

mds04-pos BetweenSS=0.996 Het_pvalue=1.14e-20 Window_cluster=2.39 Location=HanXRQChr10:227MB Cluster PC2 0.00 -0.05 0.10 0.05 PC1 PC1 PC1 Cluster Longitude HanXRQChr06 HanXRQChr07 HanXRQChr08 HanXRQChr09 HanXRQChr10 HanXRQChr11 HanXRQChr12 HanXRQChr13

mds06-pos BetweenSS=0.966 Het_pvalue=5.06e-16 Window_cluster=2.55 Location=HanXRQChr06:95MB Cluster PC2 PC1 PC1 PC1 Cluster Longitude HanXRQChr05

mds14-neg BetweenSS=0.989 Het_pvalue=NA Window_cluster=1.38 Location=HanXRQChr01:37MB 0.05 0.4 -Cluster Cluster 0.00 --0.05-0.10-0.2-0.1-0.2PC1 PC1 PC1 Cluster Longitude HanXRQChr05

mds15-neg BetweenSS=0.987 Het_pvalue=2.78e-18 Window_cluster=11.21 Location=HanXRQChr07:30MB 0.10 -0.20 -0.1 0.05 Cluster PC2 0.00 --0.05-0.10 0.05 --0.050.00 -0.10-0.05 0.05 -0.10-0.05 0.00 PC1 PC1 PC1 Cluster Longitude outlier $0 \quad 50 \quad 100 \quad 150 \quad 0 \quad 0 \quad 25 \quad 50 \quad 75 \quad 100 \quad 0 \quad 25 \quad 50 \quad 75 \quad 100 \quad 0 \quad 0 \quad 100 \quad 150 \quad 0 \quad 100 \quad$ 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

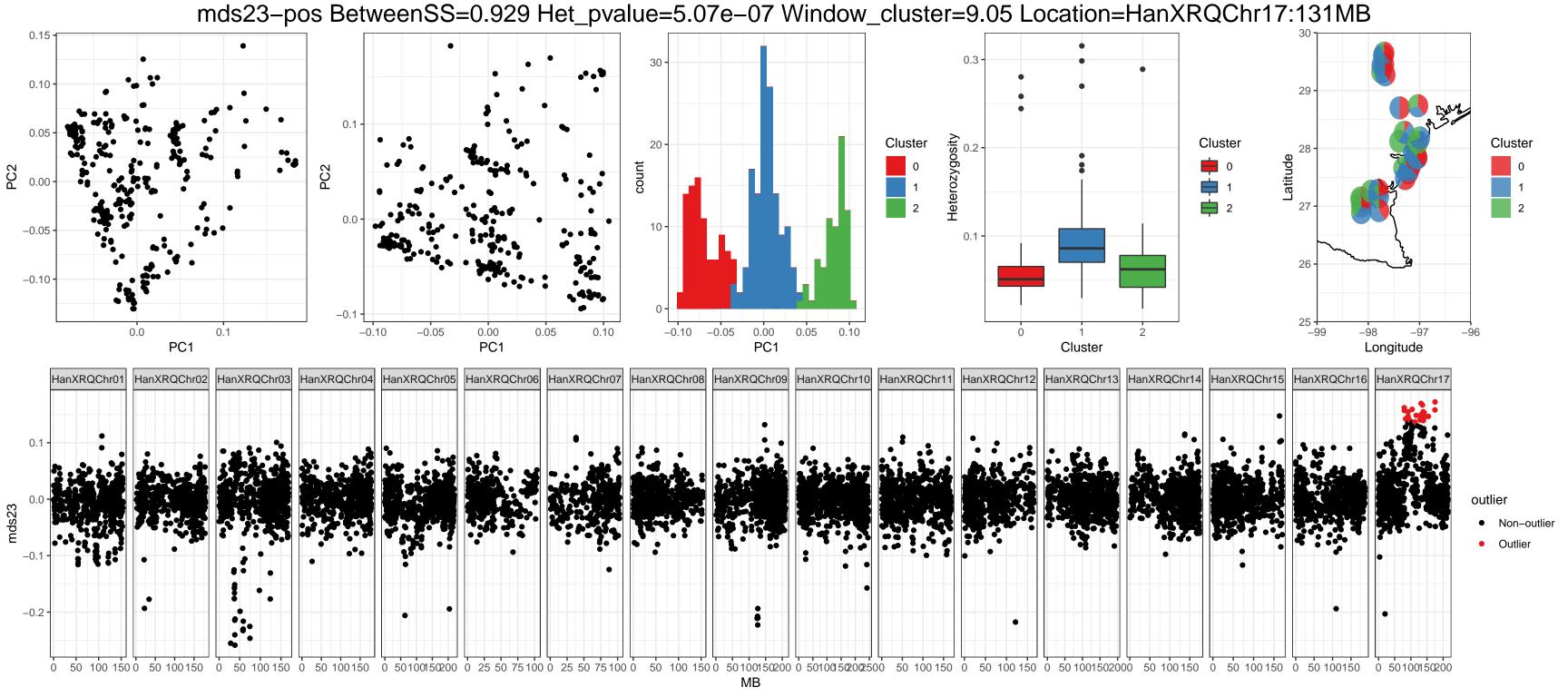
mds16-pos BetweenSS=0.947 Het_pvalue=NA Window_cluster=7.59 Location=HanXRQChr11:101MB 0.10 -Cluster -0.10-0.2PC1 PC1 PC1 Cluster Longitude

mds18-pos BetweenSS=0.949 Het_pvalue=9.99e-38 Window_cluster=8 Location=HanXRQChr01:95MB Cluster PC2 -0.100.08 0.08 0.00 0.05 PC1 PC1 PC1 Cluster Longitude outlier

mds18-neg BetweenSS=0.994 Het_pvalue=3.37e-37 Window_cluster=1.33 Location=HanXRQChr16:170MB 0.10 0.10 0.05 -0.05 Cluster 0.00 -0.1 -0.10 -0.10 -0.15-0.10-0.050.05 0.00 0.05 0.10 0.15 0.20 PC1 PC1 PC1 Cluster Longitude HanXRQChr05 HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15 outlier

mds20-neg BetweenSS=0.987 Het_pvalue=5.13e-53 Window_cluster=2.83 Location=HanXRQChr04:152MB 100 -Cluster -0.10 **-**0.05 0.10 -0.05 0.00 PC1 PC1 PC1 Cluster Longitude mds20

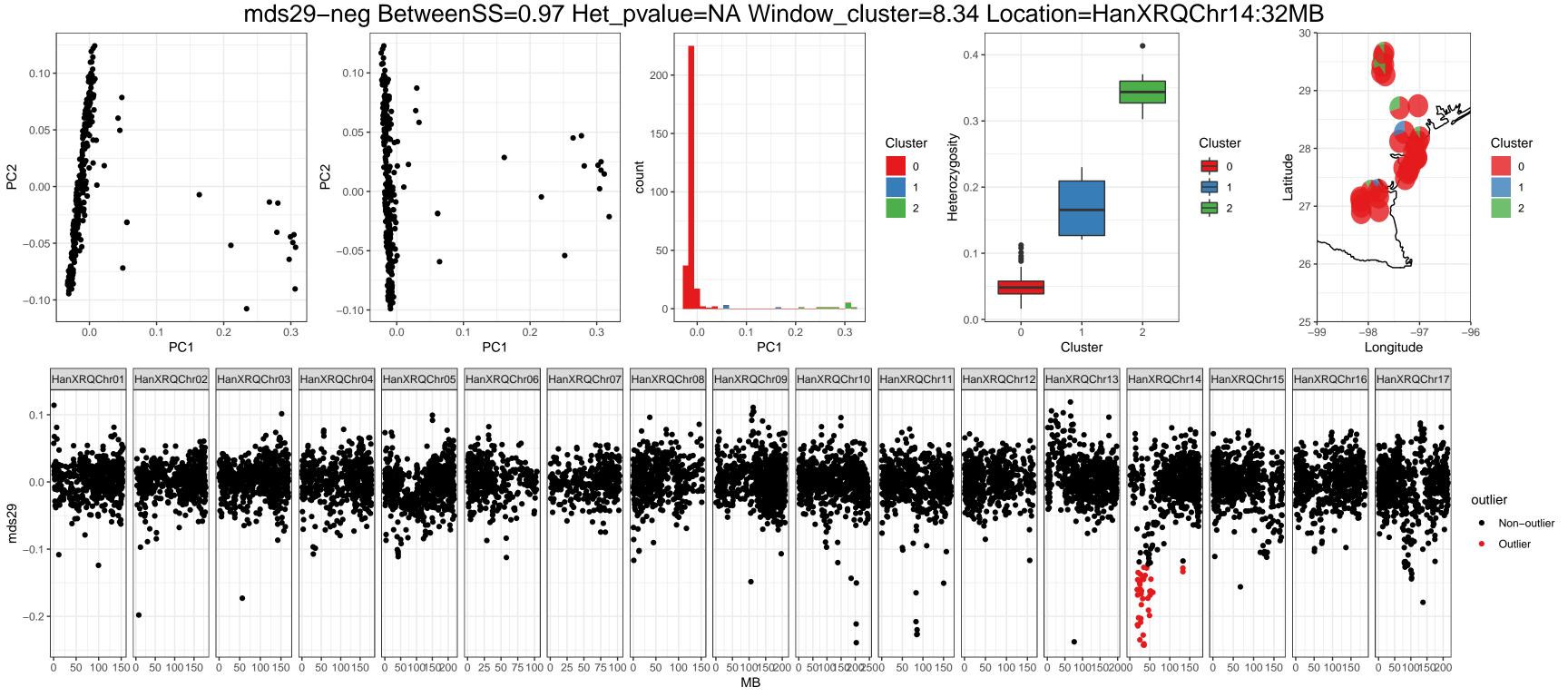
mds21-neg BetweenSS=0.981 Het_pvalue=0.000298 Window_cluster=12.87 Location=HanXRQChr03:39MB 0.05 Cluster 0.00 --0.05 -PC1 PC1 PC1 Cluster Longitude mds21

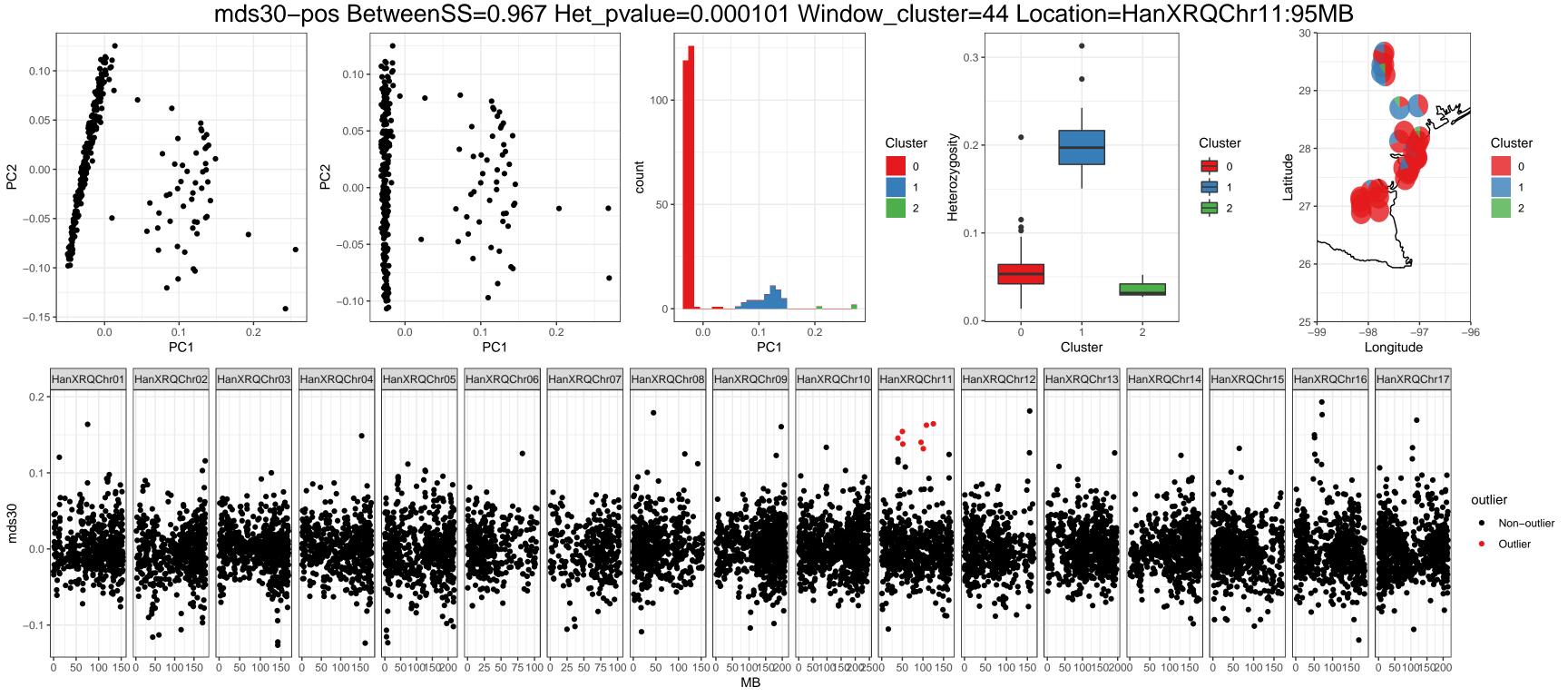


mds25-neg BetweenSS=0.881 Het_pvalue=0.00115 Window_cluster=3.96 Location=HanXRQChr17:117MB Cluster BC -0.1 PC1 PC1 PC1 Cluster Longitude mds25 0 50 100 150 0 50 1

mds26-pos BetweenSS=0.978 Het_pvalue=NA Window_cluster=7.14 Location=HanXRQChr17:95MB 200 · 0.05 Cluster -0.05-0.10 --0.2 PC1 PC1 PC1 Cluster Longitude outlier 92spm _{-0.2}. 0 50 100 150 0 50 100150 0 50 100150 0 50 100150 0 50 100150 0 5010015000 0 25 50 75 100 0 25 50 75 100 0

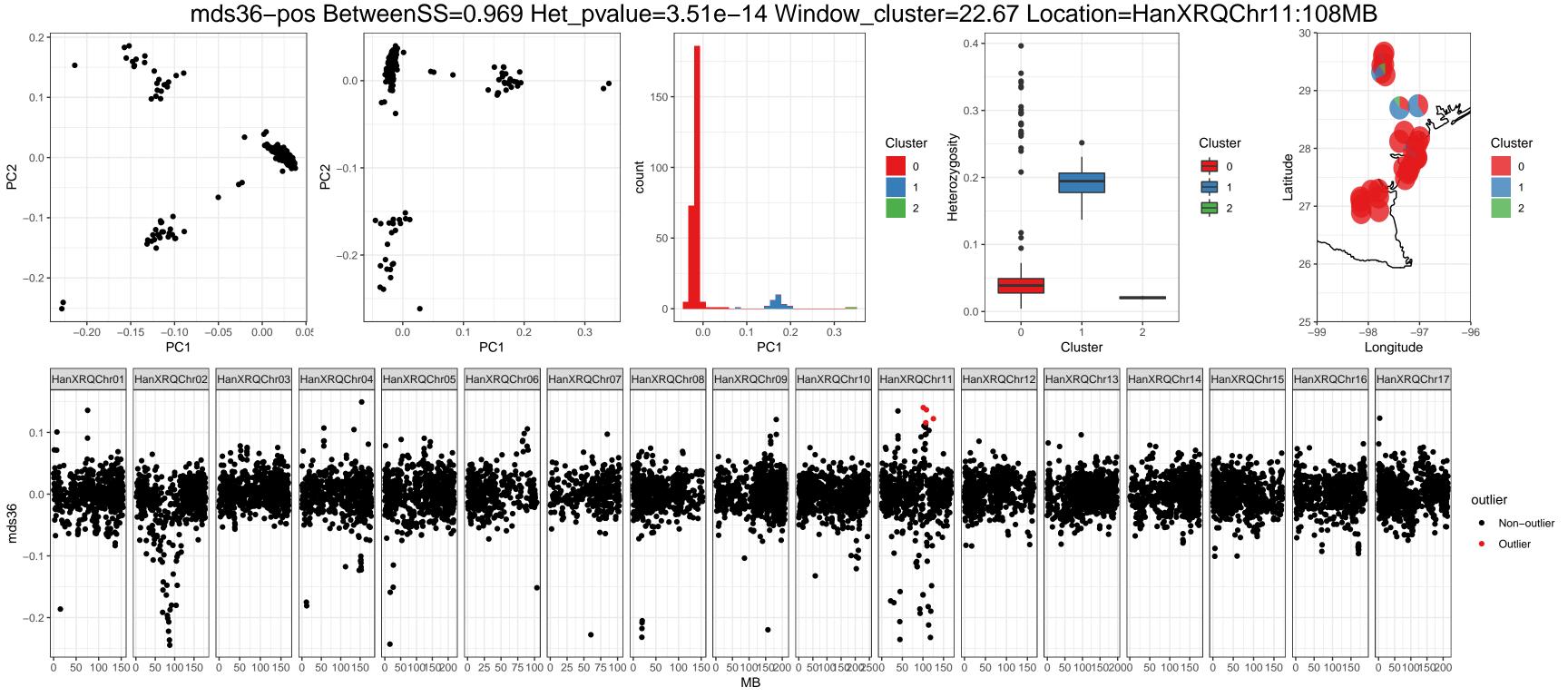
mds26-neg BetweenSS=0.956 Het_pvalue=1.13e-10 Window_cluster=24.4 Location=HanXRQChr11:85MB Cluster 0.00 0.15 PC1 Cluster Longitude





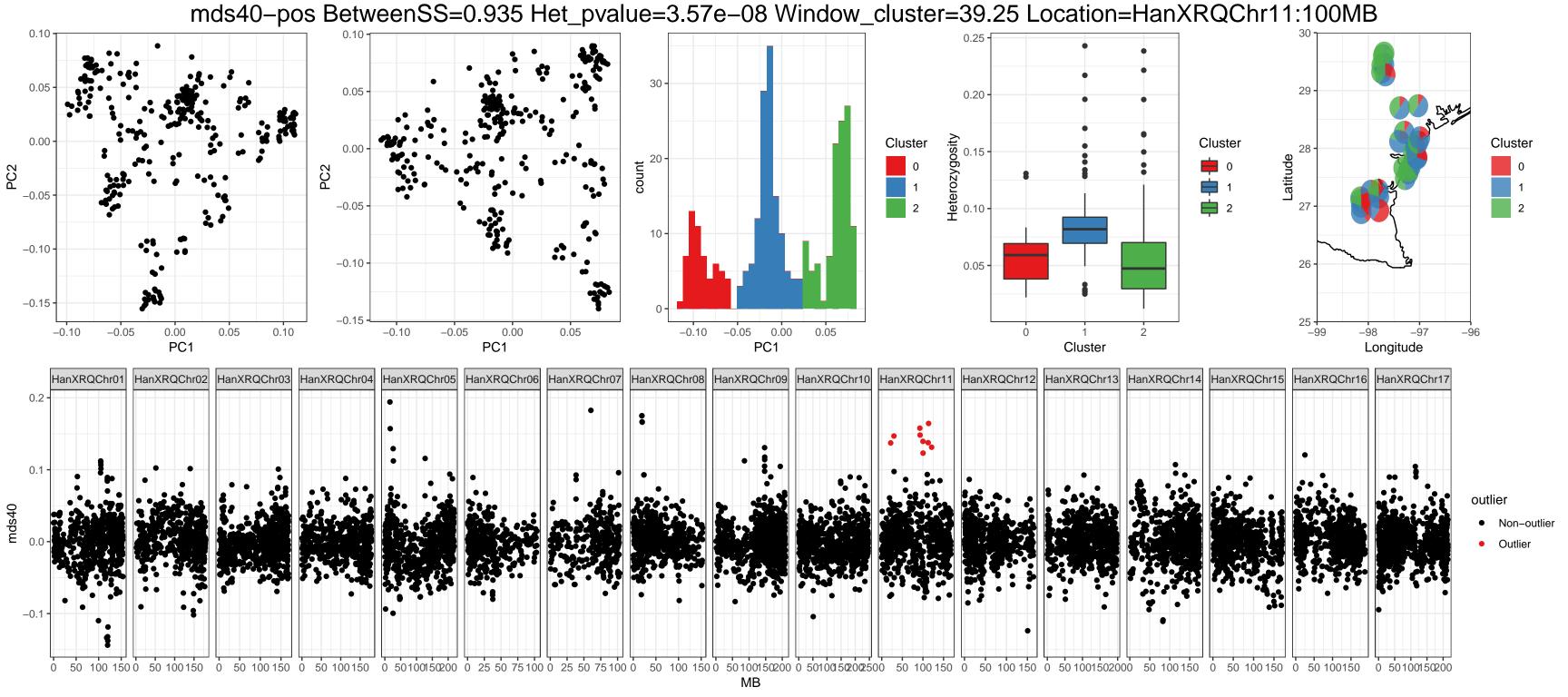
mds31-neg BetweenSS=0.959 Het_pvalue=9.13e-24 Window_cluster=4.62 Location=HanXRQChr16:58MB 0.15 -Cluster -0.10 -0.10PC1 PC1 PC1 Cluster Longitude

mds33-neg BetweenSS=0.911 Het_pvalue=3.55e-05 Window_cluster=1.95 Location=HanXRQChr05:89MB Cluster -0.10 -0.05 0.00 0.05 0.10 0.05 PC1 PC1 Cluster Longitude



mds36-neg BetweenSS=0.947 Het_pvalue=0.198 Window_cluster=3.87 Location=HanXRQChr02:85MB Cluster O.1 0.00 PC1 PC1 Cluster Longitude

mds39-pos BetweenSS=0.947 Het_pvalue=1.81e-06 Window_cluster=1.8 Location=HanXRQChr17:134MB Cluster -0.15 -0.10 -0.05 0.00 -0.050.00 -0.05 0.00 0.05 0.10 PC1 PC1 PC1 Cluster Longitude HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15 HanXRQChr05 HanXRQChr06



mds40-neg BetweenSS=0.991 Het_pvalue=7.44e-57 Window_cluster=2.2 Location=HanXRQChr01:120MB 0.10 Cluster -0.10 -0.10 0.05 0.10 0.15 0.20 PC1 PC1 PC1 Cluster Longitude HanXRQChr11 HanXRQChr12 HanXRQChr13 HanXRQChr14 HanXRQChr15