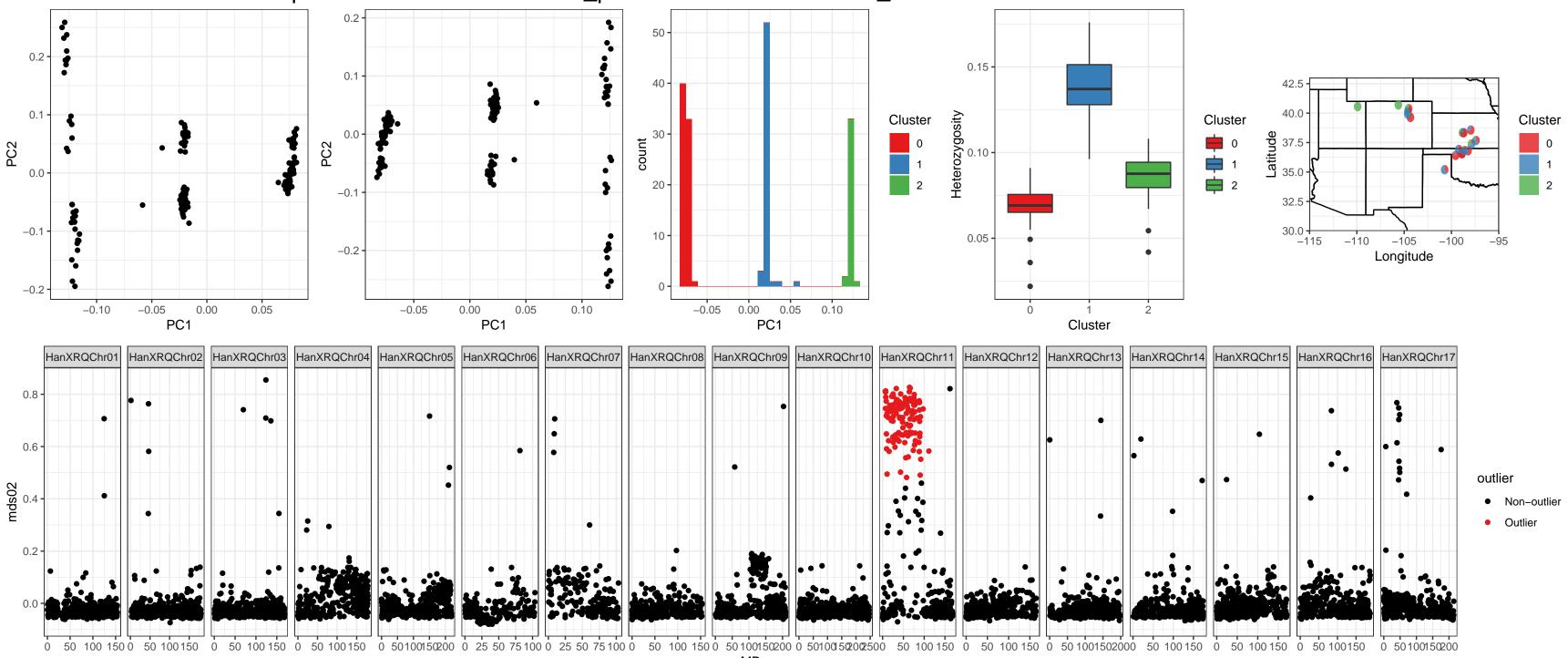
mds01-pos BetweenSS=0.997 Het_pvalue=NA Window_cluster=5.05 Location=HanXRQChr04:127MB 0.125 Cluster Cluster Cluster count 50 PC2 30.0 -115 0.050 -110 -105 -100 Longitude -0.3PC1 PC1 PC1 Cluster HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr11 0.75 -

mds02-pos BetweenSS=0.997 Het_pvalue=7.71e-29 Window_cluster=1.72 Location=HanXRQChr11:49MB



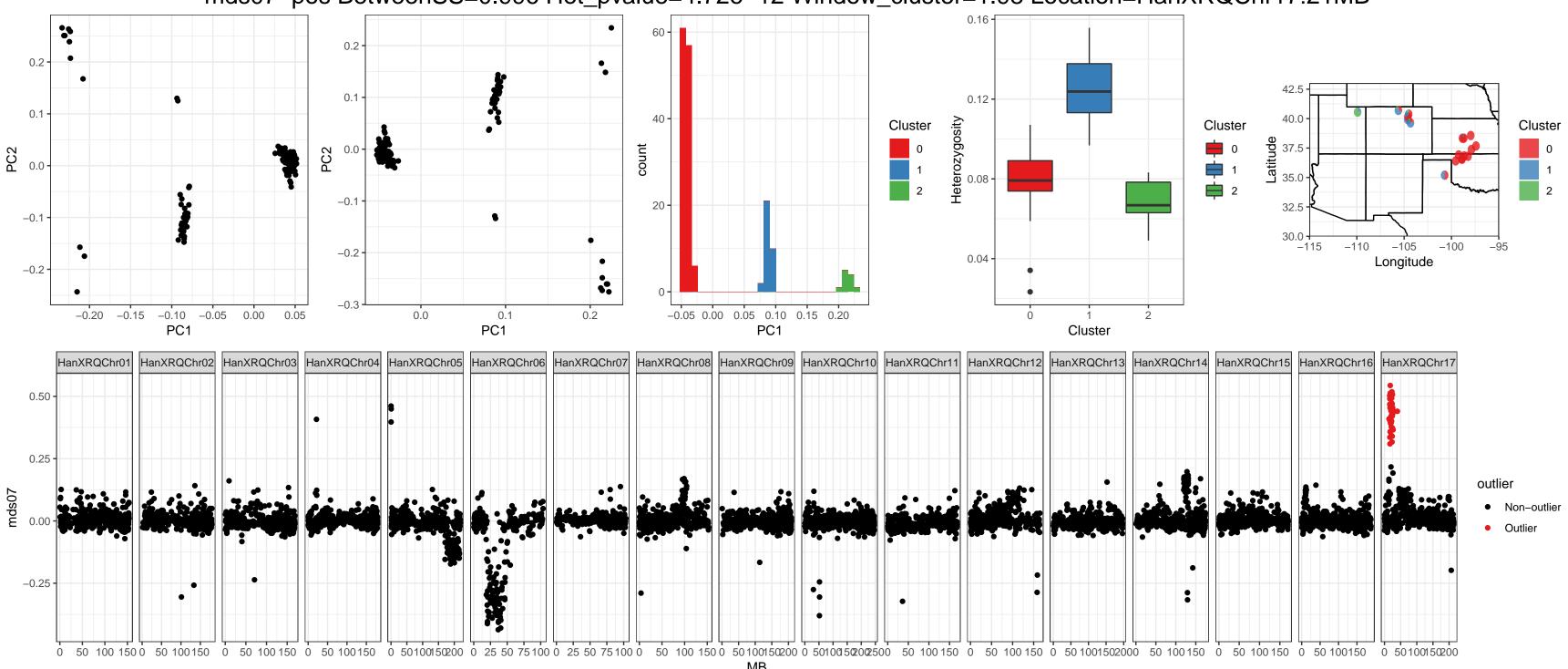
mds03-neg BetweenSS=0.996 Het_pvalue=5.04e-19 Window_cluster=1.64 Location=HanXRQChr05:194MB 0.1 0.1 0.0 -0.12 -Cluster Cluster -0.1 -0.2-115 -110 -105 -100 Longitude -0.3-0.10-0.05 0.05 -0.10 -0.05-0.10 -0.05 0.00 0.05 PC1 PC1 PC1 Cluster 80spm -0.2

mds04-neg BetweenSS=0.996 Het_pvalue=3.17e-33 Window_cluster=1.96 Location=HanXRQChr09:136MB 0.15 Cluster Cluster 0.1 $\frac{6}{6}$ -0.10.05 --105 -115 -110 -100 Longitude -0.05-0.050.00 0.10 0.15 -0.050.00 0.05 0.10 0.15 PC1 PC1 PC1 Cluster HanXRQChr01 HanXRQChr02 HanXRQChr03 HanXRQChr04 HanXRQChr05 HanXRQChr06 HanXRQChr07 HanXRQChr08 HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15 HanXRQChr16 HanXRQChr17 0.25 40spu -0.25 0 50 100 150 0 50 100150 0 50 100150 0 50 100150 0 50 100150 0 50 100150 0 50100150200 0 25 50 75 100 0 25 50 75 100 0 50 100 150 0 50 100150200 0 50100150200 50 100 150 0 50 100 150 0 50 1001502000 50 100150 0 50 100 150 0 50 100150 0 50100150200

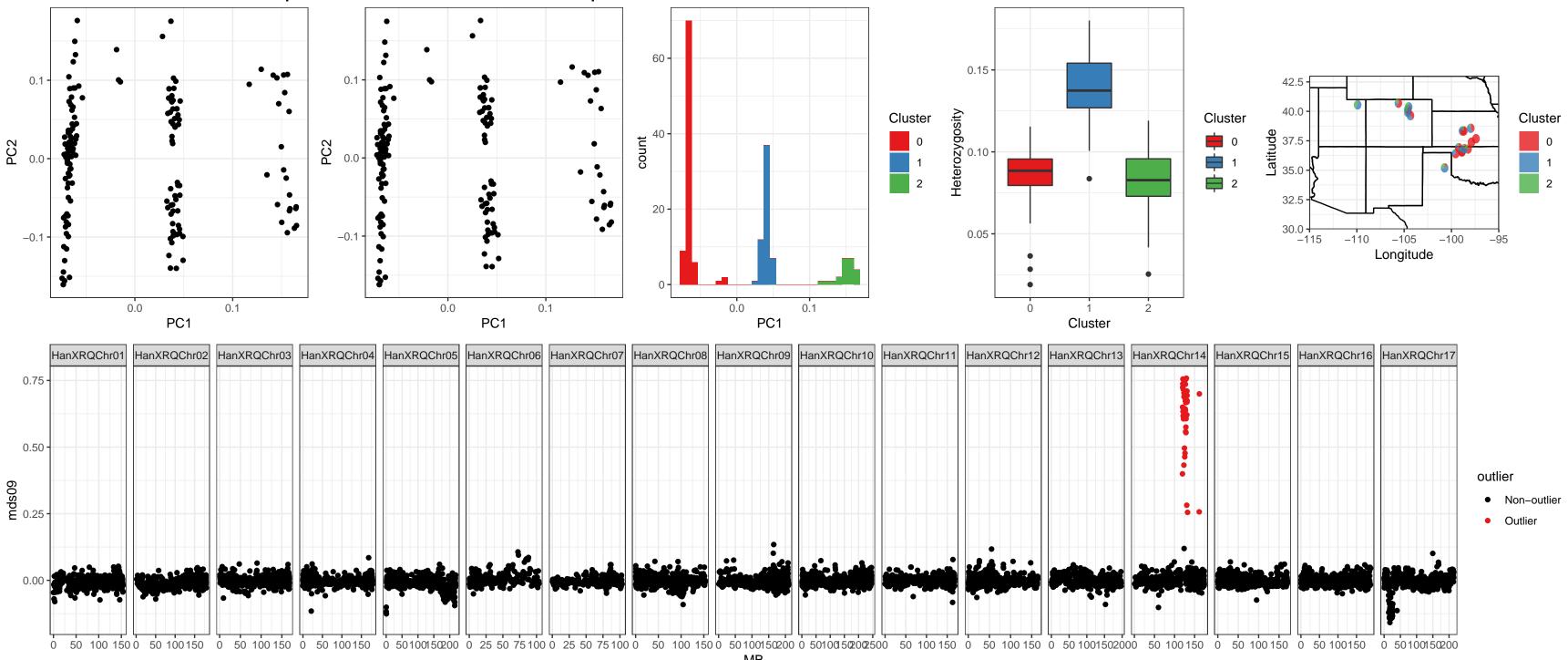
mds05-neg BetweenSS=0.995 Het_pvalue=4.84e-08 Window_cluster=4.39 Location=HanXRQChr17:61MB 0.15 -Cluster Cluster Cluster PC2 25 -0.05 -115 -105 -110 -100 Longitude -0.3-0.2PC1 PC1 PC1 Cluster HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 mds05

mds06-neg BetweenSS=0.993 Het_pvalue=0.0308 Window_cluster=1.38 Location=HanXRQChr06:31MB 0.15 -Cluster Cluster Cluster count 60 -30 --105 -115 -110 -100 -0.1Longitude 0.0 PC1 PC1 PC1 Cluster HanXRQChr12 HanXRQChr13 HanXRQChr14 90spu -0.2 50 100 150 0 50 100 150 0 50 1001502000 50 100 150 0 50 100 150 0 50 100150 0 50 100150 0 50 100150200

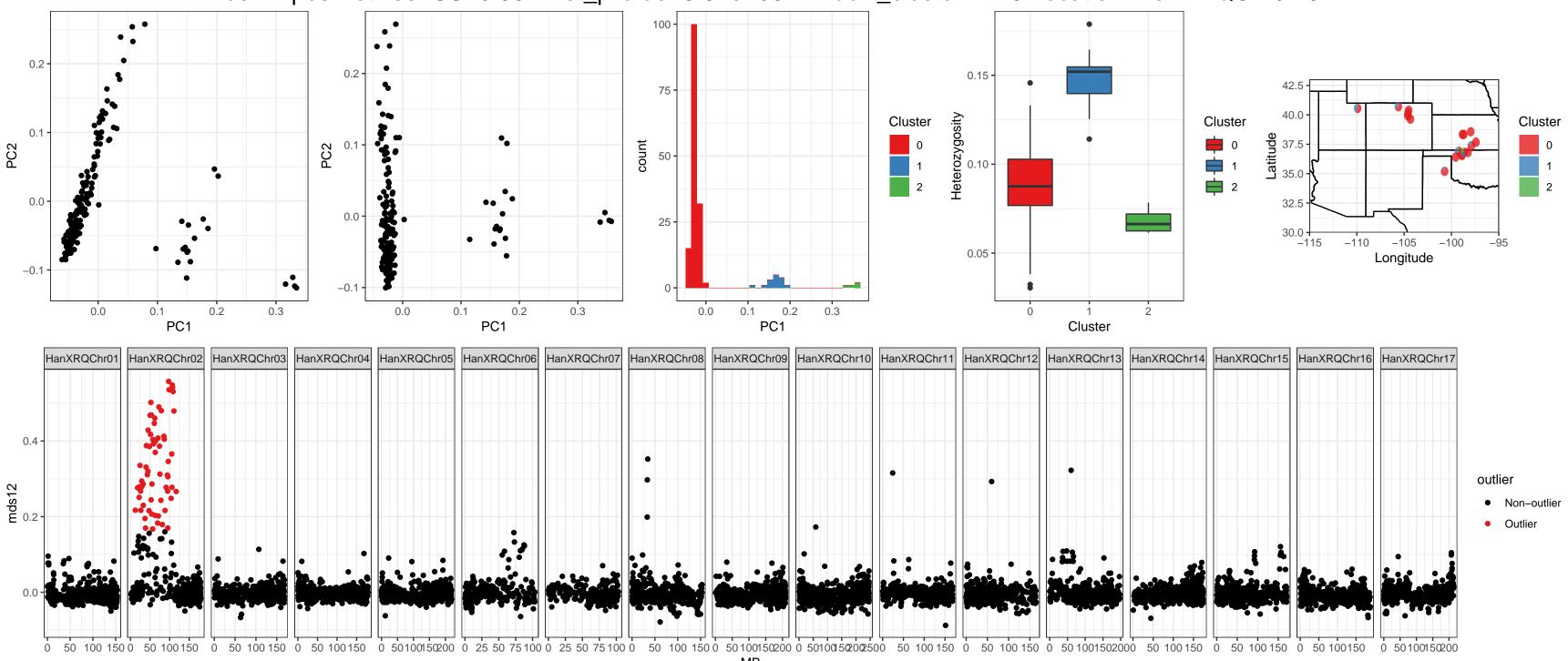
mds07-pos BetweenSS=0.996 Het_pvalue=4.72e-12 Window_cluster=1.98 Location=HanXRQChr17:21MB



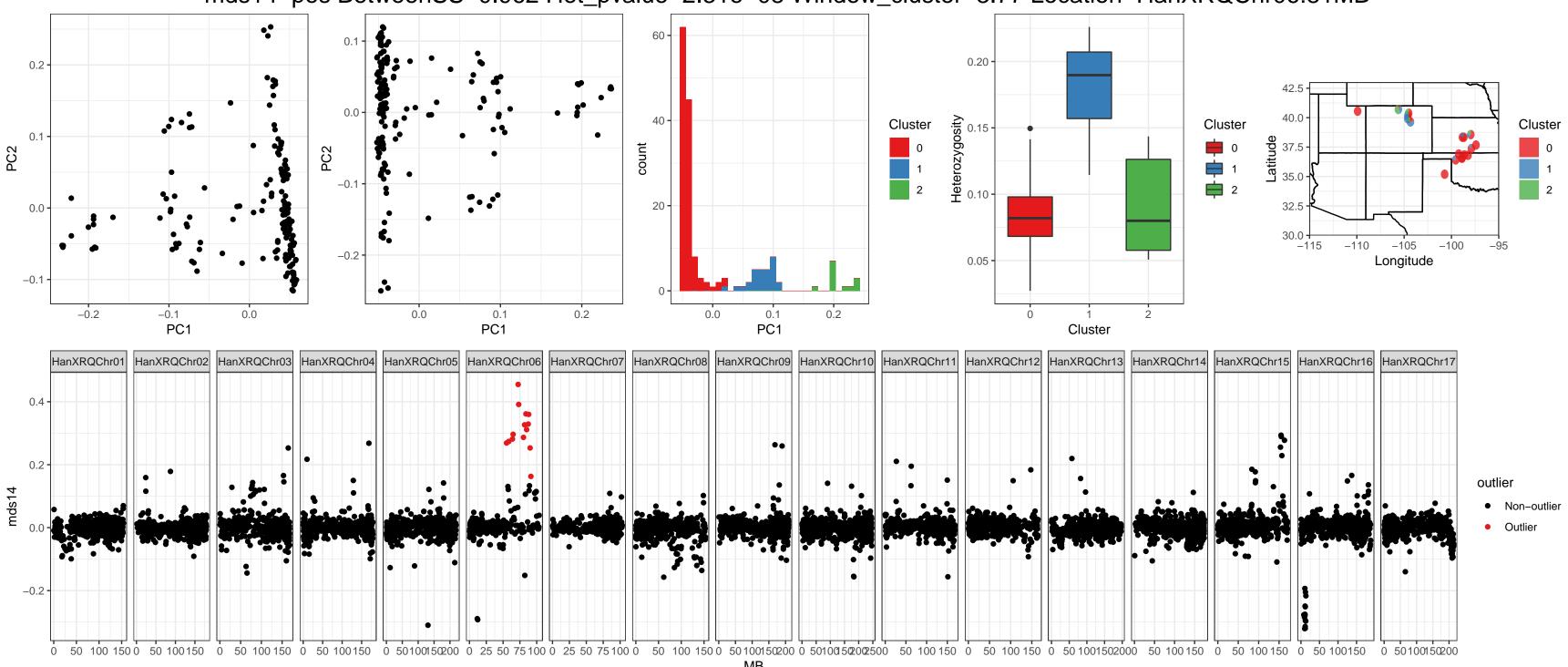
mds09-pos BetweenSS=0.988 Het_pvalue=4.01e-14 Window_cluster=5.35 Location=HanXRQChr14:127MB



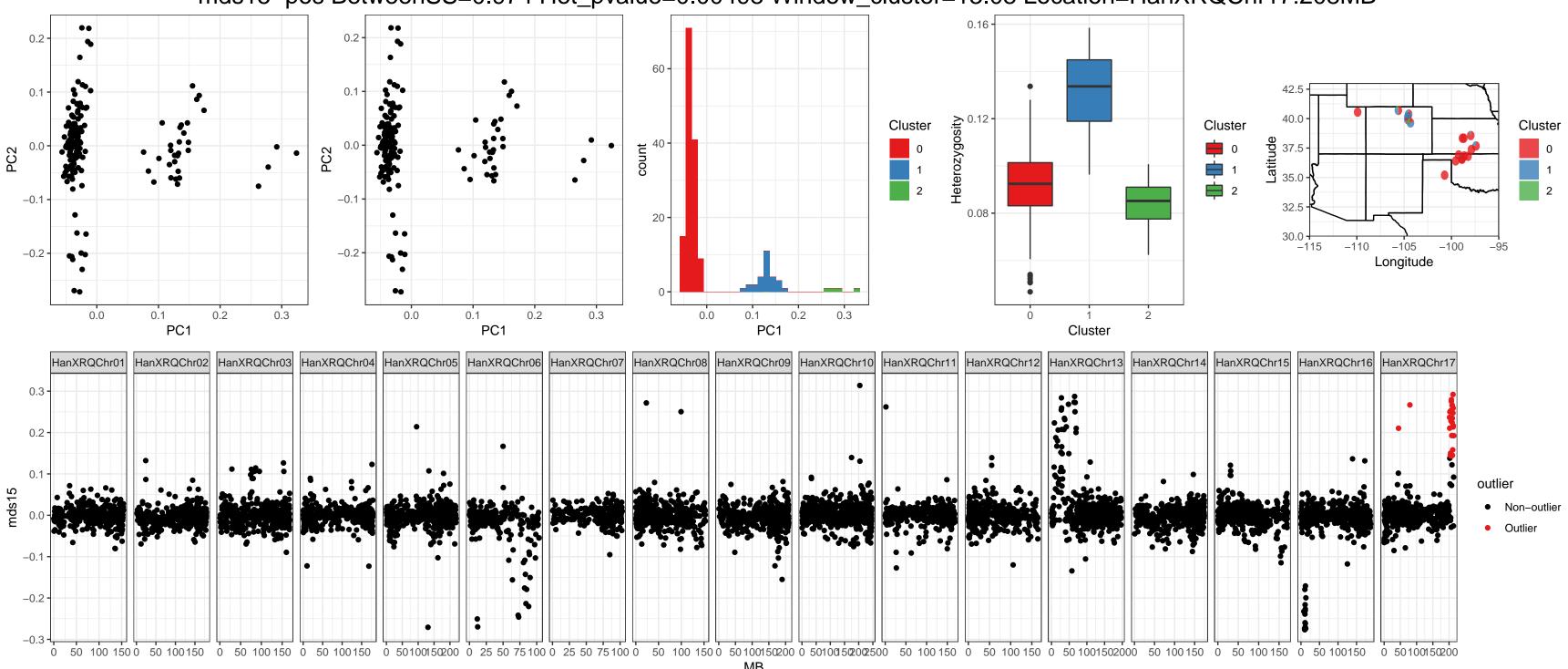
mds12-pos BetweenSS=0.987 Het_pvalue=3.84e-08 Window_cluster=2.45 Location=HanXRQChr02:62MB



mds14-pos BetweenSS=0.962 Het_pvalue=2.31e-08 Window_cluster=3.77 Location=HanXRQChr06:81MB



mds15-pos BetweenSS=0.974 Het_pvalue=0.00498 Window_cluster=13.08 Location=HanXRQChr17:208MB



mds16-pos BetweenSS=0.933 Het_pvalue=0.0574 Window_cluster=7.67 Location=HanXRQChr08:111MB 0.20 Cluster Cluster 30.0 -115 -105 -110 0.05 Longitude 0.0 PC1 PC1 PC1 Cluster outlier mds16 Outlier

mds17-neg BetweenSS=0.939 Het_pvalue=2.97e-05 Window_cluster=9.06 Location=HanXRQChr08:101MB Cluster Cluster 30.0 -115 -110 -105 Longitude PC1 PC1 PC1 Cluster HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14

mds18-neg BetweenSS=0.904 Het_pvalue=0.0209 Window_cluster=2.39 Location=HanXRQChr13:29MB Cluster Cluster -105 -115 -110 Longitude -0.2PC1 PC1 PC1 Cluster

mds19-neg BetweenSS=0.935 Het_pvalue=8.79e-13 Window_cluster=28.7 Location=HanXRQChr03:80MB Cluster Cluster 30.0 -115 -105 -110 0.05 Longitude PC1 PC1 PC1 Cluster HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14

mds21-neg BetweenSS=0.914 Het_pvalue=0.000343 Window_cluster=9.55 Location=HanXRQChr08:128MB Cluster Cluster -115 -110 -105 Longitude -0.1PC1 PC1 PC1 Cluster HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 mds21

mds22-neg BetweenSS=0.881 Het_pvalue=0.00126 Window_cluster=4.12 Location=HanXRQChr10:122MB Cluster Cluster 30.0 -115 -110 -105 0.05 Longitude -0.20.1 PC1 PC1 PC1 Cluster HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15 HanXRQChr16 HanXRQChr17 HanXRQChr05 HanXRQChr06 HanXRQChr07 HanXRQChr08 HanXRQChr09 HanXRQChr10

mds23-neg BetweenSS=0.899 Het_pvalue=8.16e-10 Window_cluster=1.44 Location=HanXRQChr13:27MB Cluster Cluster -105 -115 -110 -0.2Longitude PC1 PC1 PC1 Cluster HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15 HanXRQChr05 HanXRQChr07 HanXRQChr08 HanXRQChr09 mds23

mds26-neg BetweenSS=0.951 Het_pvalue=4.36e-16 Window_cluster=6.38 Location=HanXRQChr12:124MB 0.1 0.20 Cluster Cluster -115 -110 -105 -100 Longitude -0.2 **-**-0.050.00 0.05 0.10 -0.10 -0.050.00 0.05 -0.10 -0.05 0.00 0.05 0.10 PC1 PC1 PC1 Cluster HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15 HanXRQChr05 HanXRQChr07 HanXRQChr08 HanXRQChr10

mds27-pos BetweenSS=0.903 Het_pvalue=0.00164 Window_cluster=15 Location=HanXRQChr10:126MB 0.20 -Cluster Cluster -115 -110 -105 Longitude -0.10 -0.05 0.00 -0.10 -0.05 0.00 0.05 -0.10 -0.05 0.00 0.05 0.10 0.15 PC1 PC1 PC1 Cluster HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15 outlier

mds27-neg BetweenSS=0.875 Het_pvalue=0.00077 Window_cluster=3.17 Location=HanXRQChr09:85MB 10.0 0.15 -Cluster Cluster -115 -110 -105 Longitude PC1 PC1 PC1 Cluster outlier 50 100 150 0 50 100 150 0 50 1001502000 50 100 150 0 50 100 150 0 50 100150 0 50 100150 0 50 100150200

mds28-neg BetweenSS=0.943 Het_pvalue=0.00192 Window_cluster=46.14 Location=HanXRQChr09:102MB 0.20 Cluster Cluster -105 -110 Longitude 0.05 -0.10.0 PC1 PC1 PC1 Cluster

mds30-neg BetweenSS=0.983 Het_pvalue=0.33 Window_cluster=12.8 Location=HanXRQChr06:10MB Cluster Cluster -115 -105 -110 Longitude PC1 PC1 PC1 Cluster HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr05 0.1 0.1

mds33-neg BetweenSS=0.935 Het_pvalue=0.14 Window_cluster=9.19 Location=HanXRQChr01:19MB 0.15 -Cluster Cluster -0.130.0 -115 -110 -105 -100 0.05 Longitude -0.1PC1 PC1 PC1 Cluster outlier -0.1

mds35-neg BetweenSS=0.961 Het_pvalue=NA Window_cluster=11.31 Location=HanXRQChr05:24MB Cluster Cluster -110 -105 Longitude -0.3 -0.4 -0.3 -0.2PC1 PC1 PC1 Cluster

mds36-pos BetweenSS=0.962 Het_pvalue=NA Window_cluster=1.38 Location=HanXRQChr07:61MB 0.2 Cluster Cluster PC2 -0.1-105 -110 -100 Longitude 0.04 -0.3 -PC1 PC1 PC1 Cluster HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15 HanXRQChr05 HanXRQChr06 mds36

mds36-neg BetweenSS=0.943 Het_pvalue=2.07e-12 Window_cluster=13.6 Location=HanXRQChr10:134MB 0.20 Cluster Cluster -105 -115 -110 Longitude 0.05 -0.10.0 PC1 PC1 PC1 Cluster mds36

mds37-neg BetweenSS=0.91 Het_pvalue=1.13e-07 Window_cluster=10.67 Location=HanXRQChr03:39MB 0.20 Cluster Cluster Cluster 0.05 30.0 -115 -105 -110 Longitude -0.2 **-**-0.1-0.1PC1 PC1 PC1 Cluster HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15 0.1 O.1

mds39-pos BetweenSS=0.983 Het_pvalue=0.000175 Window_cluster=2.64 Location=HanXRQChr01:13MB 0.15 Cluster Cluster -115 -110 -105 0.05 Longitude 0.0 PC1 PC1 PC1 Cluster

mds39-neg BetweenSS=0.944 Het_pvalue=2.83e-10 Window_cluster=1.44 Location=HanXRQChr15:153MB 0.20 -Cluster Cluster Cluster -115 -105 -110 Longitude 0.05 PC1 PC1 PC1 Cluster

mds40-neg BetweenSS=0.948 Het_pvalue=1.7e-05 Window_cluster=10.31 Location=HanXRQChr05:100MB 0.20 -Cluster Cluster 0.0 --115 -110 -105 Longitude 0.2 0.2 PC1 PC1 PC1 Cluster HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15