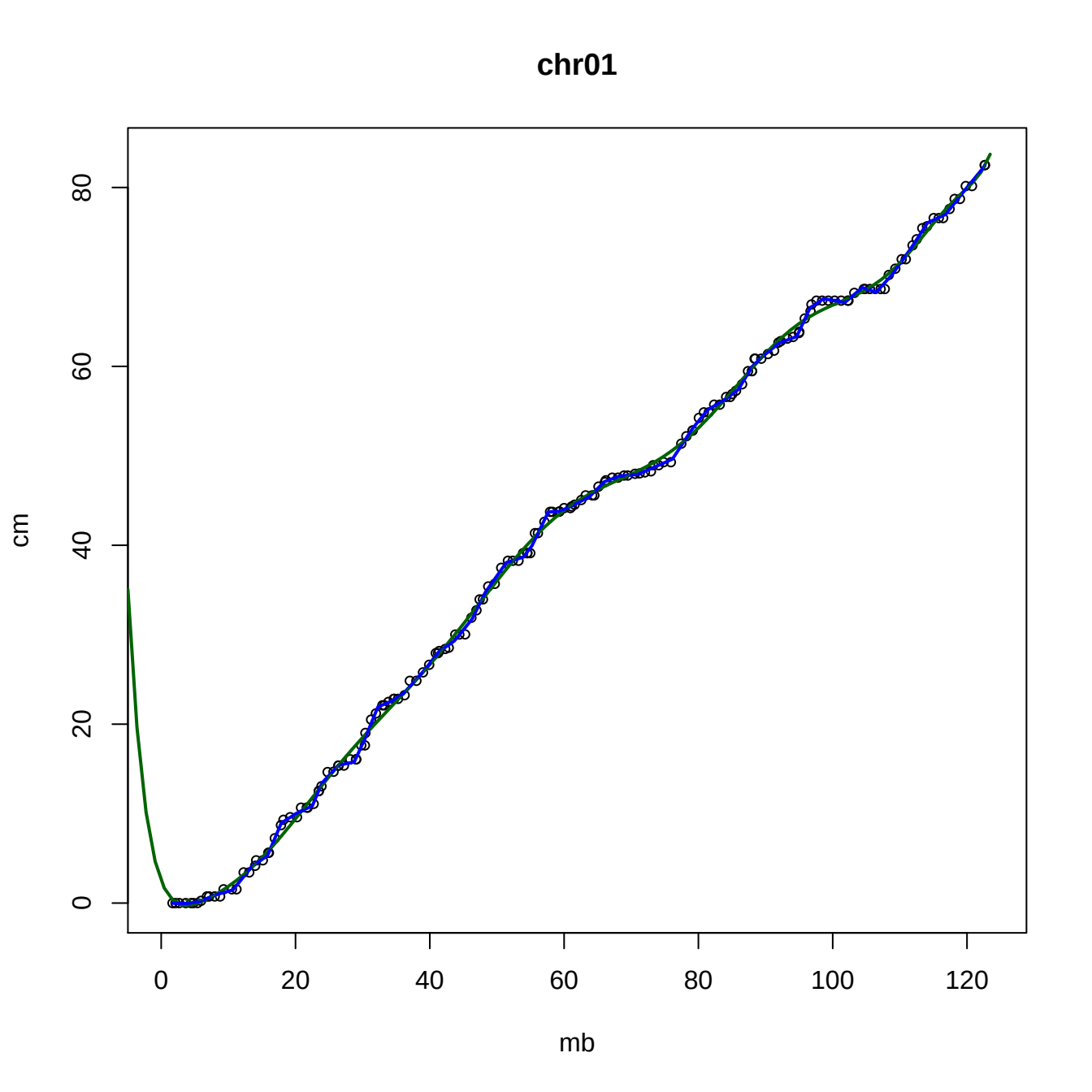
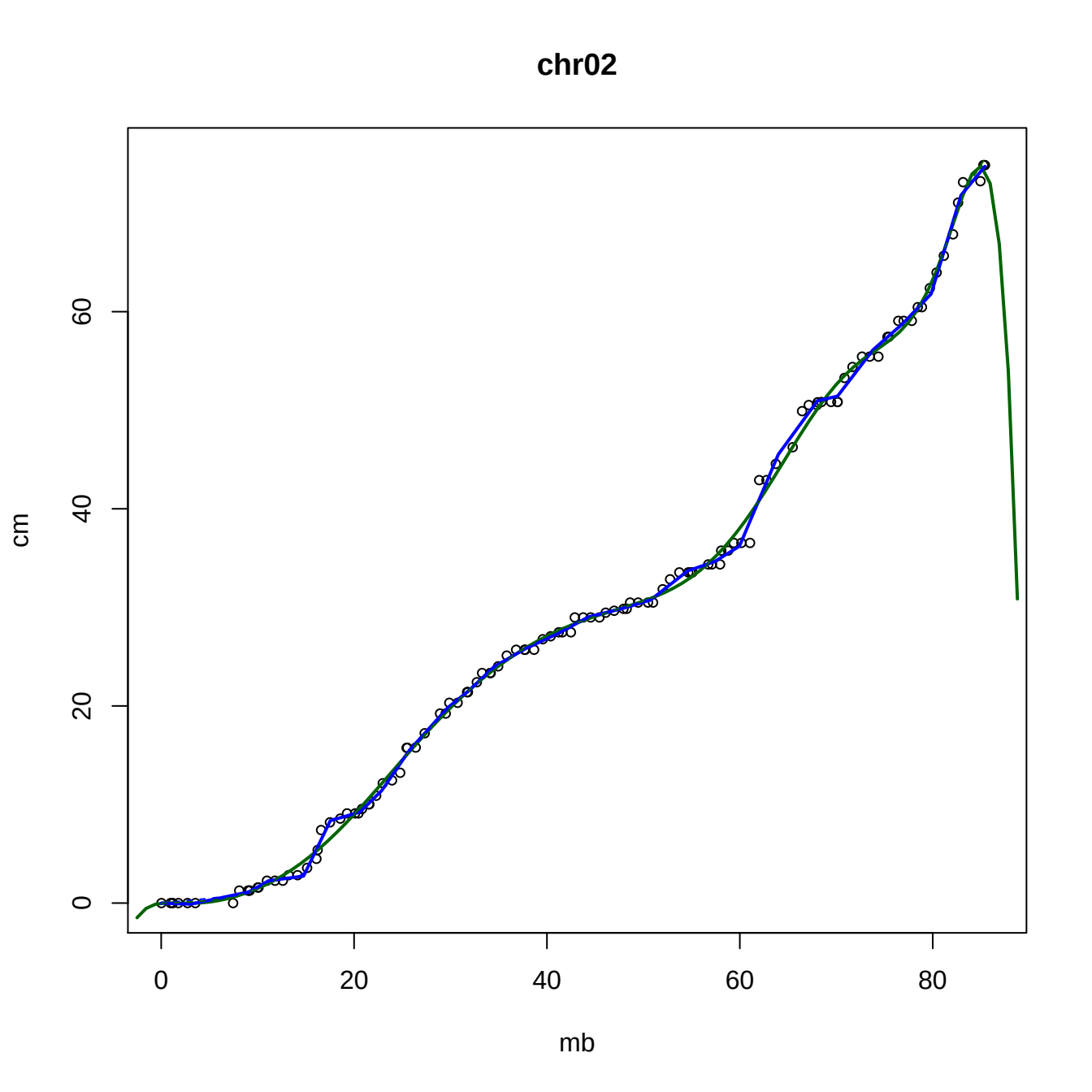
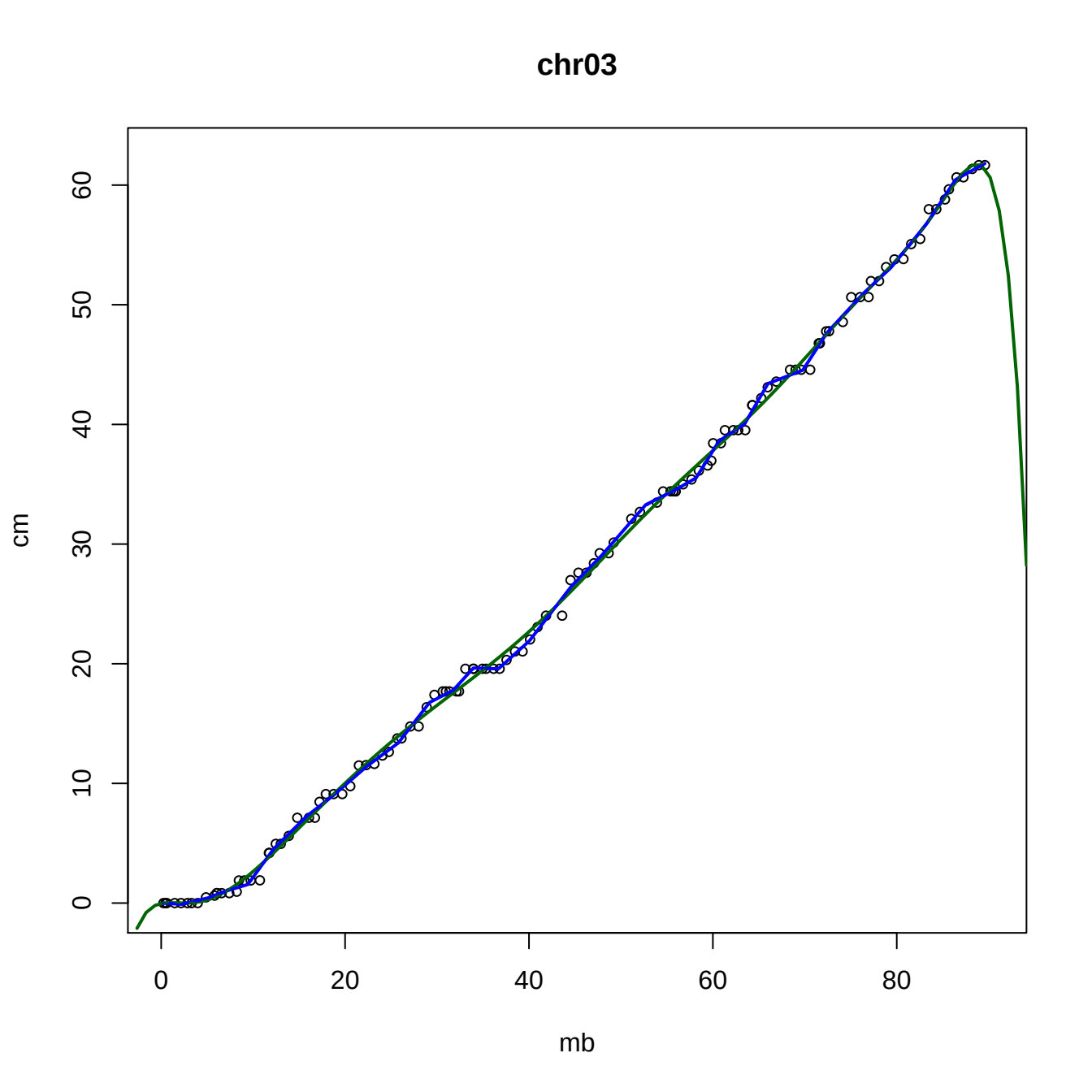
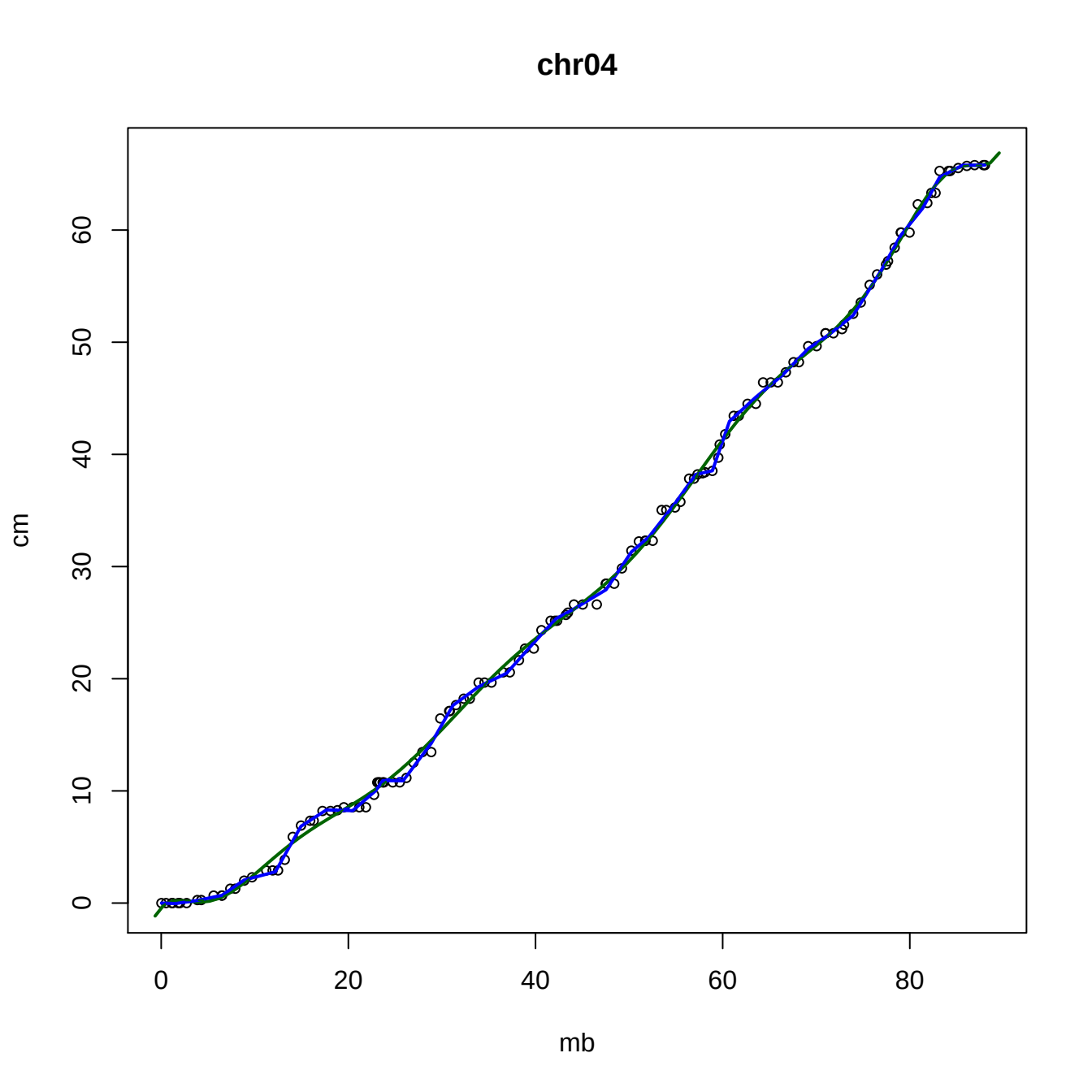
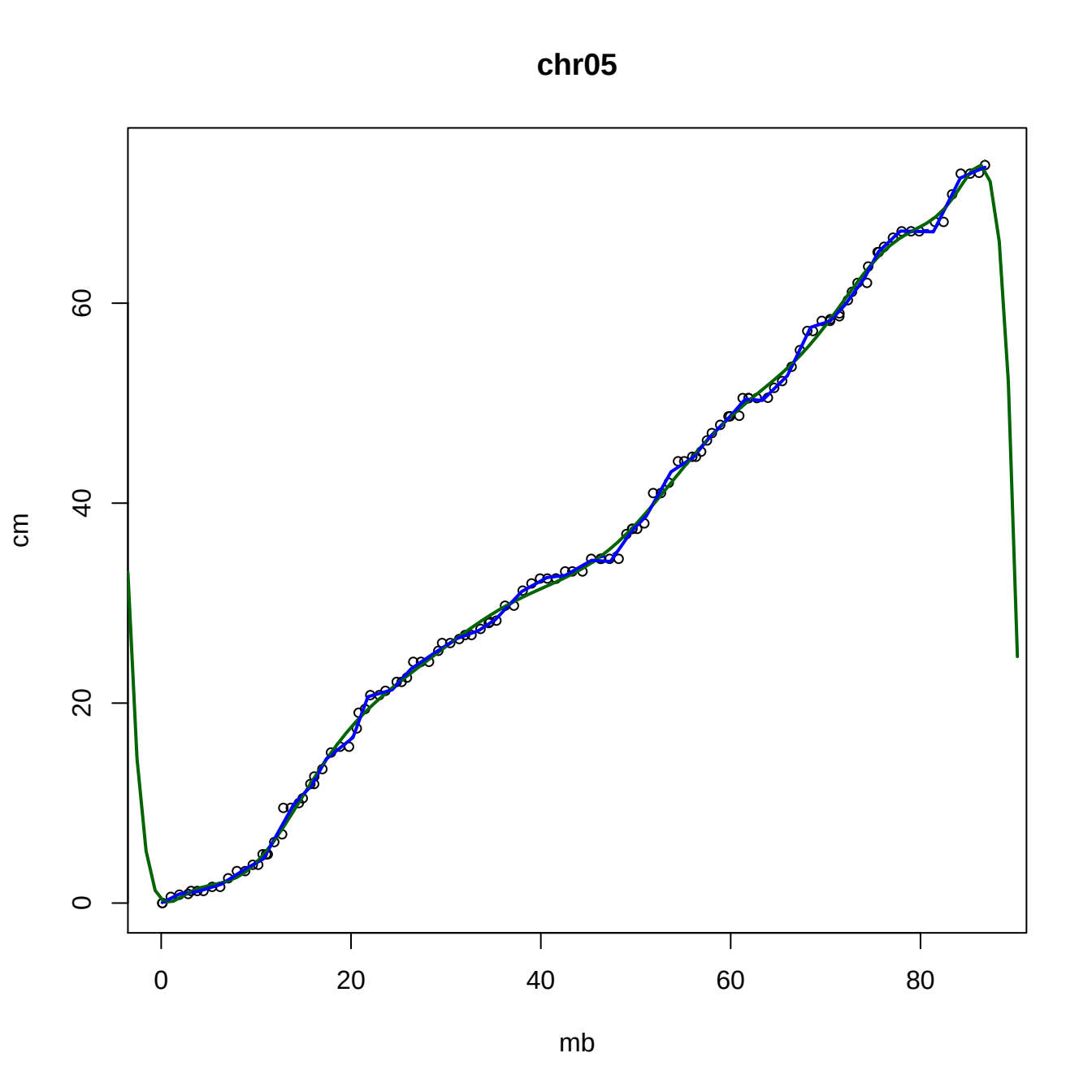
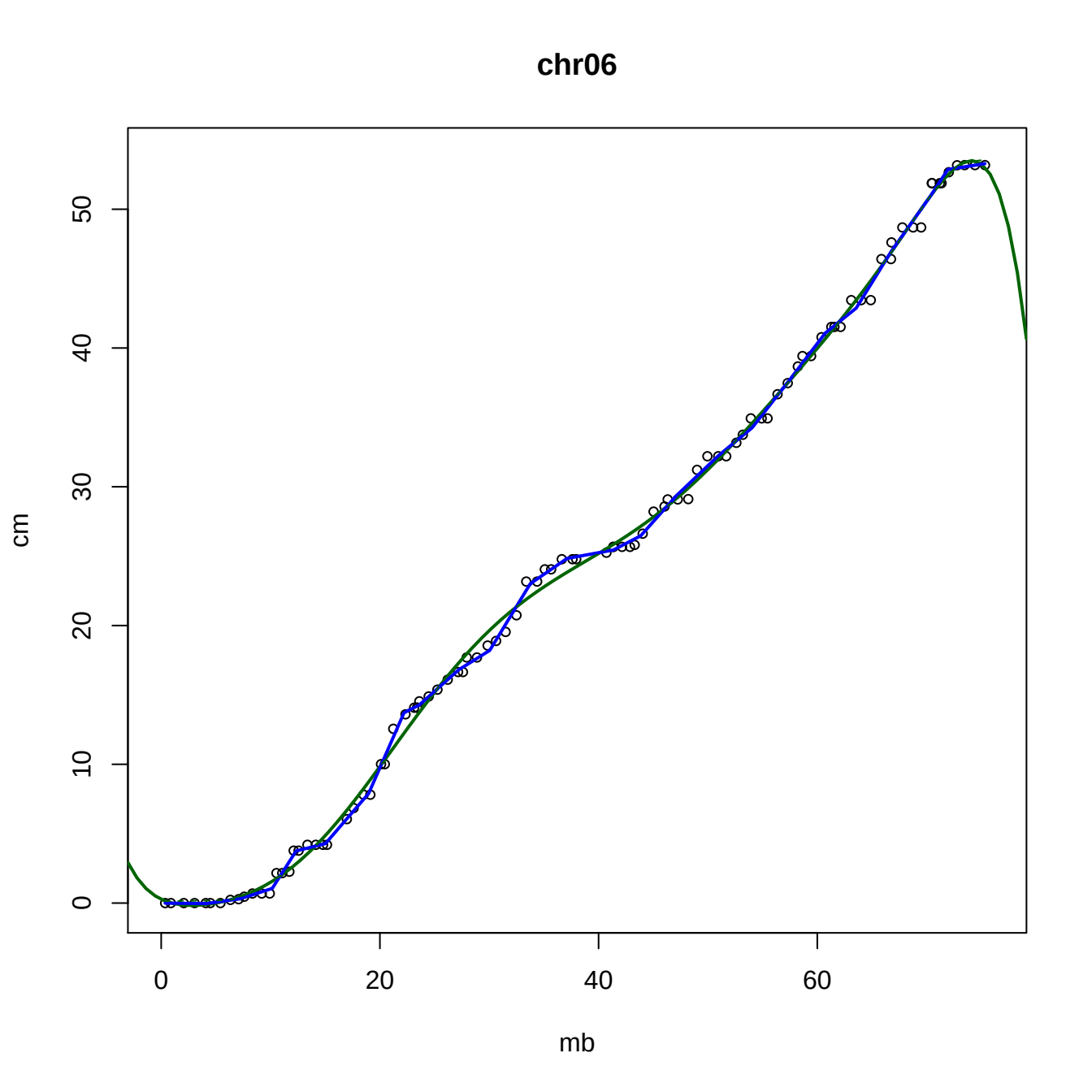

chr01
cm
mb
0
20
40
60
80
0
20
40
60
80
100
120

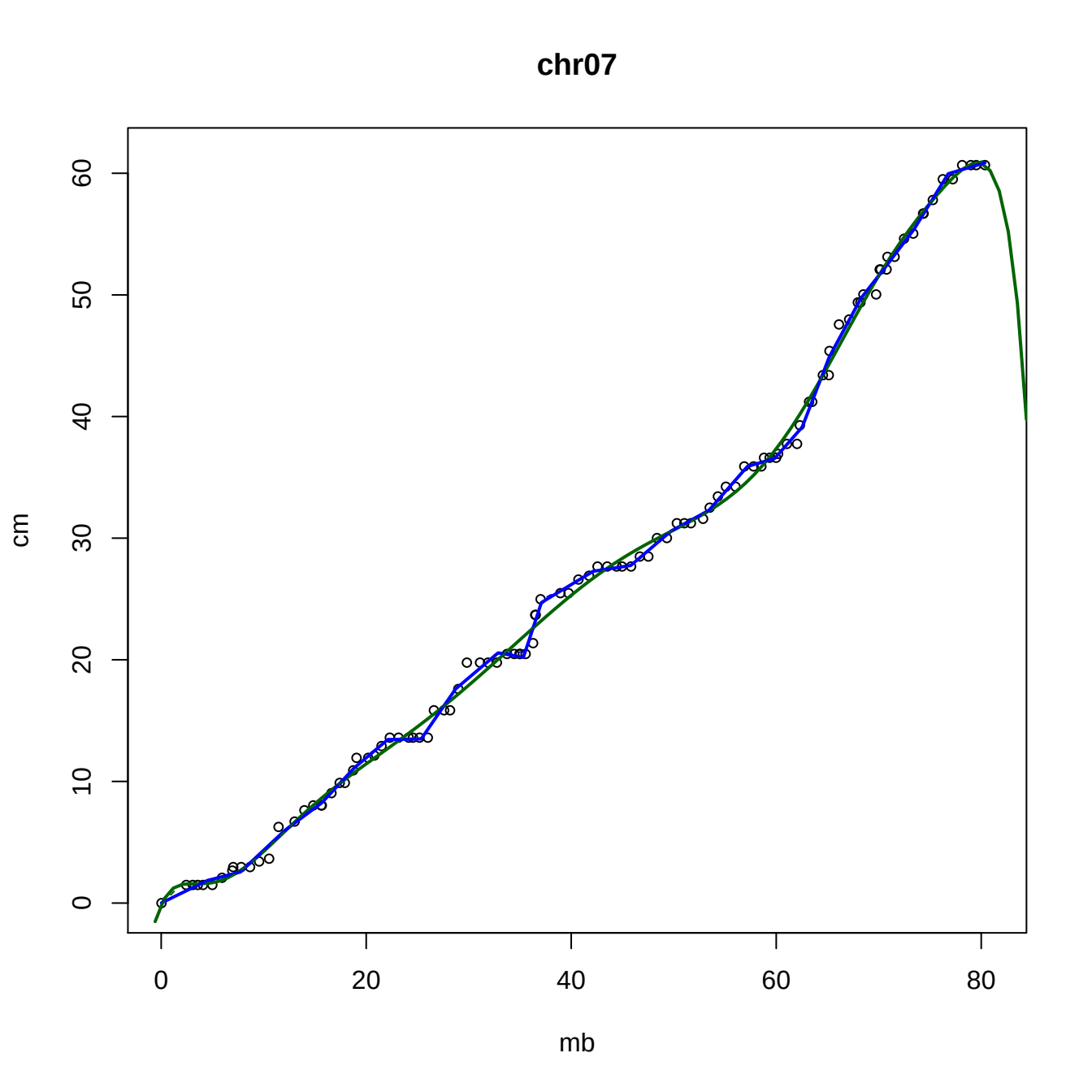

chr02
cm
0
20
40
60
0
20
40
60
80
mb

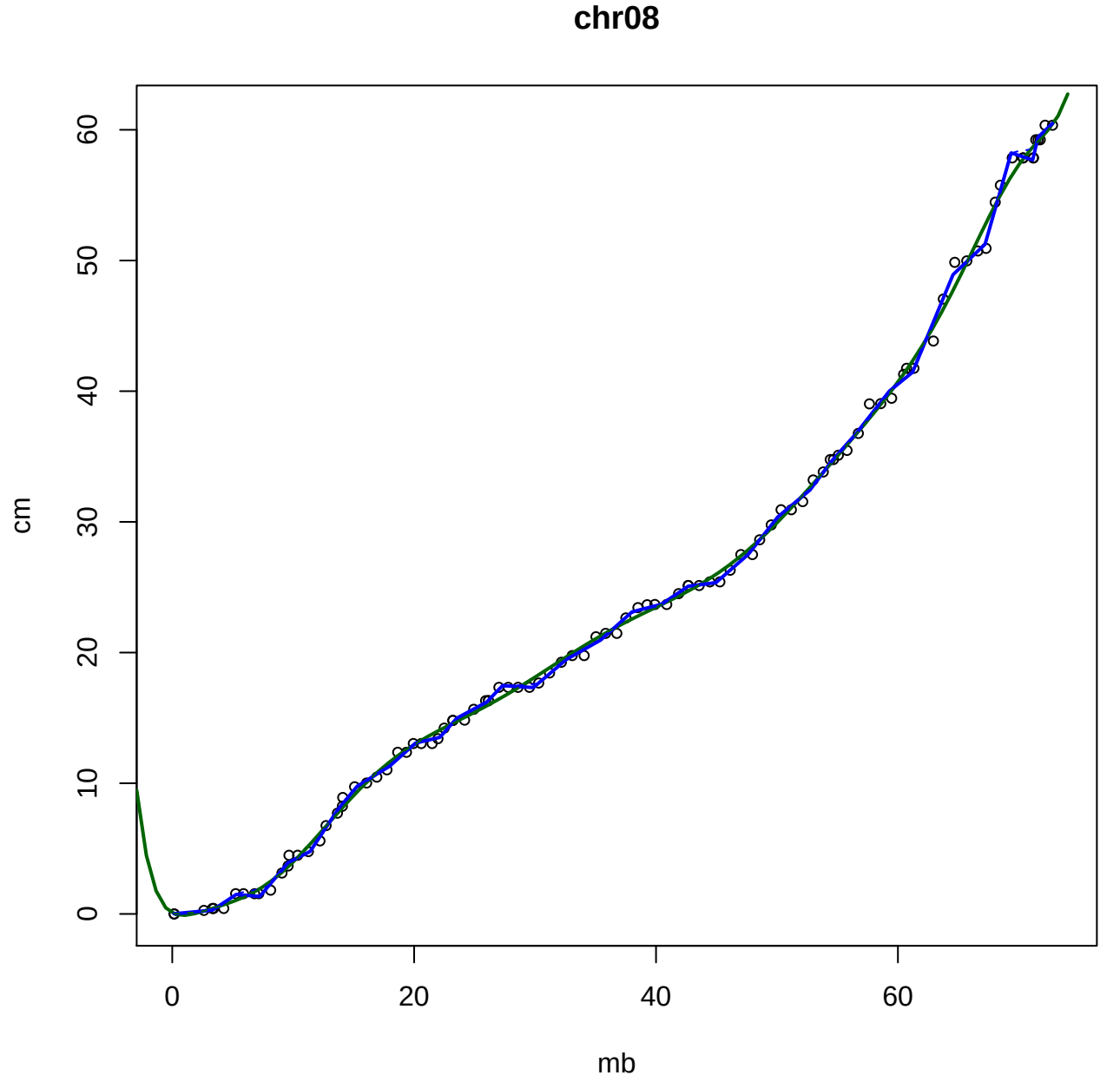

chr03
cm
mb
0
10
20
30
40
50
60
0
20
40
60
80

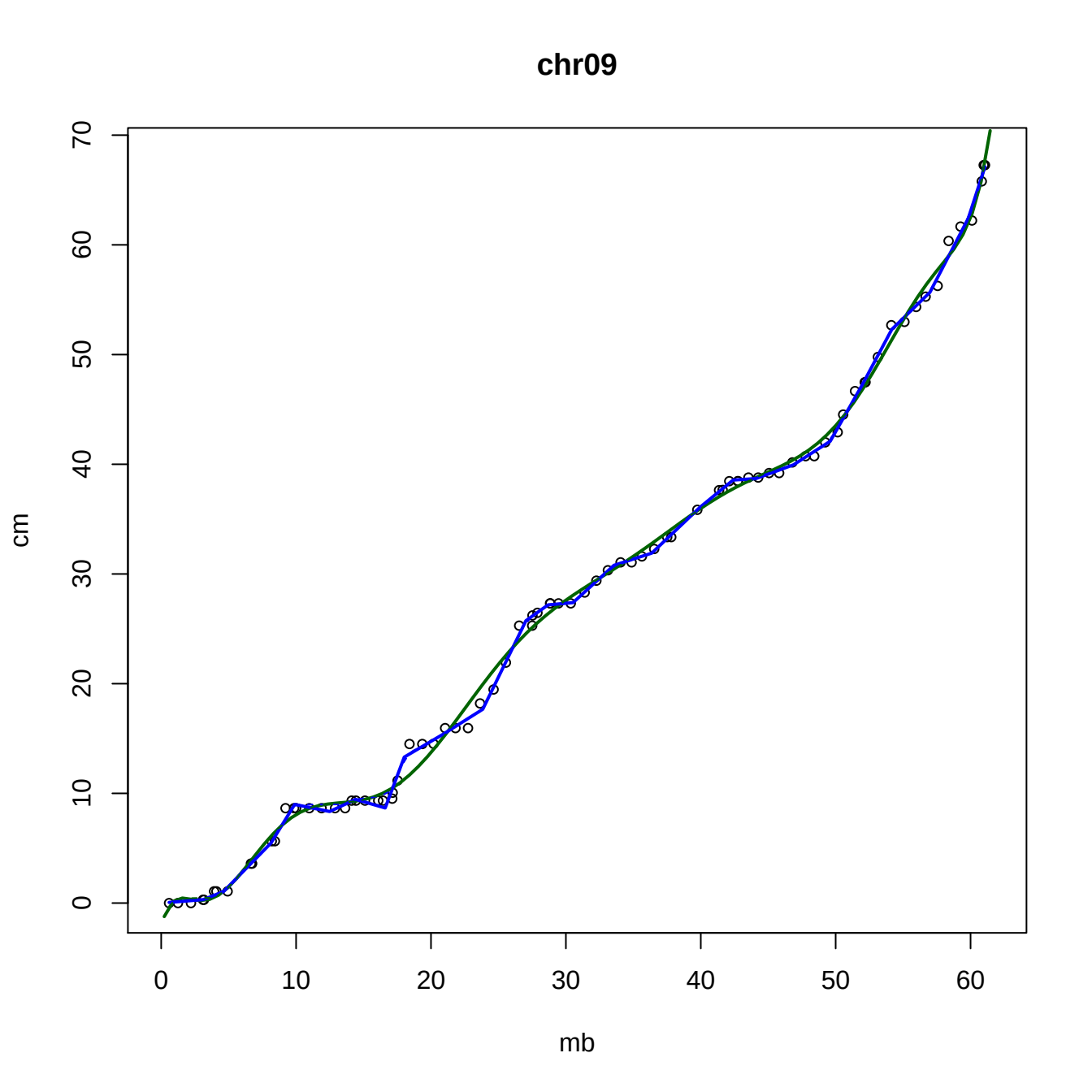

chr04
cm
0
10
20
30
40
50
60
mb
0
20
40
60
80

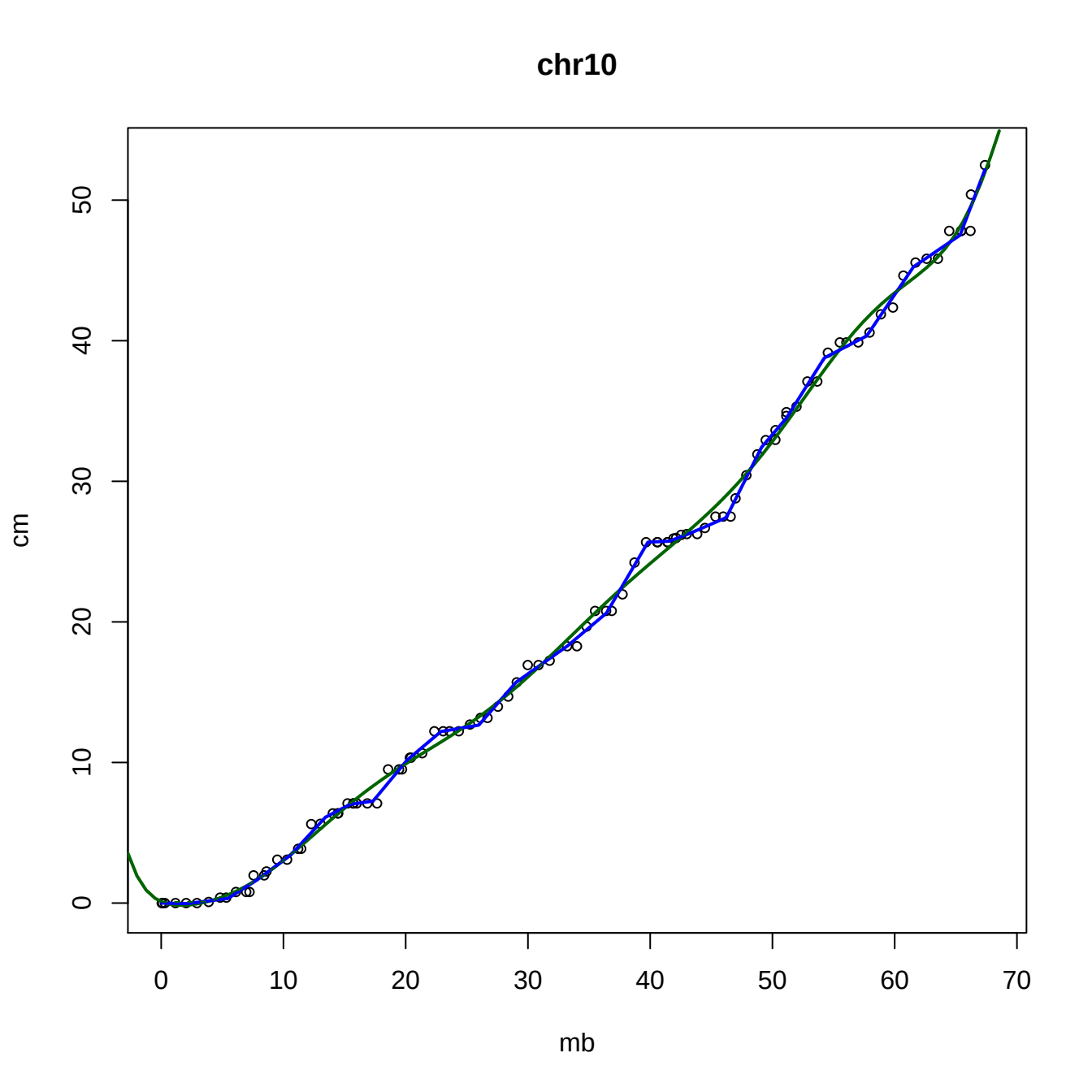

chr05
cm
0
20
40
60
0
20
40
60
80
mb

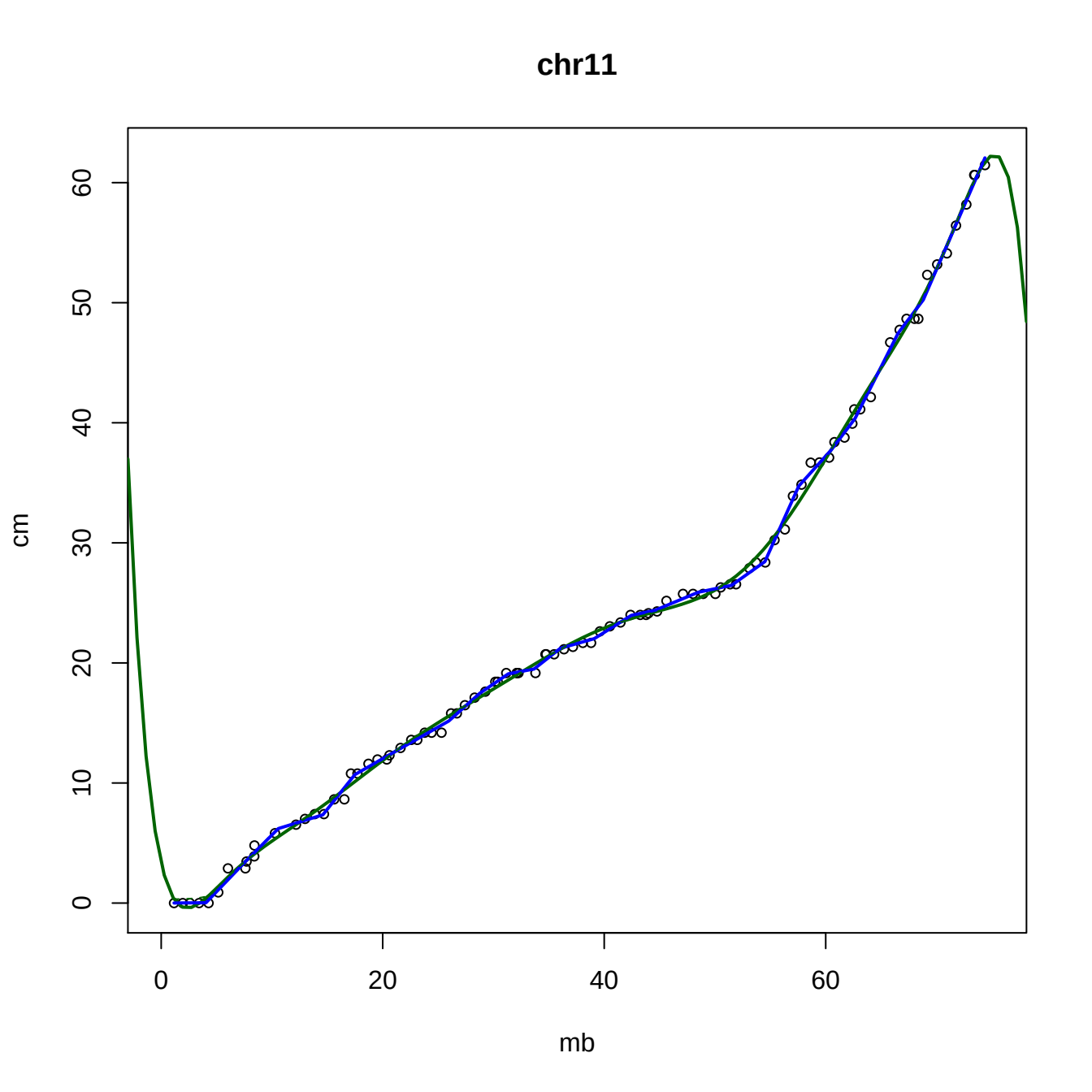

chr06
cm
0
10
20
30
40
50
0
20
40
60
mb

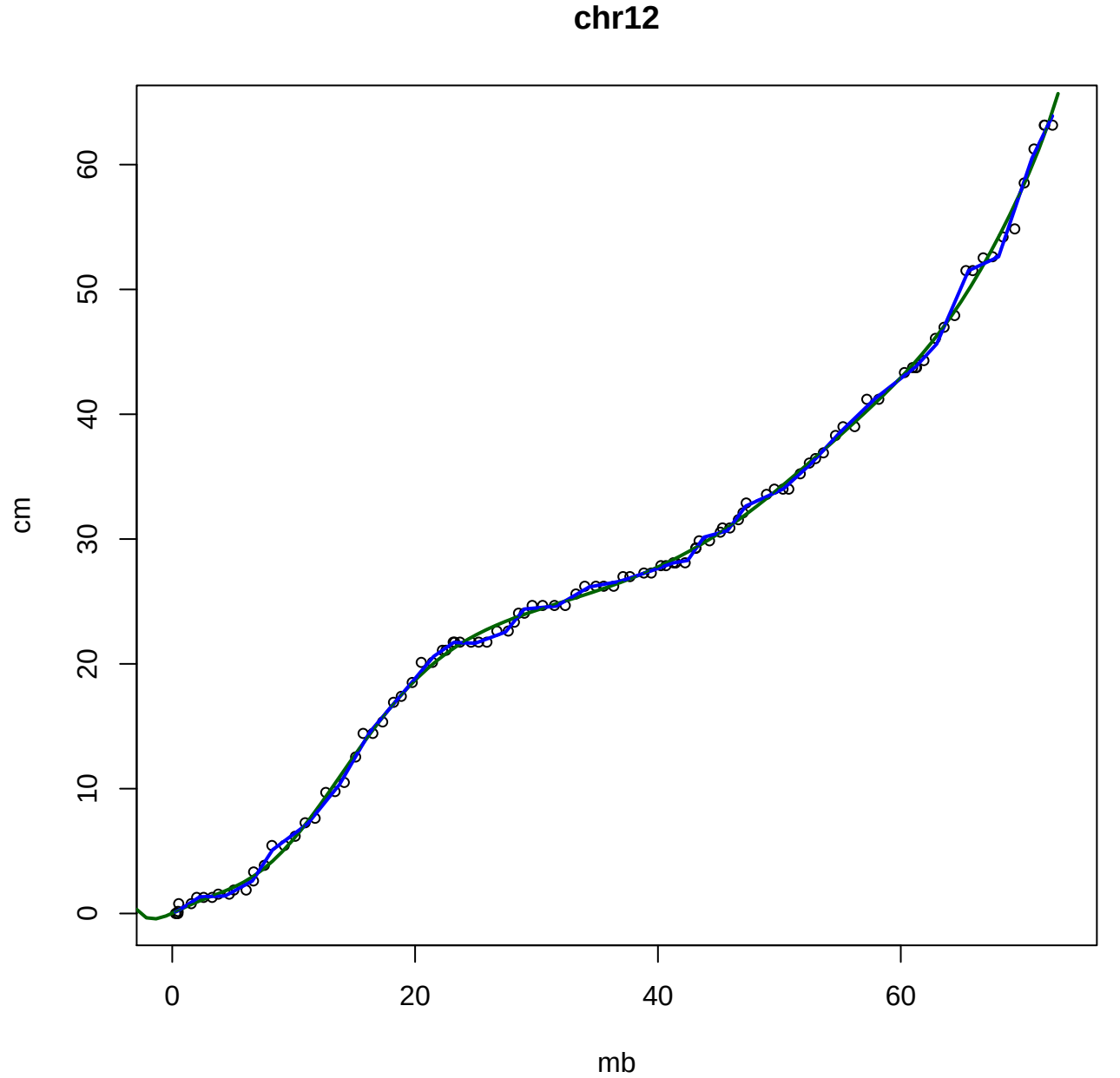

chr07
cm
mb
0
10
20
30
40
50
60
0
20
40
60
80

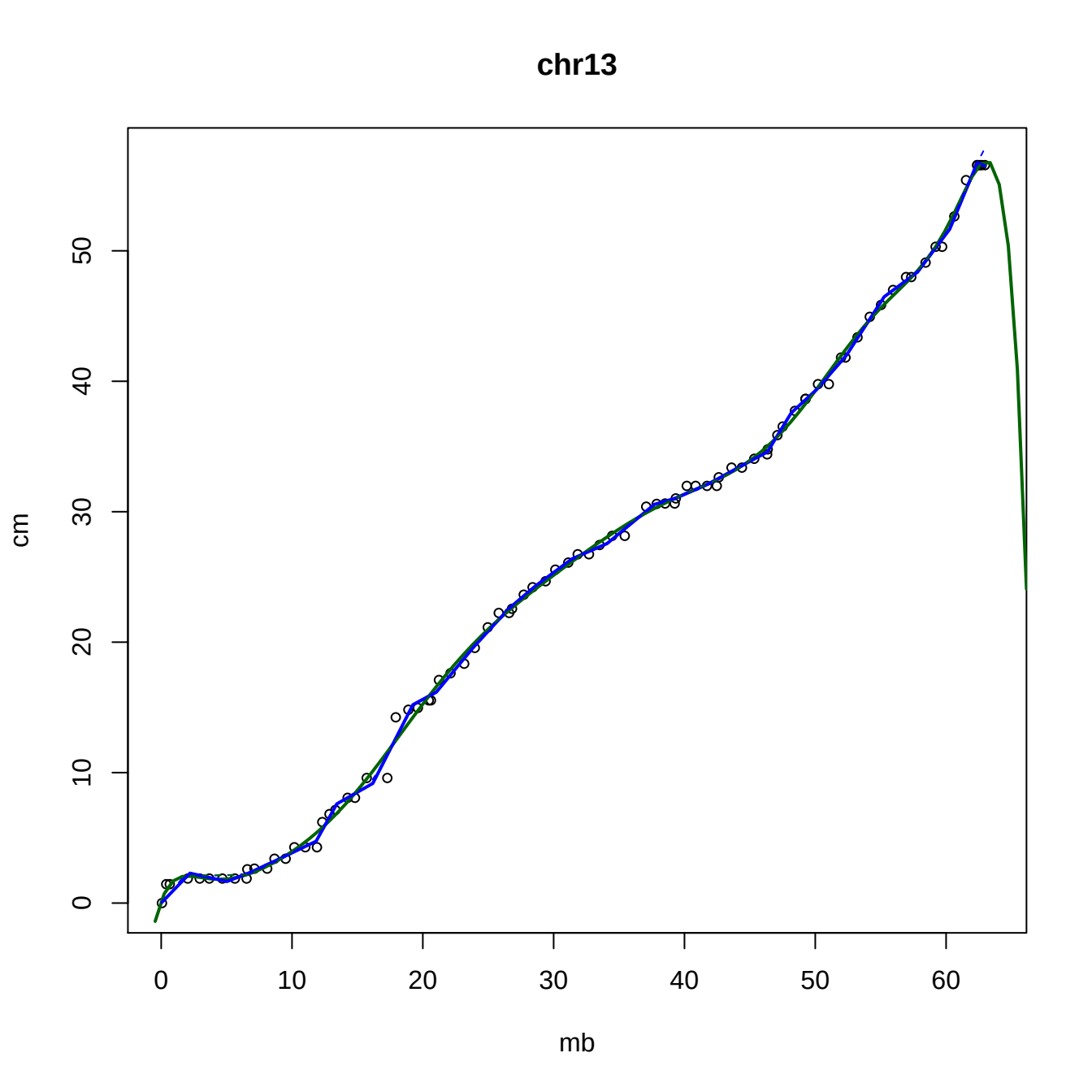

chr08
cm
mb
0
10
20
30
40
50
60
0
20
40
60

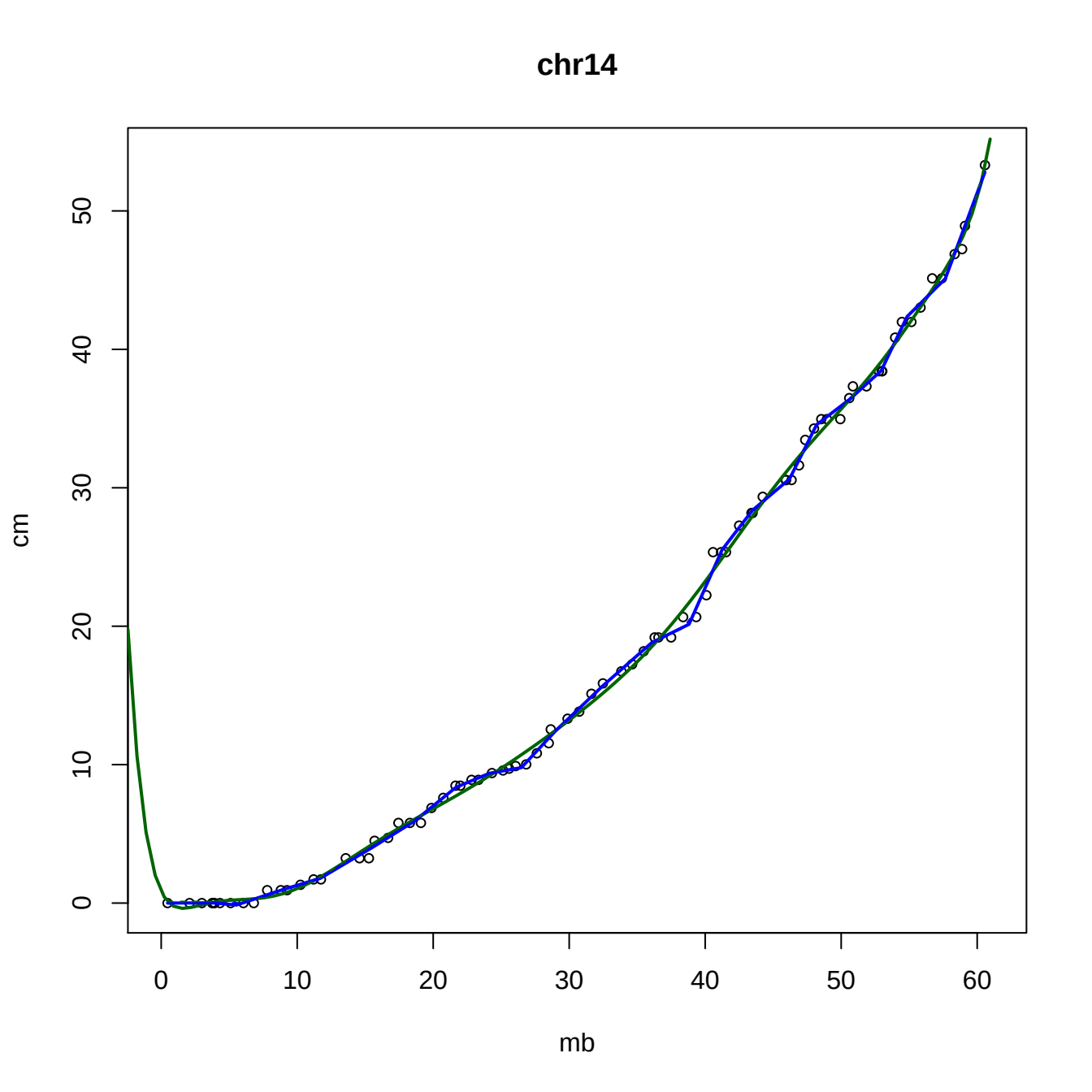

chr09
cm
mb
0
10
20
30
40
50
60
70
0
10
20
30
40
50
60

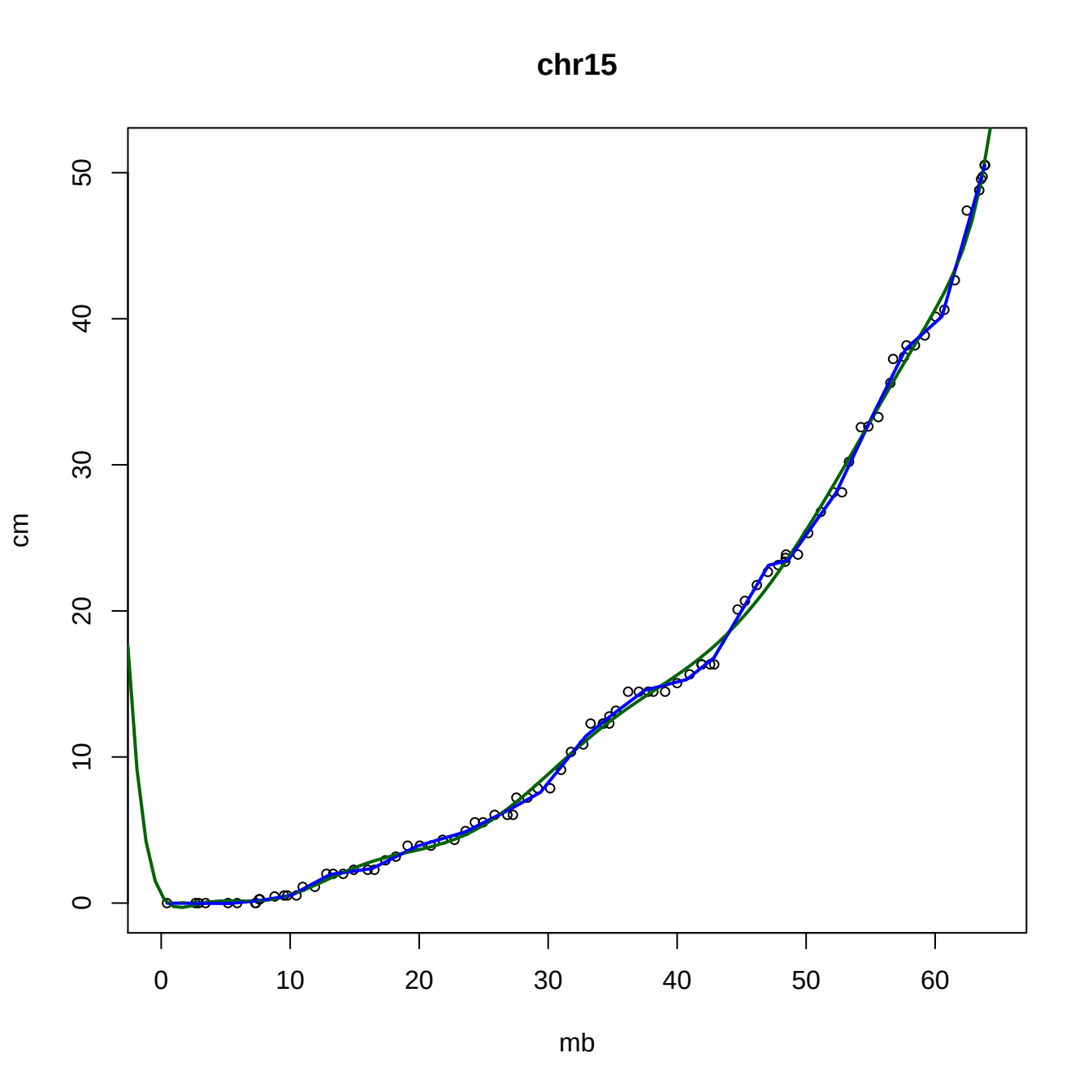

chr10
cm
mb
0
10
20
30
40
50
60
70

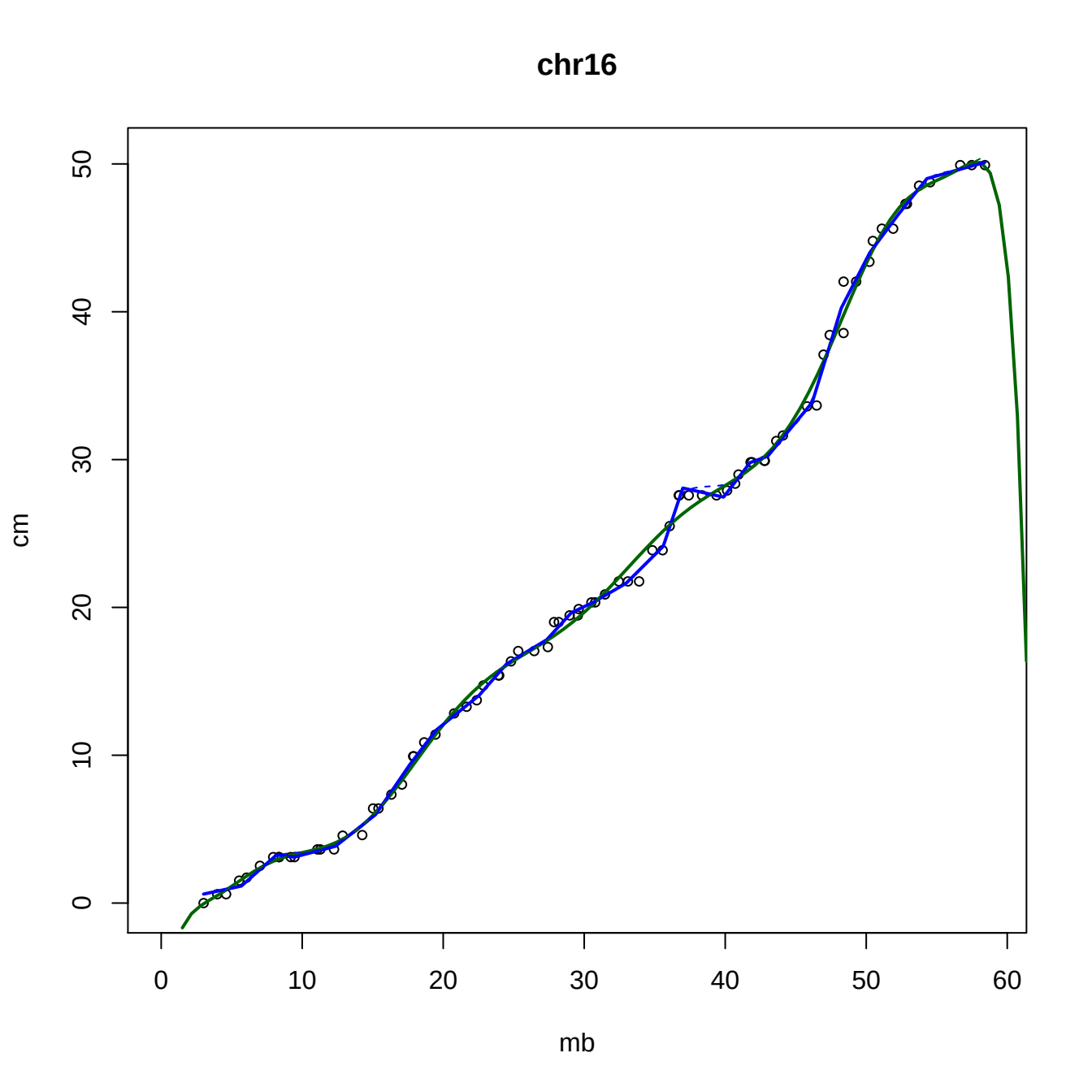

chr11
cm
0
10
20
30
40
50
60
0
20
40
60
mb

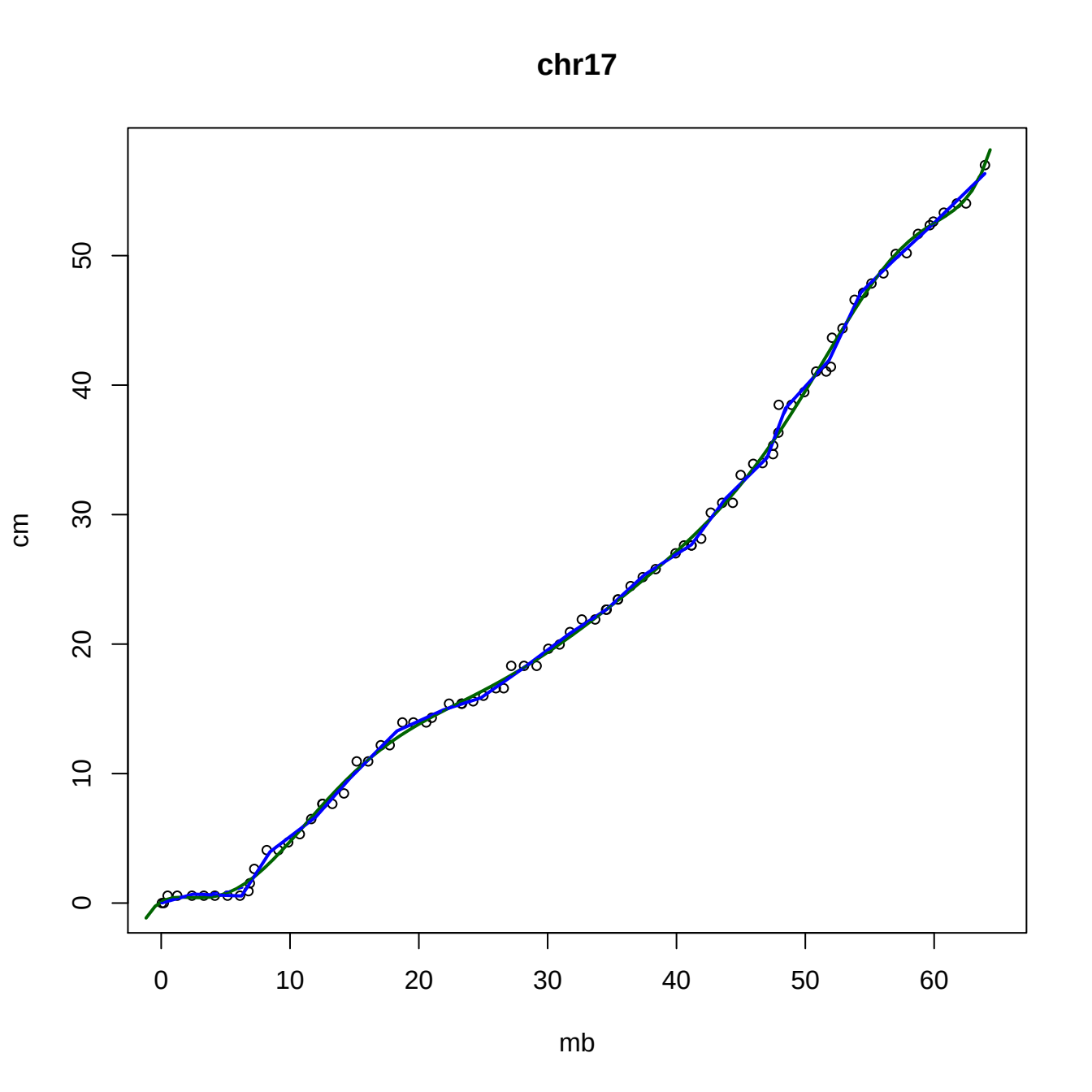

chr12
cm
mb
0
10
20
30
40
50
60
0
20
40
60

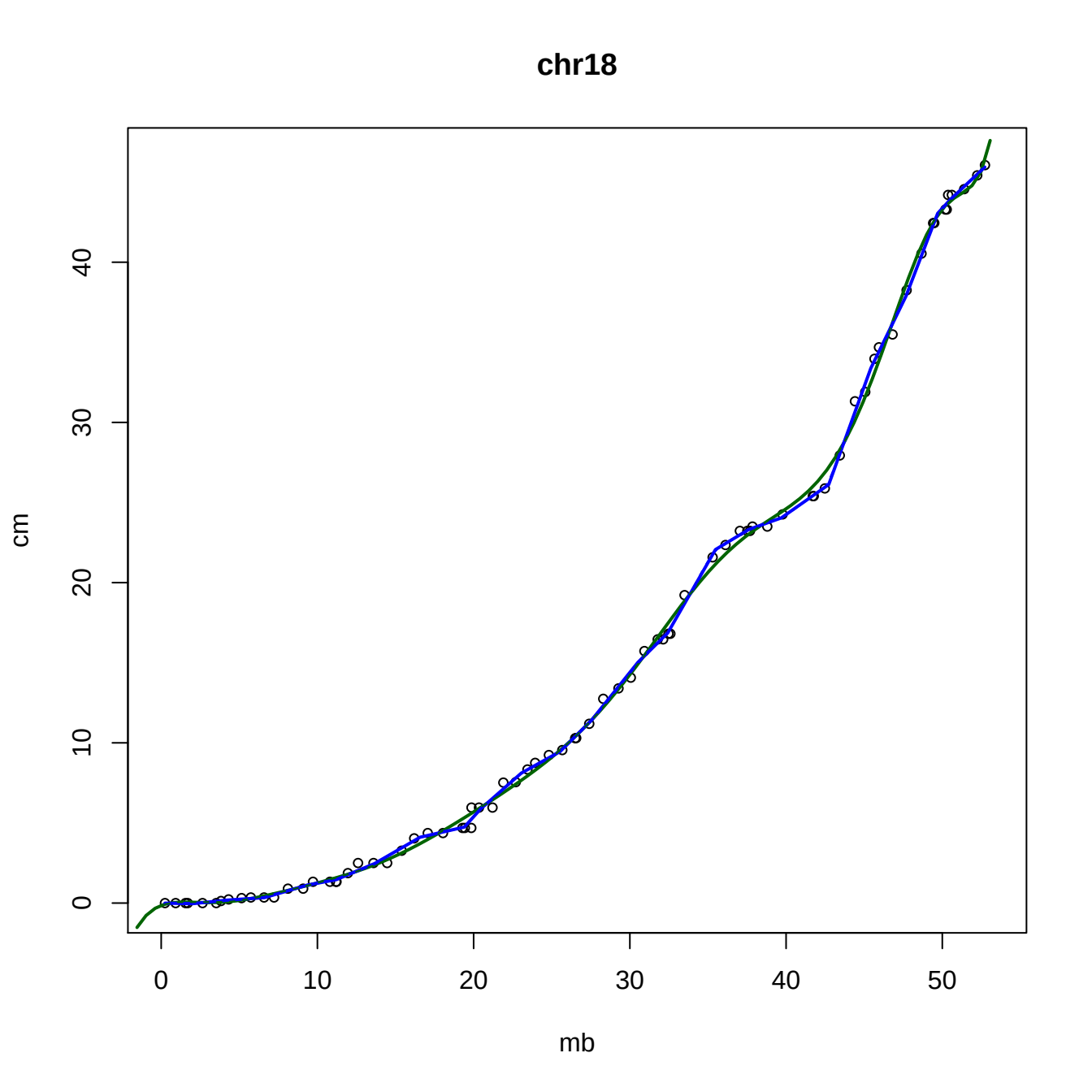

chr13
cm
mb
0
10
20
30
40
50
60

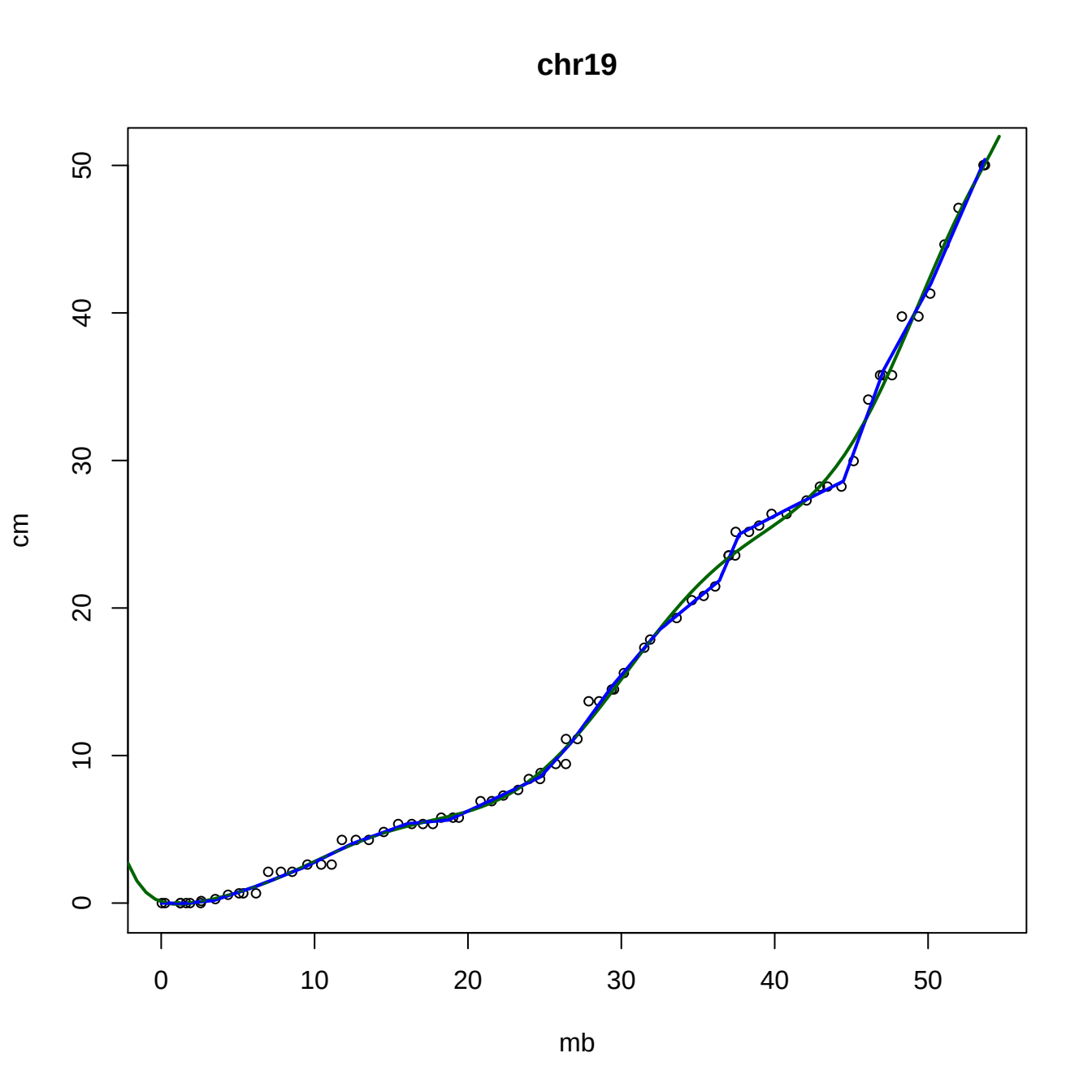

chr14
cm
mb
0
10
20
30
40
50
60

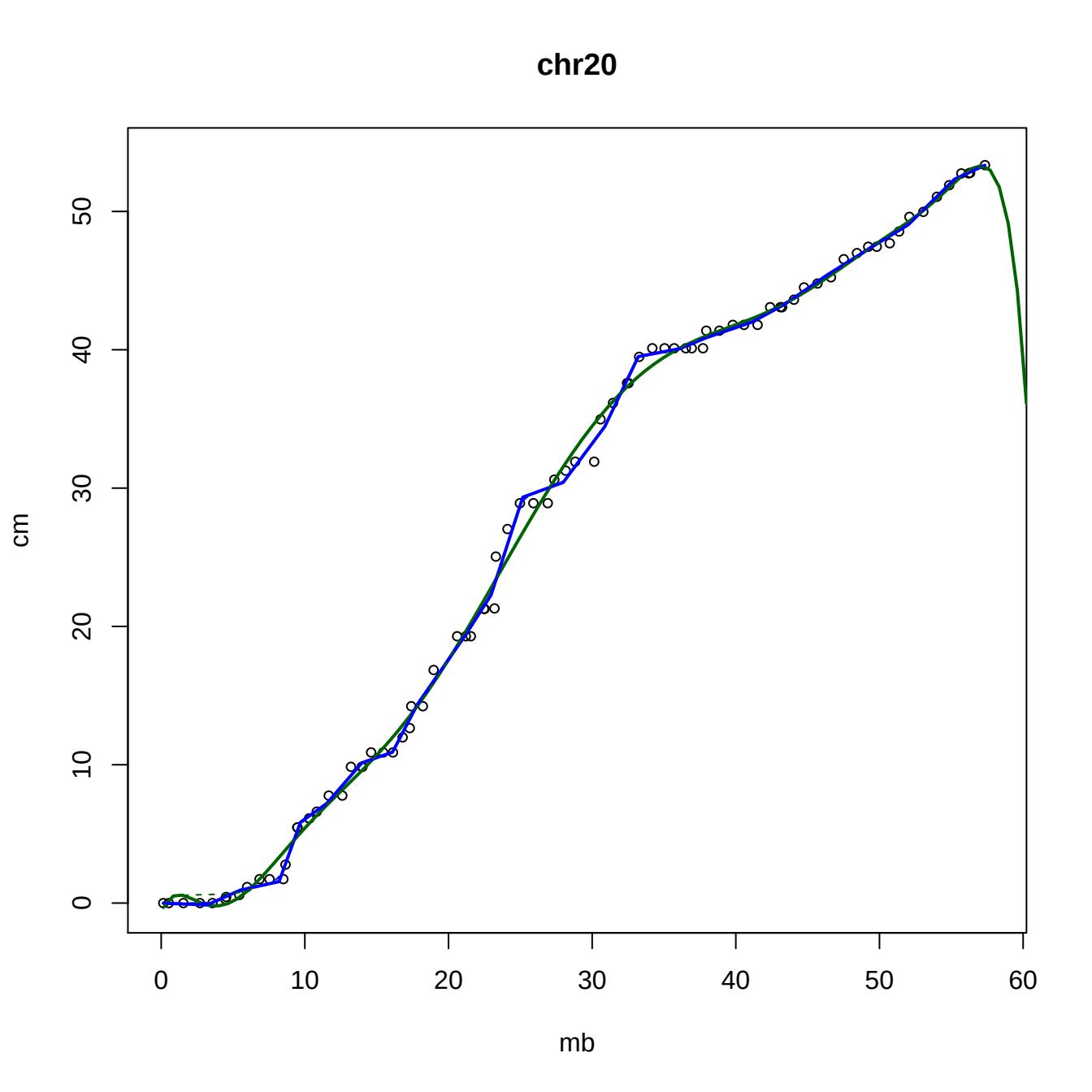

chr15
cm
mb
0
10
20
30
40
50
60

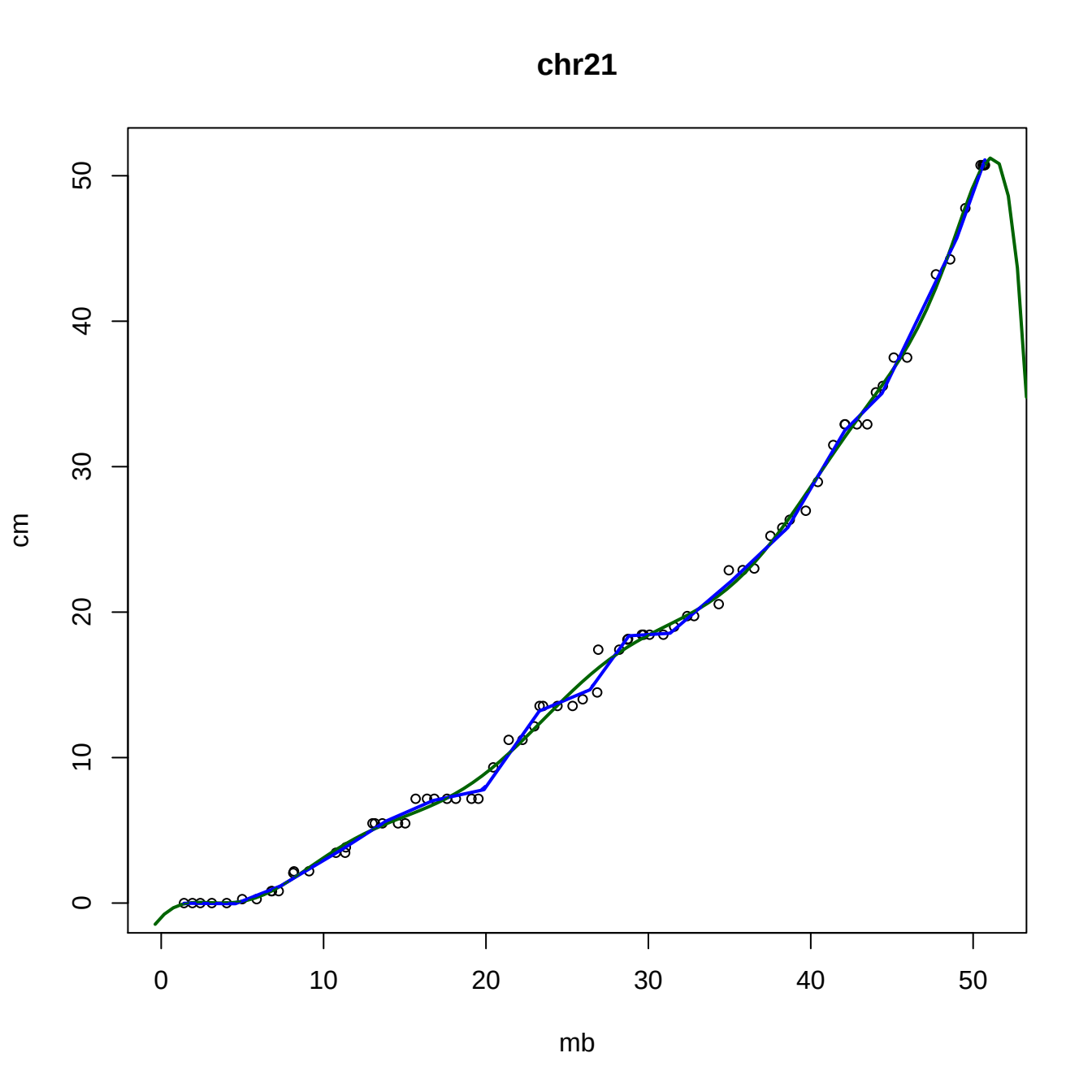

chr16
cm
mb
0
10
20
30
40
50
60

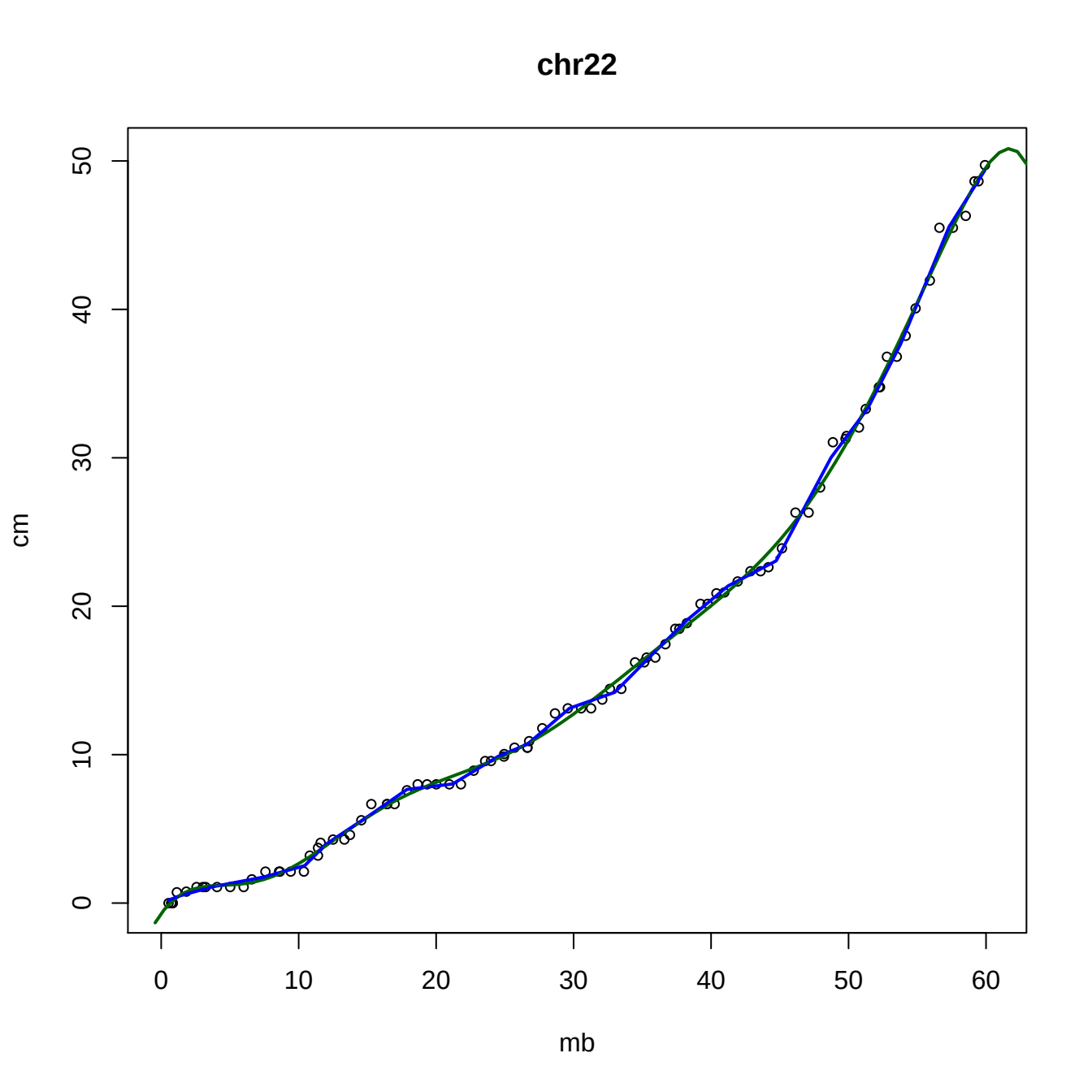

chr17
cm
mb
0
10
20
30
40
50
60

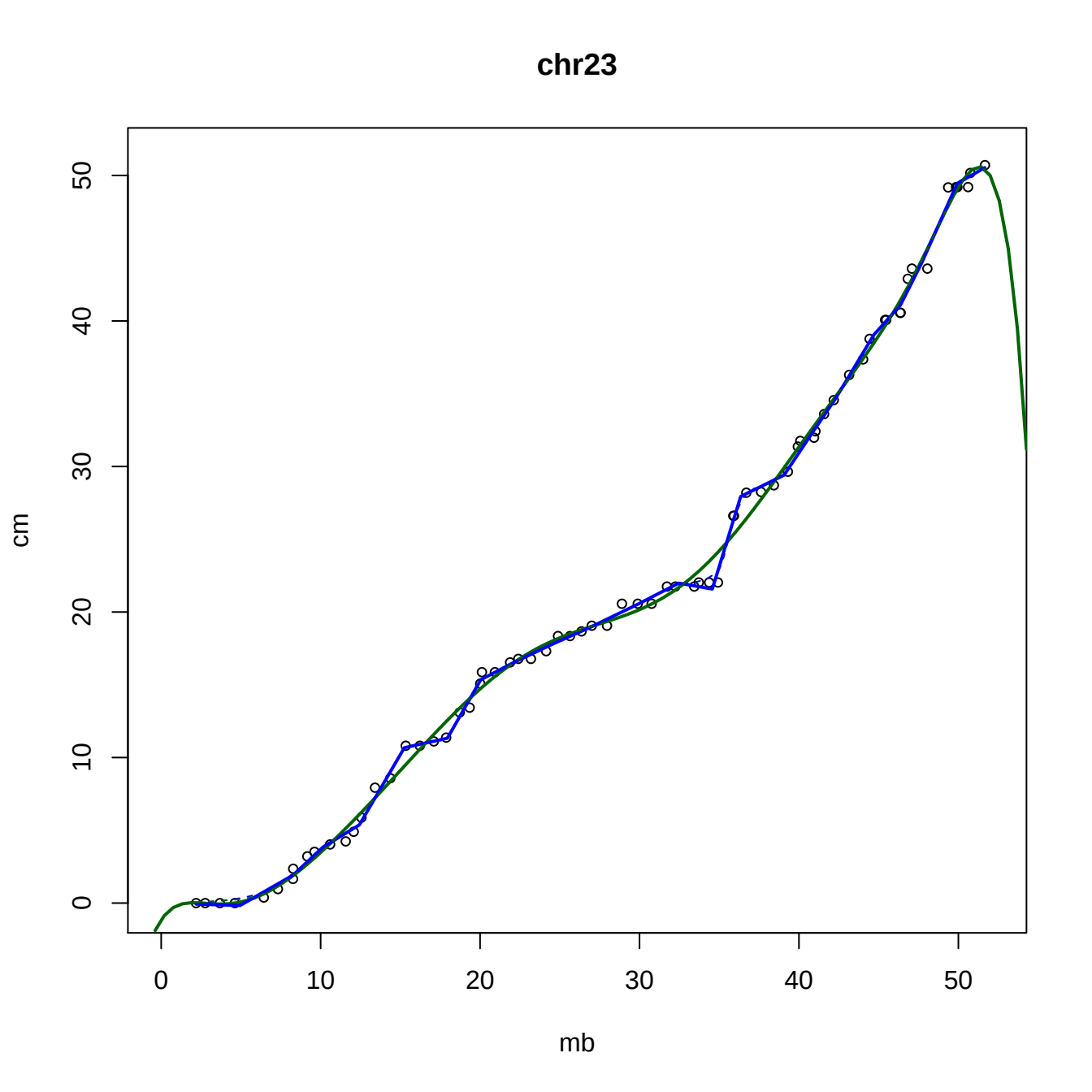

chr18
cm
mb
0
10
20
30
40
50

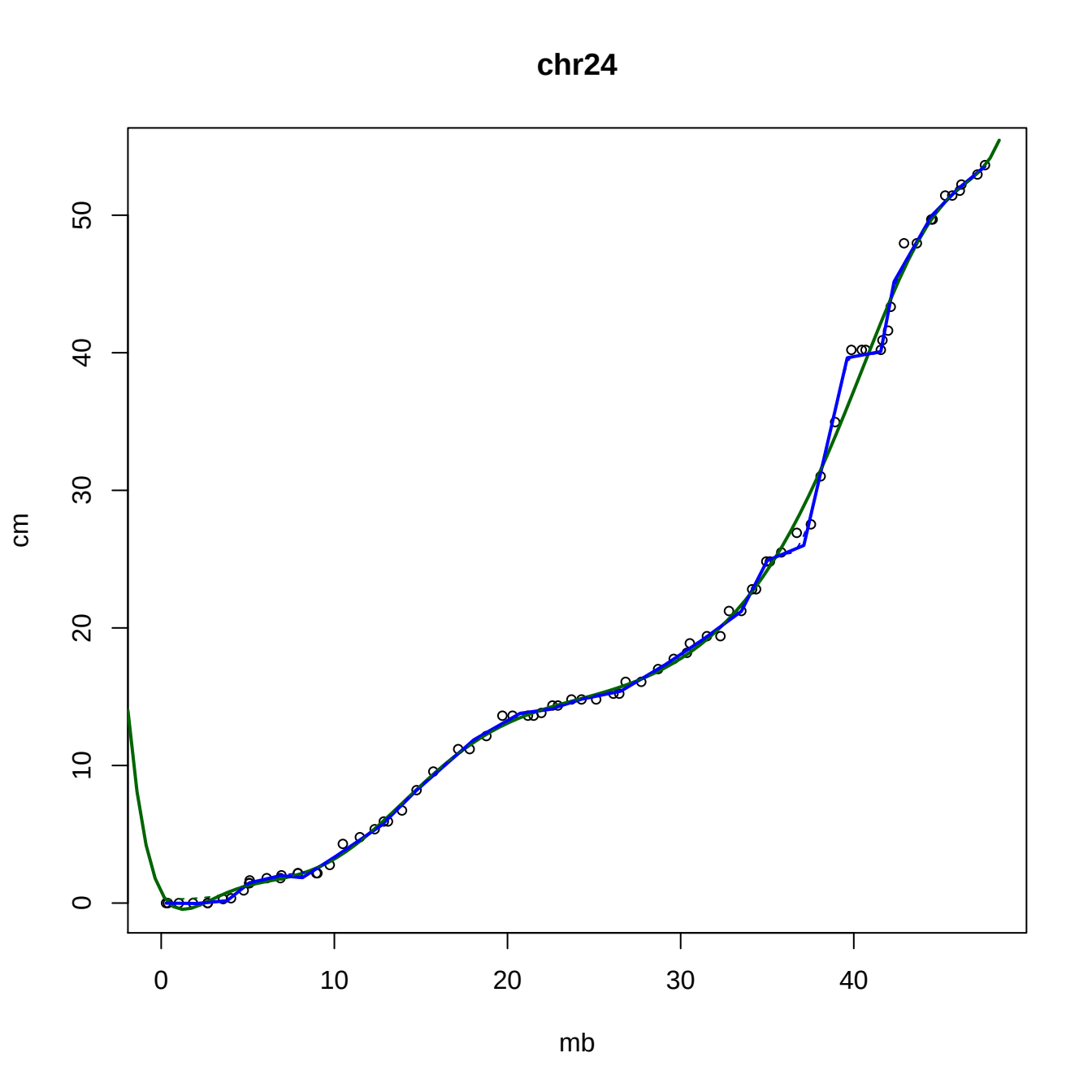

chr19
cm
mb
0
10
20
30
40
50

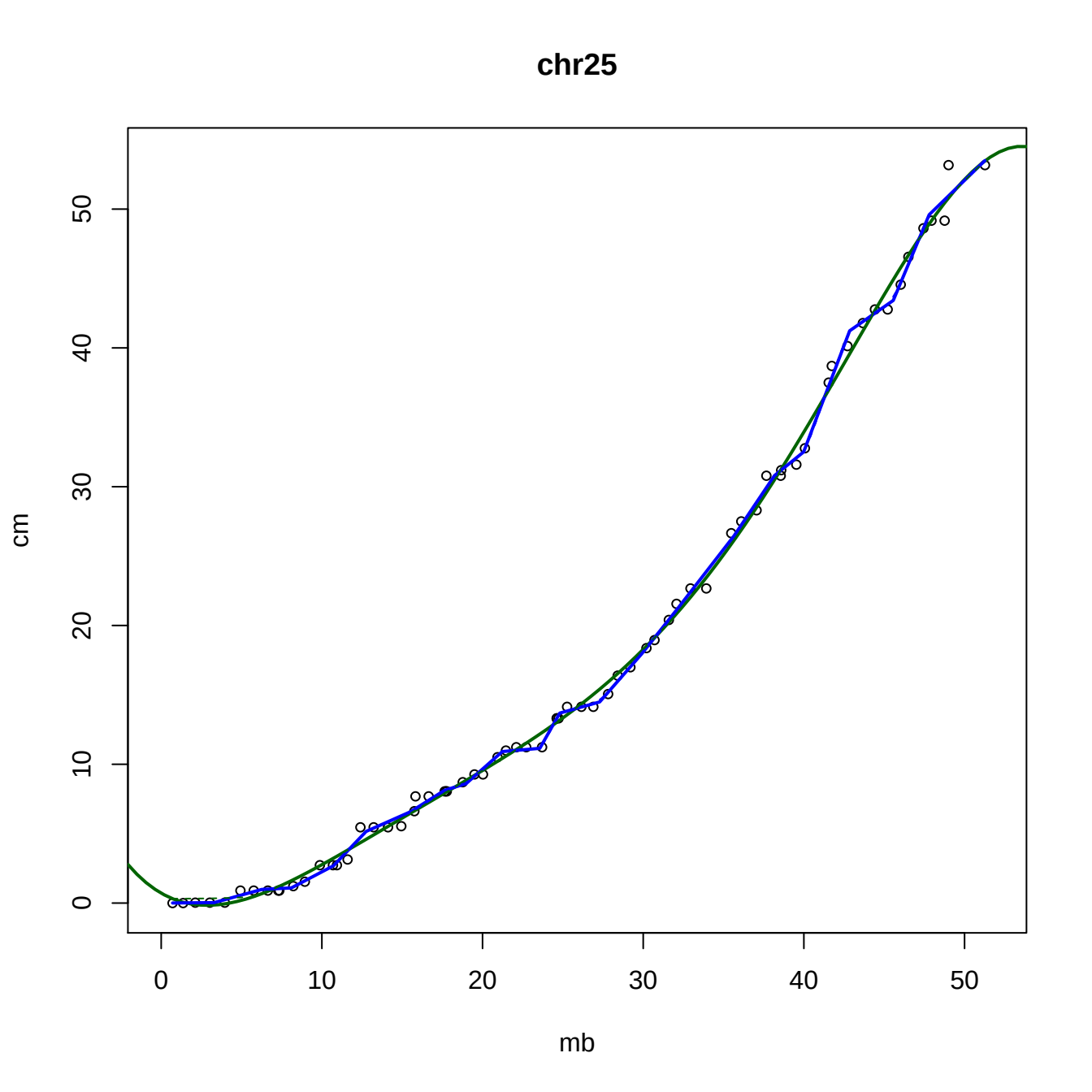

chr20
cm
mb
0
10
20
30
40
50
60

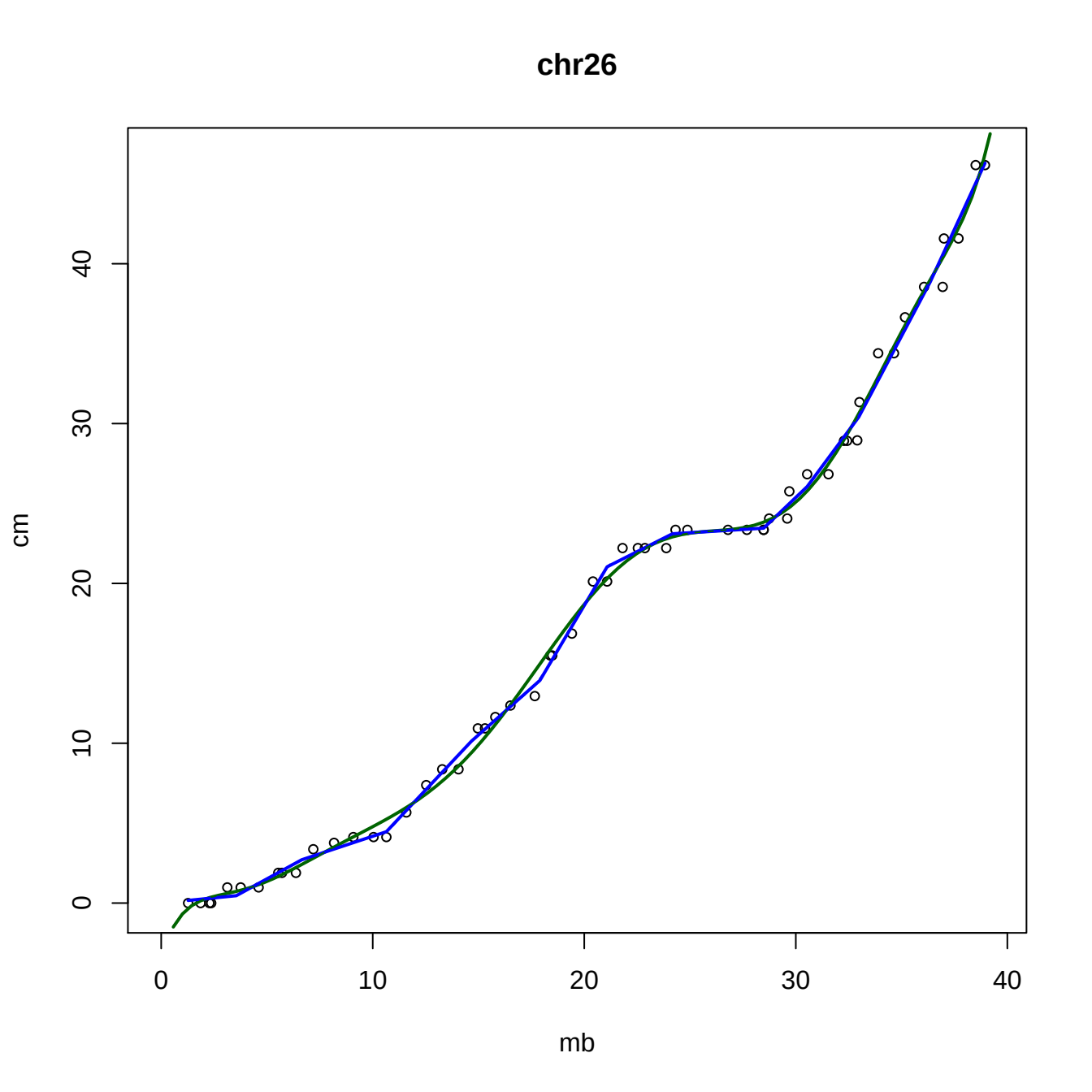

chr21
cm
mb
0
10
20
30
40
50

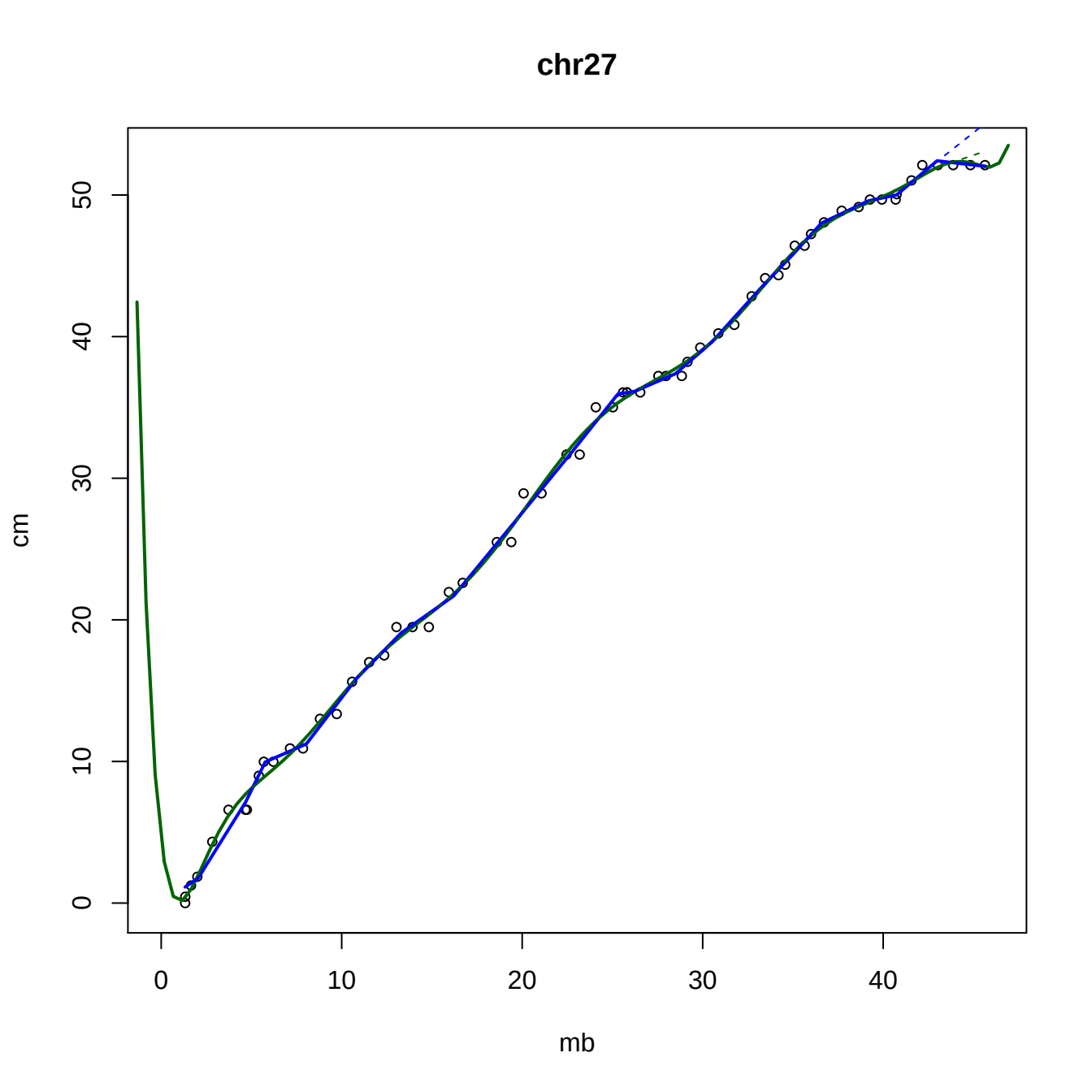

chr22
cm
mb
0
10
20
30
40
50
0
10
20
30
40
50
60

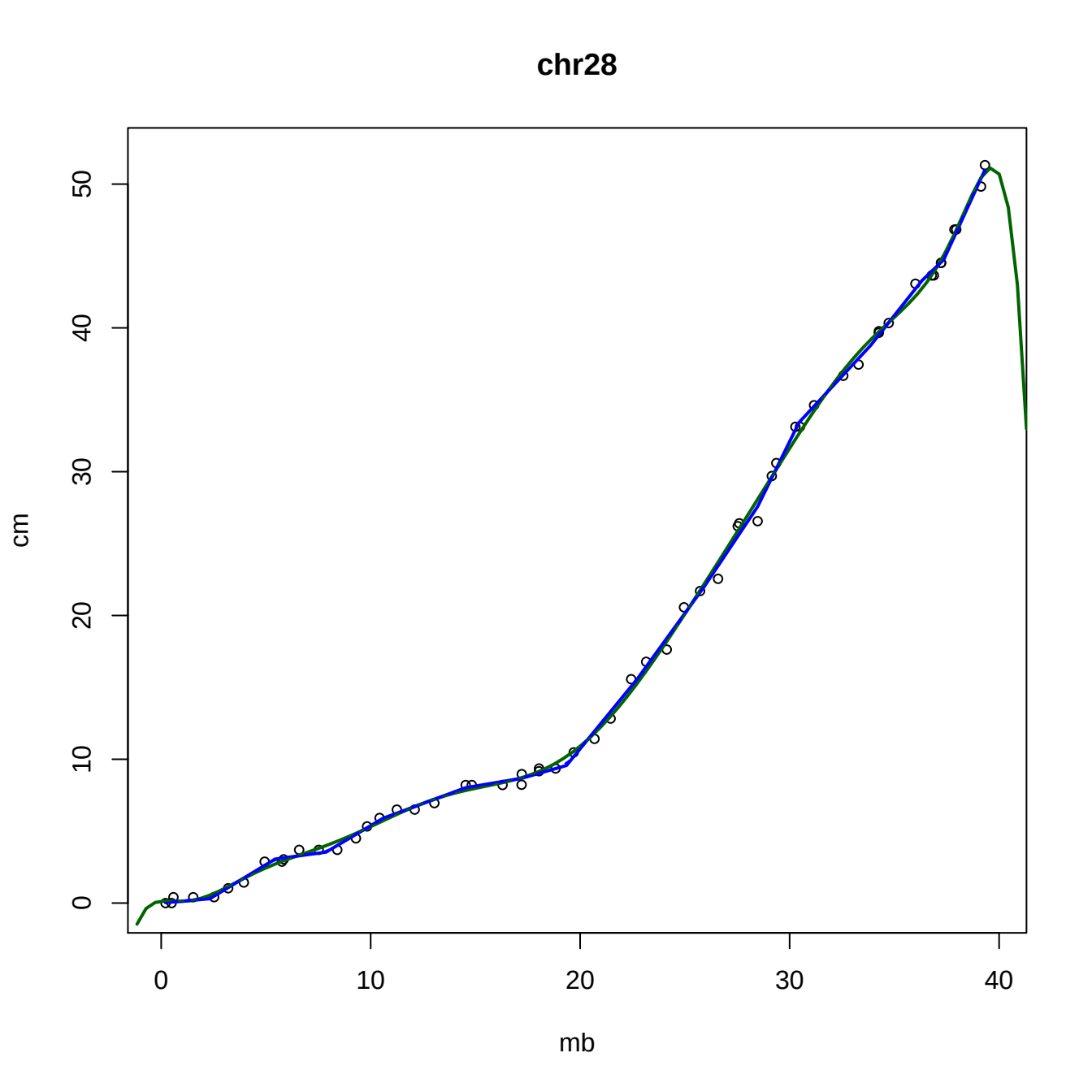

chr23
cm
mb
0
10
20
30
40
50

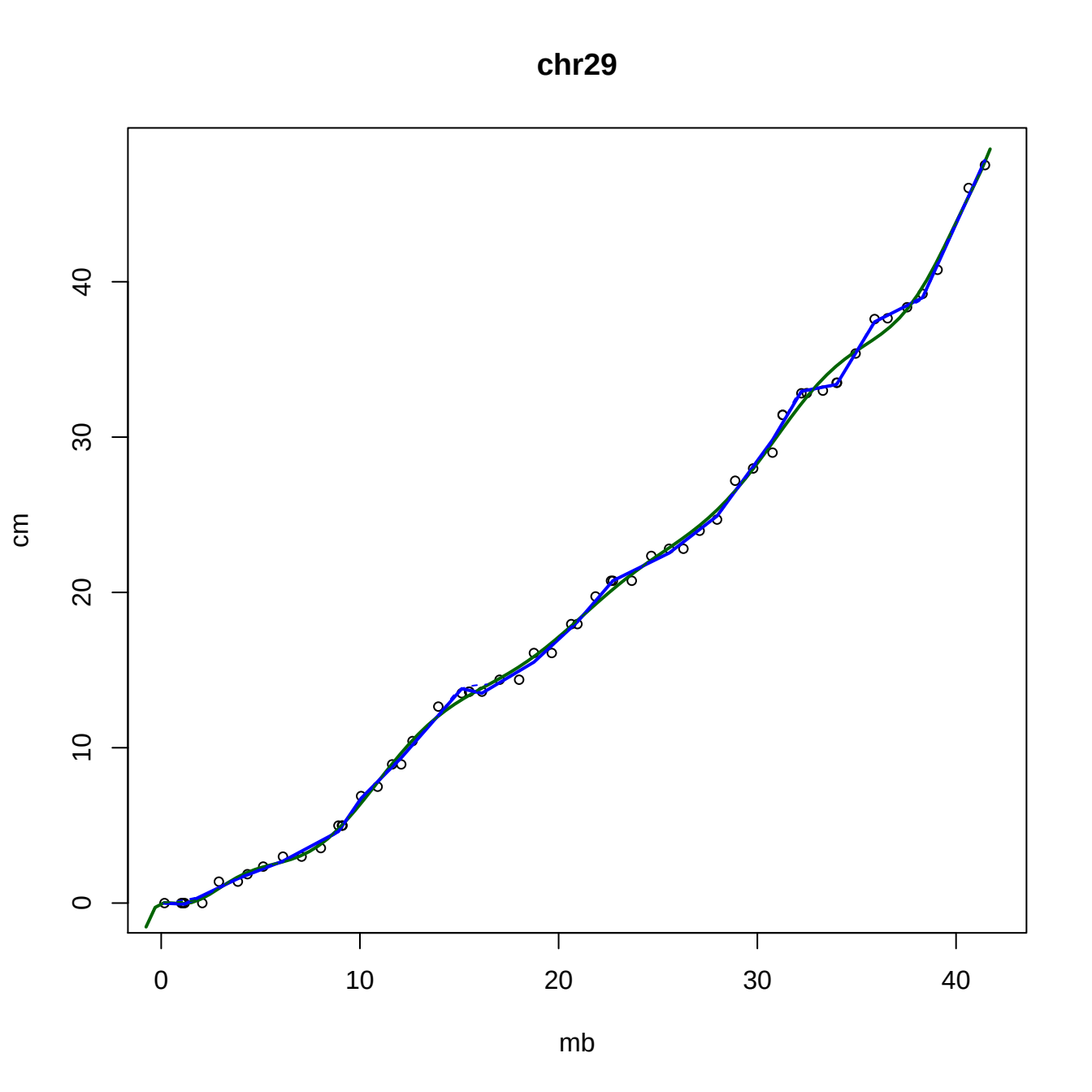

chr24
cm
mb
0
10
20
30
40
50
0
10
20
30
40

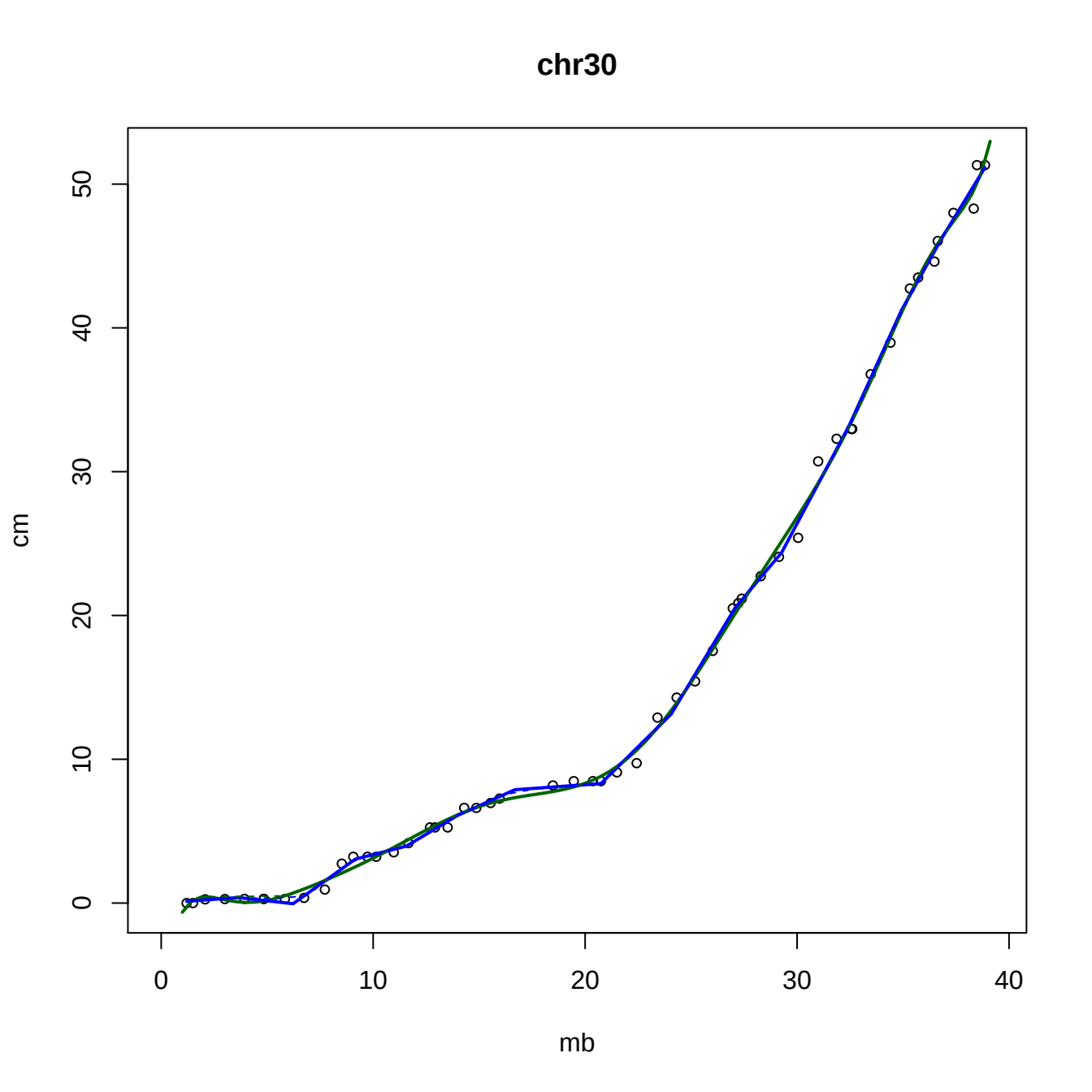

chr25
cm
mb
0
10
20
30
40
50

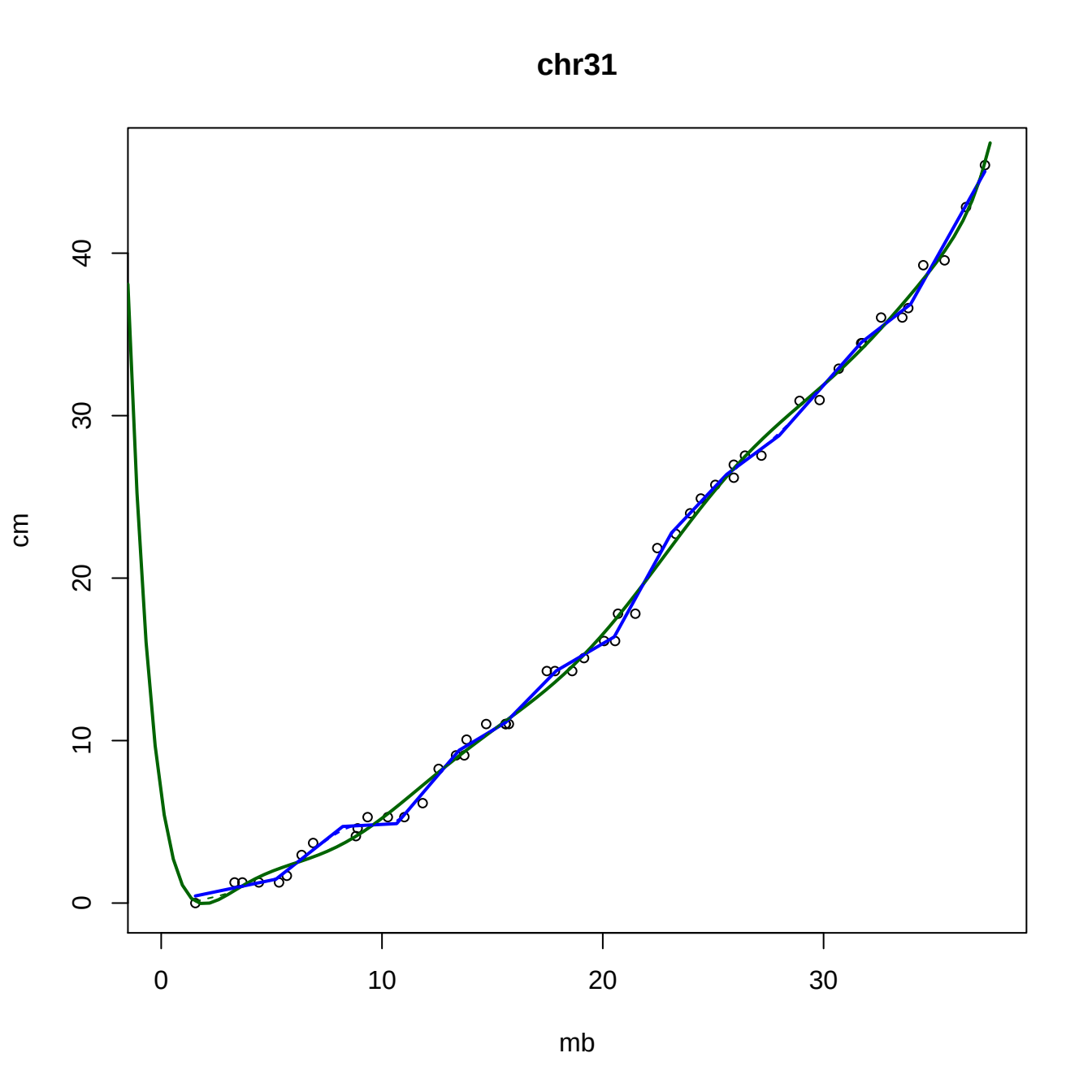

chr26
cm
mb
0
10
20
30
40
0
10
20
30
40

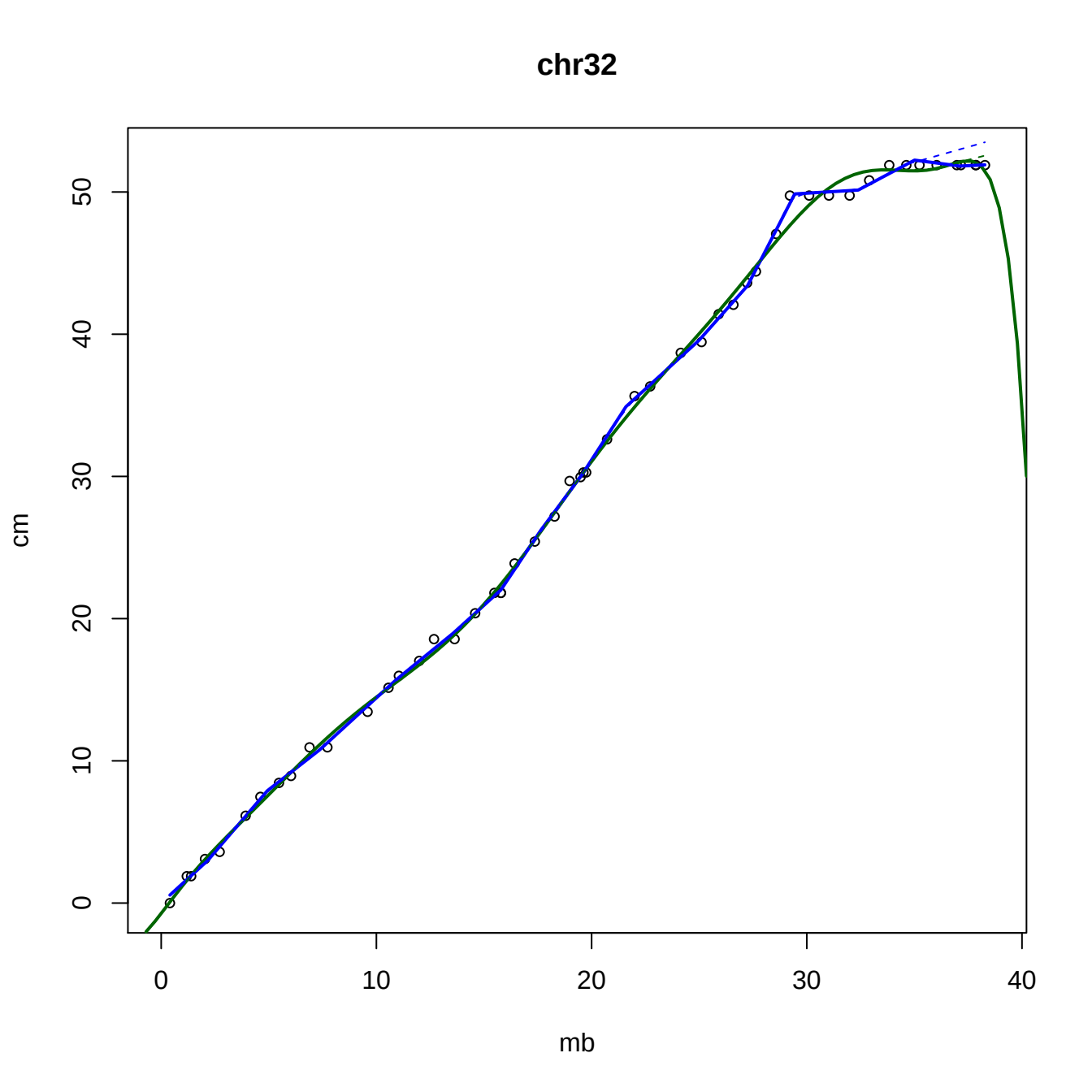

chr27
cm
mb
0
10
20
30
40
50
0
10
20
30
40

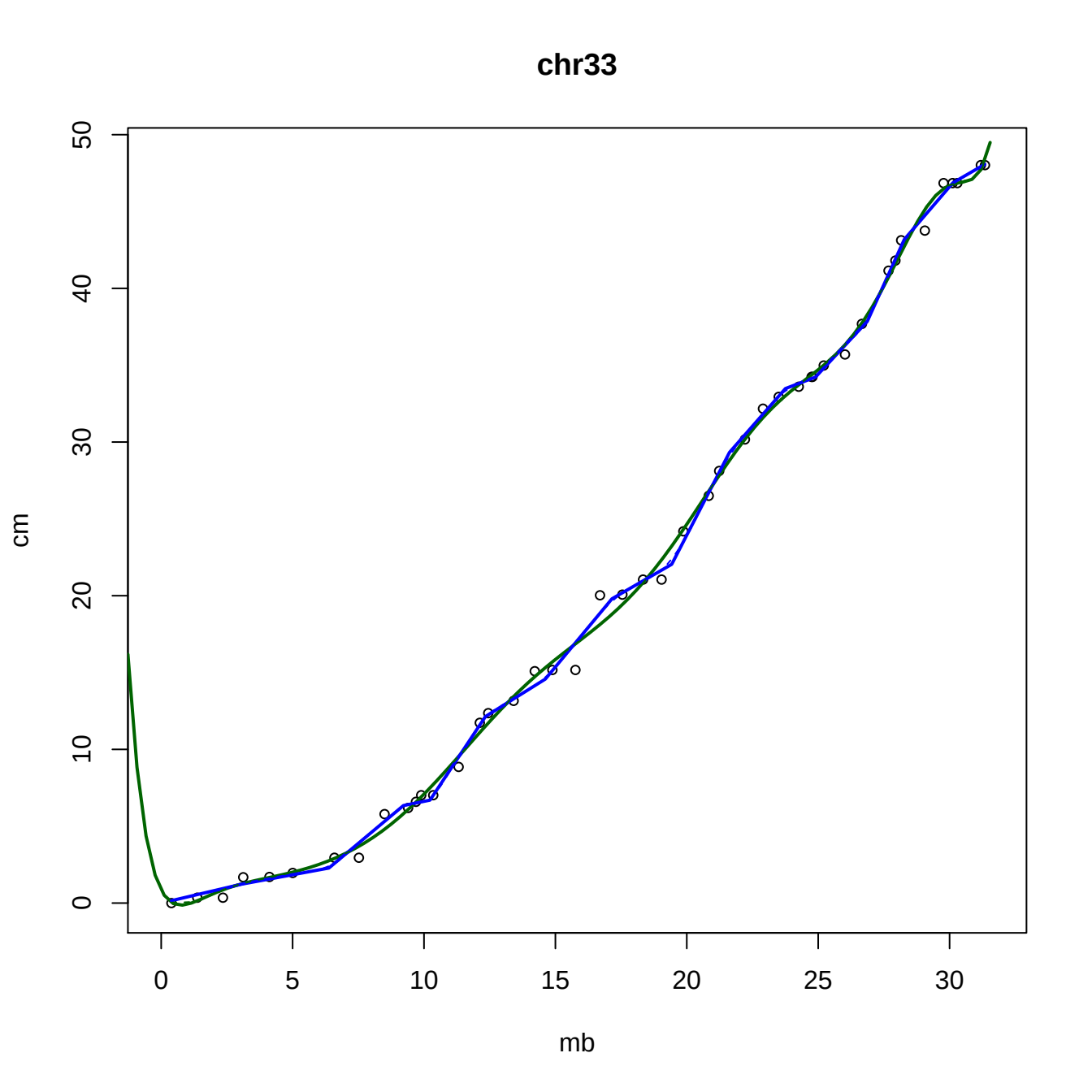

chr28
cm
mb
0
10
20
30
40
50
0
10
20
30
40

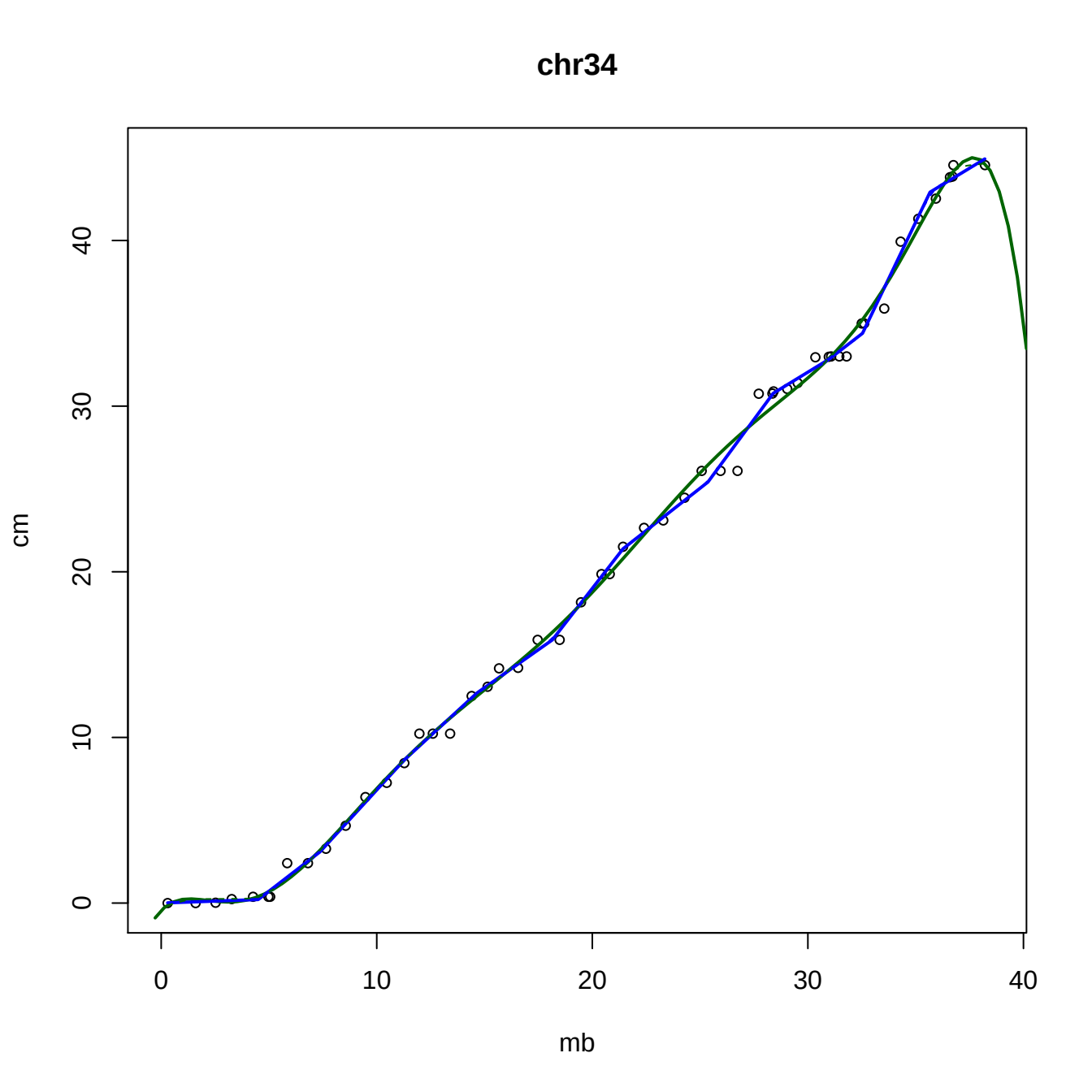

chr29
cm
mb
0
10
20
30
40
0
10
20
30
40

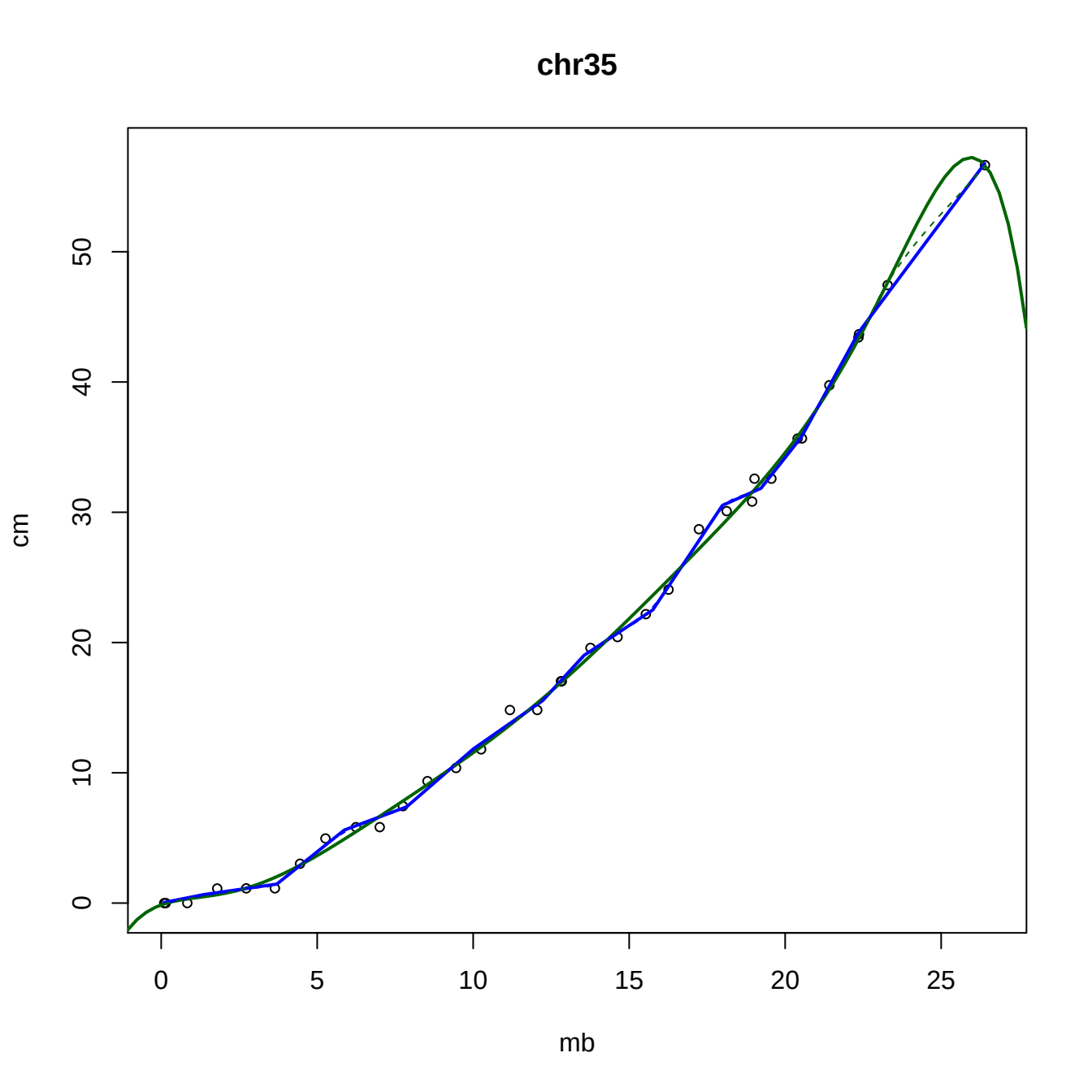

chr30
cm
mb
0
10
20
30
40
50
0
10
20
30
40

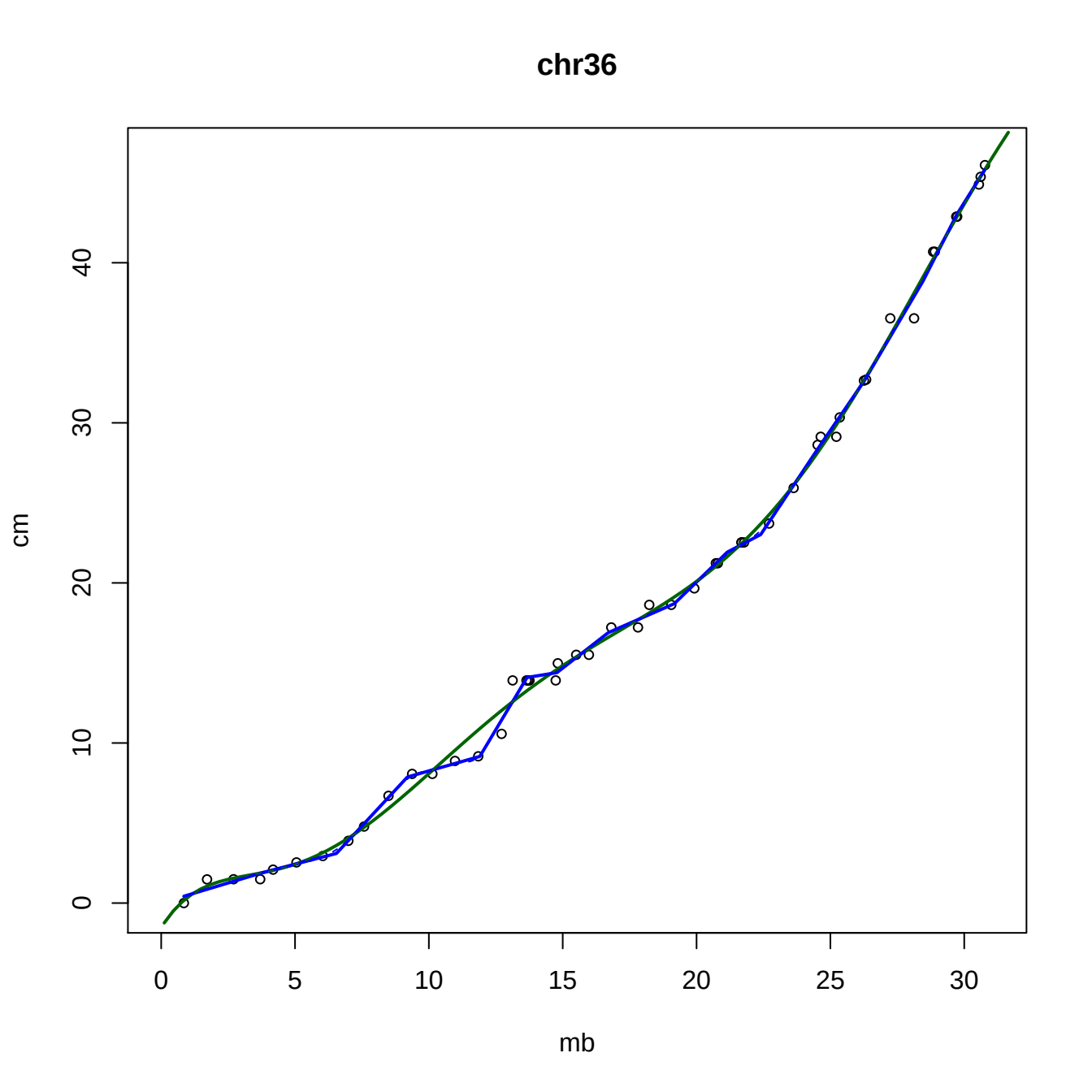

chr31
cm
0
10
20
30
40
mb
0
10
20
30

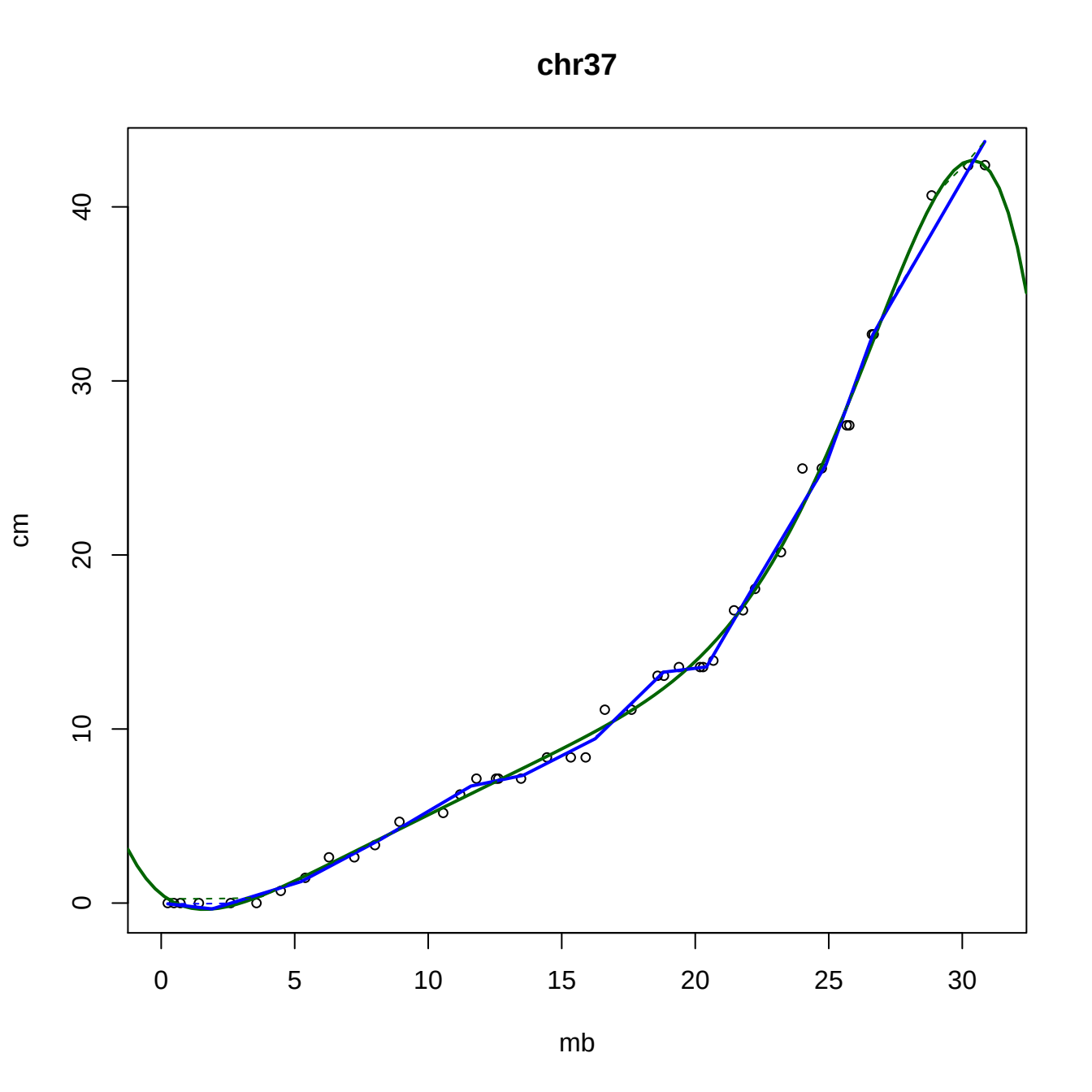

chr32
cm
mb
0
10
20
30
40
50
0
10
20
30
40

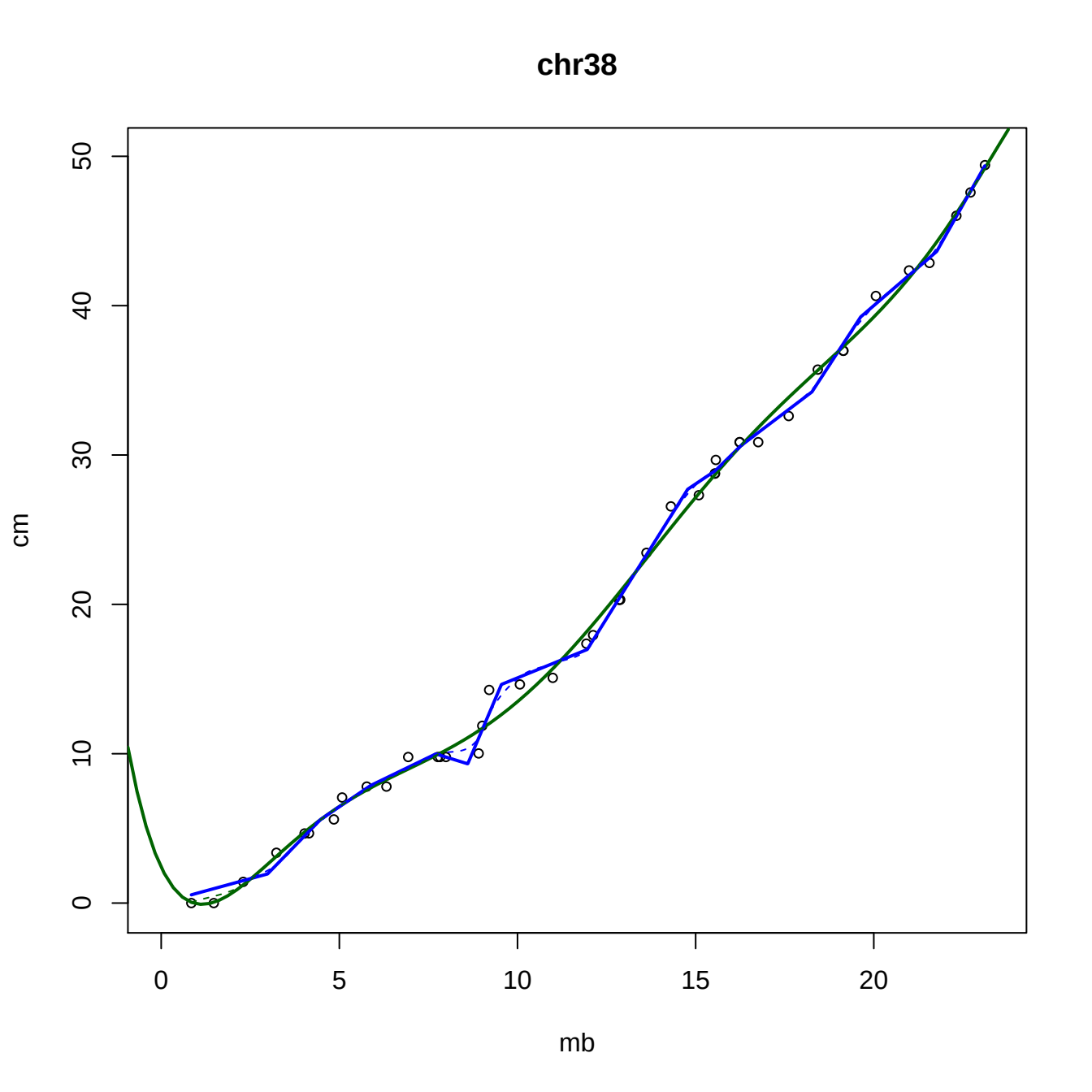

chr33
cm
mb
0
10
20
30
40
50
0
5
10
15
20
25
30


chr34
cm
mb
0
10
20
30
40
0
10
20
30
40


chr35
cm
mb
0
10
20
30
40
50
0
5
10
15
20
25


chr36
cm
mb
0
10
20
30
40
0
5
10
15
20
25
30


chr37
cm
mb
0
10
20
30
40
0
5
10
15
20
25
30


chr38
cm
mb
0
10
20
30
40
50
0
5
10
15
20