

Table S1 *S. sclerotiorum* resistance in the parental lines

Methods	Environments	888-5 (Mean±SD)	M083 (Mean±SD)
Artificial field disease nursery (disease index)(%)	Yangluo-2009	49.80±5.80	16.10±0.80
	Yangluo-2010	97.10±3.60	33.50±7.00
	Yangluo-2011	67.80±13.60	3.20±1.70
	Yangluo-2012	59.60±11.50	8.20±2.90
	Yangluo-2013	70.00±3.70	7.90±3.80
Nature infection test (disease index)(%)	Yangzhou-2012	45.40±6.40	1.70±1.10
	Xiantao-2012	72.00±1.50	31.30±1.30
	Wuhan-2013	67.80±5.20	8.10±4.40
Stem inoculation in field (stem lesion size (cm) 17 days after inoculation)	Moisture-maintained inoculation in 2012 in Wuhan	46.00±3.90	23.60±4.20

Table S2 Correlation coefficients of the various methods used to identify *S. sclerotiorum* resistance

Environment	Artificial disease nursery (Disease Index)				Natural field test (Disease Index)			Stem inoculation (stem lesion size)
	Yangluo-2010	Yangluo-2011	Yangluo-2012	Yangluo-2013	Yangzhou-2012	Xiantao-2012	Wuhan-2013	
Yangluo-2009	0.57**	0.61**	0.62**	0.56**	0.52**	0.24**	0.35**	0.39**
Yangluo-2010		0.61**	0.55**	0.57**	0.47**	0.19**	0.46**	0.48**
Yangluo-2011			0.77**	0.68**	0.67**	0.44**	0.55**	0.5**
Yangluo-2012				0.77**	0.78**	0.49**	0.64**	0.53**
Yangluo-2013					0.63**	0.49**	0.69**	0.55**
Yangzhou-2012						0.48**	0.64**	0.42**
Xiantao-2012							0.55**	0.42**
Wuhan-2013								0.36**

** represent the correlation between different methods or experiments at the significance level of 0.01.

Table S3 Flowering time in the parental lines

Environments	888-5 (Mean±SD)(d)	M083(Mean±SD)(d)
Wuhan-2011	153.00±4.00	173.00±4.19
Wuhan-2012	155.00±5.77	181.00±2.89
Xiantao-2012	155.00±3.00	165.00±1.35
Yangzhou-2012	161.00±0.76	183.00±0.67
Wuhan-2013	147.00±0.66	169.00±0.43
Yangzhou-2013	152.00±2.73	168.00±0.82

Note: flowering time is date in a plot where 25% plants flowered on at least one bud of each plant

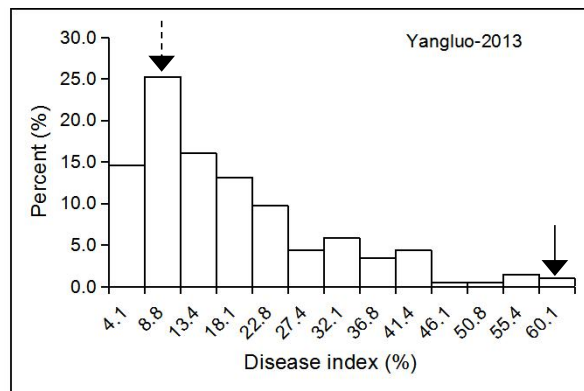
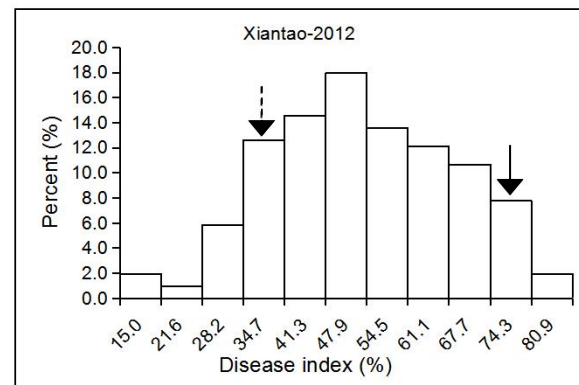
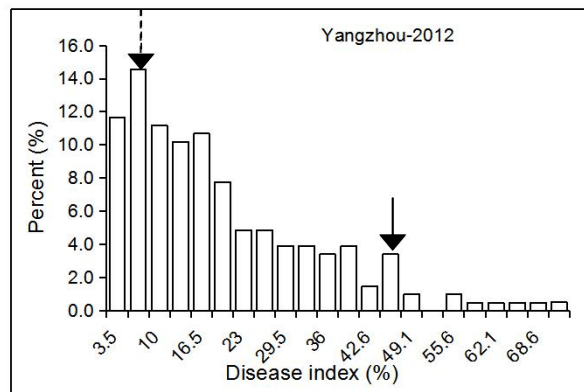


Figure S1 Frequency distribution of the disease index and flowering time of a *B. napus* RIL population derived from the lines 888-5 and M083.
 (A) Frequency distribution of the disease index from each natural infection experiment. Solid arrows represent 888-5 and dashed arrows represent M083

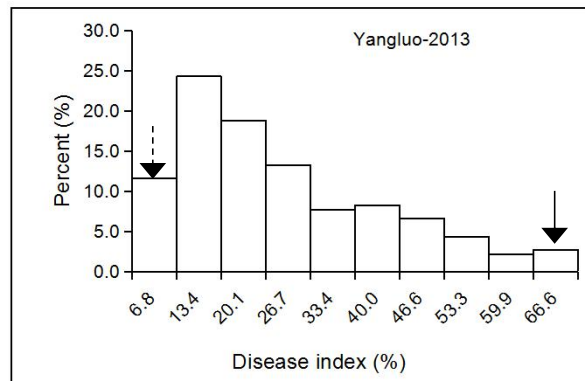
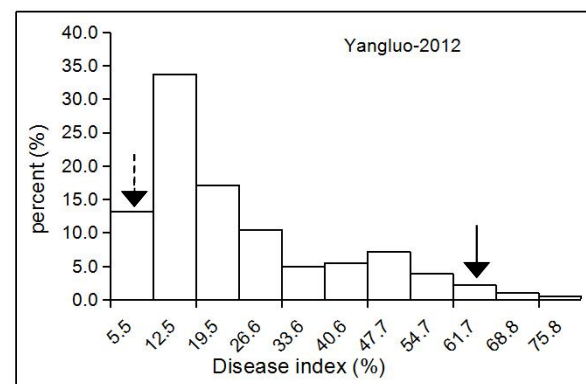
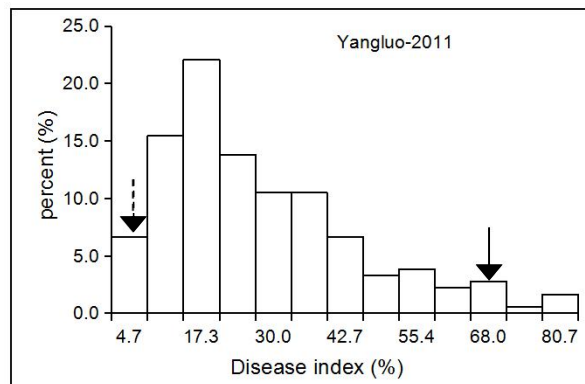
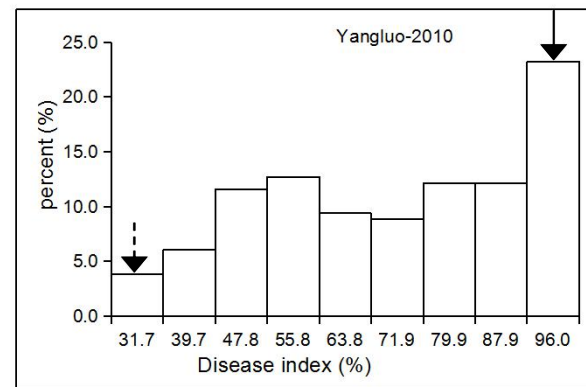
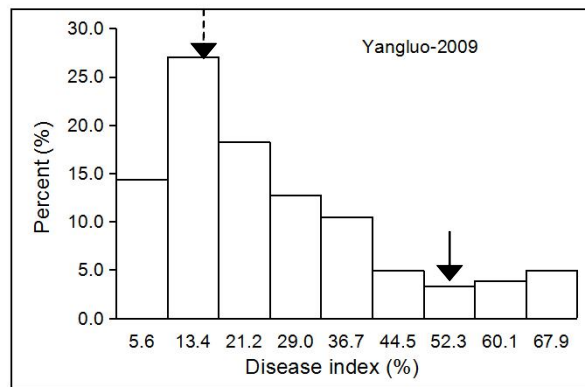


Figure S1 Frequency distribution of the disease index and flowering time of a *B. napus* RIL population derived from the lines 888-5 and M083.

(B) Frequency distribution of the disease index from each artificial field disease nursery experiment.

Solid arrows represent 888-5 and dashed arrows represent M083

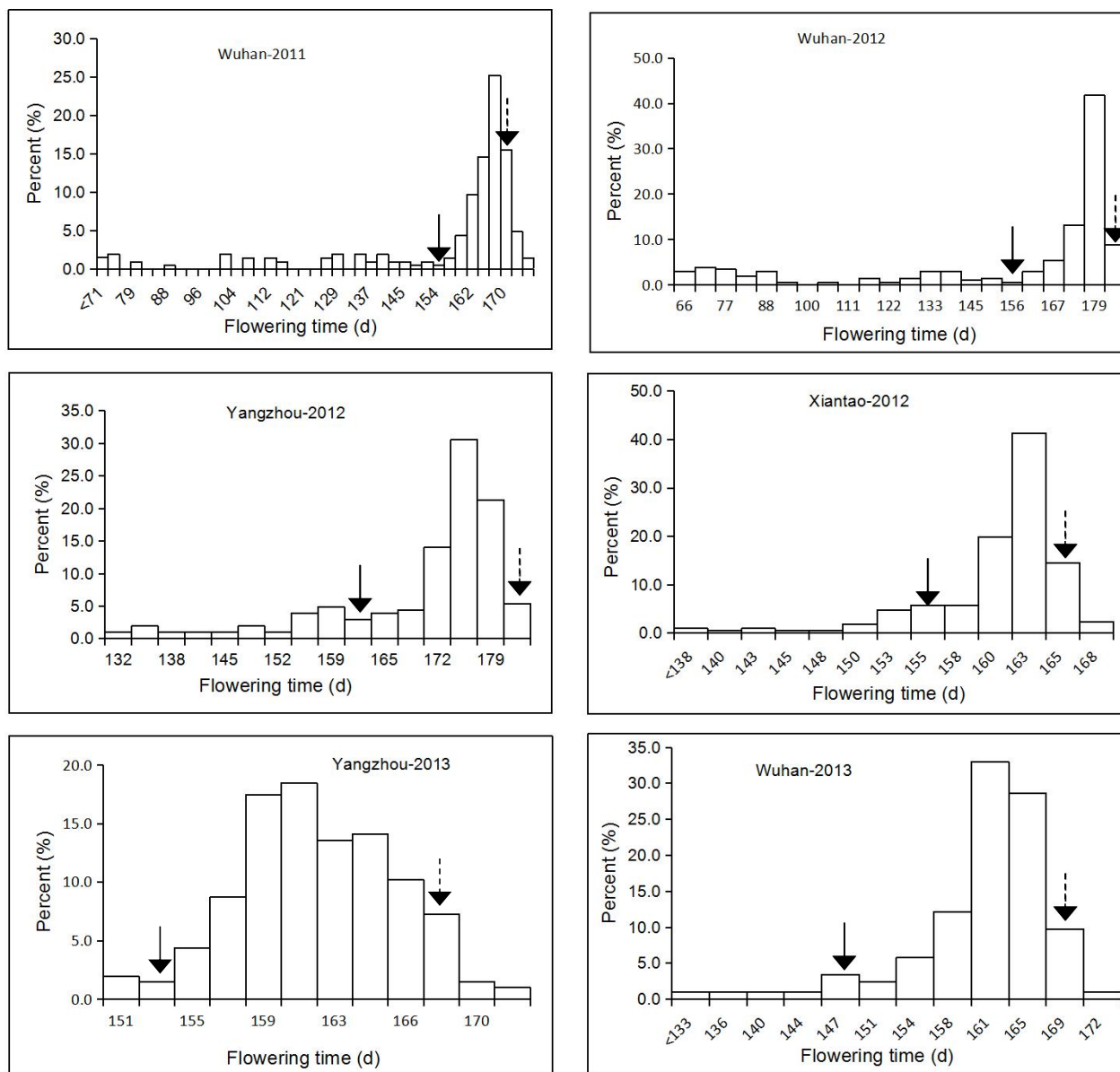


Figure S1 Frequency distribution of the disease index and flowering time of a *B. napus* RIL population derived from the lines 888-5 and M083.

(C) Frequency distribution of flowering time.

Solid arrows represent 888-5 and dashed arrows represent M083

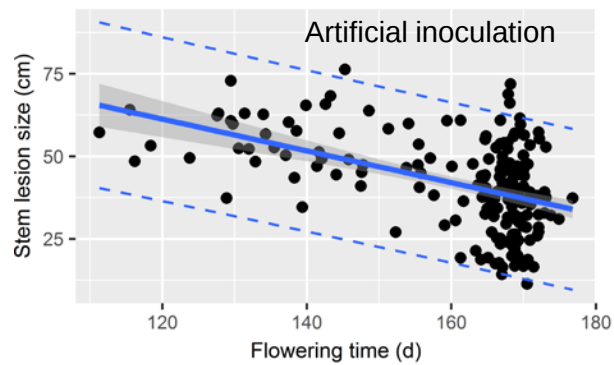
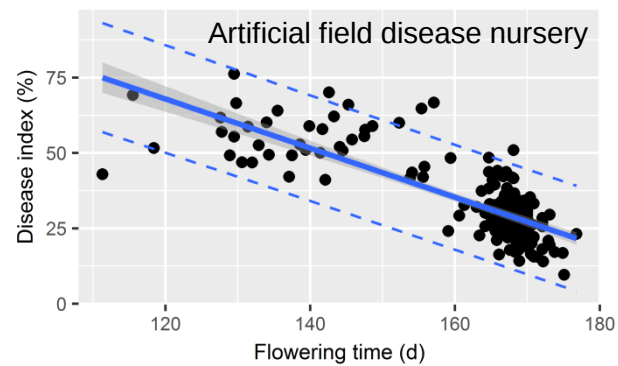
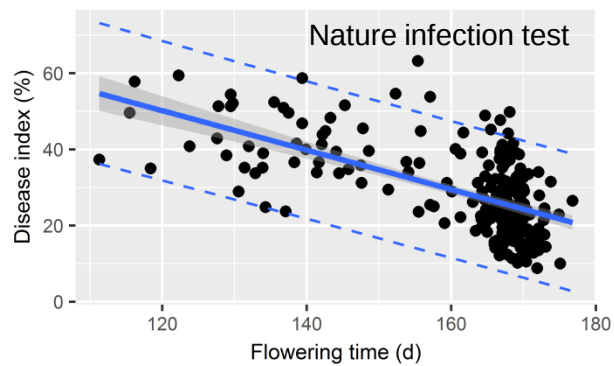


Figure S2 Correlation between flowering time and the disease index or stem lesion size.

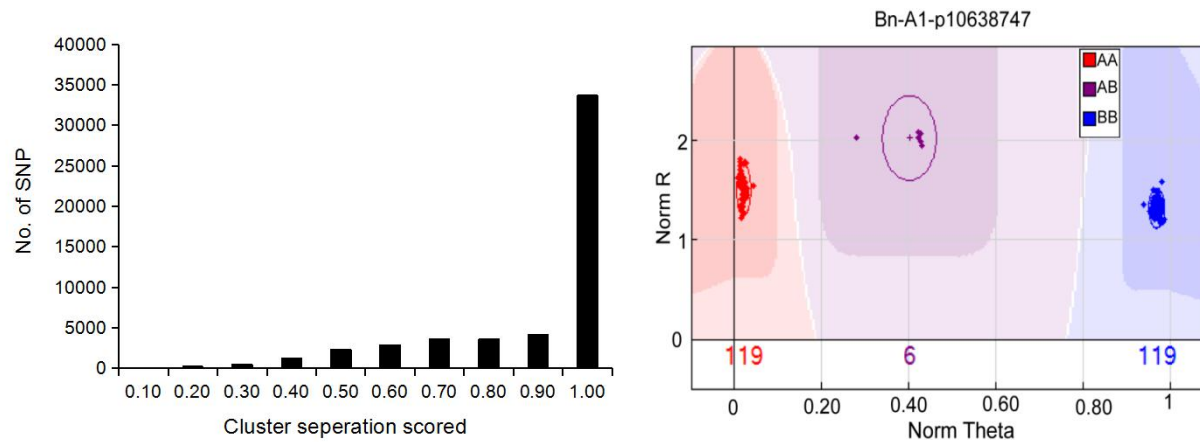


Figure S3 Distribution of the cluster separation score for all SNPs (left) and the cluster plot of representative SNPs (Bn-A1-p10638747) using the GenomeStudio software (right).

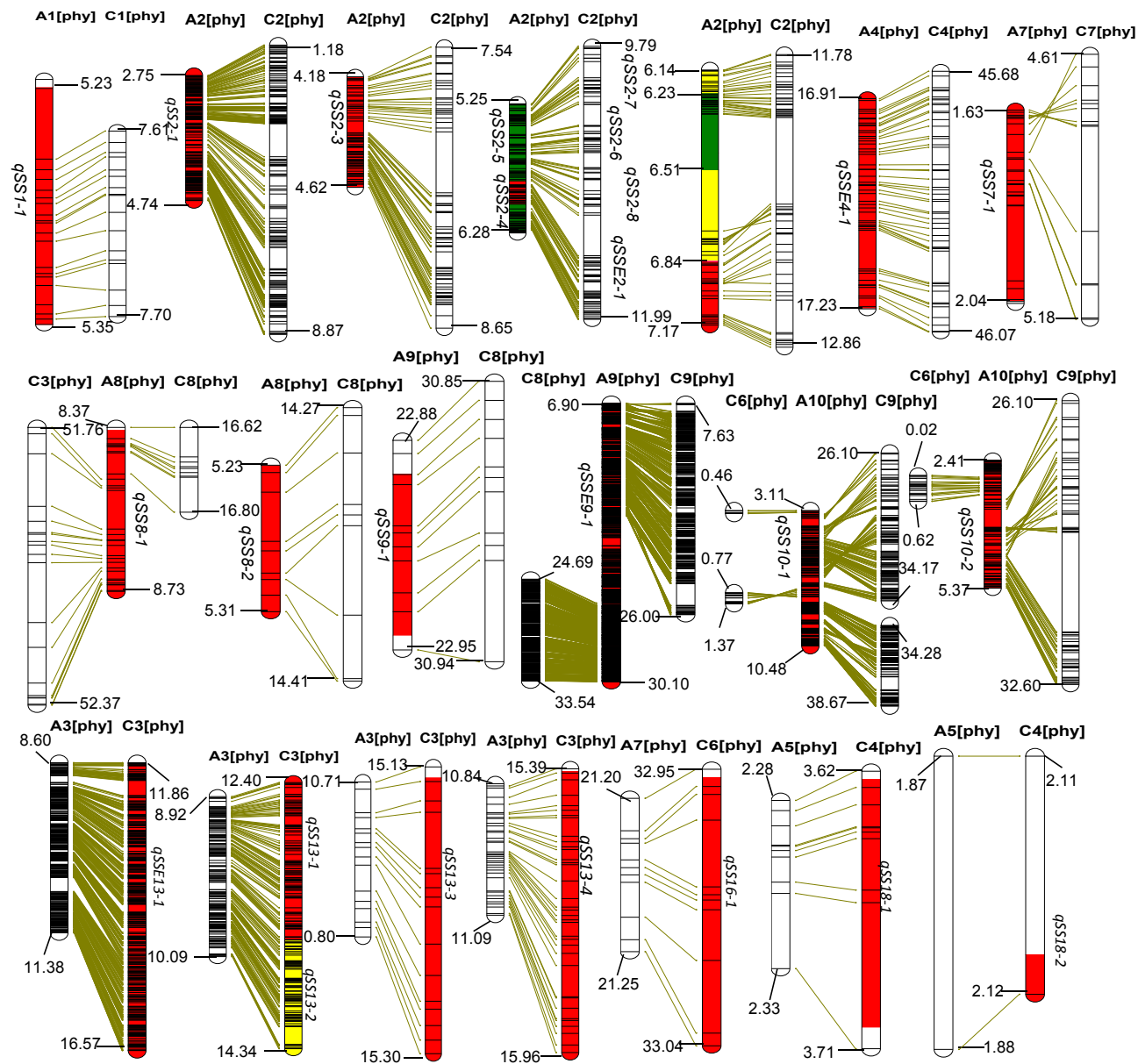


Figure S5 *S. sclerotiorum* resistance QTL and their syntenic regions in the counterpart subgenomes. The numbers on the right or left side of chromosome represent the positions of QTL in physical map (Mb).

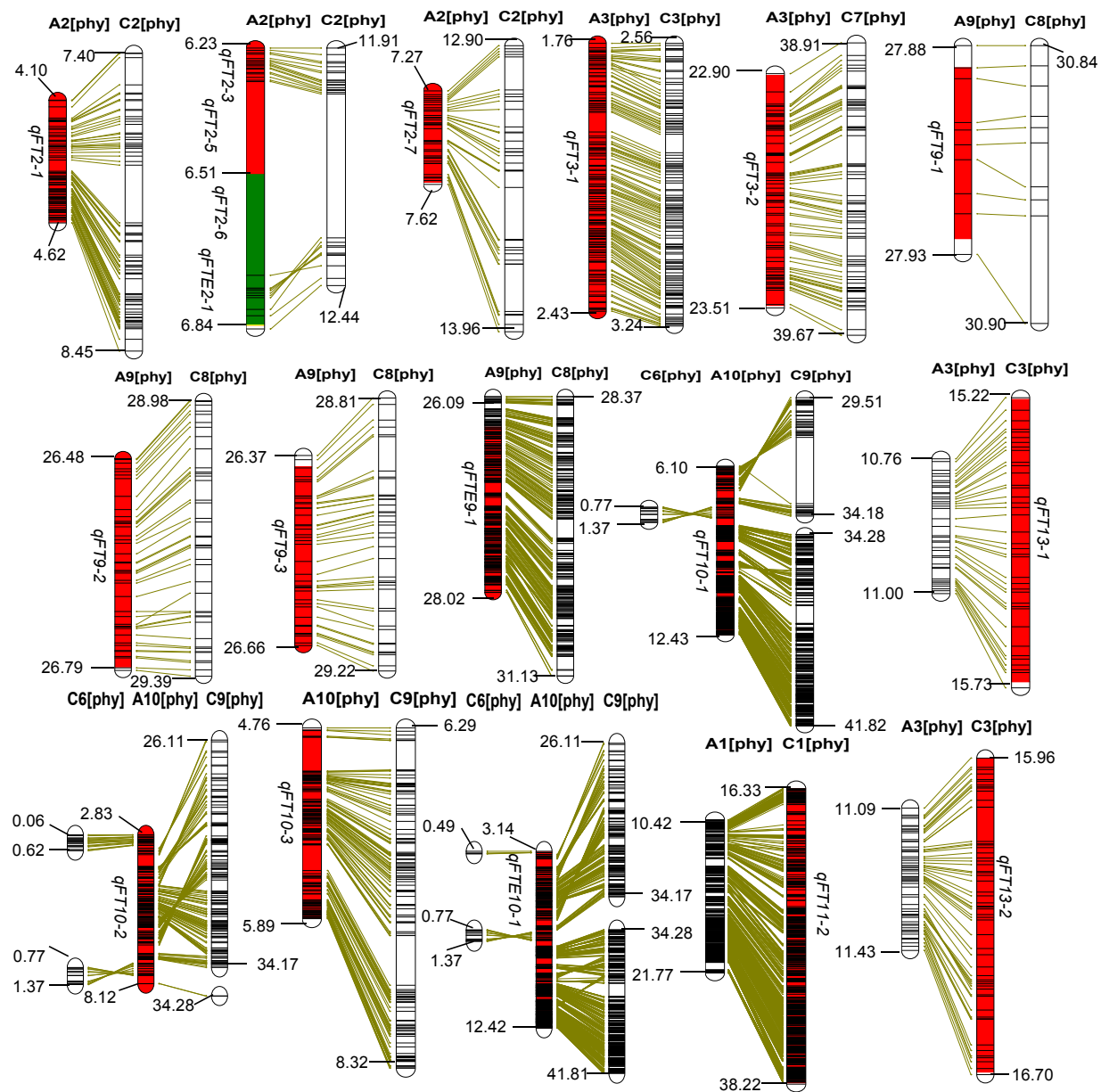


Figure S6 Flowering time QTL and their syntenic regions in the counterpart subgenomes. The numbers on the right or left side of each chromosome represent the positions of QTL in physical map (Mb).

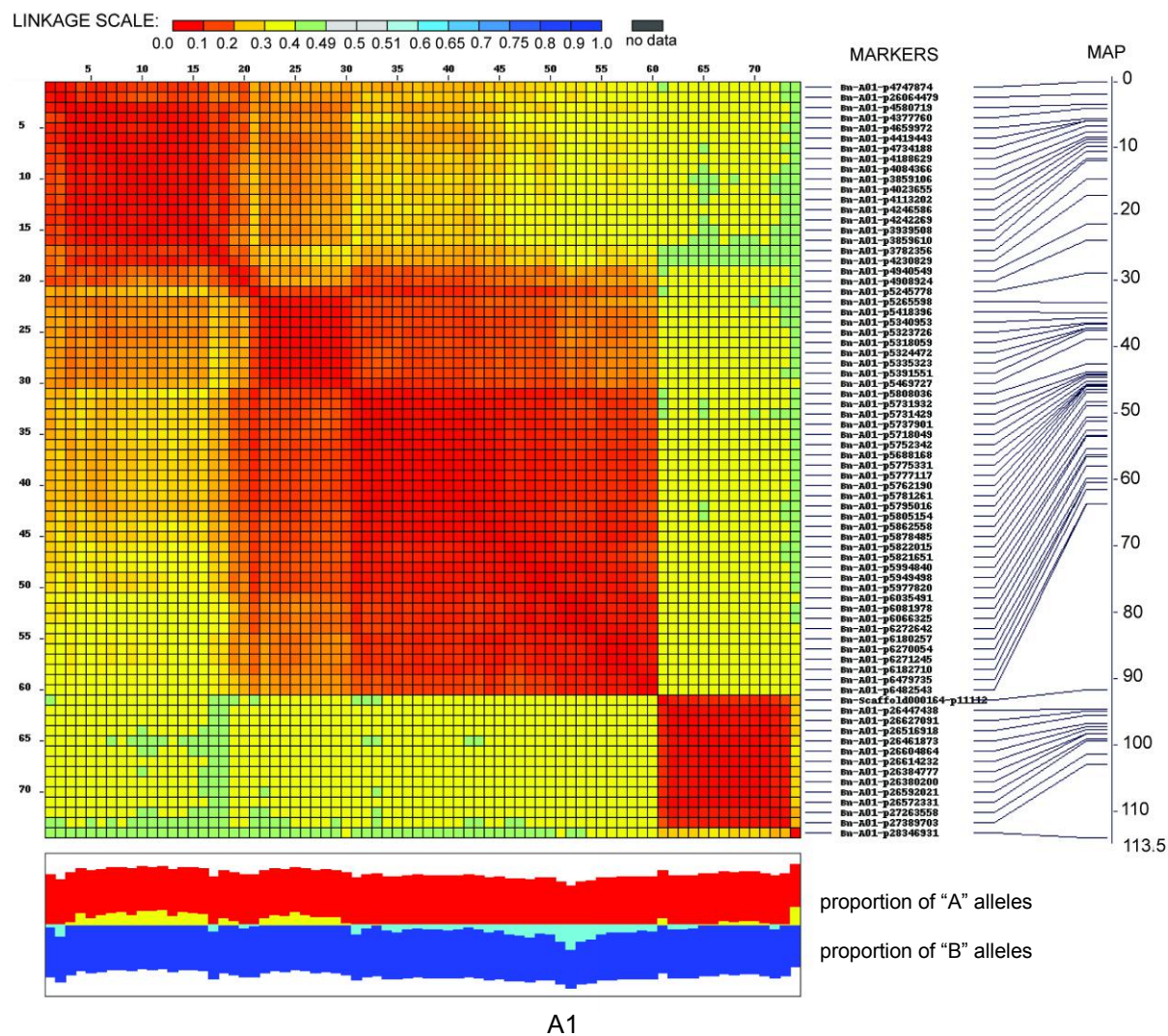
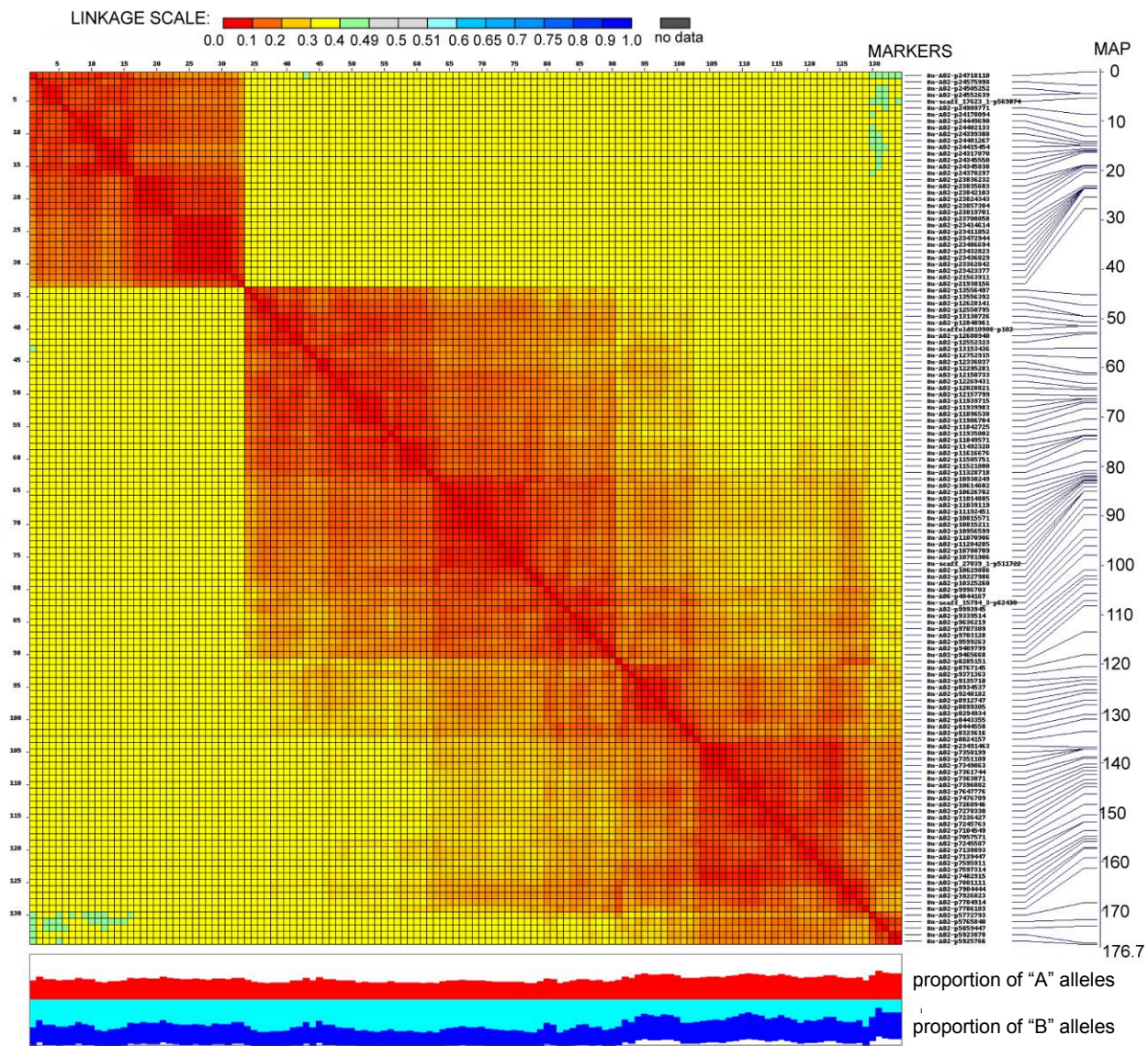
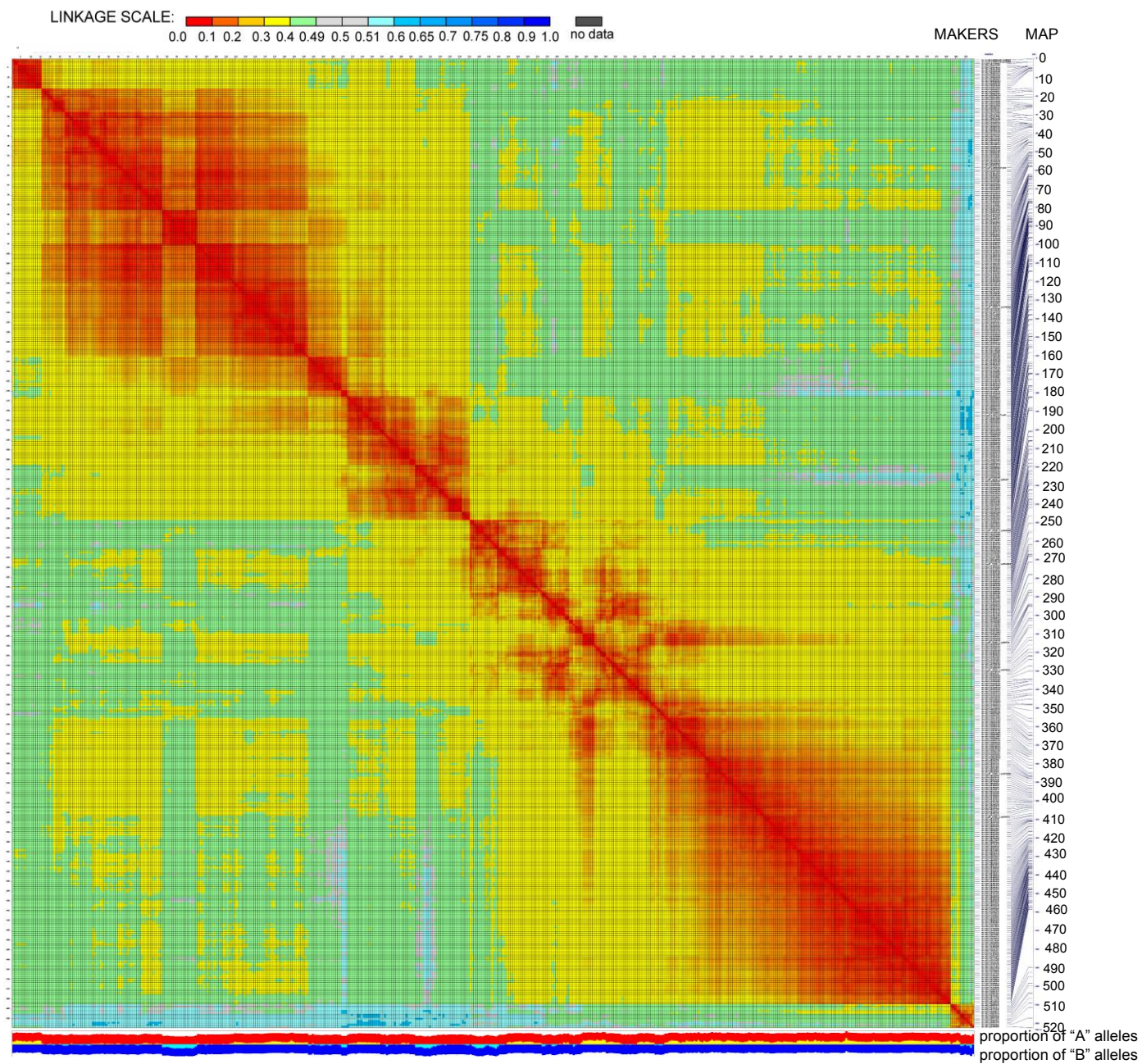
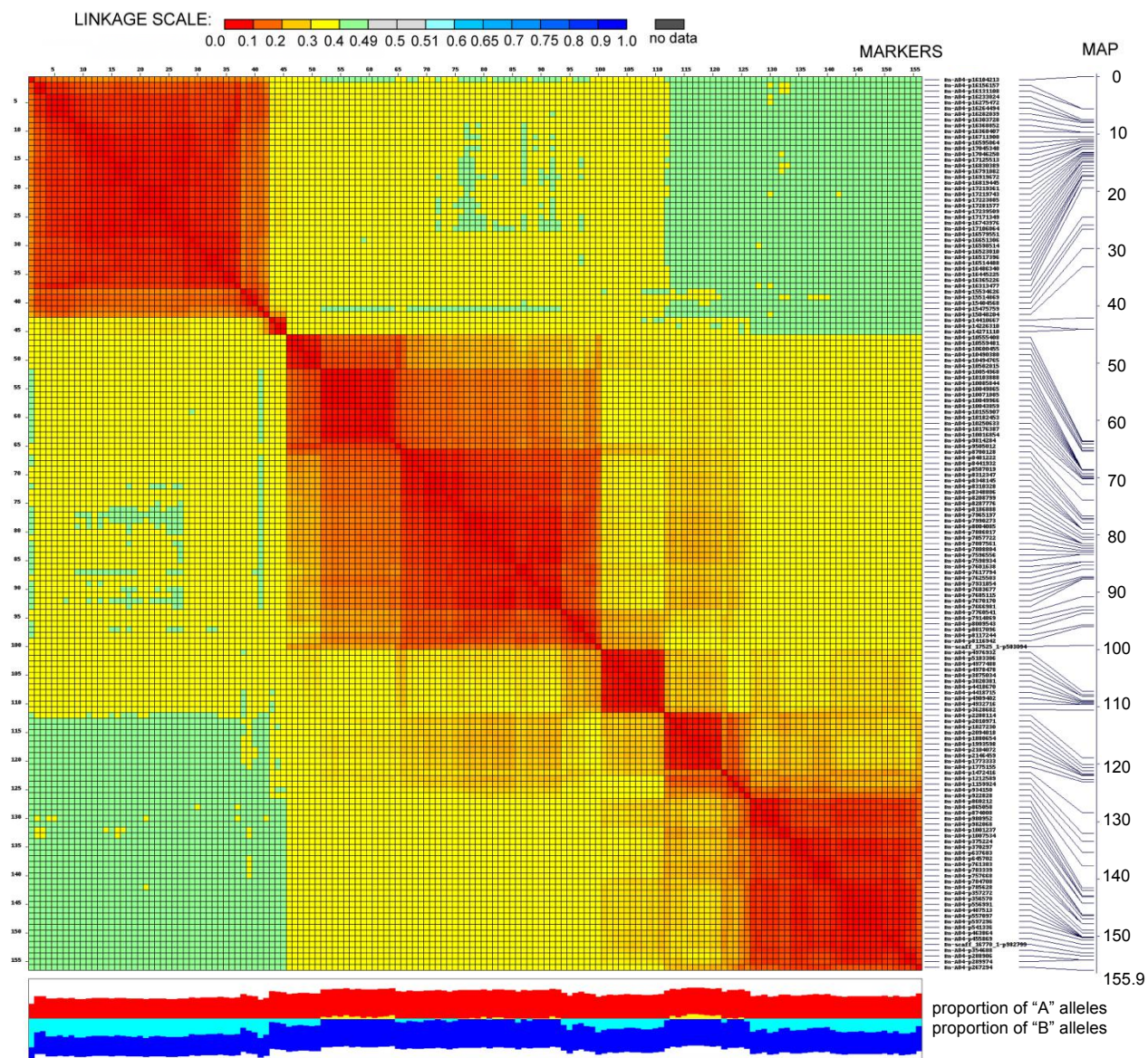


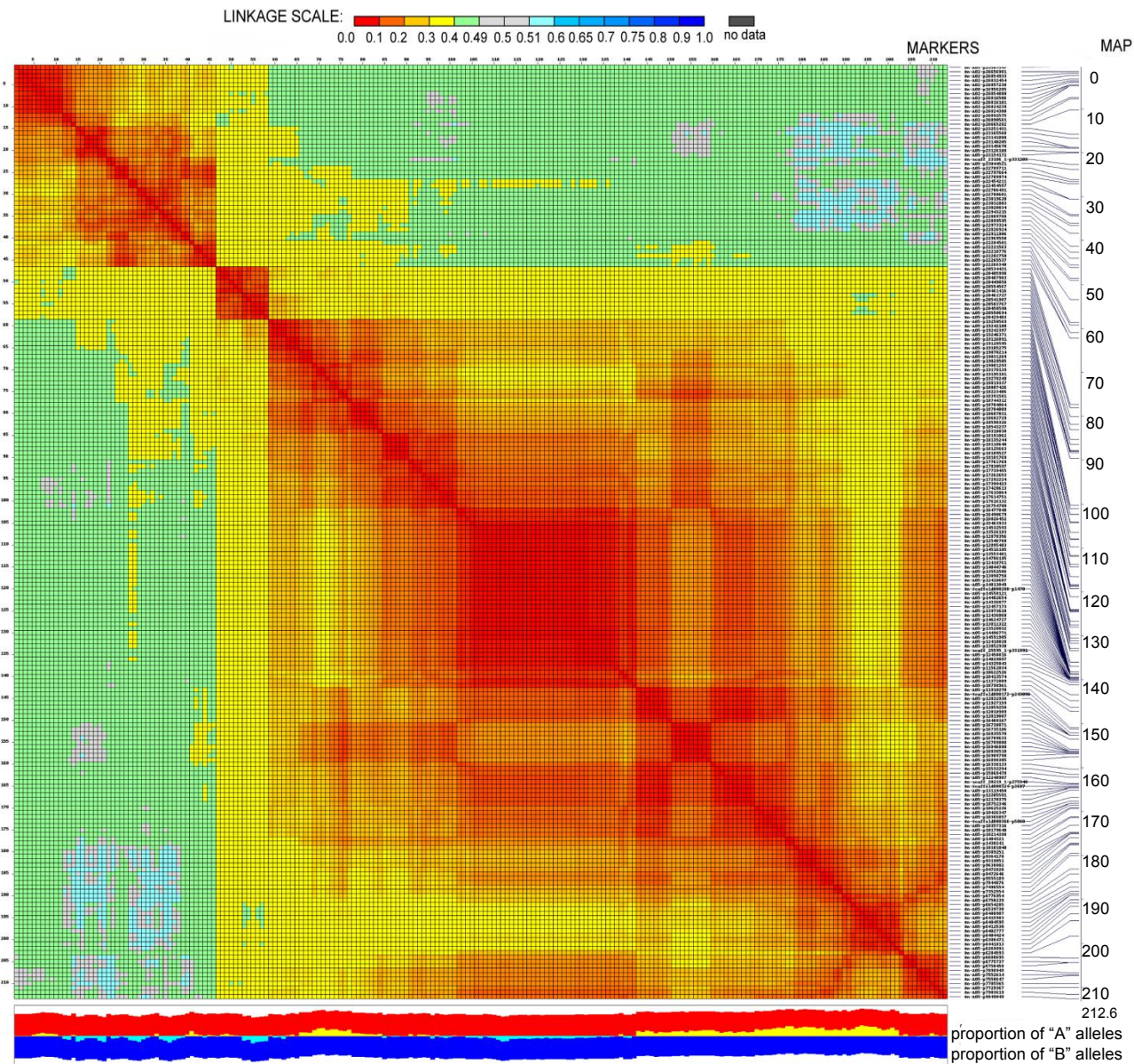
Figure S4 2D heat map showing a matrix of pair-wise recombination values.

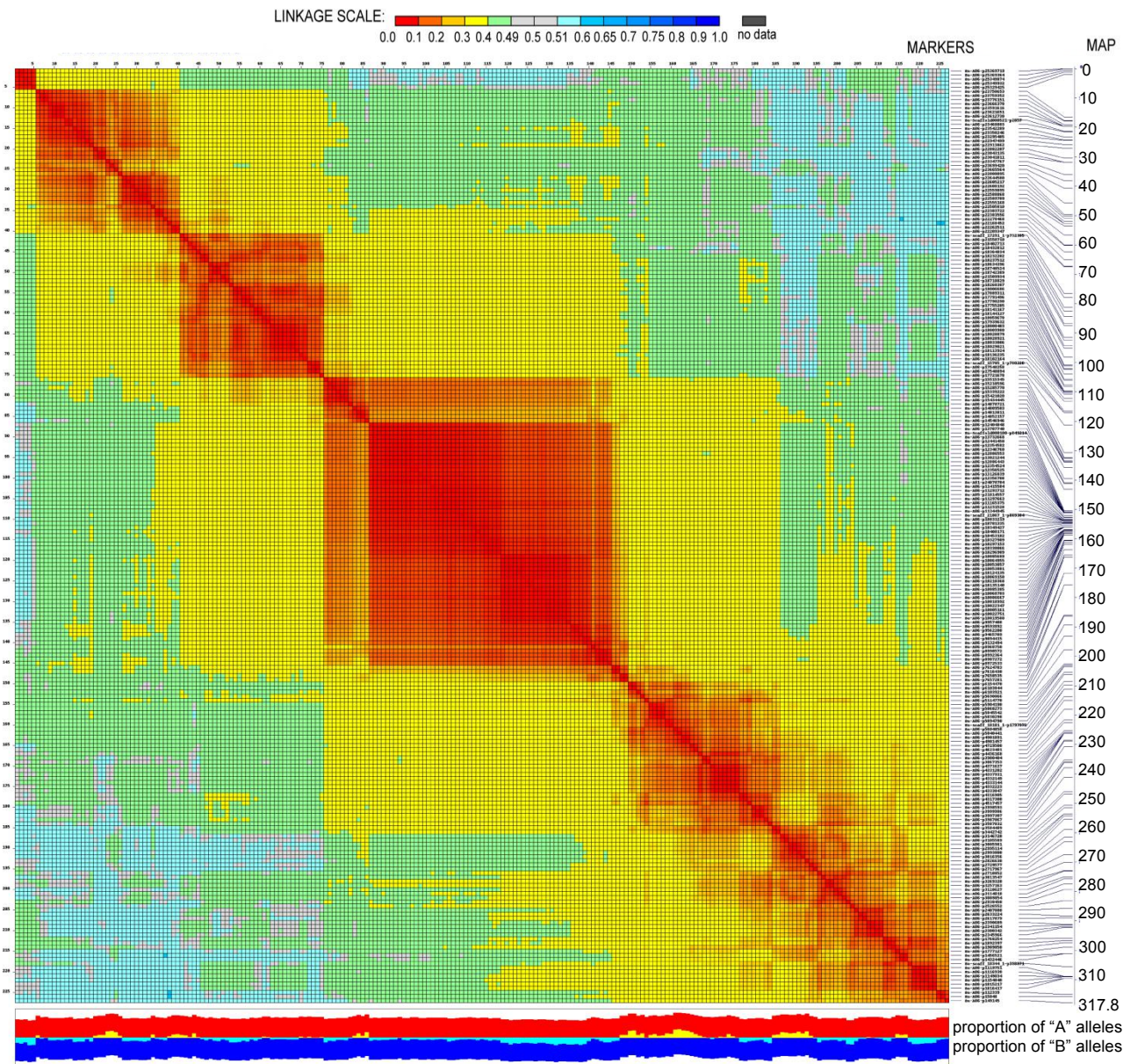


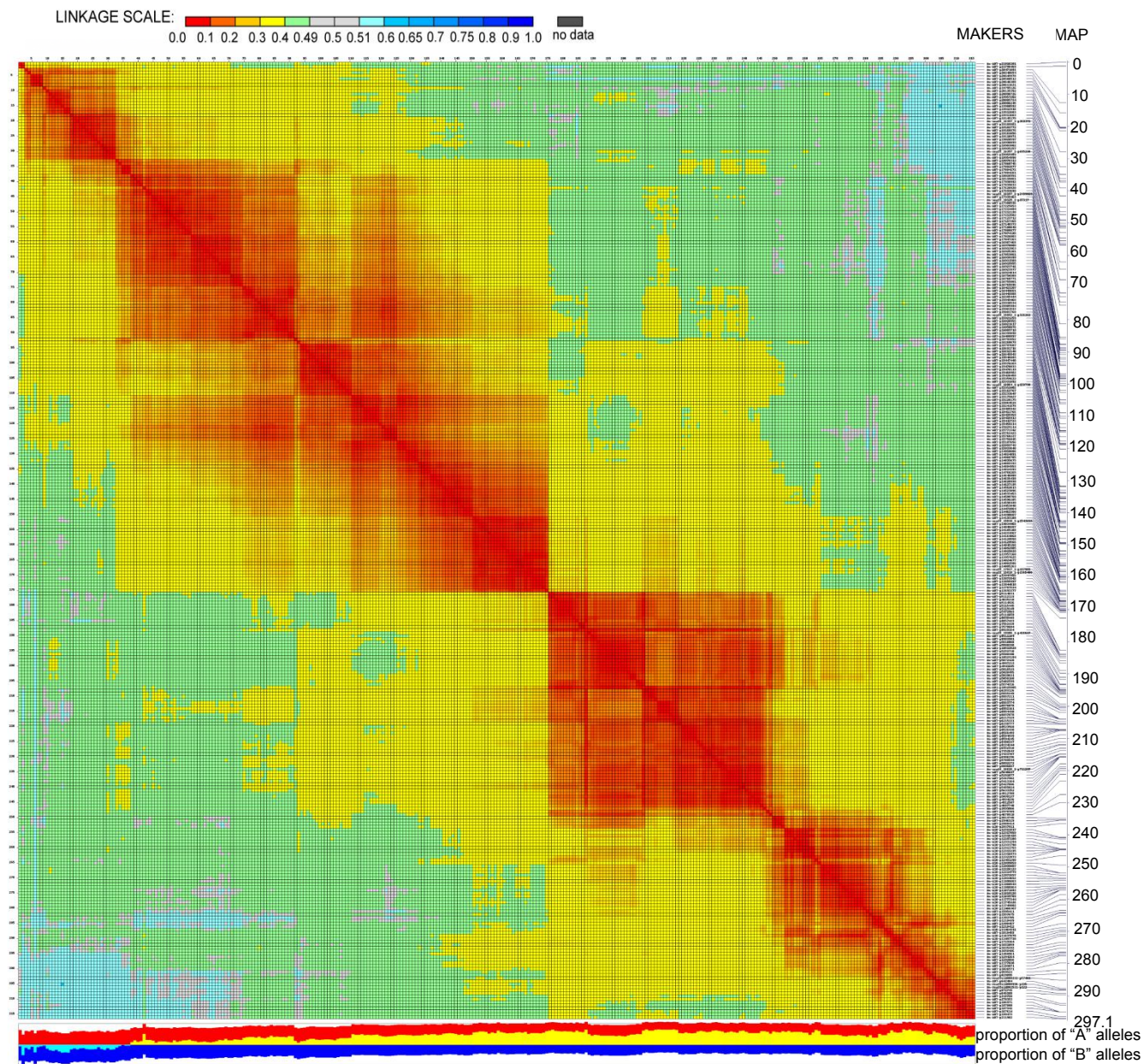




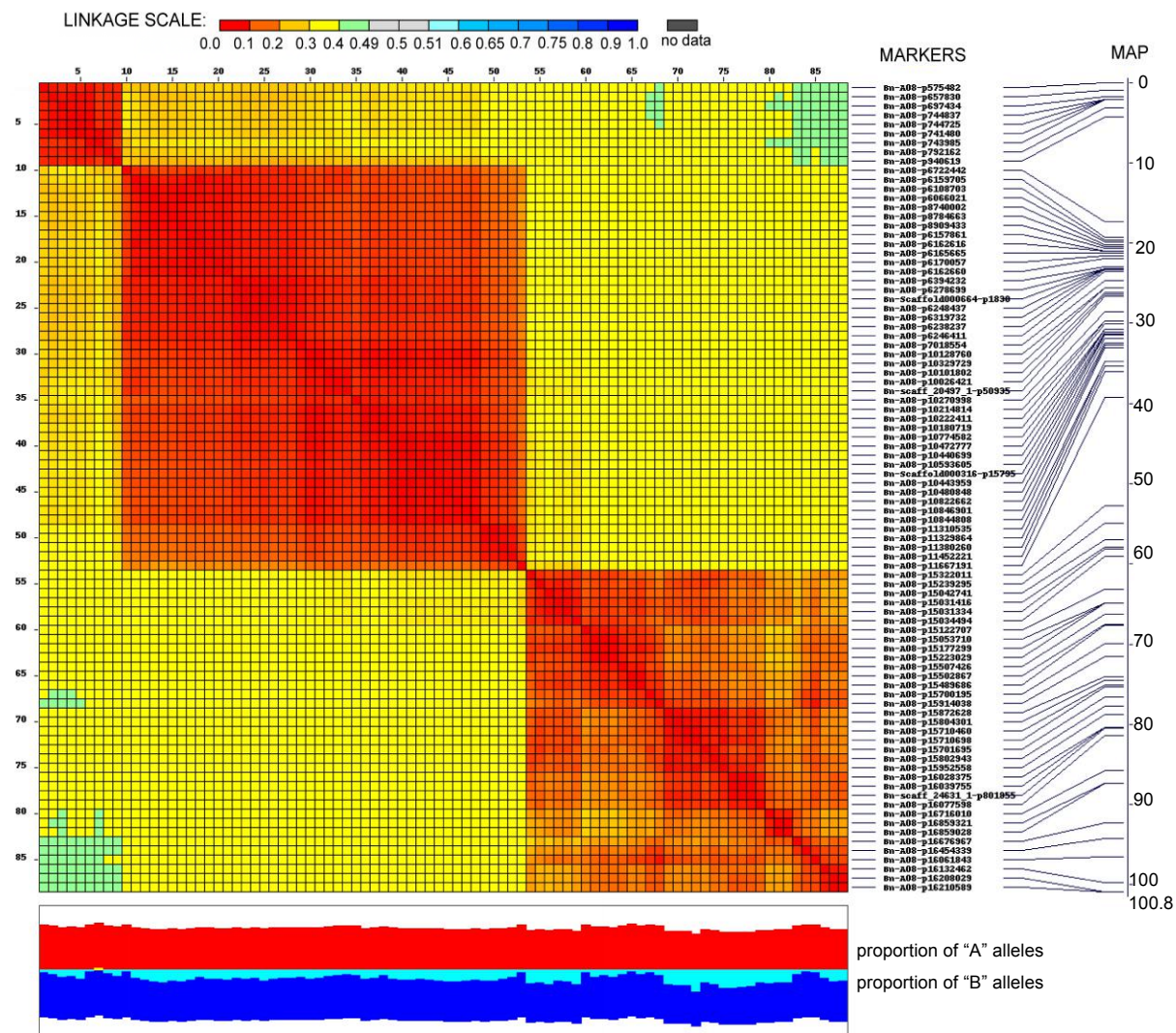
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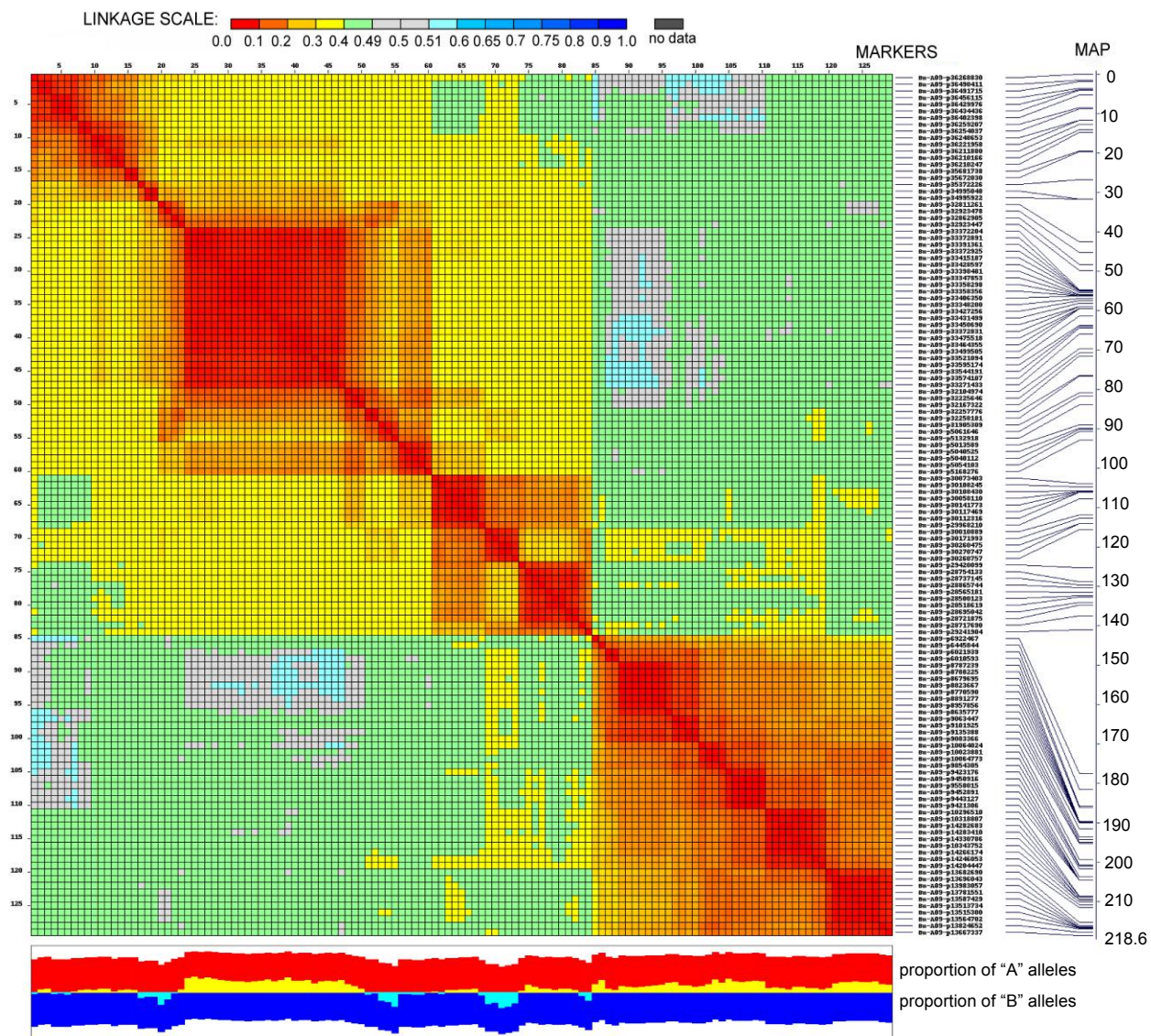


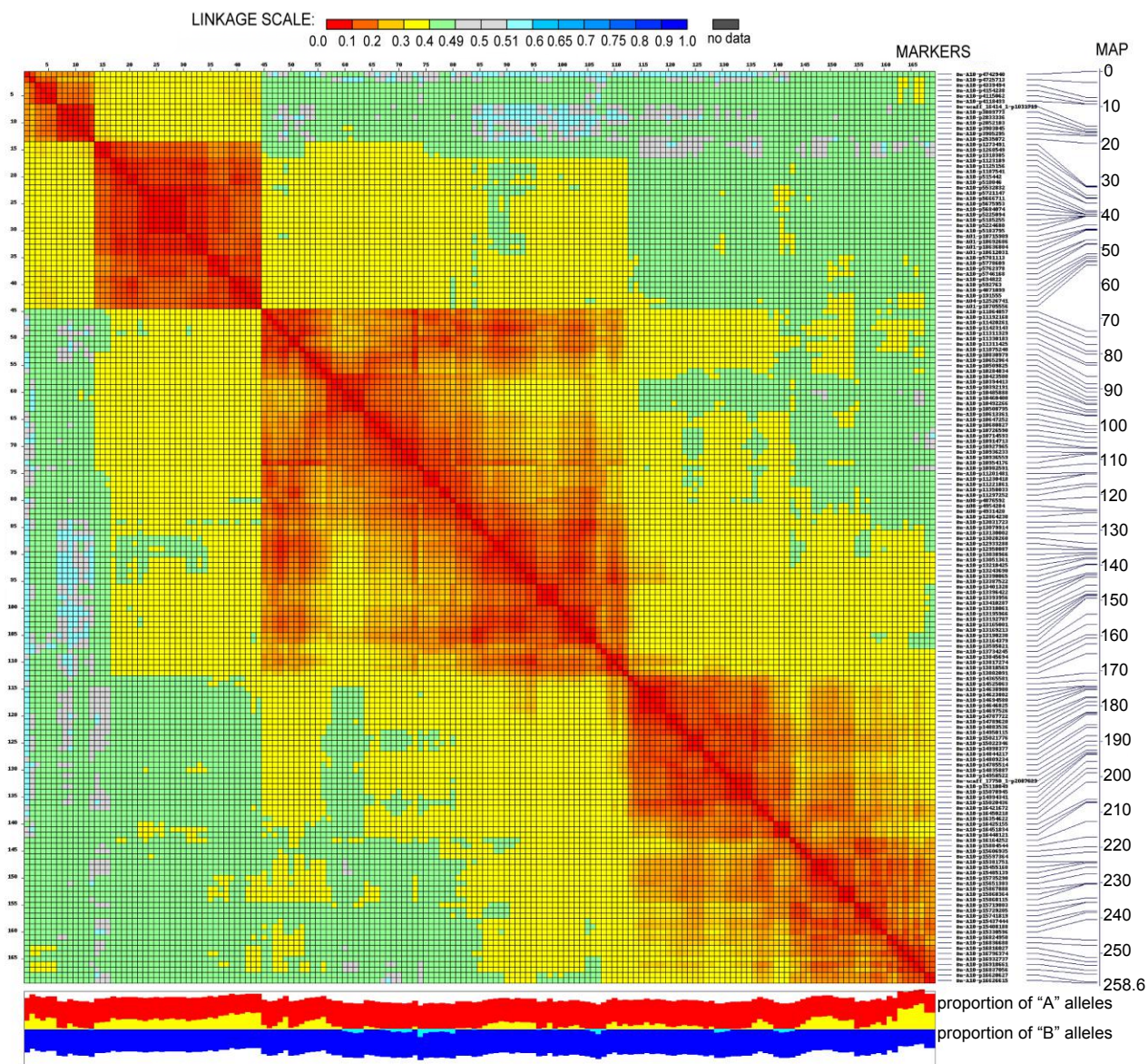




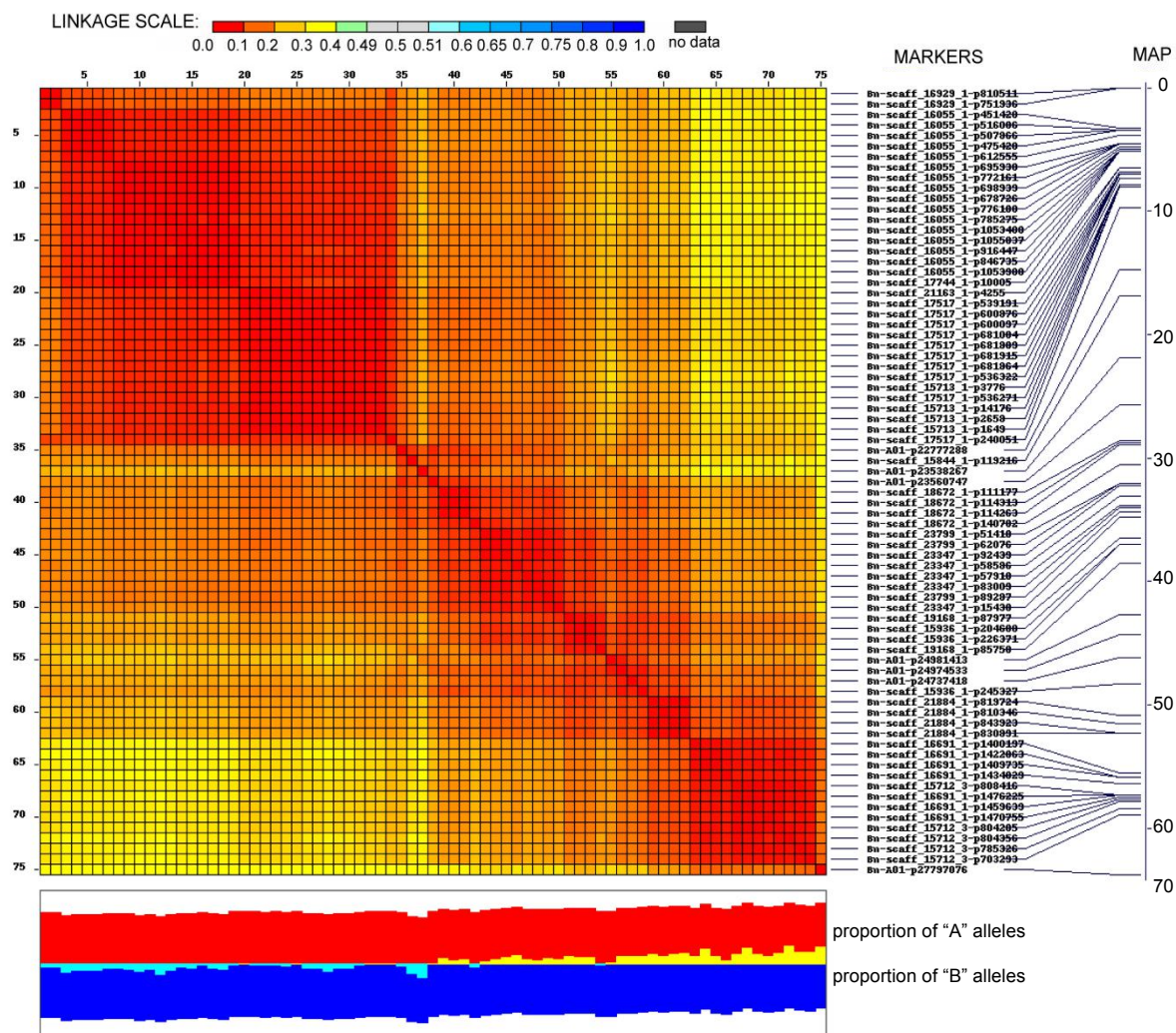
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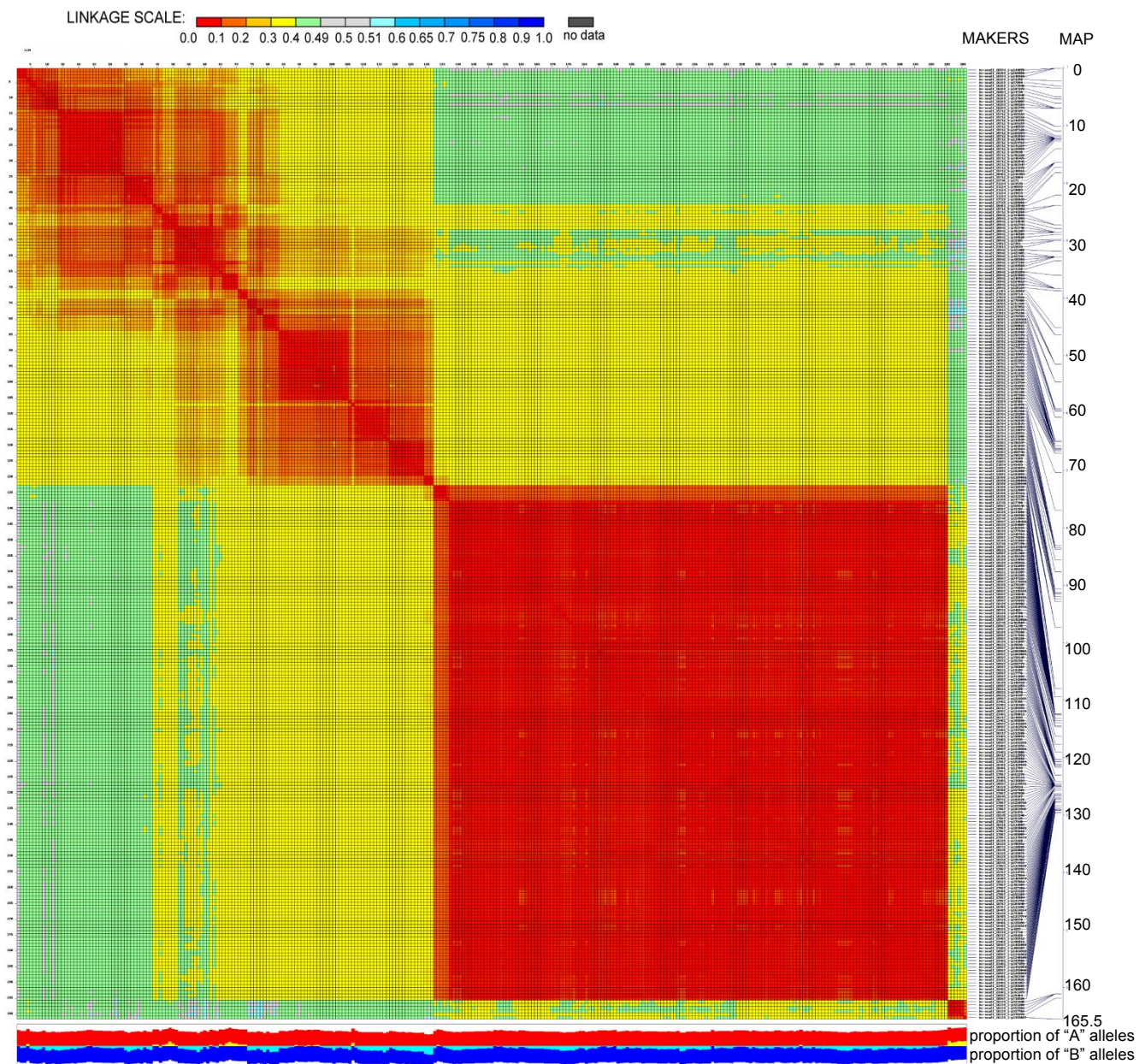


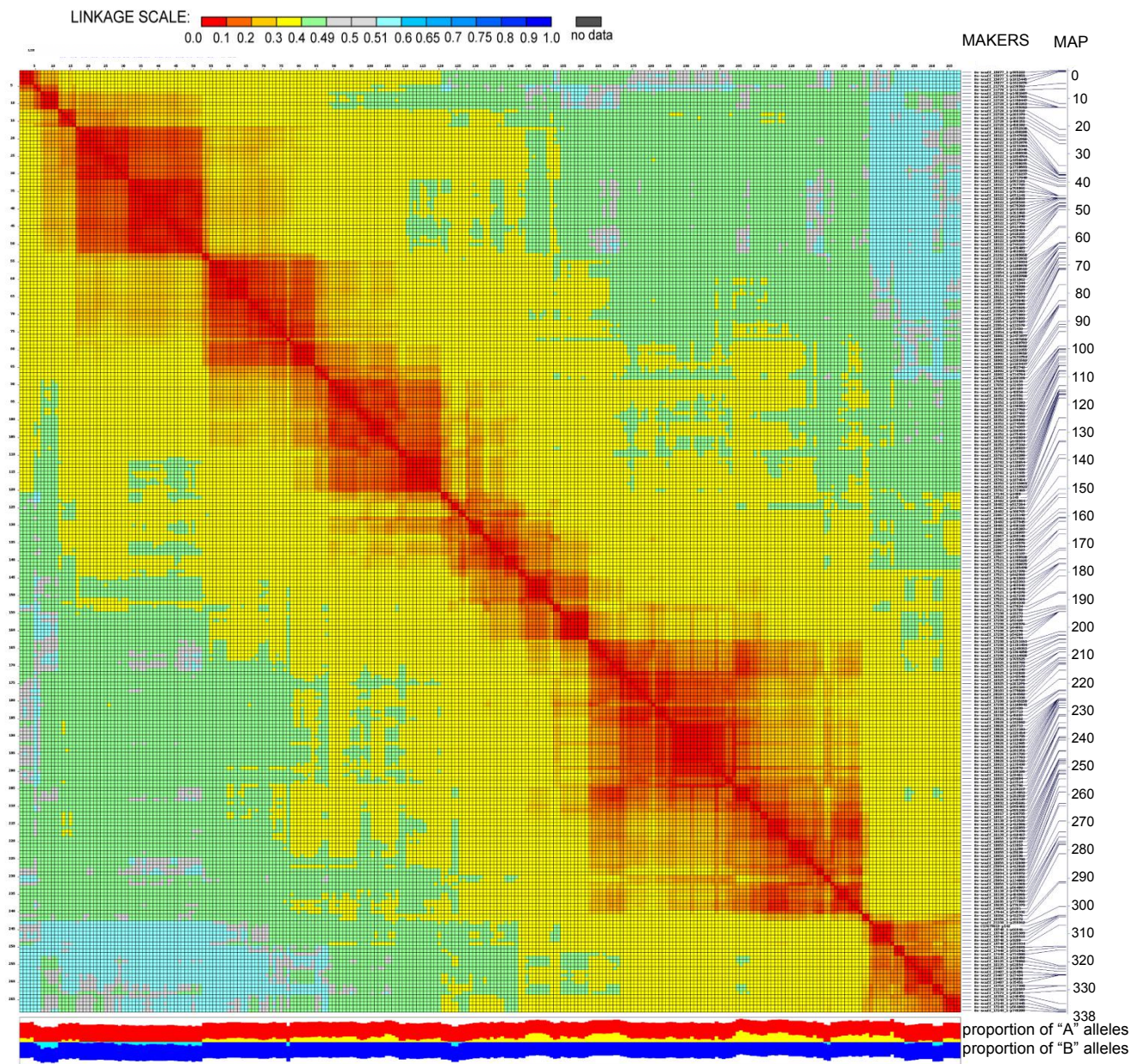


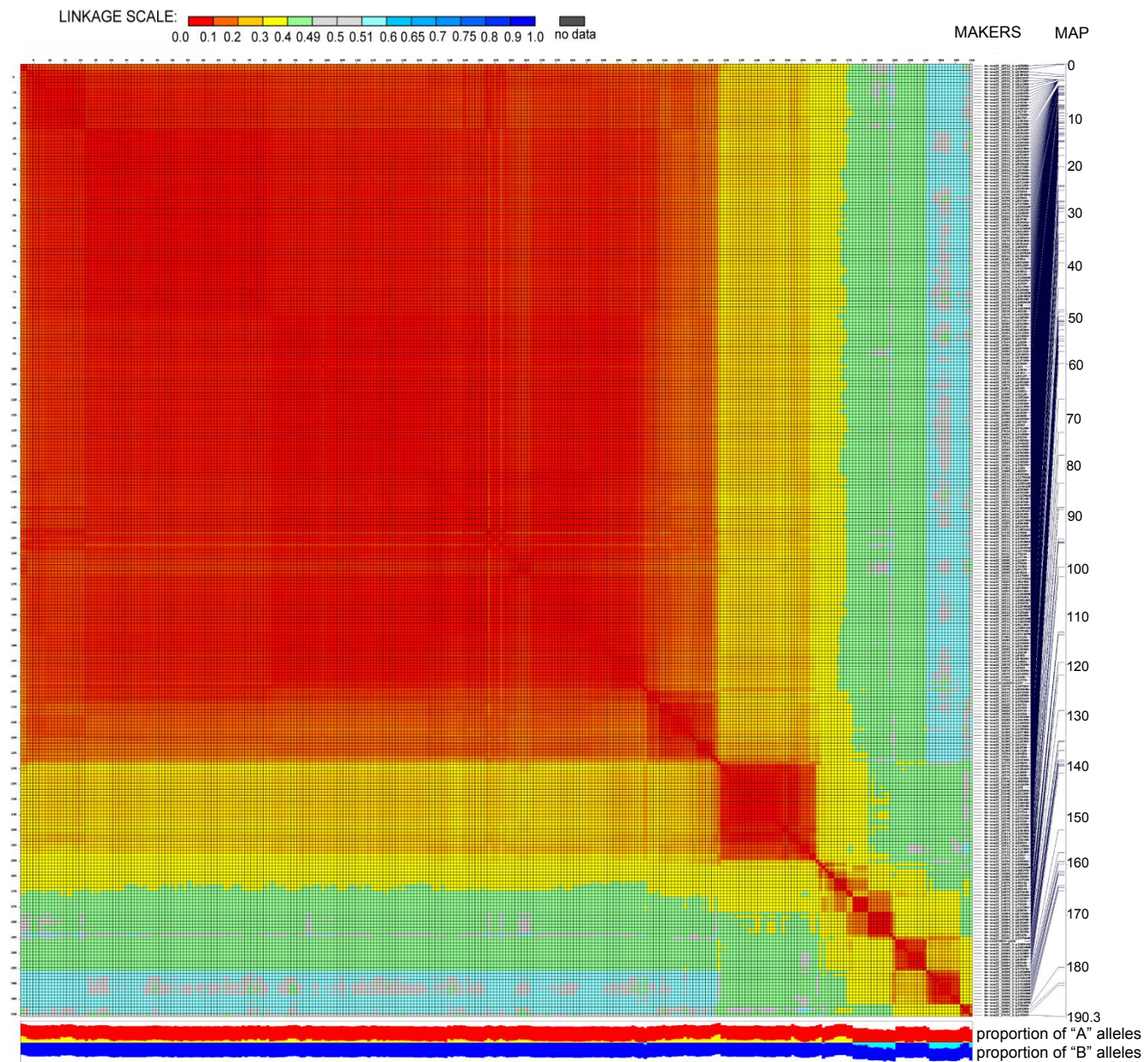


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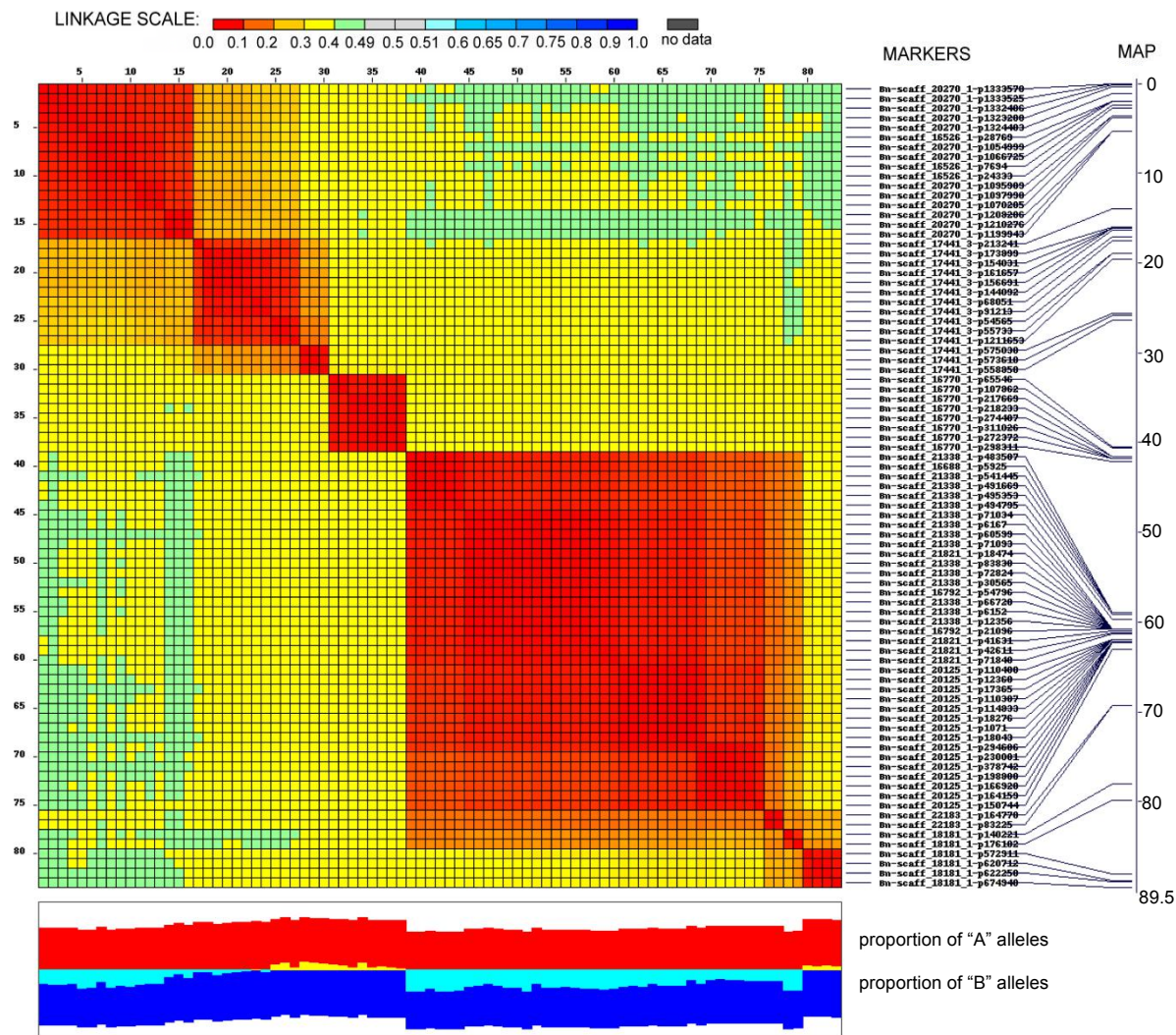


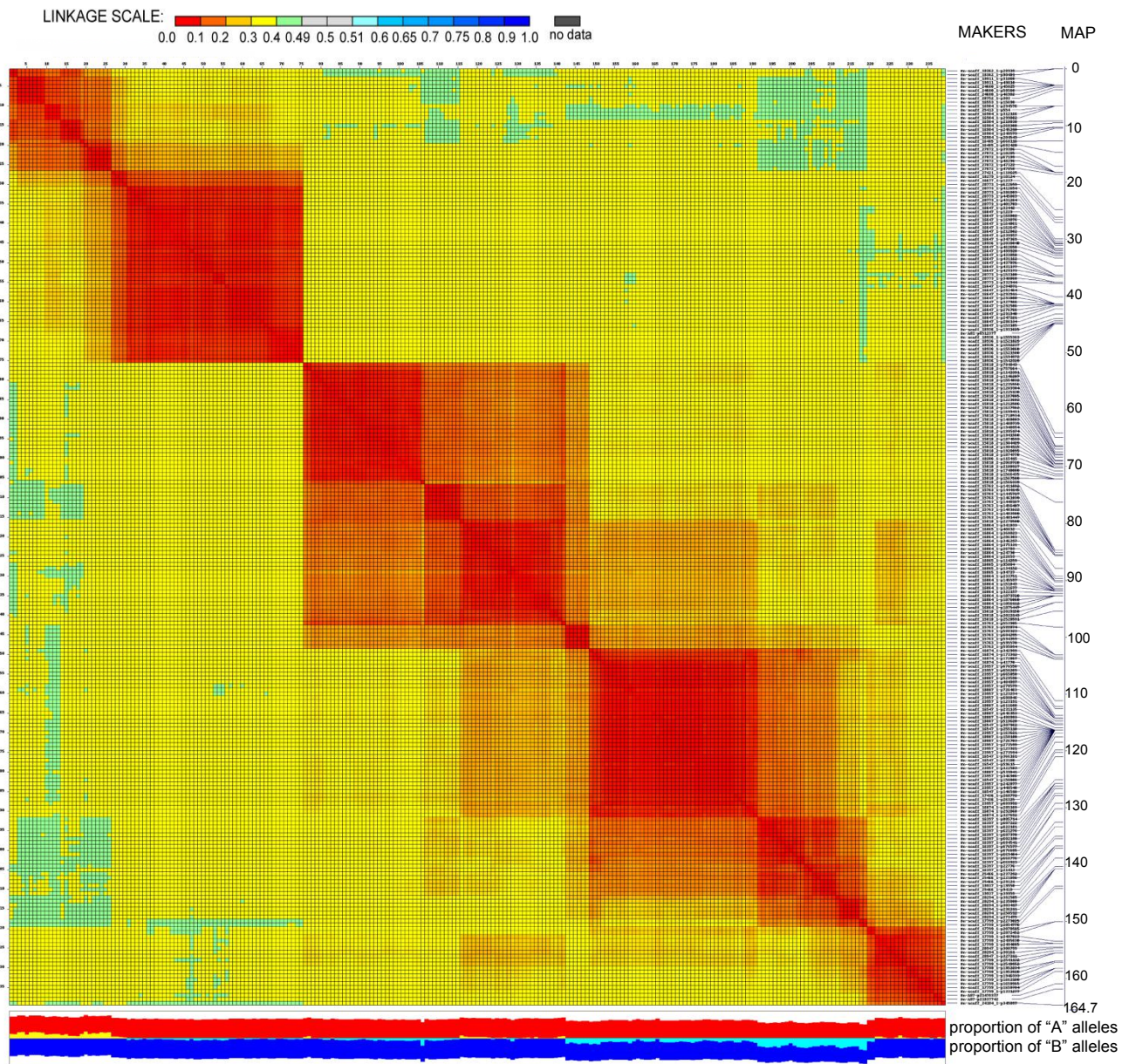




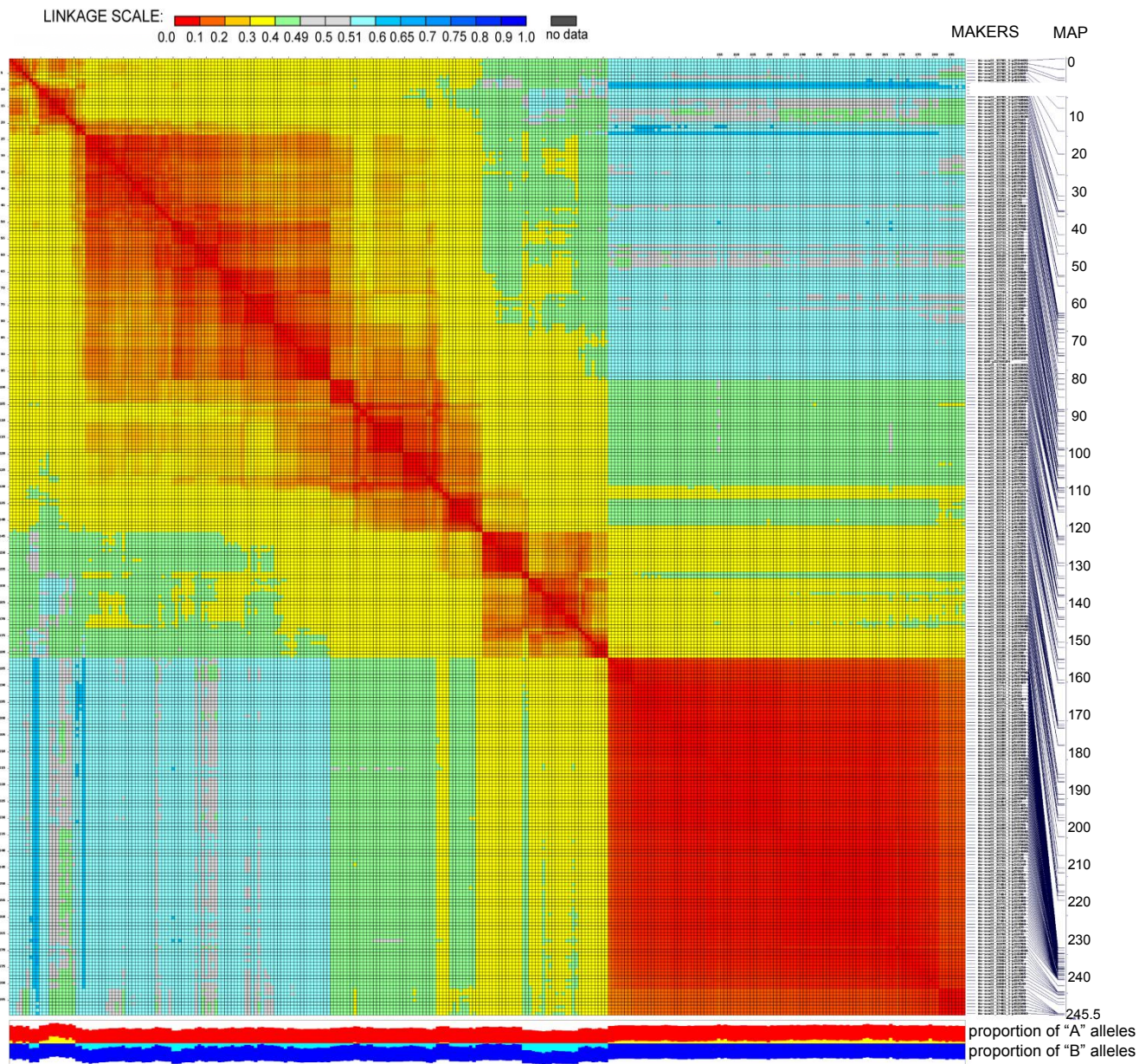


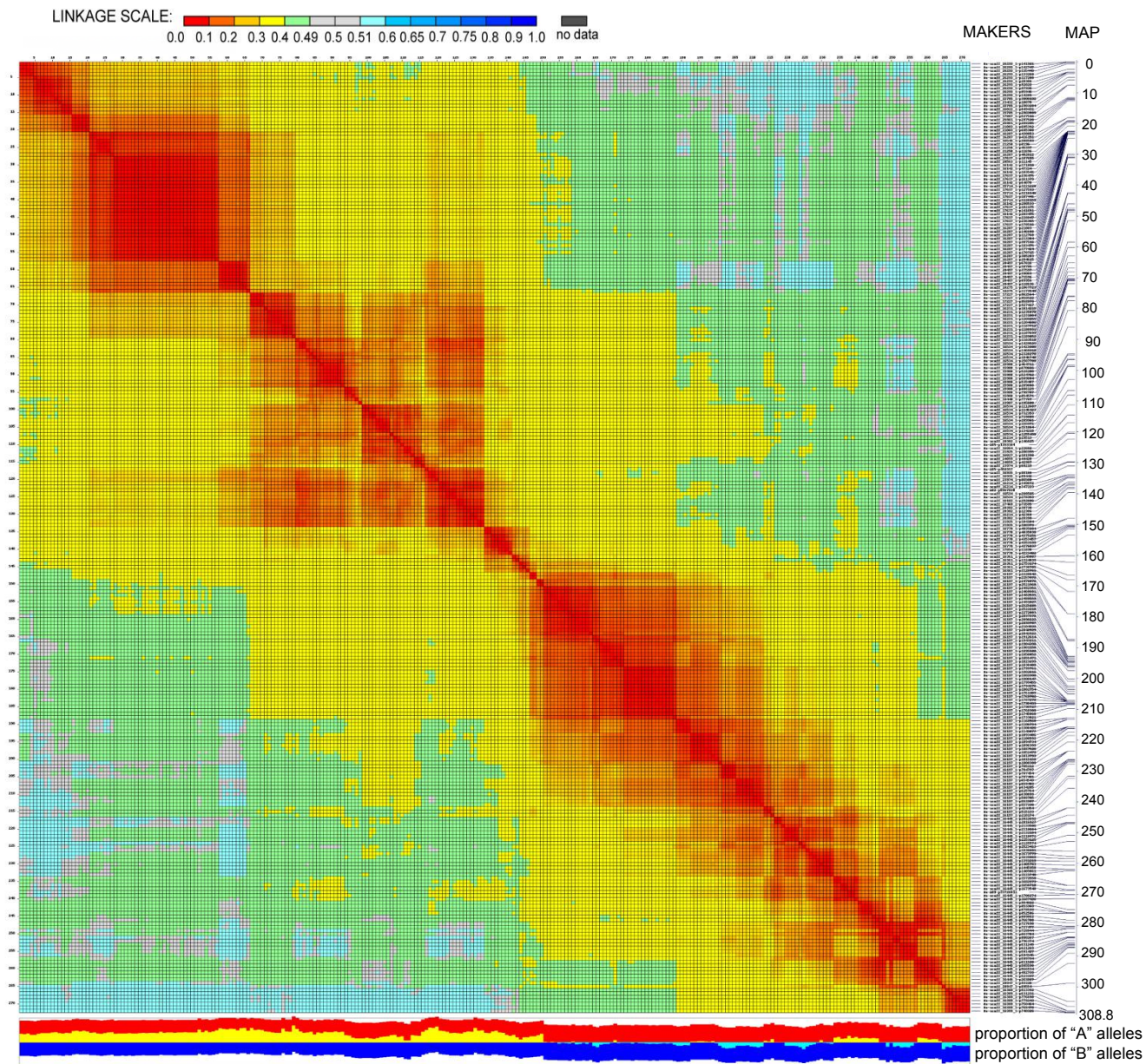
C4





C6





C8

