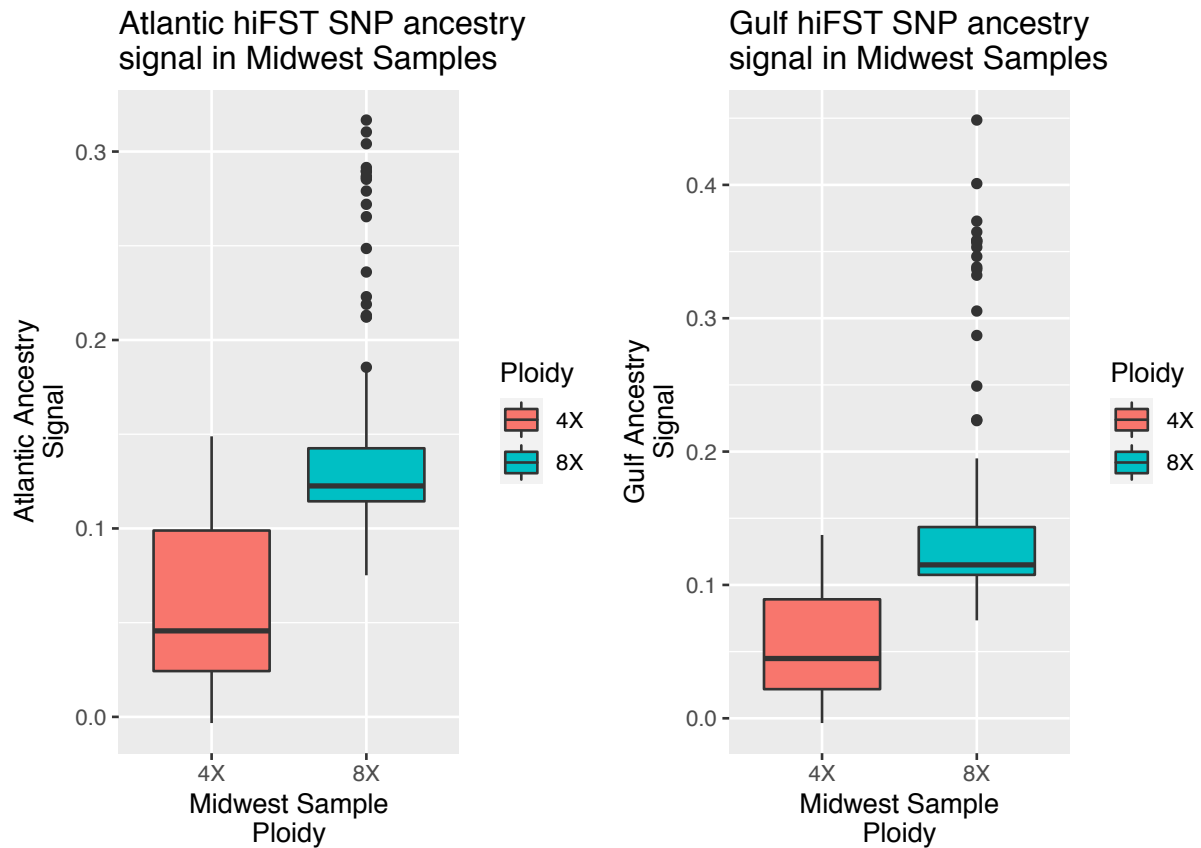
probability support, and black branches indicate greater than .95 posterior probability support. The outgroup is *P. halli* with an estimated divergence date of 8.35 mya.



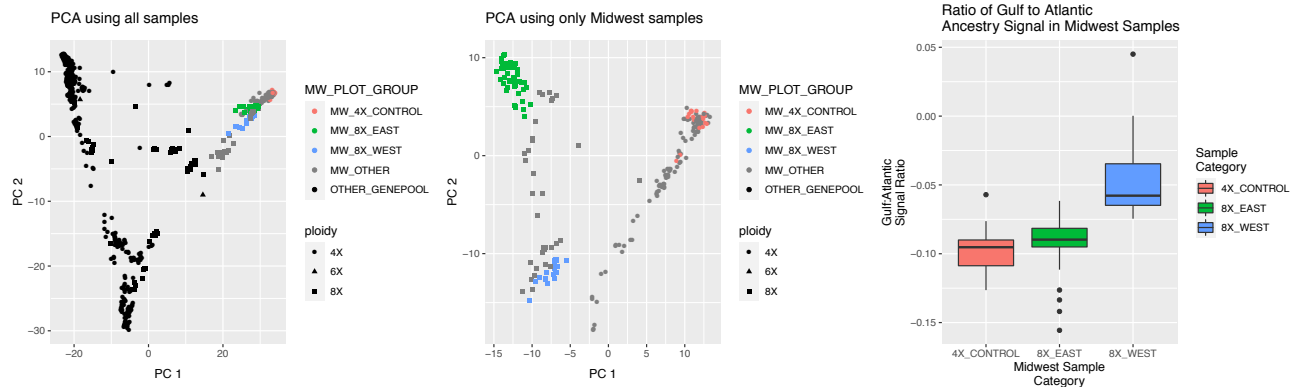
Supplemental Figure 2. Chloroplast tree using samples (see Supplemental Table 4) chosen to date the divergence of identified switchgrass groups using BEAST v2.6.6 (see Supplemental Table 2 for divergence date estimates).



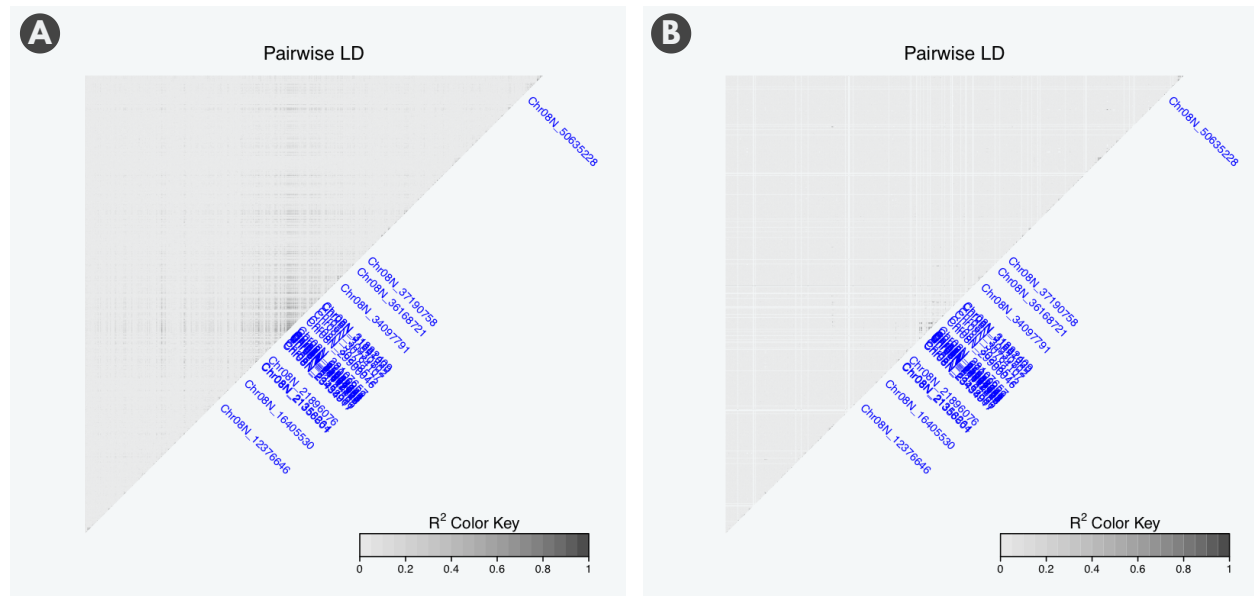
Supplemental Figure 3. Individual points used for plotting the linear relationship of relative fitness versus climate distance in Figure 3b.



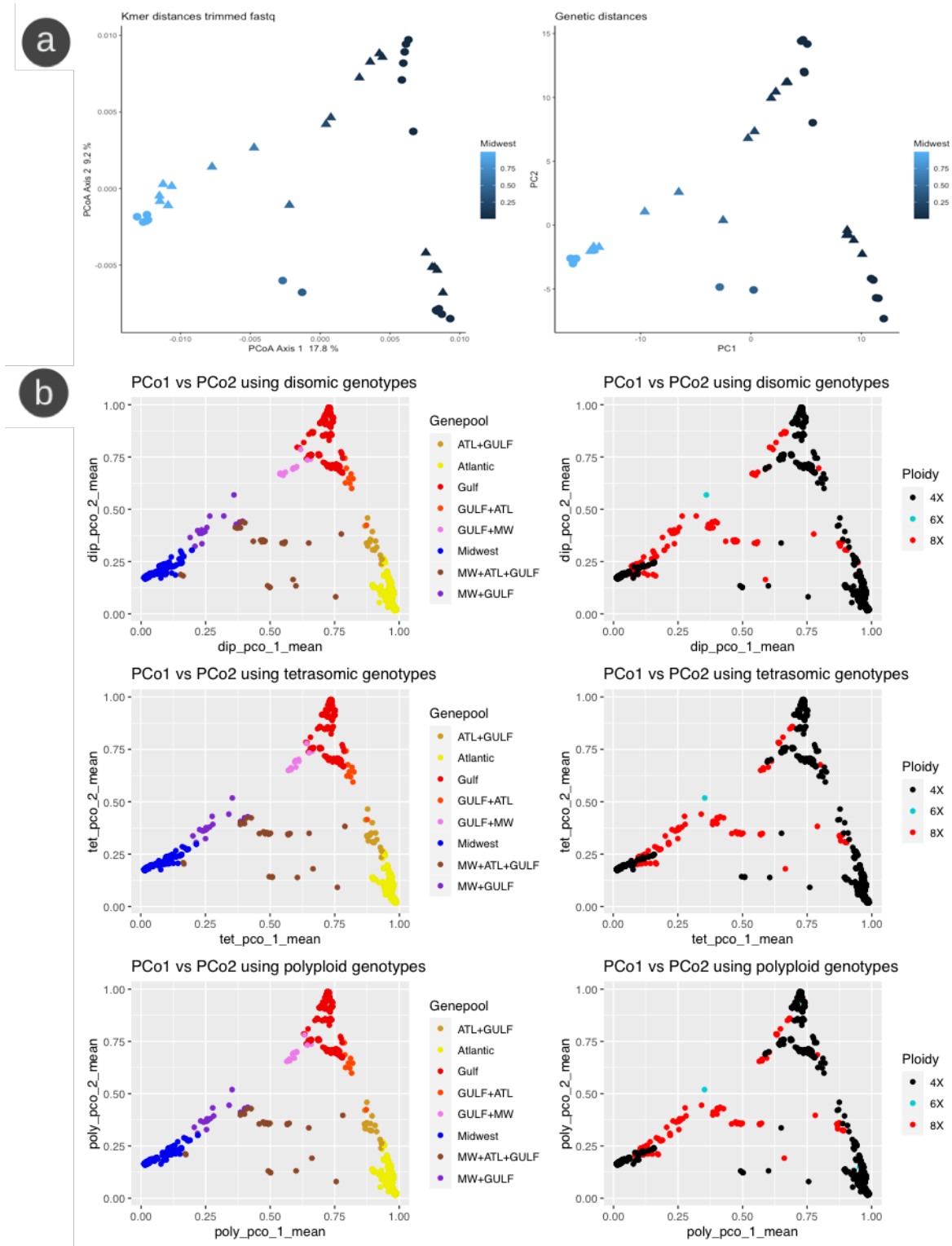
Supplemental Figure 4. Southern gene pool ancestry signal in Midwest gene pool. Signal of Atlantic and Gulf ancestry in 63 Midwest 4X and 105 Midwest 8X switchgrass, based on ancestry-informative alleles from SNPs with $F_{st} > 0.5$ between Atlantic or Gulf and Midwest 4X training sets.



Supplemental Figure 5. Comparison of Southern genepool ancestry signal in Midwest 8X. A subset of Midwest 8X samples with similar levels of Southern genepool ancestry signal were assigned to "East" and "West" groups based on PCA differentiation and geographic distribution. Red = Midwest 4X "control" samples with low Southern genepool ancestry signal, N = 20; green = Midwest 8X from eastern US, N = 52; blue = Midwest 8X mainly from western US, N = 20. (first panel) PCA plot of 706 samples in overall analysis; grey = Midwest samples not included in analysis in (third panel), black = Atlantic, Gulf, or Admixed samples. (second panel) PCA plot of Midwest samples; grey = Midwest samples not included in analysis in (third panel). (third panel) Ratio of Gulf to Atlantic ancestry signal. Midwest 4X control samples used to show background pattern; higher value on y-axis indicates higher ratio of Gulf to Atlantic ancestry signals.



Supplemental Figure 6. Linkage disequilibrium (LD) on Chromosome 08N for SNPs used in RDA analysis. Overlapping outlier SNPs are identified with blue text. **A)** Patterns of LD in the Midwest subpopulation. **B)** Patterns of LD in the Atlantic subpopulation.



Supplemental Figure 7. Population structure results are robust to genotyping methods. **A)** Strong similarity between PCoA generated from reference-free k-mer approach (left) and PCA generated using genotypes used in full analysis (right) shows that population structure patterns are not substantially biased by ploidy differences. Shape indicates ploidy (circle = 4X, triangle =

8X) and color indicates proportion of Midwest ancestry. The k-mer approach is computationally intensive, so the comparison uses a subset of 36 samples. B) Comparisons of PCoA results using different genotyping models for the same 50k SNPs. Top row uses disomic genotypes where all samples are assigned diploid (RR) genotypes. Second row uses tetrasomic genotypes where all samples are assigned tetraploid (RRRR) genotypes. Third row uses polyploid genotypes where 4X samples are assigned diploid genotypes and 8X individuals are assigned tetraploid genotypes. Left column shows samples colored by ancestry, right column shows samples colored by ploidy. Patterns are similar when using all three genotyping models.

PLANT_ID	LIB	Ploidy	Lat	Long	Approx_genome_coverage_mapped	Properly_paired_reads	SRA
J685.C	ITCS	4x	39.2594	-75.46198056	37.98483847	286116487	SRR11611480
J685.B	ITCR	4x	39.2594	-75.46198056	31.82959383	239752805	SRR11611481
J685.A	ITCQ	4x	39.2594	-75.46198056	32.0253387	241227231	SRR11611482
J684.A	ITCN	4x	38.5639	-75.0728	24.99251629	188253294	SRR11611484
J683.E	ITCM	4x	39.3375	-75.07456944	18.48334479	139223698	SRR11611485
J683.D	ITCL	4x	39.3375	-75.07456944	37.80870027	284789746	SRR11611486
J683.C	ITCK	4x	39.3375	-75.07456944	33.43415328	251838967	SRR11611487
J683.A	ITCJ	4x	39.3375	-75.07456944	37.52312982	282638719	SRR11611488
J682.B	ITCH	4x	40.1789	-74.31703889	32.32889282	243513718	SRR11611490
J682.A	ITCG	4x	40.1789	-74.31703889	34.24389929	257938287	SRR11611491
J680.C	ITCF	4x	35.5696	-76.510591	37.90925684	285547177	SRR11611492
J680.A	ITCE	4x	35.5696	-76.510591	37.82594075	284919608	SRR11611493
J679.C	ITCD	4x	35.4443	-76.363746	38.14543046	287326128	SRR11611494
J679.B	ITCC	4x	35.4443	-76.363746	38.10328977	287008708	SRR11611495
J679.A	ITCB	4x	35.4443	-76.363746	37.51152911	282551338	SRR11611496
J678.C	ITCA	4x	35.5785	-75.927189	27.12818337	204339964	SRR11611497
J678.A	ITBZ	4x	35.5785	-75.927189	38.42216812	289410623	SRR11611498
J677.C	ITBY	4x	35.9057	-76.031982	31.33102715	235997408	SRR11611499
J677.B	ITBX	4x	35.9057	-76.031982	37.85460139	285135491	SRR11611500
J677.A	ITBW	4x	35.9057	-76.031982	38.19927688	287731720	SRR11611501
J676.C	ITBU	4x	37.7686	-76.347208	38.18578447	287630090	SRR11611502
J676.B	ITBT	4x	37.7686	-76.347208	29.27909555	220541466	SRR11611503
J676.A	ITBS	4x	37.7686	-76.347208	38.34300662	288814348	SRR11611504
J675.C	ITBR	4x	37.781	-76.307789	37.72513193	284160277	SRR11611505
J674.C	ITBQ	4x	39.5659	-75.7295	28.61256019	215520864	SRR11611506
J674.B	ITBP	4x	39.5659	-75.7295	29.81405375	224570978	SRR11611507
J674.A	ITBN	4x	39.5659	-75.7295	30.35095769	228615146	SRR11611508
J673.D	ITBM	4x	38.8202	-75.22818889	36.87492026	277756154	SRR11611509
J673.C	ITBL	4x	38.8202	-75.22818889	36.5291199	275151452	SRR11611510
J673.B	ITBK	4x	38.8202	-75.22818889	24.84487358	187141192	SRR11611511
J673.A	ITBJ	4x	38.8202	-75.22818889	37.73533202	284237108	SRR11611512
J464.A	ITAU	4x	29.7159	-94.63221	38.79439742	292214398	SRR11611513
J672.B	IRYZ	4x	39.2546	-75.46608056	37.76209034	284438662	SRR11611515
J672.A	IRYY	4x	39.2546	-75.46608056	39.12432021	294699504	SRR11611516
J671.C	IRYX	4x	38.9643	-76.209929	37.99078227	286161258	SRR11611517
J671.B	IRYW	4x	38.9643	-76.209929	38.48587714	289890504	SRR11611518
J671.A	IRYU	4x	38.9643	-76.209929	38.79203496	292196603	SRR11611519
J670.C	IRYT	4x	39.5519	-74.34115	37.59027481	283144481	SRR11611520
J670.B	IRYS	4x	39.5519	-74.34115	38.49937605	289992183	SRR11611521
J670.A	IRYR	4x	39.5519	-74.34115	30.21849144	227617359	SRR11611522
J669.C	IRYQ	4x	40.5966	-74.18222222	37.8047261	284759811	SRR11611523
J669.B	IRYP	4x	40.5966	-74.18222222	38.69732261	291483193	SRR11611524
J669.A	IRYN	4x	40.5966	-74.18222222	38.91775899	293143605	SRR11611525
J667.B	IRYL	4x	35.0296	-79.610713	38.18096741	287593806	SRR11611526
J667.A	IRYK	4x	35.0296	-79.610713	38.27601285	288309725	SRR11611527
J667.C	IRYJ	4x	35.0296	-79.610713	37.55466046	282876220	SRR11611528
J666.C	IRYI	4x	35.611	-75.923248	38.34402768	288822039	SRR11611529
J666.B	IRYH	4x	35.611	-75.923248	38.34329591	288816527	SRR11611530
J666.A	IRYG	4x	35.611	-75.923248	38.68056471	291356966	SRR11611531
J665.H	IRYF	4x	40.9421	-73.47866667	38.59629646	290722225	SRR11611532
J665.G	IRYE	4x	40.9421	-73.47866667	37.98575637	286123401	SRR11611533
J665.F	IRYD	4x	40.9421	-73.47866667	38.81309813	292355259	SRR11611534
J665.E	IRYC	4x	40.9421	-73.47866667	38.25199191	288128790	SRR11611535
J665.C	IRYB	4x	40.9421	-73.47866667	38.42680317	289445536	SRR11611536
J665.B	IRYA	4x	40.9421	-73.47866667	37.78843551	284637104	SRR11611537
J665.A	IRXX	4x	40.9421	-73.47866667	38.47950665	289842519	SRR11611538
J665.D	IRXY	4x	40.9421	-73.47866667	38.37249117	289036437	SRR11611539
J664.E	IRXX	4x	39.7735	-74.53361111	36.9998861	278697445	SRR11611540
J664.G	IRXW	4x	39.7735	-74.53361111	35.47920379	267243078	SRR11611541
J664.D	IRXU	4x	39.7735	-74.53361111	37.98984206	286154176	SRR11611542
J664.C	IRXT	4x	39.7735	-74.53361111	38.1350546	287247973	SRR11611543
J664.B	IRXS	4x	39.7735	-74.53361111	33.7965286	254568518	SRR11611544
J664.A	IRXR	4x	39.7735	-74.53361111	26.0583117	196281277	SRR11611545
J664.F	IRXQ	4x	39.7735	-74.53361111	38.06493473	286719803	SRR11611546
J663.C	IRXP	4x	38.3737	-76.149184	38.46352633	289722149	SRR11611547
J663.B	IRXM	4x	38.3737	-76.149184	16.18552977	121915667	SRR11611548
J663.A	IRXN	4x	38.3737	-76.149184	38.42885219	289460970	SRR11611549
J662.C	IRXL	4x	37.7491	-75.785507	29.79245356	224408277	SRR11611550
J662.B	IRXK	4x	37.7491	-75.785507	32.91868571	247956266	SRR11611551
J662.A	IRXJ	4x	37.7491	-75.785507	38.20322264	287761441	SRR11611552
J662.F	IRXI	4x	37.7491	-75.785507	38.6266474	290950840	SRR11611553
J661.B	IRXE	4x	37.8414	-75.654336	35.71149404	268992778	SRR11611557
J661.A	IRXD	4x	37.8414	-75.654336	38.13776211	287268367	SRR11611558
J660.C	IRXC	4x	29.8979	-100.996962	38.43441776	289502892	SRR11611559
J660.B	IRXB	4x	29.8979	-100.996962	41.41585197	311960207	SRR11611560
J660.A	IRXA	4x	29.8979	-100.996962	23.12322469	174173067	SRR11611561
J658.B	IRWX	4x	38.8854	-91.54294444	37.55706807	282894355	SRR11611562
J658.A	IRWV	4x	38.8854	-91.54294444	31.43823965	236804974	SRR11611563
J657.C	IRWU	4x	37.073	-91.19740833	37.29245207	280901165	SRR11611564
J657.B	IRWT	4x	37.073	-91.19740833	37.6493452	283589422	SRR11611565
J657.A	IRWS	4x	37.073	-91.19740833	32.01618888	241158311	SRR11611566

J656.C	IRWR	4x	37.044	-91.14075	29.39774798	221435202	SRR11611567
J656.B	IRWQ	4x	37.044	-91.14075	37.48972142	282387074	SRR11611568
J656.A	IRWP	4x	37.044	-91.14075	37.23039338	280433715	SRR11611569
J643.A	IRWK	4x	42.9117	-70.865	33.88091686	255204163	SRR11611573
J639.A	IRWJ	4x	41.635	-71.233611	38.36407179	288973019	SRR11611574
J638.A	IRWI	4x	41.4639	-71.1925	27.11258845	204222497	SRR11611575
J634.A	IRWH	4x	43.0379	-70.71609	31.91420168	240390104	SRR11611576
J627.A	IRWG	4x	41.4675	-71.74008	34.17342574	257407453	SRR11611577
J602.C	IRWD	4x	33.3519	-79.1937	38.17050007	287514962	SRR11611580
J596.B	IRWC	4x	38.9524	-76.23372222	38.67498095	291314907	SRR11611581
J592.C	IRWB	4x	40.7698	-72.89763889	38.10920755	287053283	SRR11611582
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J584.C	IRUZ	4x	32.3436	-80.45525	38.80001171	292256687	SRR11611584
J580.A	IRUY	4x	41.8611	-88.2540556	38.39356775	289195194	SRR11611585
J574.C	IRUW	4x	40.9817	-72.616528	29.3218788	220863726	SRR11611586
J541.C	IRUU	4x	41.0157	-72.020153	32.15533627	242206423	SRR11611587
J515.A	IRUT	4x	42.6767	-70.75944444	28.5794027	215271109	SRR11611588
J504.B	IRUS	4x	31.1699	-89.7297778	27.0247378	203560772	SRR11611589
J501.C	IRUR	4x	30.3871	-89.4609167	27.13172846	204366667	SRR11611590
J433.A	IRUQ	4x	41.02	-72.01	32.44211431	244366546	SRR11611591
J420.A	IRUP	4x	43	-86	37.52349133	282641442	SRR11611592
J395.B	IRUN	4x	42.5755	-82.576892	35.8649235	270148468	SRR11611593
J368.C	IRUM	4x	42.5278	-85.921825	37.50154105	282476104	SRR11611594
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J245.A	IRUI	4x	32.86	-98.42	40.63484585	306077367	SRR11611597
J241.A	IRUG	4x	30.29	-99.3969	29.28933586	220618600	SRR11611599
J246.A	IRIN	4x	32.65	-98.2603	36.0312352	271401192	SRR11611602
J240.A	IRIM	4x	28.12	-97.2342	39.4702467	297305156	SRR11611603
J237.A	IRIK	4x	28.32	-99.1231	33.36575888	251323794	SRR11611605
J234.A	IRIH	4x	30.35	-97.76	40.05659924	301721790	SRR11611608
J231.A	IRIG	4x	30.75	-99.22	31.90222553	240299895	SRR11611609
J228.A	IRID	4x	28.24	-96.8092	22.85703322	172168010	SRR11611612
J225.A	IRIB	4x	30.05	-99.4499	40.62972755	306038814	SRR11611614
J224.A	IRIA	4x	28.34	-99.09	37.61171648	283305988	SRR11611615
J220.A	IRIH	4x	29.27	-98.1844	29.17588776	219764065	SRR11611617
J219.A	IRHX	4x	29.24	-97.9831	25.59220538	192770384	SRR11611618
J215.A	IRHS	4x	28.65	-97.2522	29.41640648	221575745	SRR11611621
J210.A	IRHP	4x	29.9	-100.992	41.33763413	311371040	SRR11611623
J209.A	IRHN	4x	28.11	-97.0291	34.20294481	257629802	SRR11611624
J647.C	INGZ	4x	41.4558	-71.453889	38.41212841	289935000	SRR11611635
J647.B	INGY	4x	41.4558	-71.453889	30.03183546	226211394	SRR11611636
J646.C	INGX	4x	41.4631	-71.554444	24.21826673	182421347	SRR11611637
J646.B	INGW	4x	41.4631	-71.554444	30.90346439	232776840	SRR11611638
J646.A	INGU	4x	41.4631	-71.554444	38.44308088	289568146	SRR11611639
J645.C	INGT	4x	41.4003	-71.584722	23.80171217	179283697	SRR11611640
J645.B	INGS	4x	41.4003	-71.584722	20.60163437	155179474	SRR11611641
J645.A	INGR	4x	41.4003	-71.584722	30.10414481	226756056	SRR11611642
J644.C	INGQ	4x	41.385	-71.633056	37.00404534	278728774	SRR11611643
J644.B	INGP	4x	41.385	-71.633056	36.60265781	275705368	SRR11611644
J641.C	INGN	4x	41.7386	-70.737222	36.71625567	276561031	SRR11611645
J641.B	INGM	4x	41.7386	-70.737222	35.9285615	270627814	SRR11611646
J641.A	INGL	4x	41.7386	-70.737222	37.10039249	279454498	SRR11611647
J640.C	INGK	4x	41.6789	-70.774167	30.65192246	230882129	SRR11611648
J640.B	INGJ	4x	41.6789	-70.774167	37.55844306	282904712	SRR11611649
J635.C	INGF	4x	43.5804	-70.32879	27.68180565	208510061	SRR11611652
J635.B	INGE	4x	43.5804	-70.32879	34.44499744	259453036	SRR11611653
J635.A	INGD	4x	43.5804	-70.32879	36.73397582	276694506	SRR11611654
J626.B	INGB	4x	41.3421	-71.93334	28.14735517	212016760	SRR11611655
J625.B	INGA	4x	41.3364	-72.03365	37.58646871	283115812	SRR11611656
J621.C	INFZ	4x	38.061	-76.3374474	34.98292137	263504887	SRR11611657
J621.B	INFY	4x	38.061	-76.3374474	36.23981212	272972274	SRR11611658
J621.A	INFX	4x	38.061	-76.3374474	37.19688169	280181292	SRR11611659
J619.A	INFV	4x	42.8311	-70.86361	37.40967494	281784133	SRR11611660
J617.A	INFU	4x	41.3364	-72.03365	37.60367016	283245380	SRR11611661
J613.C	INFP	4x	35.9082	-75.6757302	38.68969953	291425773	SRR11611666
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J613.A	INFM	4x	35.9082	-75.6757302	37.82273911	284895492	SRR11611668
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J612.A	INFK	4x	41.4558	-71.453889	36.32573721	273619495	SRR11611670
J610.C	INFJ	4x	29.9334	-99.234241	37.32785439	281167829	SRR11611671
J610.B	INFI	4x	29.9334	-99.234241	40.09346325	301999464	SRR11611672
J610.A	INFH	4x	29.9334	-99.234241	38.52377576	290175971	SRR11611673
J609.C	INFG	4x	33.1668	-79.6664612	37.73950042	284268506	SRR11611674
J609.B	INFF	4x	33.1668	-79.6664612	37.56878799	282982634	SRR11611675
J609.A	INFE	4x	33.1668	-79.6664612	37.66414077	283700868	SRR11611676
J608.A	INFD	4x	NA	NA	36.69379639	276391859	SRR11611677
J607.B	INFC	4x	41.5746	-71.45391389	25.55217278	192468843	SRR11611678
J607.A	INFB	4x	41.5746	-71.45391389	37.26723257	280711202	SRR11611679
J606.B	INFA	4x	42.7431	-70.8134	37.4467446	282063356	SRR11611680
J605.C	INEZ	4x	41.3149	-72.03216944	37.78793168	284633309	SRR11611681
J605.B	INEY	4x	41.3149	-72.03216944	38.30416462	288521775	SRR11611682

J605.A	INEX	4x	41.3149	-72.03216944	37.34275273	281280049	SRR11611683
J603.C	INEW	4x	33.2592	-79.6102	37.54462354	282800618	SRR11611684
J603.B	INEU	4x	33.2592	-79.6102	37.89761419	285459480	SRR11611685
J603.A	INET	4x	33.2592	-79.6102	37.78710074	284627050	SRR11611686
J600.B	IMJC	4x	38.2649	-75.66383333	35.157925	264823082	SRR11611688
J600.A	IMJB	4x	38.2649	-75.66383333	37.43926955	282007051	SRR11611689
J599.C	IMJA	4x	38.4072	-76.05972222	32.73551707	246576569	SRR11611690
J599.B	IMIZ	4x	38.4072	-76.05972222	37.05975822	279148425	SRR11611691
J599.A	IMIY	4x	38.4072	-76.05972222	32.29248497	243239480	SRR11611692
J598.C	IMIX	4x	38.7724	-75.97663889	37.25377933	280609867	SRR11611693
J598.B	IMIW	4x	38.7724	-75.97663889	37.1512518	279837590	SRR11611694
J602.B	IMIT	4x	33.3519	-79.1937	36.85022437	277570135	SRR11611696
J597.C	IMIS	4x	39.0535	-76.22113889	36.93455634	278205356	SRR11611697
J597.B	IMIQ	4x	39.0535	-76.22113889	33.75172022	254231004	SRR11611699
J601.B	IMIP	4x	38.7558	-76.15558333	37.23297583	280453167	SRR11611700
J597.A	IMIN	4x	39.0535	-76.22113889	36.53844324	275221679	SRR11611701
J601.A	IMIM	4x	38.7558	-76.15558333	35.74466507	269242635	SRR11611702
J596.C	IMIL	4x	38.9524	-76.23372222	36.88659558	277844097	SRR11611703
J596.A	IJBV	4x	38.9524	-76.23372222	37.7079808	284031088	SRR11611704
J595.C	IJBX	4x	35.8711	-75.9798333	37.51436832	282572724	SRR11611705
J595.B	IJBW	4x	35.8711	-75.9798333	33.60276411	253109009	SRR11611706
J595.A	IJBU	4x	35.8711	-75.9798333	38.39280598	289189456	SRR11611707
J593.B	IJBR	4x	35.5995	-75.84758333	37.17410366	280009719	SRR11611709
J593.A	IJBQ	4x	35.5995	-75.84758333	13.73592089	103464266	SRR11611710
J592.B	IJBP	4x	40.7698	-72.89763889	21.64966715	163073662	SRR11611711
J592.A	IJBN	4x	40.7698	-72.89763889	37.59197334	283157275	SRR11611712
J591.B	IJBM	4x	36.6723	-75.91636111	33.39833222	251569149	SRR11611713
J591.A	IJBL	4x	36.6723	-75.91636111	38.27624305	288311459	SRR11611714
J590.B	IJBK	4x	37.4559	-75.83288889	33.92530505	255538512	SRR11611715
J589.C	IJBH	4x	37.9075	-75.35108333	38.01010469	286306802	SRR11611716
J589.B	IJBI	4x	37.9075	-75.35108333	37.51370266	282567710	SRR11611717
J588.B	IJBH	4x	38.6367	-77.23441667	35.37612172	266466624	SRR11611718
J588.A	IJBG	4x	38.6367	-77.23441667	36.35417043	273833665	SRR11611719
J587.C	IJBF	4x	34.0862	-81.11703	35.30384423	265922202	SRR11611720
J586.C	IJBE	4x	33.508	-79.06522	35.43300395	266895083	SRR11611721
J586.B	IJBD	4x	33.508	-79.06522	37.24281335	280527267	SRR11611722
J585.B	IJBC	4x	32.8647	-79.83733	34.95249781	263275725	SRR11611723
J583.C	IJBB	4x	41.6361	-87.4364722	33.36246843	251299009	SRR11611724
J582.C	IJBA	4x	41.365	-88.1866944	35.312927	265990617	SRR11611725
J582.A	IJAZ	4x	41.365	-88.1866944	31.94729305	240639361	SRR11611726
J581.C	IJAY	4x	42.0596	-87.84222222	35.21946074	265286593	SRR11611727
J538.A	IJAW	4x	41.0171	-72.001407	35.96319076	270888655	SRR11611728
J276.B	IJAS	4x	29.3247	-101.3645	32.82642783	247261344	SRR11611731
J274.A	IJAQ	4x	29.3247	-101.3645	37.95115737	285862788	SRR11611733
J272.A	IJAP	4x	29.3247	-101.3645	37.96364386	285956841	SRR11611734
J271.A	IJAN	4x	29.3247	-101.3645	40.11497171	302161474	SRR11611735
J268.A	IJAM	4x	29.3247	-101.3645	39.26179178	295734993	SRR11611736
J574.B	IIMM	4x	40.9817	-72.616528	39.30996947	296097886	SRR11611796
J542.B	IIMK	4x	41.0323	-72.196464	18.68760741	140762283	SRR11611797
J541.B	IIMJ	4x	41.0157	-72.020153	32.71005568	246384784	SRR11611798
J541.A	IIMI	4x	41.0157	-72.020153	18.38079867	138451281	SRR11611799
J540.C	IIMH	4x	41.0171	-72.001407	38.01744394	286362084	SRR11611800
J540.B	IIMG	4x	41.0171	-72.001407	38.64240018	291069496	SRR11611801
J527.C	IIMB	4x	40.9089	-72.446203	35.50964978	267472409	SRR11611805
J527.A	IILZ	4x	40.9089	-72.446203	26.45179628	199245155	SRR11611807
J526.C	IILY	4x	40.966	-72.133468	39.14355316	294844374	SRR11611808
J526.A	IILX	4x	40.966	-72.133468	35.43479396	266908566	SRR11611809
J522.C	IILW	4x	39.644	-74.644024	36.24026072	272975653	SRR11611810
J522.B	IILU	4x	39.644	-74.644024	38.41413481	289350113	SRR11611811
J521.C	IILT	4x	39.9653	-74.311821	25.95218889	195481919	SRR11611812
J521.B	IILS	4x	39.9653	-74.311821	31.05663722	233930597	SRR11611813
J517.C	IILR	4x	40.9834	-72.615855	33.89608602	255318423	SRR11611814
J517.B	IILQ	4x	40.9834	-72.615855	36.90586331	277989229	SRR11611815
J515.C	IILN	4x	42.6767	-70.75944444	37.72179913	284135173	SRR11611817
J489.A	IILK	4x	37.7367	-94.32752778	34.47794158	259701184	SRR11611818
J481.A	IILJ	4x	33.3972	-92.41386111	36.84494795	277530391	SRR11611819
J469.C	IILH	4x	30.8469	-86.73777778	39.88121366	300400718	SRR11611820
J465.C	IILG	4x	30.8447	-93.56707	39.12278484	294687939	SRR11611822
J465.A	IILF	4x	30.8447	-93.56707	25.36948261	191092750	SRR11611823
J461.A	IILD	4x	30.2988	-89.40688	31.23790181	235295952	SRR11611825
J460.B	IILB	4x	30.7258	-88.73723	36.72890067	276656278	SRR11611827
J460.A	IILA	4x	30.7258	-88.73723	32.37792018	243883011	SRR11611828
J458.B	IILK	4x	30.87	-86.92861111	33.20648572	250124087	SRR11611829
J458.A	IILY	4x	30.87	-86.92861111	37.10850572	279515610	SRR11611830
J456.C	IILX	4x	30.9	-86.49361111	39.07340833	294316016	SRR11611831
J456.B	IILW	4x	30.9	-86.49361111	40.47195883	304850439	SRR11611832
J456.A	IILV	4x	30.9	-86.49361111	37.82134765	284885011	SRR11611833
J455.B	IILT	4x	38.08	-75.33	31.51522441	237384853	SRR11611834
J434.A	IILK	4x	40.94	-72.28	36.13248677	272163858	SRR11611840
J432.B	IILJ	4x	41.04	-71.93	36.89611474	277915799	SRR11611841
J429.B	IILH	4x	41.04	-71.93	34.03591235	256371649	SRR11611843
J421.B	IILF	4x	43.09	-86.25	30.43072418	229215978	SRR11611844

J421.A	IIKE	4x	43.09	-86.25	38.39548826	289209660	SRR11611845
J420.B	IIKD	4x	43	-86	33.66749858	253596614	SRR11611846
J416.A	IIKA	4x	40.6	-74.13	37.20169664	280217560	SRR11611849
J412.A	IIJX	4x	42.55	-87.8	36.00282853	271187222	SRR11611850
J409.A	IIJW	4x	43.2	-90.45	32.18458252	242426717	SRR11611851
J406.A	IIJU	4x	43.47	-89.43	30.20026455	227480067	SRR11611852
J400.B	IIJT	4x	42.93	-78.18	30.97030602	233280317	SRR11611853
J390.B	IIJR	4x	40.3	-86.22	37.37770885	281543352	SRR11611854
J387.B	IIJQ	4x	38.5506	-93.29858333	30.12738101	226931080	SRR11611855
J382.B	IIJP	4x	42.1824	-85.825225	27.77142266	209185091	SRR11611856
J382.A	IIJN	4x	42.1824	-85.825225	37.21777587	280338675	SRR11611857
J380.B	IIJM	4x	44.0571	-86.5084083	39.44668431	297127675	SRR11611858
J379.B	IIJL	4x	42.6484	-82.5286806	36.27167984	273212314	SRR11611859
J378.C	IIJK	4x	43.0086	-86.2212222	36.48738558	274837093	SRR11611860
J357.C	IIJJ	4x	41.3473	-88.1386	34.95969832	263329962	SRR11611861
J355.B	IIJI	4x	41.3473	-88.1386	36.9336533	278198554	SRR11611862
J354.B	IIJH	4x	41.3597	-88.3254333	38.88632061	292906799	SRR11611863
J353.A	IIJG	4x	39.8543	-83.5308	38.94128566	293320817	SRR11611864
J351.C	IIJF	4x	40.7319	-83.0926167	36.99236604	278640801	SRR11611865
J349.C	IIJE	4x	40.6203	-83.02145	37.16355109	279930233	SRR11611866
J349.B	IIJD	4x	40.6203	-83.02145	36.69742326	276419178	SRR11611867
J349.A	IIJC	4x	40.6203	-83.02145	35.55843472	267839876	SRR11611868
J348.B	IIJB	4x	40.6203	-83.02145	34.22493757	257795460	SRR11611869
J344.A	IIJA	4x	41.3046	-88.1723167	36.85058149	277572825	SRR11611870
J267.C	IIIS	4x	45.4182	-93.7014	36.48963759	274854056	SRR11611877
J267.B	IIIR	4x	45.4182	-93.7014	36.9409871	278253795	SRR11611878
J267.A	IIIQ	4x	45.4182	-93.7014	31.17501338	234822252	SRR11611879
J258.C	IIIP	4x	45.3815	-93.1641	28.96095654	218145120	SRR11611880
J258.B	IIIN	4x	45.3815	-93.1641	36.67324792	276237080	SRR11611881
J537.C	IIBQ	4x	41.0171	-72.001407	37.38221804	281577317	SRR11611884
J193.A	IELT	4x	34.3211	-78.41128333	38.94473437	293346794	SRR11611887
J189.A	IELS	4x	29.7625	-85.40277778	35.17828469	264976439	SRR11611888
J186.A	IELR	4x	29.9858	-84.38666667	35.27921724	265736702	SRR11611889
J172.A	IELQ	4x	40.5758	-74.15805556	36.49866594	274922061	SRR11611890
J171.A	IELP	4x	40.9849	-72.615117	36.01329467	271266057	SRR11611891
J164.A	IELN	4x	27.4756	-80.29555556	34.30889728	258427877	SRR11611892
J026.A	IELH	4x	34.2257	-77.94471	37.00913283	278767095	SRR11611897
J019.A	IELE	4x	27.7484	-80.436163	37.97626336	286051896	SRR11611900
J026.C	IHAD	4x	34.2257	-77.94471	37.47577922	282282056	SRR11611907
J425.A	IIAA	4x	40.5	-74.22	37.26939709	280727506	SRR11611909
J461.C	IHZY	4x	30.2988	-89.40688	29.99191159	225910672	SRR11611911
J204.A	IHZX	4x	34.7061	-77.648133	36.78807474	277102000	SRR11611912
J350.C	IHZU	4x	40.7319	-83.0926167	35.51645227	267523648	SRR11611914
J357.B	IHZQ	4x	41.3473	-88.1386	32.50167524	244815182	SRR11611918
J586.A	IHZM	4x	33.508	-79.06522	16.35639819	123202714	SRR11611921
J458.C	IHZK	4x	30.87	-86.92861111	17.55452841	132227494	SRR11611922
J336.A	IHZD	4x	29.8711	-96.280086	17.63363375	132823346	SRR11611927
J350.B	IHZB	4x	40.7319	-83.0926167	16.69944949	125786709	SRR11611929
J354.C	IHYX	4x	41.3597	-88.3254333	35.6738733	268709404	SRR11611932
J396.A	IHYW	4x	43.8	-91.83	35.36106726	266353228	SRR11611933
J585.C	IHYT	4x	32.8647	-79.83733	37.0703935	279228534	SRR11611934
J353.C	IHYL	4x	39.8543	-83.5308	35.38976228	266569370	SRR11611939
J348.C	IHYH	4x	40.6203	-83.02145	35.59114706	268086278	SRR11611943
J262.A	IHYF	4x	43.9345	-95.7229	28.91118082	217770190	SRR11611944
J538.C	IHYE	4x	41.0171	-72.001407	32.94652416	248165956	SRR11611945
J394.B	IHYC	4x	42.3	-84.28	36.28470958	273310459	SRR11611946
J585.A	IHYA	4x	32.8647	-79.83733	37.15660256	279877894	SRR11611948
J430.B	IHXY	4x	41.04	-71.93	31.10715122	234311088	SRR11611950
J258.A	IHXU	4x	45.3815	-93.1641	35.41318514	266745800	SRR11611953
J352.C	IHXS	4x	39.8391	-83.5731	34.11385724	256958760	SRR11611955
J348.A	IHXN	4x	40.6203	-83.02145	33.57612037	252908318	SRR11611959
J430.A	IHXM	4x	41.04	-71.93	36.06624827	271664924	SRR11611960
J525.B	IHXX	4x	40.9027	-72.570629	34.87248081	262673006	SRR11611962
J386.B	IHXI	4x	38.5484	-93.25808611	34.49756537	259848998	SRR11611963
J584.B	IHXG	4x	32.3436	-80.45525	37.75242328	284365846	SRR11611965
J352.B	IHWZ	4x	39.8391	-83.5731	33.4734071	252134642	SRR11611971
J311.A	IHWX	4x	29.4201	-98.572102	38.21136813	287822796	SRR11611973
J584.A	IHWV	4x	32.3436	-80.45525	36.97884443	278538951	SRR11611974
J428.B	IHWT	4x	40.72	-73.58	33.83364963	254848128	SRR11611976
J488.C	IHWR	4x	37.0072	-94.34954444	35.50493083	267436864	SRR11611978
J384.C	IHWP	4x	38.4816	-93.22158333	35.35807538	266330692	SRR11611979
J344.C	IHWJ	4x	41.3046	-88.1723167	36.7592986	276885247	SRR11611984
J352.A	IHWF	4x	39.8391	-83.5731	36.32828421	273638680	SRR11611988
J358.A	IGSD	4x	41.3892	-88.1946167	29.72407072	223893191	SRR11611989
J376.C	IGSB	4x	43.0086	-86.2064167	34.11703777	256982717	SRR11611990
J482.C	IGSA	4x	33.1498	-92.07574167	36.37531034	273992899	SRR11611991
J327.A	IGRZ	4x	28.8053	-97.003598	26.36536259	198594103	SRR11611992
J385.A	IGRX	4x	38.5321	-93.29148333	18.88699056	142264114	SRR11611993
J180.A	IGRW	4x	29.365	-81.08472222	30.67892864	231085550	SRR11611994
J429.A	IGRU	4x	41.04	-71.93	37.99663473	286205341	SRR11611995
J257.A	IGRT	4x	44.7922	-93.2744	39.02688828	293965609	SRR11611996
J400.A	IGRS	4x	42.93	-78.18	23.65517694	178179937	SRR11611997

J455.A	IGRQ	4x	38.08	-75.33	36.51657314	275056945	SRR11611999
J306.A	IGRP	4x	30.874	-99.049946	23.88803514	179933915	SRR11612000
J542.C	IGRM	4x	41.0323	-72.196464	25.73289279	193830096	SRR11612002
J384.B	IGRL	4x	38.4816	-93.22158333	30.96104614	233210568	SRR11612003
J355.C	IGRJ	4x	41.3473	-88.1386	36.16695115	272423457	SRR11612004
J530.C	IGRI	4x	41.1661	-74.26833333	32.51012064	244878796	SRR11612005
J374.B	IGRH	4x	42.6577	-85.8898056	33.91720469	255477497	SRR11612006
J481.B	IGRG	4x	33.3972	-92.41386111	37.78657753	284623109	SRR11612007
J323.A	IGRF	4x	28.6911	-95.968271	37.30624663	281005071	SRR11612008
J305.A	IGRE	4x	28.117	-96.800263	35.59001754	268077770	SRR11612009
J177.A	IGRC	4x	30.4369	-81.41333333	40.06844289	301811001	SRR11612011
J253.A	IGRA	4x	45.565	-92.825	22.54194199	169794621	SRR11612013
J394.A	IGQZ	4x	42.3	-84.28	20.76921605	156441764	SRR11612014
J029.B	IGQY	4x	39.223	-74.992585	36.14209223	272236210	SRR11612015
J450.B	IGQX	4x	39.82	-74.53	35.905596	270454829	SRR11612016
J470.A	IGQW	4x	36.3557	-94.14363889	37.2250324	280393334	SRR11612017
J313.A	IGQU	4x	29.7752	-95.31025	39.74614531	299383331	SRR11612018
J538.B	IGQT	4x	41.0171	-72.001407	34.62545459	260812309	SRR11612019
J384.A	IGQS	4x	38.4816	-93.22158333	36.60290793	275707252	SRR11612020
J489.C	IGQR	4x	37.7367	-94.32752778	28.26773322	212923494	SRR11612021
J355.A	IGQQ	4x	41.3473	-88.1386	35.70563813	268948669	SRR11612022
J525.C	IGQP	4x	40.9027	-72.570629	36.2089235	272739609	SRR11612023
J374.A	IGQN	4x	42.6577	-85.8898056	32.48453167	244686050	SRR11612024
J293.A	IGQK	4x	29.59	-98.54	40.73106144	306802100	SRR11612027
J416.B	IGQJ	4x	40.6	-74.13	37.30722109	281012411	SRR11612028
J427.B	IGQH	4x	40.62	-74.18	24.38633431	183687297	SRR11612029
J194.A	IGQG	4x	35.5795	-75.84906667	25.14108395	189372363	SRR11612030
J393.A	IGQF	4x	41.63	-87.43	34.01527919	256216232	SRR11612031
J521.A	IGQE	4x	39.9653	-74.311821	27.19184925	204819520	SRR11612032
J371.A	IGQD	4x	44.0851	-86.4375139	37.77283195	284519572	SRR11612033
J469.A	IGQC	4x	30.8469	-86.73777778	34.74995311	261750080	SRR11612034
J307.A	IGQB	4x	29.2684	-98.046518	39.0131188	293861892	SRR11612035
J537.B	IGQA	4x	41.0171	-72.001407	25.17972655	189663434	SRR11612036
J381.A	IGPZ	4x	42.3346	-86.300584	32.27117433	243078960	SRR11612037
J489.B	IGPY	4x	37.7367	-94.32752778	30.37263542	228778431	SRR11612038
J353.B	IGPX	4x	39.8543	-83.5308	34.7905202	262055647	SRR11612039
J191.A	IGPW	4x	30.5392	-87.04972222	36.44012738	274481126	SRR11612040
J387.C	IGPU	4x	38.5506	-93.29858333	26.51645839	199732215	SRR11612041
J434.B	IGPS	4x	40.94	-72.28	25.93506205	195352913	SRR11612043
J264.A	IGPR	4x	43.7884	-91.8088	33.56140524	252797478	SRR11612044
J415.B	IGPQ	4x	44.33	-89.6	33.37672181	251406371	SRR11612045
J169.A	IGPP	4x	40.6782	-73.944158	35.29731482	265873020	SRR11612046
J427.A	IGPN	4x	40.62	-74.18	29.55740216	222637779	SRR11612047
J483.C	IGPM	4x	33.085	-92.07030556	37.5898144	283141013	SRR11612048
J351.B	IGPL	4x	40.7319	-83.0926167	37.89196777	285416949	SRR11612049
J517.A	IGPK	4x	40.9834	-72.615855	31.2263493	235208934	SRR11612050
J365.B	IGPJ	4x	40.5029	-95.21866667	33.01610516	248690067	SRR11612051
J465.B	IGPI	4x	30.8447	-93.56707	25.36959041	191093562	SRR11612052
J306.C	IGPH	4x	30.874	-99.049946	28.69642577	216152572	SRR11612053
J534.C	IGPG	4x	40.5856	-74.11888889	34.61189979	260710209	SRR11612054
J379.A	IGPF	4x	42.6484	-82.5286806	31.34844792	236128628	SRR11612055
J422.B	IGPD	4x	40.68	-74.01	35.11684639	264513662	SRR11612056
J188.A	IGPC	4x	29.6856	-85.36888889	38.63830652	291038661	SRR11612057
J387.A	IGPB	4x	38.5506	-93.29858333	36.10131631	271929070	SRR11612058
J433.B	IGNZ	4x	41.02	-72.01	31.3146897	235874348	SRR11612060
J263.A	IGNY	4x	44.1161	-96.1506	19.77141756	148925960	SRR11612061
J409.B	IGNX	4x	43.2	-90.45	33.85653654	255020521	SRR11612062
J534.A	IGNW	4x	40.5856	-74.11888889	33.58870974	253003146	SRR11612063
J378.B	IGNU	4x	43.0086	-86.2212222	25.56829768	192590302	SRR11612064
J483.B	IGNT	4x	33.085	-92.07030556	37.43574331	281980490	SRR11612065
J335.A	IGNS	4x	29.6833	-96.286172	32.77920561	246905648	SRR11612066
J516.C	IGNR	4x	40.7592	-72.792639	33.67593733	253660178	SRR11612067
J359.B	IGNQ	4x	41.2688	-96.17653611	33.70595558	253886287	SRR11612068
J461.B	IGNP	4x	30.2988	-89.40688	31.56456375	237756496	SRR11612069
J306.B	IGNN	4x	30.874	-99.049946	32.411128769	244134348	SRR11612070
J259.A	IGNM	4x	44.2662	-94.0022	23.23885032	175044004	SRR11612071
J407.B	IGNL	4x	42.57	-90.4	17.49659326	131791104	SRR11612072
J182.A	IGNI	4x	28.7789	-81.16583333	21.3106499	160520053	SRR11612074
J386.C	IGNH	4x	38.5484	-93.25808611	27.37756303	206218388	SRR11612075
J431.A	IGNF	4x	40.72	-73.58	22.66463683	170718806	SRR11612077
J577.B	IFBF	4x	32.2968	-81.10216667	36.50937622	275002735	SRR11612078
J576.C	IFBE	4x	31.8202	-81.25658333	37.62329422	283393196	SRR11612079
J576.B	IFBD	4x	31.8202	-81.25658333	35.21383623	265244227	SRR11612080
J536.C	IFBC	4x	41.1045	-73.451446	34.53894655	260160697	SRR11612081
J530.B	IFBB	4x	41.1661	-74.26833333	37.10270663	279471929	SRR11612082
J526.B	IFBA	4x	40.966	-72.133468	34.70347528	261399991	SRR11612083
J504.C	IFAZ	4x	31.1699	-89.7297778	38.07177214	286771305	SRR11612084
J502.C	IFAX	4x	30.3765	-88.6338056	38.41030614	289321274	SRR11612085
J500.C	IFAW	4x	30.2629	-89.4059444	38.59206036	290690317	SRR11612086
J500.B	IFAU	4x	30.2629	-89.4059444	38.22072081	287893244	SRR11612087
J499.C	IFAT	4x	30.3481	-90.0571944	37.44295696	282034826	SRR11612088
J499.A	IFAS	4x	30.3481	-90.0571944	38.32035935	288643760	SRR11612089

J498.C	IFAR	4x	30.2842	-89.9177778	39.12252477	294685980	SRR11612090
J498.B	IFAQ	4x	30.2842	-89.9177778	38.1219946	287149600	SRR11612091
J497.B	IFAN	4x	29.1757	-90.1293889	37.66559556	283711826	SRR11612092
J496.C	IFAM	4x	29.2618	-89.9519722	38.71596836	291623640	SRR11612093
J491.C	IFAL	4x	38.0496	-93.96668333	35.94254644	270733154	SRR11612094
J491.B	IFAK	4x	38.0496	-93.96668333	35.15011712	264764270	SRR11612095
J490.C	IFAJ	4x	37.9064	-94.01095	33.19367372	250027582	SRR11612096
J488.B	IFAI	4x	37.0072	-94.34954444	36.10967993	271992068	SRR11612097
J488.A	IFAH	4x	37.0072	-94.34954444	36.01975836	271314744	SRR11612098
J482.B	IFAE	4x	33.1498	-92.07574167	38.16962864	287508398	SRR11612100
J482.A	IFAD	4x	33.1498	-92.07574167	37.30925936	281027764	SRR11612101
J481.C	IFAC	4x	33.3972	-92.41386111	36.81292185	277289158	SRR11612102
J477.C	IFAB	4x	34.5866	-92.25368333	34.78222681	261993178	SRR11612103
J471.C	IEZZ	4x	36.2186	-94.48219444	36.05289819	271564366	SRR11612104
J470.B	IEZW	4x	36.3557	-94.14363889	35.6574064	268585369	SRR11612105
J466.C	IEZU	4x	30.4435	-90.41235	35.97400659	270970124	SRR11612106
J466.B	IEZT	4x	30.4435	-90.41235	35.6526516	268549554	SRR11612107
J426.B	IEZR	4x	40.61	-74.08	36.18124901	272531154	SRR11612109
J403.B	IEZQ	4x	44.02	-91.48	35.2840505	265773108	SRR11612110
J393.B	IEZP	4x	41.63	-87.43	35.477565	267230734	SRR11612111
J386.A	IEZN	4x	38.5484	-93.25808611	33.28098283	250685228	SRR11612112
J385.B	IEZM	4x	38.5321	-93.29148333	35.78494991	269546076	SRR11612113
J378.A	IEZL	4x	43.0086	-86.2212222	34.98587515	263527136	SRR11612114
J376.B	IEZK	4x	43.0086	-86.2064167	35.74806505	269268245	SRR11612115
J376.A	IEZJ	4x	43.0086	-86.2064167	35.51566368	267517708	SRR11612116
J365.A	IEZI	4x	40.5037	-95.22027778	35.72163532	269069166	SRR11612117
J339.A	IEZF	4x	29.8711	-96.280086	39.35997448	296474543	SRR11612119
J326.B	IEZE	4x	29.2132	-95.477781	37.83342351	284975971	SRR11612120
J250.C	IEZB	4x	30.33	-98.12	37.60938442	283288422	SRR11612123
J250.B	IEZA	4x	30.33	-98.12	35.8594502	270107241	SRR11612124
J205.L3	IEYX	4x	34.63	-77.773433	35.96573883	270907848	SRR11612126
J205.L2	IEYW	4x	34.63	-77.773433	35.45259655	267042662	SRR11612127
J205.L1	IEYU	4x	34.63	-77.773433	35.51752006	267531691	SRR11612128
J193.L3	IEYS	4x	34.3211	-78.41128333	35.84952148	270032454	SRR11612130
J193.L2	IEYR	4x	34.3211	-78.41128333	35.60057063	268157260	SRR11612131
J193.L1	IEYQ	4x	34.3211	-78.41128333	35.55215835	267792600	SRR11612132
J192.L3	IEYP	4x	34.0586	-78.6312	36.73329954	276689412	SRR11612133
J192.L2	IEYN	4x	34.0586	-78.6312	38.24235804	288056224	SRR11612134
J192.L1	IEYM	4x	34.0586	-78.6312	31.90037379	240285947	SRR11612135
J192.A	IEYL	4x	34.0586	-78.6312	33.44105653	251890965	SRR11612136
J188.L3	IEYK	4x	29.6856	-85.36888889	36.94281003	278267526	SRR11612137
J188.L2	IEYJ	4x	29.6856	-85.36888889	35.36391908	266374709	SRR11612138
J188.L1	IEYI	4x	29.6856	-85.36888889	36.92294952	278117929	SRR11612139
J186.L1	IEYH	4x	29.9858	-84.38666667	35.0924281	264329734	SRR11612140
J185.A	IEYG	4x	29.6942	-83.27694444	36.11514274	272033216	SRR11612141
J181.A	IEYF	4x	29.095	-80.97083333	37.28618301	280853944	SRR11612142
J180.L3	IEYE	4x	29.365	-81.08472222	36.09616894	271890298	SRR11612143
J180.L2	IEYD	4x	29.365	-81.08472222	36.49636547	274904733	SRR11612144
J180.L1	IEYC	4x	29.365	-81.08472222	36.86493564	277680946	SRR11612145
J179.L3	IEYB	4x	29.5233	-81.92888889	37.30586601	281002204	SRR11612146
J179.L2	IEYA	4x	29.5233	-81.92888889	35.91938008	270558656	SRR11612147
J175.A	IEXY	4x	40.6017	-74.06916667	38.31106469	288573749	SRR11612148
J174.A	IEXX	4x	42.6737	-73.559413	37.79133512	284658945	SRR11612149
J173.A	IEXW	4x	40.6247	-74.17888889	35.8773047	270241728	SRR11612150
J029.L2	IEXP	4x	39.223	-74.992585	36.10728347	271974017	SRR11612155
J029.L1	IEXN	4x	39.223	-74.992585	37.72968799	284194595	SRR11612156
J019.L3	IEXL	4x	27.7484	-80.436163	37.59880278	283208717	SRR11612158
J019.L2	IE XK	4x	27.7484	-80.436163	36.89153053	277881269	SRR11612159
J019.L1	IE XJ	4x	27.7484	-80.436163	36.26826525	273186594	SRR11612160
J578.A	IEPX	4x	35.596	-76.82933333	30.18990661	227402047	SRR11612163
J577.A	IEPW	4x	32.2968	-81.10216667	36.14512473	272259052	SRR11612164
J576.A	IEPU	4x	31.8202	-81.25658333	36.46833372	274693587	SRR11612165
J574.A	IEPT	4x	40.9817	-72.616528	37.1723264	279996332	SRR11612166
J542.A	IEPQ	4x	41.0323	-72.196464	21.90655771	165008661	SRR11612167
J540.A	IEPP	4x	41.0171	-72.001407	34.00952417	256172883	SRR11612168
J535.A	IEPL	4x	30.2433	-98.0064274	37.87014892	285252601	SRR11612171
J530.A	IEPJ	4x	41.1661	-74.26833333	37.18689309	280106054	SRR11612172
J525.A	IEPI	4x	40.9027	-72.570629	36.83506105	277455919	SRR11612173
J522.A	IEPH	4x	39.644	-74.644024	36.69390897	276392707	SRR11612174
J516.A	IEPG	4x	40.7592	-72.792639	36.13912796	272213882	SRR11612175
J514.A	IEPF	4x	30.4521	-99.7995125	38.37415903	289049000	SRR11612176
J504.A	IEPD	4x	31.1699	-89.7297778	38.8172903	292386836	SRR11612177
J503.A	IEPC	4x	31.1383	-89.2423056	36.7030252	276461374	SRR11612178
J502.A	IEPB	4x	30.3765	-88.6338056	38.21972856	287885770	SRR11612179
J501.A	IEPA	4x	30.3871	-89.4609167	38.54817453	290359752	SRR11612180
J500.A	IE NZ	4x	30.2629	-89.4059444	34.67088906	261154539	SRR11612181
J498.A	IE NX	4x	30.2842	-89.9177778	38.04664544	286582041	SRR11612182
J497.A	IE NW	4x	29.1757	-90.1293889	36.49493883	274893987	SRR11612183
J496.A	IE NU	4x	29.2618	-89.9519722	36.79281268	277137688	SRR11612184
J490.A	IE NT	4x	37.9064	-94.01095	35.92557334	270605306	SRR11612185
J483.A	IE NQ	4x	33.085	-92.07030556	40.0149074	301407751	SRR11612187
J477.A	IE NN	4x	34.5866	-92.25368333	39.02258473	293933193	SRR11612188

J466.A	IENL	4x	30.4435	-90.41235	36.9900057	278623022	SRR11612190
J463.A	IENK	4x	30.4819	-92.7992	38.37863915	289082746	SRR11612191
J426.A	IENI	4x	40.61	-74.08	36.17315543	272470190	SRR11612192
J407.A	IENG	4x	42.57	-90.4	35.01537948	263749374	SRR11612194
J403.A	IENF	4x	44.02	-91.48	34.92650008	263079900	SRR11612195
J390.A	IEND	4x	40.3	-86.22	34.54524017	260208103	SRR11612197
J359.A	IENC	4x	41.2688	-96.17653611	37.34862908	281324312	SRR11612198
J340.A	IENA	4x	29.7752	-95.31025	24.08564714	181422405	SRR11612200
J337.A	IEMZ	4x	29.8711	-96.280086	39.78999847	299713650	SRR11612201
J331.A	IEMY	4x	29.5379	-96.49298	36.88318988	277818444	SRR11612202
J330.A	IEMX	4x	28.2759	-99.10135	37.93757151	285760454	SRR11612203
J329.A	IEMW	4x	28.9341	-96.535645	38.42395228	289424062	SRR11612204
J326.A	IEMU	4x	29.2132	-95.477781	38.8095403	292328460	SRR11612205
J324.A	IEMT	4x	28.6911	-95.968271	39.1249418	294704186	SRR11612206
J319.A	IEMS	4x	28.6911	-95.968271	40.33436937	303814062	SRR11612207
J314.A	IEMQ	4x	29.7752	-95.31025	38.87051832	292787770	SRR11612209
J312.A	IEMP	4x	26.8697	-97.698227	35.81672364	269785408	SRR11612210
J308.A	IEMN	4x	28.5674	-97.351656	35.31218315	265985014	SRR11612211
J303.A	IEMM	4x	26.8697	-97.698227	39.89616509	300513338	SRR11612212
J294.A	IEMK	4x	28.11	-97.0291	35.82430025	269842478	SRR11612214
J283.A	IEMJ	4x	41.8598	-88.253833	37.62730039	283423372	SRR11612215
J280.A	IEMI	4x	29.8988	-100.99755	36.72084797	276595622	SRR11612216
J279.A	IEMH	4x	29.3247	-101.3645	38.29090945	288421932	SRR11612217
J276.A	IEMG	4x	29.3247	-101.3645	34.1164134	256978014	SRR11612218
J273.A	IEMF	4x	29.3247	-101.3645	38.5697868	290522544	SRR11612219
J270.A	IEME	4x	29.3247	-101.3645	38.27913603	288333250	SRR11612220
J256.A	IEMD	4x	42	-93	34.58693187	260522141	SRR11612221
J254.A	IEMC	4x	42.496	-87.808	36.69374674	276391485	SRR11612222
J250.A	IEMA	4x	30.33	-98.12	40.31334057	303655665	SRR11612224
J205.A	IELW	4x	34.63	-77.773433	35.8867543	270312906	SRR11612226
DVR3	OBXC	4x	29.9	-100.992	38.15490966	287397529	SRR1801295
J209.B	PZXW	4x	28.11	-97.0291	26.71530692	201230019	SRR3452796
I1029.1	WZGC	4x	29.3247	-101.3645	41.73135941	314336731	SRR4996399
J170.A	AOSTU	4x	40.9849	-72.615117	20.18680742	152054837	SRR8526526
J190.A	AOSUO	4x	30.3292	-86.15333333	21.01470784	158290903	SRR8526757
J217.A	AOSWH	4x	29.99	-98.8184	15.76581379	118754204	SRR8527273
J248.A	AOSXX	4x	26.94	-97.6836	37.63204776	283459131	SRR8529232
J302.A	ASHOA	8x	26.8697	-97.698227	20.00373848	150675891	SRR8841090
J199.A	IELU	8x	32.0285	-83.69826667	34.05726734	256532503	SRS10484444
J249.A	IELY	6x	30.15	-97.69	36.02272661	271337102	SRS10484445
J485.A	IENS	8x	34.078	-93.91188333	36.64002273	275986815	SRS10484446
J567.A	IEPS	8x	39.8711	-79.49361111	34.26163298	258071864	SRS10484447
J030.A	IEXR	8x	38.4806	-102.781863	35.32089274	266050618	SRS10484448
J179.L1	IEXZ	8x	29.5233	-81.92888889	34.87650503	262703318	SRS10484449
J363.B	IEZH	8x	40.4356	-96.42694444	34.84024269	262430176	SRS10484450
J474.C	IFAA	8x	34.781	-91.49636667	35.62831164	268366216	SRS10484451
J533.C	IGSC	8x	43.6103	-75.33416667	17.87311575	134627217	SRS10484452
J560.B	IGSE	8x	41.3069	-79.24388889	20.30599275	152952587	SRS10484453
J346.B	IHXD	8x	41.3678	-82.6906167	31.36805791	236276338	SRS10484454
J030.B	IHYD	8x	38.4806	-102.781863	35.54343283	267726876	SRS10484455
J544.A	IHYP	8x	43.315	-78.71527778	32.71618707	246430968	SRS10484456
J021.A	IHYU	8x	29.4439	-96.941093	35.26561332	265634232	SRS10484457
J549.C	I1AC	8x	42.8981	-73.60027778	35.44450204	266981691	SRS10484458
J346.C	I1AI	8x	41.3678	-82.6906167	37.64334736	283544244	SRS10484459
J347.A	I1AQ	8x	41.3678	-82.6906167	36.04832991	271529956	SRS10484460
J347.B	I1AY	8x	41.3678	-82.6906167	37.36786761	281469224	SRS10484461
J009.A	I1BE	8x	36.6004	-103.609128	35.45878967	267089311	SRS10484462
J347.C	I1BF	8x	41.3678	-82.6906167	37.81647417	284848302	SRS10484463
J436.B	I1BG	8x	39.41	-79.66	37.31217371	281049716	SRS10484464
J474.B	I1BH	8x	34.781	-91.49636667	38.38321088	289117182	SRS10484465
J533.B	I1BI	8x	43.6103	-75.33416667	36.88452837	277828526	SRS10484466
J557.B	I1BJ	8x	41.3256	-77.63638889	36.09043662	271847120	SRS10484467
J009.B	I1BL	8x	36.6004	-103.609128	37.02334108	278874117	SRS10484468
J485.B	I1BP	8x	34.078	-93.91188333	38.17240505	287529311	SRS10484469
J557.C	I1BR	8x	41.3256	-77.63638889	36.08557004	271810463	SRS10484470
J575.A	I1BS	8x	40.8766	-77.836728	37.37902065	281553233	SRS10484471
J021.B	I1BT	8x	29.4439	-96.941093	38.55393061	290403109	SRS10484472
J544.B	I1BY	8x	43.315	-78.71527778	36.13144474	272156009	SRS10484473
J559.A	I1BZ	8x	40.6586	-76.91833333	35.55791138	267835934	SRS10484474
J575.B	I1CA	8x	40.8766	-77.836728	37.60769651	283275708	SRS10484475
J546.A	I1CF	8x	43.2683	-78.35555556	36.17756757	272503424	SRS10484476
J560.A	I1CG	8x	41.3069	-79.24388889	37.12882372	279668653	SRS10484477
J575.C	I1CH	8x	40.8766	-77.836728	37.96218416	285945846	SRS10484478
J398.A	I1CJ	8x	44.53	-95.08	36.26594262	273169099	SRS10484479
J560.C	I1CN	8x	41.3069	-79.24388889	37.85904593	285168969	SRS10484480
J579.A	I1CP	8x	32.9119	-84.16072222	37.98573818	286123264	SRS10484481
J028.A	I1CQ	8x	35.5928	-93.824824	37.65310045	283617708	SRS10484482
J561.A	I1CW	8x	41.2764	-77.94888889	37.21976846	280353684	SRS10484483
J579.C	I1CX	8x	32.9119	-84.16072222	38.38723802	289147516	SRS10484484
J028.B	I1CY	8x	35.5928	-93.824824	38.77568264	292073431	SRS10484485
J520.C	I1DB	8x	35.619	-99.634082	36.36788043	273936934	SRS10484486
J581.A	I1DE	8x	42.0596	-87.8422222	7.636216688	57518936	SRS10484487

J398.B	IJUS	8x	44.53	-95.08	24.75431875	186459098	SRS10484488
J511.C	IILL	8x	40.4792	-94.0791528	35.87409311	270217537	SRS10484489
J528.A	IIMC	8x	43.1475	-75.28138889	32.81793796	247197395	SRS10484491
J559.B	IIML	8x	40.6586	-76.91833333	36.05323447	271566899	SRS10484490
J581.B	IJAX	8x	42.0596	-87.8422222	34.10226357	256871432	SRS10461477
J628.B	INGC	8x	42.6729	-72.46135	36.39888202	274170450	SRS10461476
J227.A	IRUE	8x	40.72	-96.12	37.20018264	280206156	SRS10461477
J579.B	IRUX	8x	32.9119	-84.16072222	37.88909152	285395284	SRS10461478
J659.A	IRWY	8x	33.3211	-97.581455	34.13902509	257148334	SRS10461479
J659.B	IRWZ	8x	33.3211	-97.581455	38.64575197	291094743	SRS10461480
J346.A	ITAQ	8x	41.3678	-82.6906167	32.24988652	242918612	SRS10461481
J436.A	ITAS	8x	39.41	-79.66	26.58522398	200250184	SRS10461482
J462.A	ITAT	8x	30.4813	-92.66762	32.69988785	246308196	SRS10461483
J474.A	ITAW	8x	34.781	-91.49636667	14.82119392	111638962	SRS10461484
J529.A	ITAX	8x	41.4283	-74.79694444	13.5936223	102392418	SRS10461485
J529.B	ITAY	8x	41.4283	-74.79694444	22.98993506	173169078	SRS10461486
J549.A	ITBA	8x	42.8981	-73.60027778	36.84825939	277555334	SRS10461487
J549.B	ITBB	8x	42.8981	-73.60027778	25.47557488	191891878	SRS10461488
J554.A	ITBC	8x	41.4578	-75.8525	26.4488364	199222860	SRS10461489
J554.C	ITBD	8x	41.4578	-75.8525	15.04920771	113356450	SRS10461490
J557.A	ITBE	8x	41.3256	-77.63638889	26.33673594	198378476	SRS10461491
J561.B	ITBF	8x	41.2764	-77.94888889	36.25664795	273099088	SRS10461492
J563.A	ITBG	8x	42.1714	-80.07305556	36.50164919	274944532	SRS10461493
J568.A	ITBH	8x	40.0847	-79.71166667	32.67062621	246087786	SRS10461494
J570.B	ITBI	8x	41.3331	-77.65178	24.46597401	184287174	SRS10461495
J002.A	JBDA	6x	28.75	-82.53	55.88094401	420916872	SRS10461496
J069.A	JBDS	8x	27.18	-82.49	26.0656062	196336222	SRS10461497
J072.A	JBDT	8x	28.36	-82.21	25.38342666	191197782	SRS10461498
J072.B	JBDU	8x	28.36	-82.21	28.44578091	214264618	SRS10461499
J083.A	JBDW	8x	32.91	-84.33	50.88047123	383251378	SRS10461500
J166.A	JBDY	8x	26.9794	-82.26388889	32.49922104	244796696	SRS10461501
J178.A	JBDZ	8x	29.5358	-81.88472222	31.72769372	238985254	SRS10461502
J179.A	JBEA	8x	29.5233	-81.92888889	38.75540872	291920720	SRS10461503
J187.A	JBEB	8x	30.0536	-84.38833333	30.09327947	226674214	SRS10461504
J195.A	JBEC	8x	35.4487	-76.38083333	34.65140506	261007778	SRS10461505
J198.A	JBED	8x	33.3114	-83.46036667	31.54176699	237584782	SRS10461506
J200.A	JBEE	8x	32.0282	-83.66005	34.32109196	258519732	SRS10461507
J213.A	JBEF	8x	26.94	-97.9872	22.30731396	168027312	SRS10461508
J214.A	JBEG	8x	33.14	-96.11	23.42804322	176469078	SRS10461509
J221.A	JBEH	8x	27.12	-97.9575	37.40709528	281764702	SRS10461510
J265.A	JBEI	8x	44.9971	-92.7807	32.3888924	243965658	SRS10461511
J282.A	JBEJ	8x	37.4674	-88.91667	37.07649834	279274518	SRS10461512
J304.A	JBEP	8x	26.8697	-97.698227	34.4342067	259371756	SRS10461513
J309.A	JBEQ	8x	27.9545	-97.771942	42.00870324	316425792	SRS10461514
J328.A	JBER	8x	28.6541	-96.681313	31.09621312	234228698	SRS10461515
J342.C	JBES	8x	35.4526	-86.023636	23.28594058	175398706	SRS10461516
J363.C	JBET	8x	40.4356	-96.42694444	28.42806913	214131206	SRS10461517
J369.A	JBEU	8x	42.8164	-84.3400083	30.3428272	228553904	SRS10461518
J397.A	JBEY	8x	46.2	-94.42	38.64009573	291052138	SRS10461519
J402.B	JBEZ	8x	40.55	-80.67	24.69101398	185982262	SRS10461520
J417.A	JBFD	8x	38.48	-78.52	21.09308052	234205102	SRS10461521
J417.B	JBFE	8x	38.48	-78.52	20.69388057	155874308	SRS10461522
J447.B	JBFM	8x	43.44	-92.38	28.06314494	211382456	SRS10461523
J451.A	JBFN	8x	41.58	-83.67	32.22555001	242735300	SRS10461524
J462.B	JBFQ	8x	30.4813	-92.66762	40.85207461	307713618	SRS10461525
J462.C	JBFR	8x	30.4813	-92.66762	22.23016311	167446182	SRS10461526
J467.A	JBFS	8x	34.7468	-91.75225	20.61808547	155303390	SRS10461527
J467.B	JBFT	8x	34.7468	-91.75225	41.47858149	312432710	SRS10461528
J467.C	JBFU	8x	34.7468	-91.75225	22.13991841	166766424	SRS10461529
J468.A	JBFW	8x	34.278	-88.74181	31.45608366	236939382	SRS10461530
J468.B	JBFX	8x	34.278	-88.74181	51.69105708	389357024	SRS10461531
J468.C	JBFY	8x	34.278	-88.74181	41.58673419	313247358	SRS10461532
J475.B	JBFZ	8x	34.6266	-91.58036111	12.42603299	93597684	SRS10461533
J476.B	JBGA	8x	34.7818	-91.69780556	27.79078346	209330924	SRS10461534
J476.C	JBGB	8x	34.7818	-91.69780556	31.64118595	238333644	SRS10461535
J478.A	JBGC	8x	34.4508	-91.57307222	37.98853517	286144332	SRS10461536
J479.B	JBGD	8x	33.8636	-92.252	37.21851441	280344238	SRS10461537
J486.A	JBGE	8x	35.3593	-93.99823889	38.03751513	286513268	SRS10461538
J494.A	JBGF	8x	41.1982	-96.29945833	23.1059145	174042680	SRS10461539
J494.B	JBGH	8x	41.1982	-96.29945833	28.69504374	216142162	SRS10461540
J494.C	JBGH	8x	41.1982	-96.29945833	21.3746956	161002470	SRS10461541
J495.A	JBGI	8x	30.4994	-92.4063611	27.60410212	207924768	SRS10461542
J495.B	JBGJ	8x	30.4994	-92.4063611	33.3921776	251522790	SRS10461543
J495.C	JBGK	8x	30.4994	-92.4063611	27.15767867	204562134	SRS10461544
J505.A	JBGL	8x	32.3254	-90.1455556	35.05232872	264027690	SRS10461545
J505.B	JBGM	8x	32.3254	-90.1455556	27.20919196	204950152	SRS10461546
J505.C	JBGN	8x	32.3254	-90.1455556	30.9676937	233260640	SRS10461547
J506.B	JBGP	8x	32.3364	-89.4390833	28.62912705	215645652	SRS10461548
J507.A	JBGQ	8x	34.2535	-88.8964722	30.22925098	227698404	SRS10461549
J507.B	JBGR	8x	34.2535	-88.8964722	36.82923354	277412024	SRS10461550
J507.C	JBGS	8x	34.2535	-88.8964722	22.45041973	169105240	SRS10461551
J523.A	JBGW	8x	42.2547	-72.62861111	27.49637876	207113354	SRS10461552

J529.C	JBGX	8x	41.4283	-74.79694444	26.47042345	199385462	SRS10461553
J531.A	JBGY	8x	43.6331	-76.19583333	37.09689506	279428154	SRS10461554
J531.B	JBGZ	8x	43.6331	-76.19583333	39.84999672	300165580	SRS10461555
J165.A	JBHU	8x	27.2825	-82.26305556	41.23491316	310597306	SRS10461556
J184.A	JBHW	8x	29.4558	-82.47416667	147.8847115	1113924814	SRS10461557
J197.A	JBHX	8x	32.9082	-85.02316667	25.32187512	190734152	SRS10461558
J201.A	JBHY	8x	33.2429	-83.43189	22.56106302	169938648	SRS10461559
J202.A	JBHZ	8x	33.3879	-83.30887	30.73728784	231525134	SRS10461560
J236.A	JBIA	8x	27.12	-97.9525	26.64011336	200663632	SRS10461561
J275.A	JBID	4x	29.3247	-101.3645	23.91437885	180132346	SRS10461562
J344.B	JBIF	4x	41.3046	-88.1723167	29.43677705	221729184	SRS10461563
J428.A	JBII	4x	40.72	-73.58	40.43701944	304587262	SRS10461564
J466.D	JBII	4x	30.4435	-90.41235	26.07669804	196419770	SRS10461565
J471.B	JBII	4x	36.2186	-94.48219444	30.31329712	228331472	SRS10461566
J477.B	JBIL	4x	34.5866	-92.25368333	40.06641445	301795722	SRS10461567
J497.C	JBIN	4x	29.1757	-90.1293889	35.35624063	266316872	SRS10461568
J499.B	JBIP	4x	30.3481	-90.0571944	51.09832675	384892350	SRS10461569
J501.B	JBII	4x	30.3871	-89.4609167	34.13114711	257088994	SRS10461570
J502.B	JBIR	4x	30.3765	-88.6338056	39.86103147	300248698	SRS10461571
J503.B	JBIS	4x	31.1383	-89.2423056	40.23883125	303094432	SRS10461572
J503.C	JBIT	4x	31.1383	-89.2423056	41.15966185	310030484	SRS10461573
J513.A	BIU	8x	40.2538	-93.8326917	29.26380531	220426294	SRS10461574
J534.B	BIW	4x	40.5856	-74.11888889	47.87610551	360621334	SRS10461575
J589.A	BIY	4x	37.9075	-75.35108333	43.67289213	328961106	SRS10461576
J590.A	BIY	4x	37.4559	-75.83288889	47.15110607	355160358	SRS10461577
J608.B	BJA	4x	NA	NA	23.51916015	177155406	SRS10461578
J612.B	BJB	4x	41.4558	-71.453889	29.30087563	220705522	SRS10461579
J618.A	BJC	4x	41.4003	-71.584722	62.61071758	471608128	SRS10461580
J625.A	BJD	4x	41.3364	-72.03365	27.75256211	209043026	SRS10461581
J640.A	BJE	4x	41.6789	-70.774167	30.22996549	227703786	SRS10461582
J644.A	BJG	4x	41.385	-71.633056	27.78004423	209250032	SRS10461583
J647.A	BJH	4x	41.4558	-71.453889	47.9697494	361326696	SRS10461584
J661.C	BJK	4x	37.8414	-75.654336	32.17235545	242334618	SRS10461585
J682.C	BJL	4x	40.1789	-74.31703889	20.63048526	155396790	SRS10461586
J533.A	BJP	8x	43.6103	-75.33416667	24.05471206	181189390	SRS10461587
J546.C	BJU	8x	43.2683	-78.35555556	38.98280623	293633566	SRS10461588
J554.B	BJW	8x	41.4578	-75.8525	42.95425695	323548068	SRS10461589
J558.A	BJX	8x	41.4986	-75.89944444	38.88851792	292923350	SRS10461590
J563.B	BJY	8x	42.1714	-80.07305556	21.1918643	159625314	SRS10461591
J563.C	BJZ	8x	42.1714	-80.07305556	27.0858916	204021406	SRS10461592
J564.B	JBKA	8x	41.2731	-79.84694444	31.23632383	235284066	SRS10461593
J565.A	JBKB	8x	39.7217	-79.87805556	38.58020687	290601032	SRS10461594
J566.C	JBKC	8x	41.4622	-79.64972222	51.00859503	384216456	SRS10461595
J567.B	JBKD	8x	39.8711	-79.49361111	37.61191138	283307456	SRS10461596
J567.C	JBKE	8x	39.8711	-79.49361111	29.42109782	221611082	SRS10461597
J568.B	JBKF	8x	40.0847	-79.71166667	52.10675561	392488226	SRS10461598
J568.C	JBKG	8x	40.0847	-79.71166667	32.61810474	245692174	SRS10461599
J570.A	JBKH	8x	41.3331	-77.65178	48.37255454	364360780	SRS10461600
J572.A	JBKI	8x	41.6657	-80.273924	34.29022604	258287238	SRS10461601
J572.B	JBKJ	8x	41.6657	-80.273924	38.12745741	287190748	SRS10461602
J616.A	JBKL	8x	44.5884	-70.3521	38.74262445	291824424	SRS10461603

Supplemental Table 1. Full list of samples analyzed for this manuscript with identifying metadata information. Library (LIB) is the name of the sequencing library.

Node	Estimated Age (kya): Model 1	95% bottom: Model 1	95% top: Model 1	Posterior support: Model 1	Estimated Age (kya): Model 2	95% bottom: Model 2	95% top: Model 2	Posterior support: Model 2	Estimated Age (kya): Model 3	95% bottom: Model 3	95% top: Model 3	Posterior support: Model 3
South	86.2	34.4	138	1	79.7	34.1	134	1	74.6	32.3	126	1
Midwest A	70.4	30	115	1	67.5	27.3	110	1	63.6	23.1	105	1
Midwest B	64.8	32	101	1	65.6	31.9	105	1	57.6	22.1	95	1
Gulf	86	27.4	156	1	83.2	30.5	154	1	78.3	23.4	143	1
Atlantic	82.1	36	138	1	79.7	30	128	1	75	29.2	126	1
[South, Midwest A]	236	142	353	1	228	123	330	1	217	126	325	1
[[South, Midwest A], Midwest B]	382	249	510	1	371	229	520	1	361	231	500	1
[Gulf, Atlantic]	292	184	420	1	285	167	397	1	277	167	401	1
[[[South, Midwest A], Midwest B],[Gulf, Atlantic]	994	698	1,260	1	966	691	1290	1	960	676	1240	1
South - 1	40.2	11.9	76.8	1	37.7	12.4	71	1	34.7	10.5	65.1	1
Midwest A - 1	17.3	1.7	36.7	0.99	16.7	1.2	36.2	1	15	1.3	31.4	0.99
Midwest B - 1	4.5	0	13.8	1	4.7	0	13.9	1	3.7	0	11.4	1
Midwest B - 2	7.6	0	22.3	1	7.5	0	21.7	1	6.3	1	18.5	1
Atlantic - 1	6.6	0	19.2	1	6.7	0	19.7	1	5.5	0	17.4	1
Atlantic - 2	8.5	0	25	1	7.5	0	23.5	1	7.5	0	22.6	1

Supplemental Table 2. Estimated divergence date estimates with confidence intervals from BEAST v2.6.6 for the three models. Node indicates the comparisons between defined switchgrass clade groupings (see Supplemental Table 4).

LIB					
JBHU	JBKG	IJKD	IGPI	IRXR	IGNW
IIBE	JBES	IIKE	JBEG	IJBN	IGQH
JBEB	IICP	IICQ	INIB	IEYW	IILU
JBEH	JBGE	JBEY	INHS	IHXK	IRYE
JBER	IHWR	JBEU	IJAM	IEPA	INGR
IENU	IEXR	JBGC	INIH	IELR	IIBQ
IELE	JBIX	JBJP	IEMQ	IEYH	INFC
IEYA	JBFR	JBGZ	INIK	IEPC	IJBU
INFP	IGRP	JBGY	IEZB	IRYZ	ITCS
ITCH	IIFE	JBKC	ININ	IRXD	IEYE
IELS	JBGG	JBGP	IRXB	IGPP	IEYD
IGNP	IGNN	JBEZ	IELY	IEXP	IHXG
INFM	IIFT	IGQW	IEZA	IIMI	IEYL
IJBR	IGRS	IEZZ	INHP	JBHJ	IEYM
JBIA	JBFY	IFAD	IGSA	IGRG	ITCC
IGQU	JBJU	IIFY	IEZF	IFAC	IRWD
ASHOA	IIML	ITAX	IHZD	IJBE	IEYF
INFZ	JBXJ	IIFL	IEMU	ITCD	IEXW
INIM	IEMJ	JBIF	INIG	IRXL	ITCJ
IGRE	IFAB	IGRA	IILB	IMJC	IRWI
PZXW	IIFS	JBHY	IGQC	IRYI	IELP
IEMP	IGRT	JBGF	IGPQ	IJBH	IRYA
IENS	IHYF	JBFN	IJKZ	IRXI	AOSTU
IIBH	IFAJ	JBGN	IFAW	ITBR	IEYG
JBDW	IEZI	IILG	IFAZ	IJAN	IGNI
JBDA	IHYD	IEZH	IFAQ	WZGC	IEPJ
JBGK	IGPU	IEYJ	IEME	INFF	IENI
IEMC	IFAA	IEYI	IIBT	IELU	IFBB
IGSE	IIDE	IFAT	IRUI	IFBD	IGRI
IEZP	IFAI	IGPM	ITAU	IAD	ITCQ
IENF	IRWY	IIIQ	IEMY	INEW	IGQP
JBKD	IIFR	IIDB	INFH	ITBY	INFB
JBGX	IIFQ	IRUE	AOSWH	IJBQ	IILQ
IEZT	IENN	IEMZ	IGRZ	IEPX	AOSUO
IHXD	IENG	JBWJ	IEPG	IGRQ	IRWU
IGSD	IHXS	JBIF	ITCM	IGRW	IRYH
			IRYT	IEPI	PhalliiFIL

Supplemental Table 3. List of libraries used to build the full chloroplast tree.

Library ID	Ploidy	Genepool	Clade	Subclade
ASHOA	8X	Gulf	Southern	Southern - 1
IGQU	4X	Gulf	Southern	Southern - 1
JBEP	8X	Gulf	Southern	Southern - 1
IEMK	4X	Gulf	Southern	NA
IENZ	4X	Gulf	Southern	NA
JBEH	8X	Gulf	Southern	Southern - 1
IIJX	4X	Midwest	Midwest A	Midwest A - 1
IGSE	8X	Midwest	Midwest A	Midwest A - 1
IENF	4X	Midwest	Midwest A	Midwest A - 1
IIJM	4X	Midwest	Midwest A	NA
JBKD	8X	Midwest	Midwest A	NA
IIAQ	8X	Midwest	Midwest A	NA
IIJT	4X	Midwest	Midwest B	Midwest B - 2
IGRS	8X	Midwest	Midwest B	Midwest B - 2
IIBZ	8X	Midwest	Midwest B	NA
IIIN	4X	Midwest	Midwest B	NA
IIBS	8X	Midwest	Midwest B	NA
IGPJ	4X	Midwest	Midwest B	NA
IIAY	8X	Midwest	Midwest B	Midwest B - 1
IGRH	4X	Midwest	Midwest B	Midwest B - 1
IEYR	4X	Atlantic	Atlantic	Atlantic - 1
IEYM	8X	Atlantic	Atlantic	Atlantic - 1
IEYE	4X	Atlantic	Atlantic	Atlantic - 2
IEYD	8X	Atlantic	Atlantic	Atlantic - 2
IIBT	8X	Gulf	Gulf	NA
IEME	4X	Gulf	Gulf	NA

Supplemental Table 4. List of libraries used to estimate divergence dates in BEAST v2.6.6.