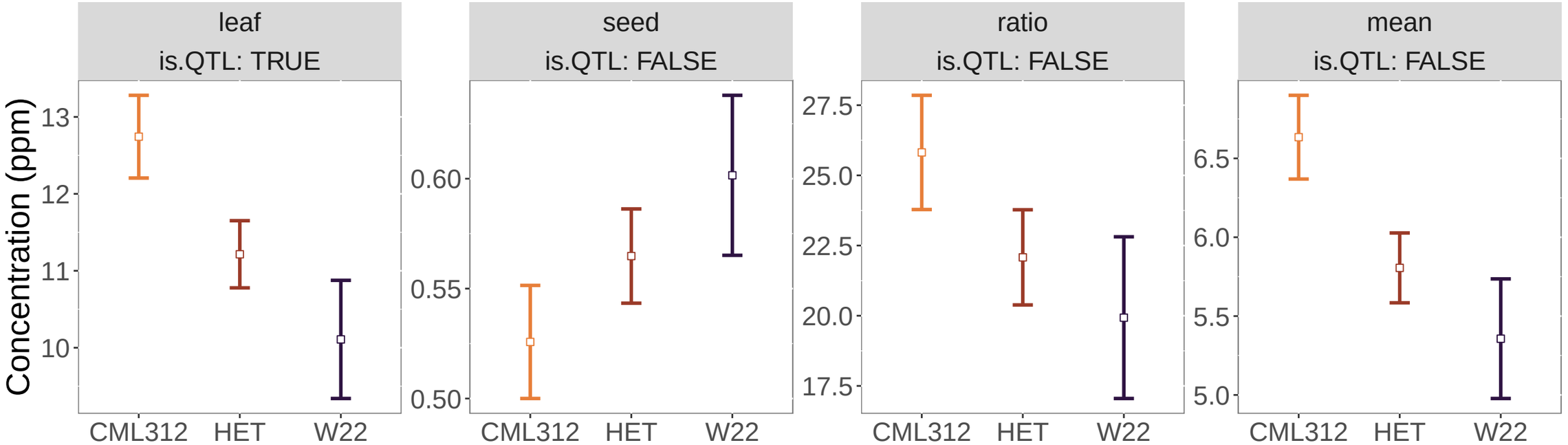
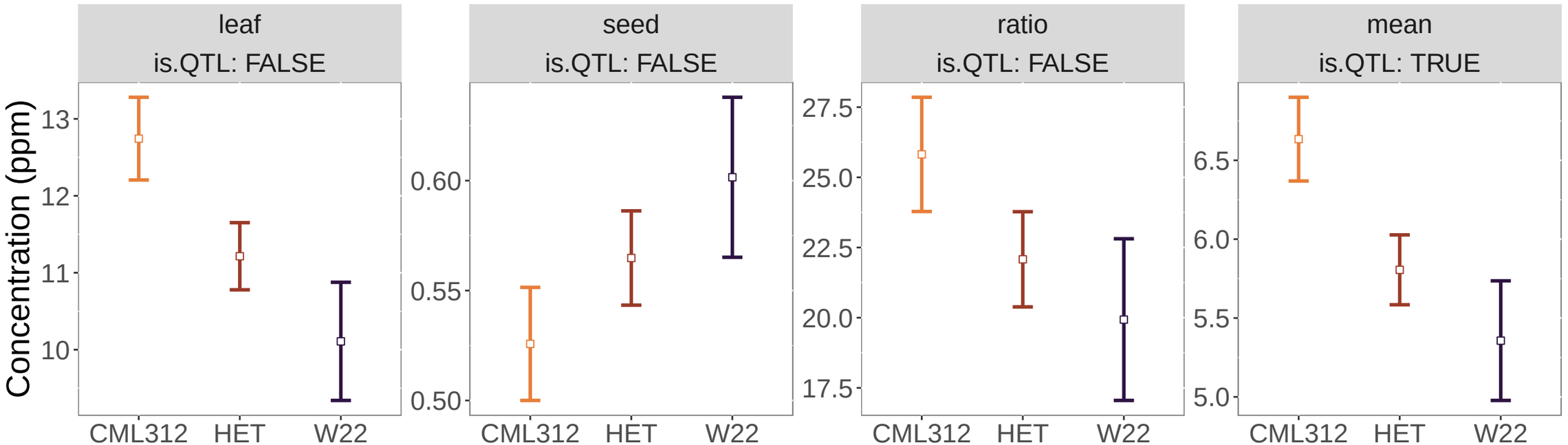
Ion: Al

Effect plots for Al_leaf QTL in position 1@62



Effect plots for Al_mean QTL in position 1@62



Ion: As

Effect plots for As_seed QTL in position 4@99

leaf
is.QTL: FALSE

seed
is.QTL: TRUE

ratio
is.QTL: FALSE

mean
is.QTL: FALSE

Concentration (ppm)

0.065
0.060
0.055
0.050
0.045

0.0075
0.0070
0.0065
0.0060

9.5
9.0
8.5
8.0
7.5

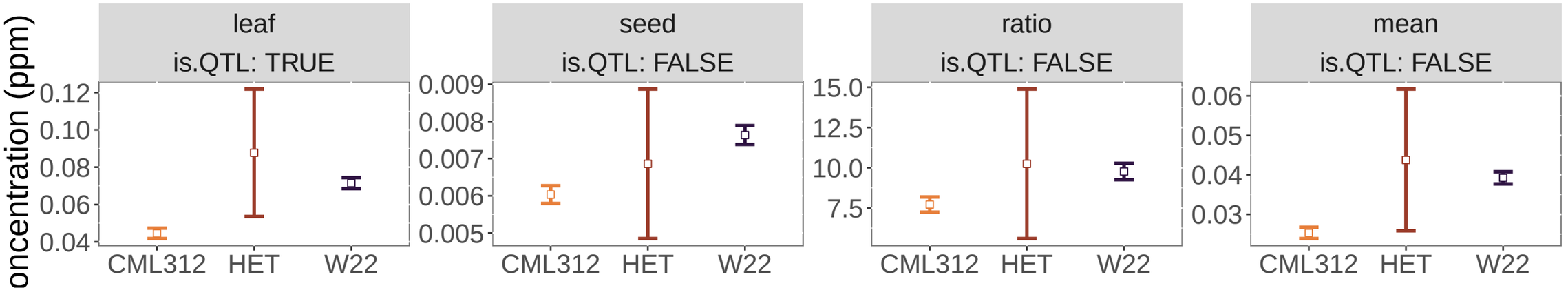
0.0350
0.0325
0.0300
0.0275

CML312 HET W22

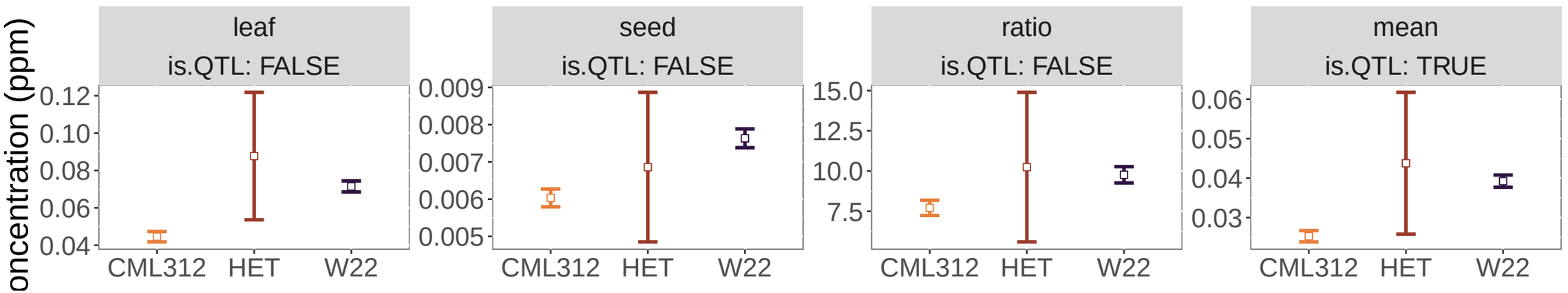
Genotype
CML312
HET
W22

Ion: As

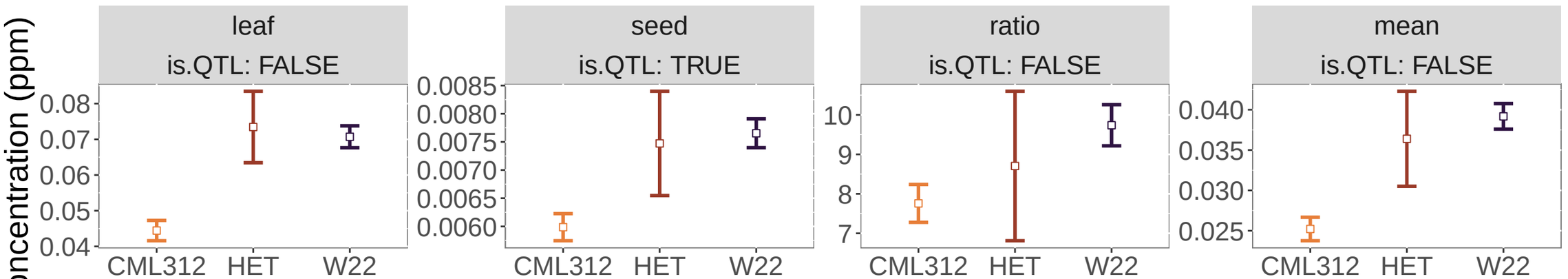
Effect plots for As_leaf QTL in position 5@0



Effect plots for As_mean QTL in position 5@0



Effect plots for As_seed QTL in position 5@3



Ion: B

Effect plots for B_ratio QTL in position 1@62

leaf
is.QTL: FALSE

seed
is.QTL: FALSE

ratio
is.QTL: TRUE

mean
is.QTL: FALSE

Concentration (ppm)

CML312 HET W22

Genotype
CML312
HET
W22

Ion: B

Effect plots for B_mean QTL in position 3@23
leaf
is.QTL: FALSE
seed
is.QTL: FALSE
ratio
is.QTL: FALSE
mean
is.QTL: TRUE
oncentration (ppm)
20
19
18
17
16
15
0.60
0.58
0.56
0.54
0.52
40
35
30
10.5
10.0
9.5
9.0
8.5
8.0
CML312
HET
W22
Effect plots for B_leaf QTL in position 3@40
leaf
is.QTL: TRUE
seed
is.QTL: FALSE
ratio
is.QTL: FALSE
mean
is.QTL: FALSE
(ppm)
20
18
16
0.61
0.59
0.57
0.55
0.53
0.51
40
35
30
25
10.5
10.0
9.5
9.0
8.5
8.0
7.5
CML312
HET
W22
Genotype
CML312
HET
W22
Effect plots for B_ratio QTL in position 3@40
leaf
is.QTL: FALSE
seed
is.QTL: FALSE
ratio
is.QTL: TRUE
mean
is.QTL: FALSE
Concentration (ppm)
20
18
16
0.61
0.59
0.57
0.55
0.53
0.51
40
35
30
25
10.5
10.0
9.5
9.0
8.5
8.0
7.5
CML312
HET
W22

Ion: B

Effect plots for B_mean QTL in position 7@86

leaf
is.QTL: FALSE

seed
is.QTL: FALSE

ratio
is.QTL: FALSE

mean
is.QTL: TRUE

Concentration (ppm)

20
19
18
17
16

0.58
0.56
0.54

40
36
32
28

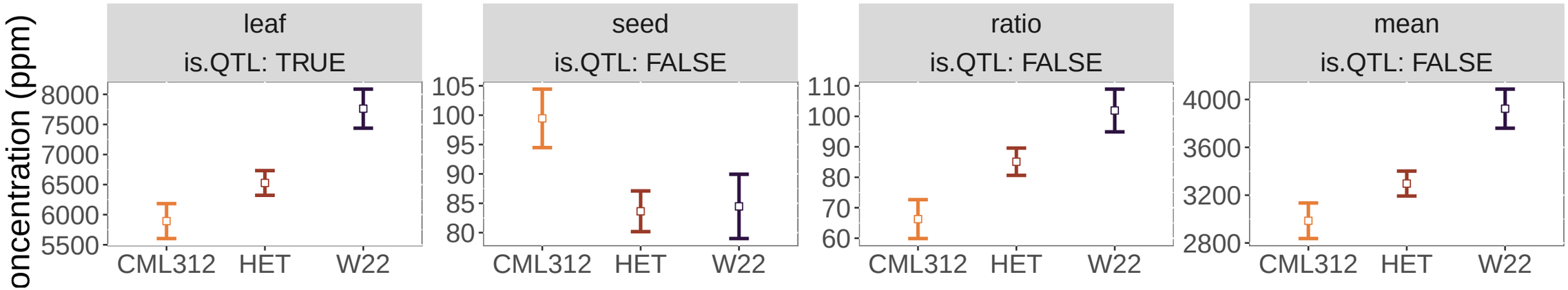
10
9
8

CML312 HET W22

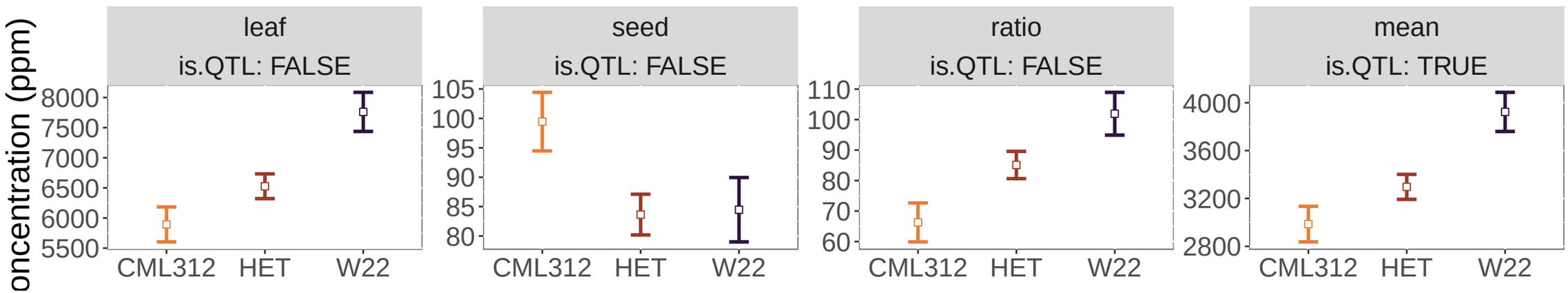
Genotype
CML312
HET
W22

Ion: Ca

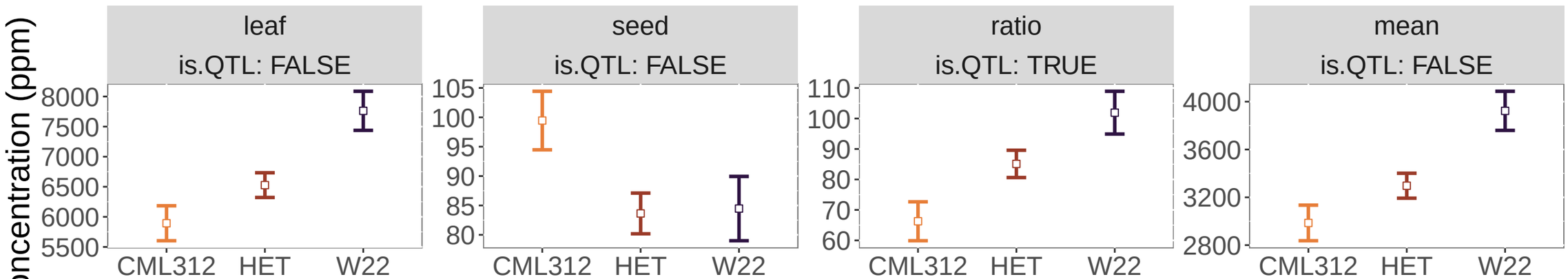
Effect plots for Ca_leaf QTL in position 1@111



Effect plots for Ca_mean QTL in position 1@111

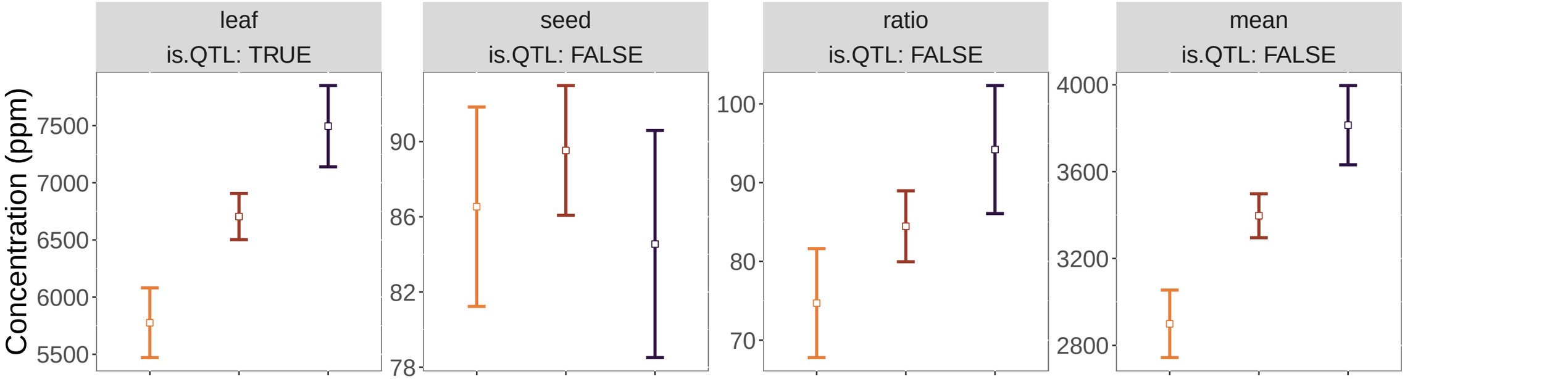


Effect plots for Ca_ratio QTL in position 1@111

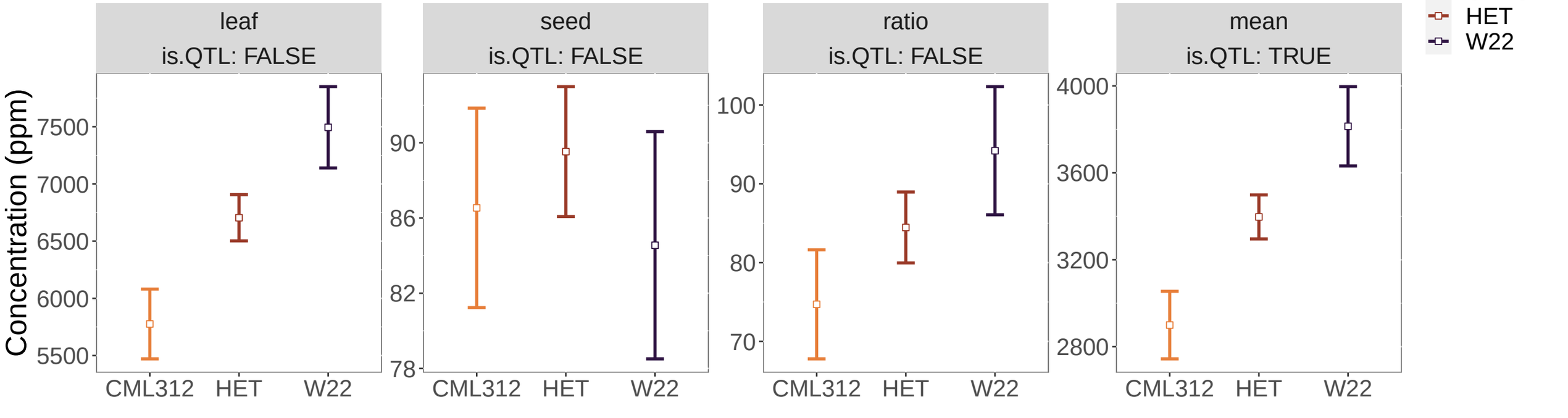


Ion: Ca

Effect plots for Ca_leaf QTL in position 3@87

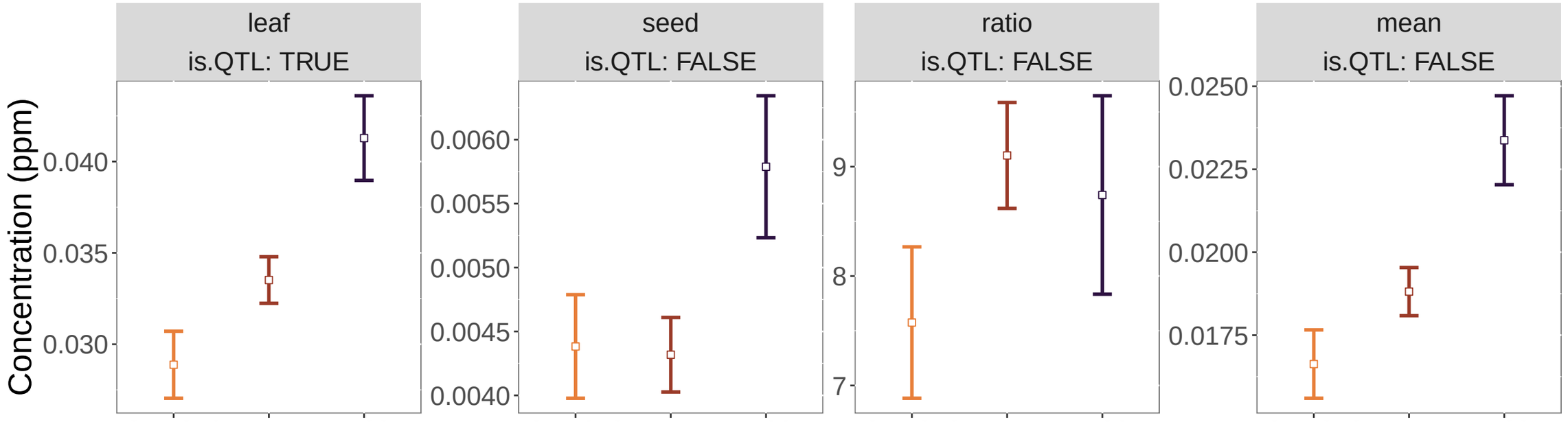


Effect plots for Ca_mean QTL in position 3@87

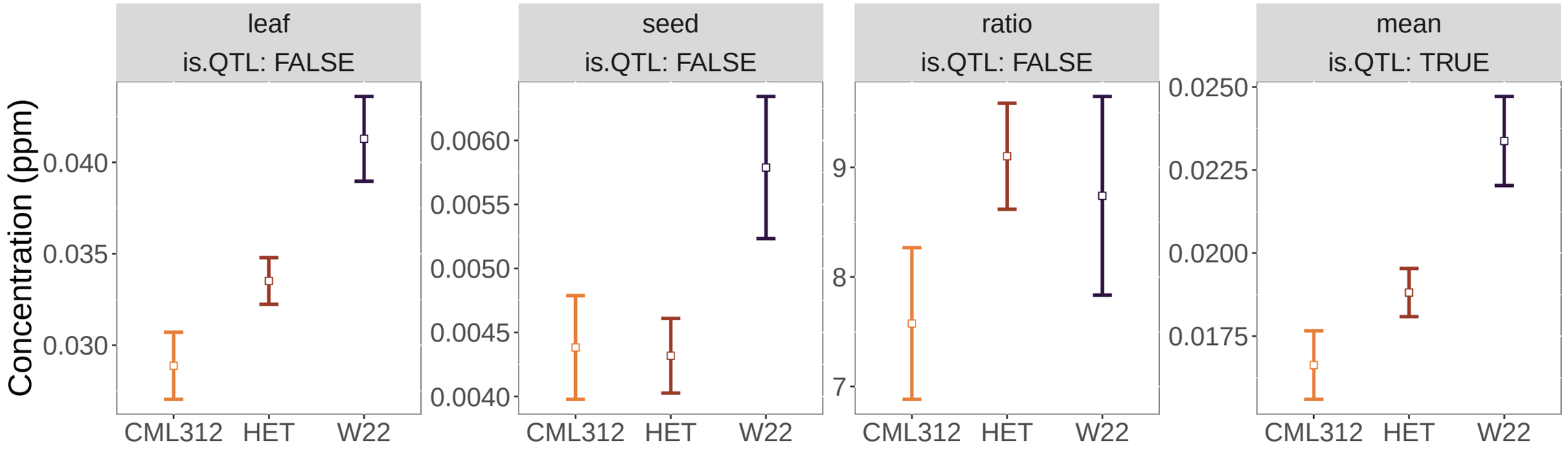


Ion: Cd

Effect plots for Cd_leaf QTL in position 1@153



Effect plots for Cd_mean QTL in position 1@153

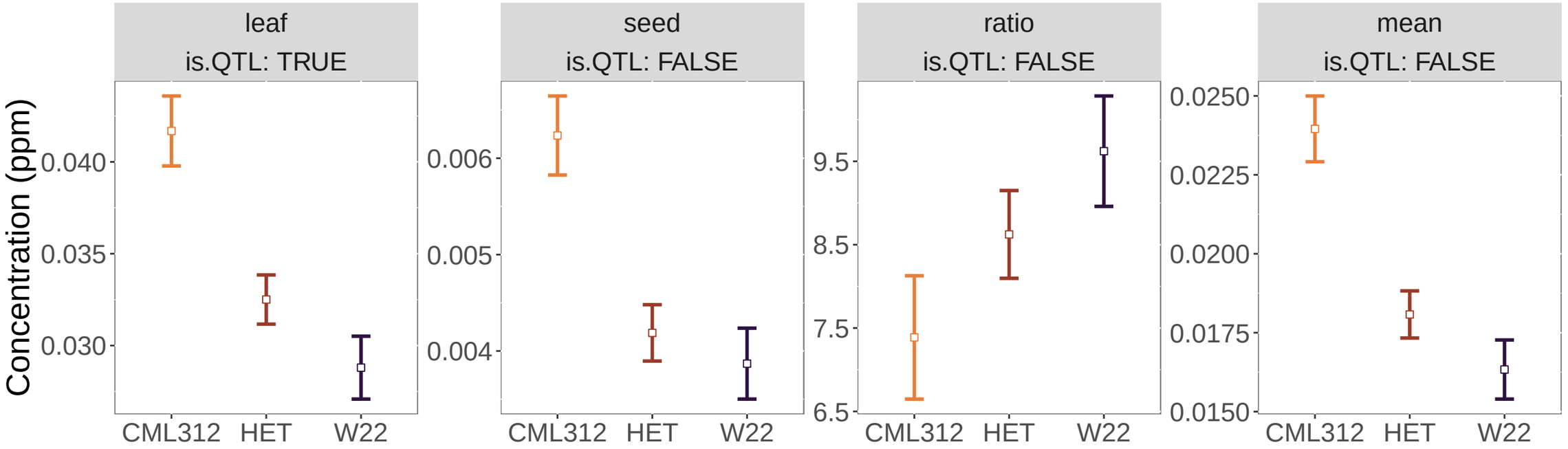


Genotype

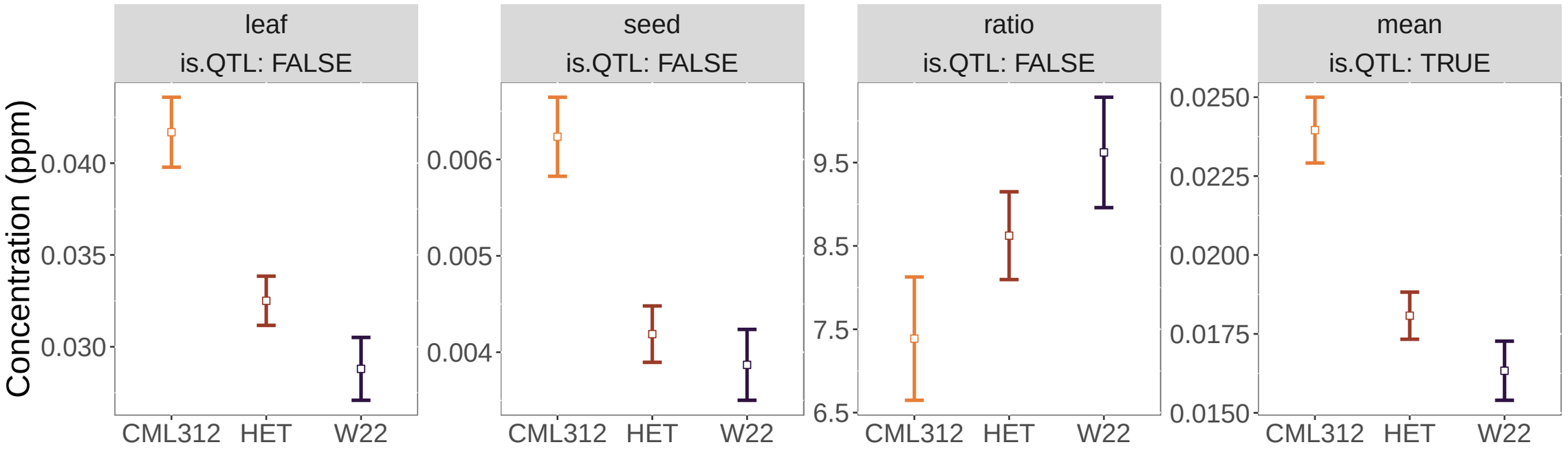
- CML312
- HET
- W22

Ion: Cd

Effect plots for Cd_leaf QTL in position 2@58



Effect plots for Cd_mean QTL in position 2@58



Ion: Co

Effect plots for Co_leaf QTL in position 1@84

leaf
is.QTL: TRUE

seed
is.QTL: FALSE

ratio
is.QTL: FALSE

mean
is.QTL: FALSE

Concentration (ppm)

0.07
0.06
0.05

0.00475
0.00450
0.00425
0.00400

15
14
13

0.036
0.032
0.028
0.024

CML312 HET W22

Genotype
CML312
HET
W22

Ion: Co

Effect plots for Co_leaf QTL in position 10@101

leaf
is.QTL: TRUE

seed
is.QTL: FALSE

ratio
is.QTL: FALSE

mean
is.QTL: FALSE

Concentration (ppm)

0.065
0.060
0.055
0.050

0.0046
0.0044
0.0042

16
15
14
13
12

0.034
0.032
0.030
0.028

CML312 HET W22

Genotype
CML312
HET
W22

Ion: Co

Effect plots for Co_leaf QTL in position 4@70

leaf
is.QTL: TRUE

seed
is.QTL: FALSE

ratio
is.QTL: FALSE

mean
is.QTL: FALSE

Concentration (ppm)

0.075
0.070
0.065
0.060
0.055
0.050

0.0048
0.0046
0.0044
0.0042

16
14
12

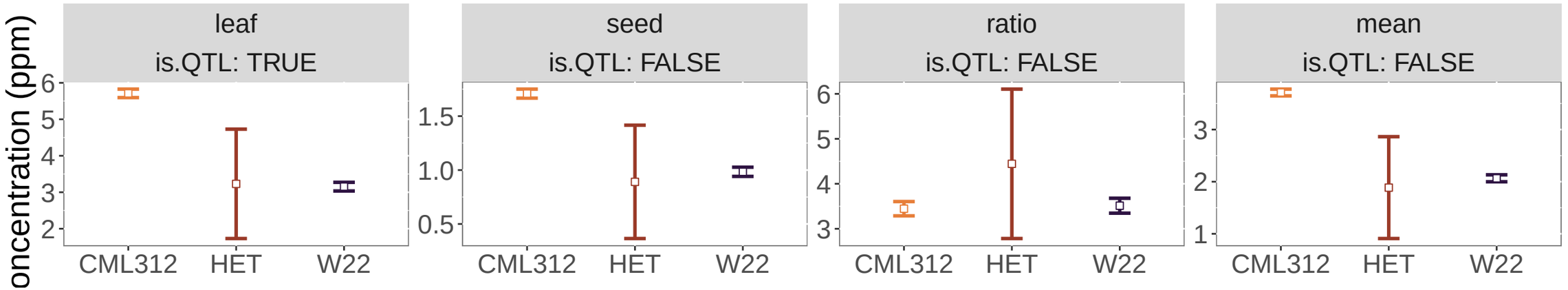
0.040
0.035
0.030

CML312 HET W22

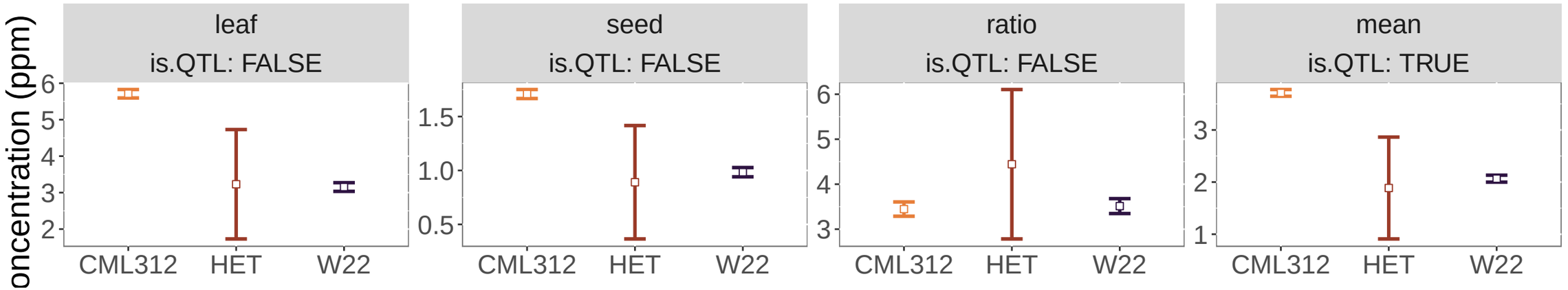
Genotype
CML312
HET
W22

Ion: Cu

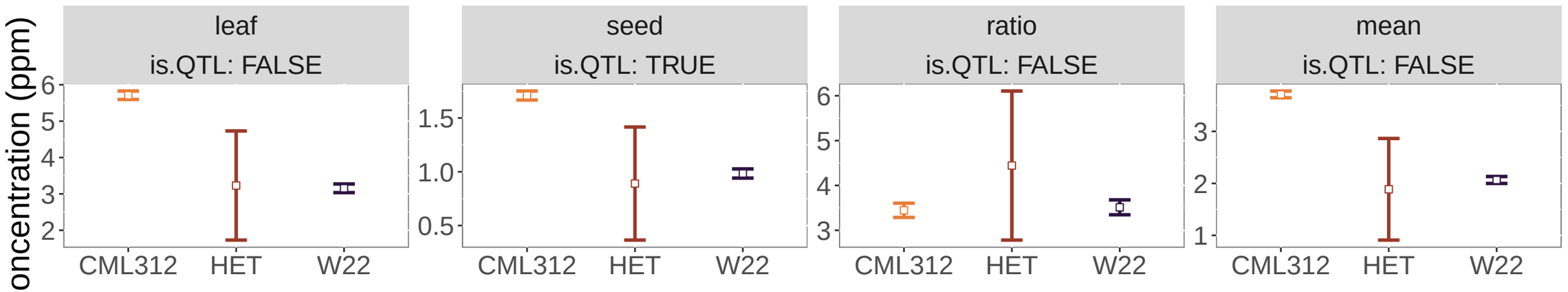
Effect plots for Cu_leaf QTL in position 5@0

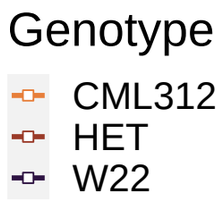


Effect plots for Cu_mean QTL in position 5@0



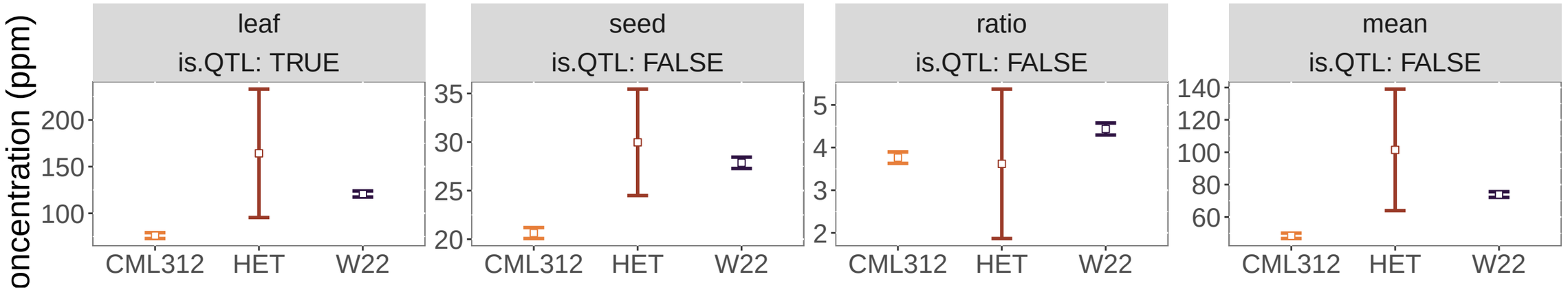
Effect plots for Cu_seed QTL in position 5@0



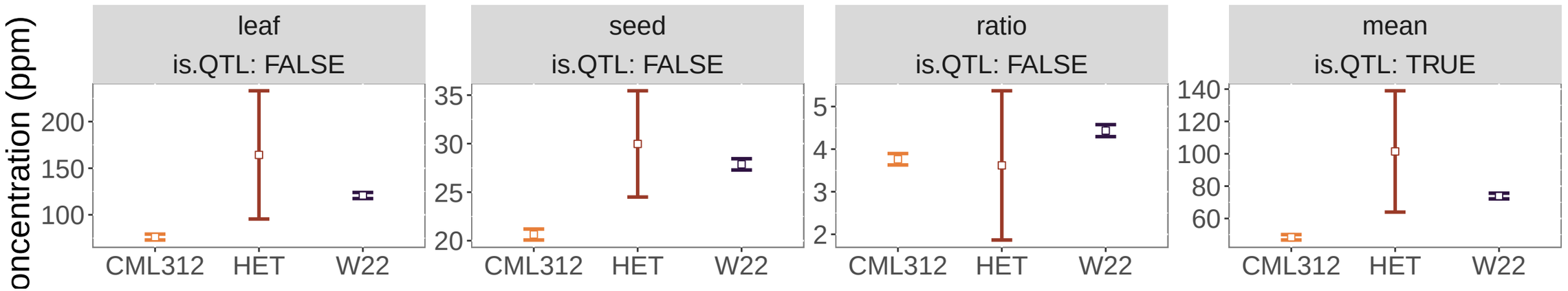


Ion: Fe

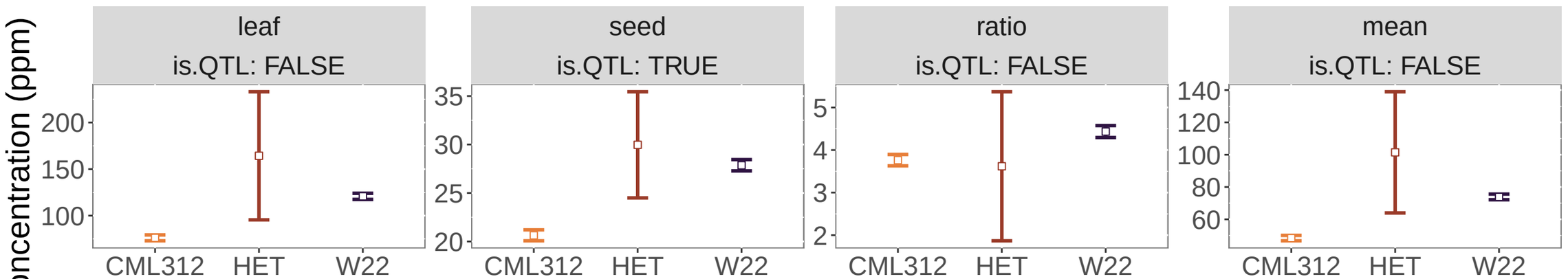
Effect plots for Fe_leaf QTL in position 5@0



Effect plots for Fe_mean QTL in position 5@0

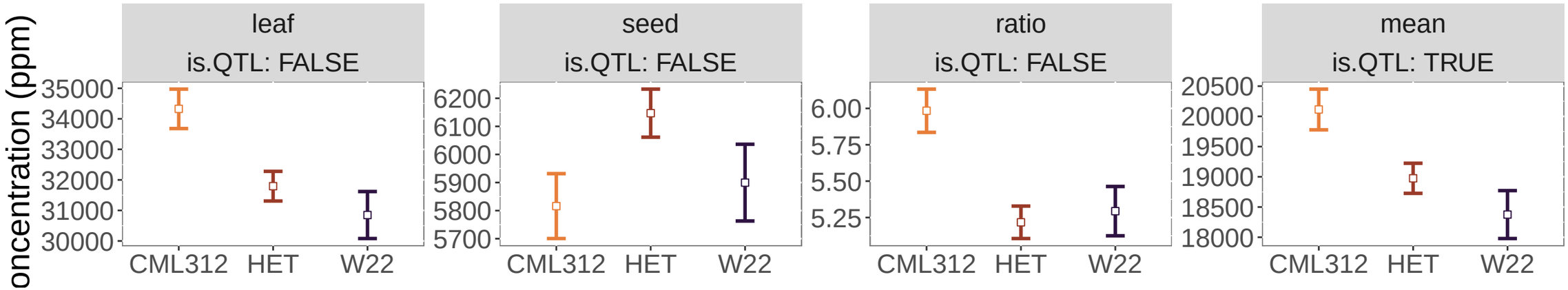


Effect plots for Fe_seed QTL in position 5@0

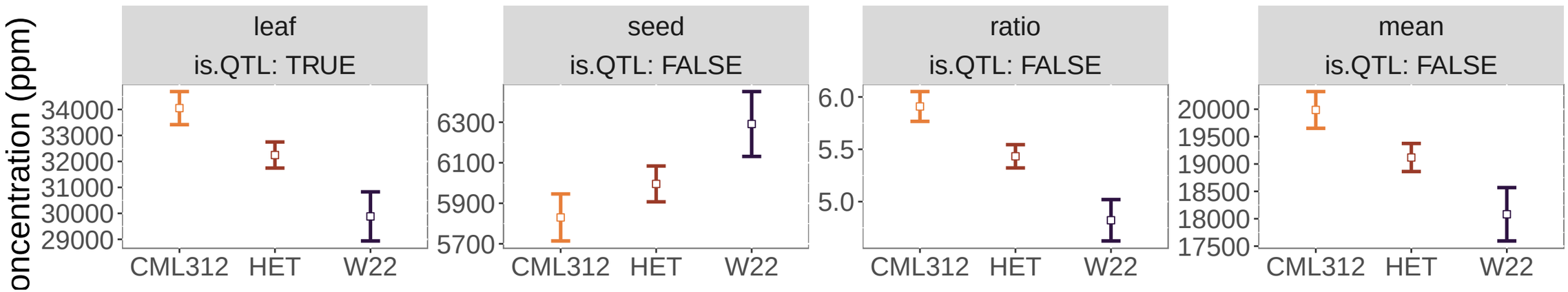


Ion: K

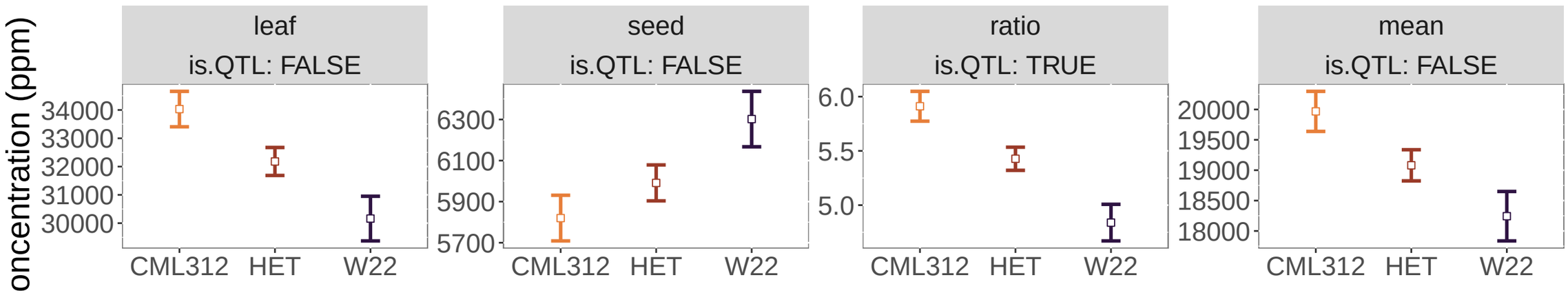
Effect plots for K_mean QTL in position 3@108



Effect plots for K_leaf QTL in position 3@125

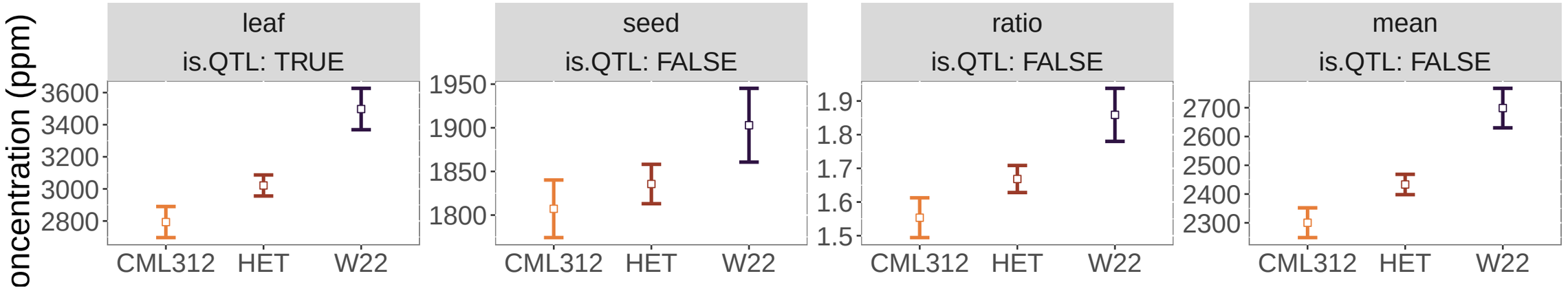


Effect plots for K_ratio QTL in position 3@131

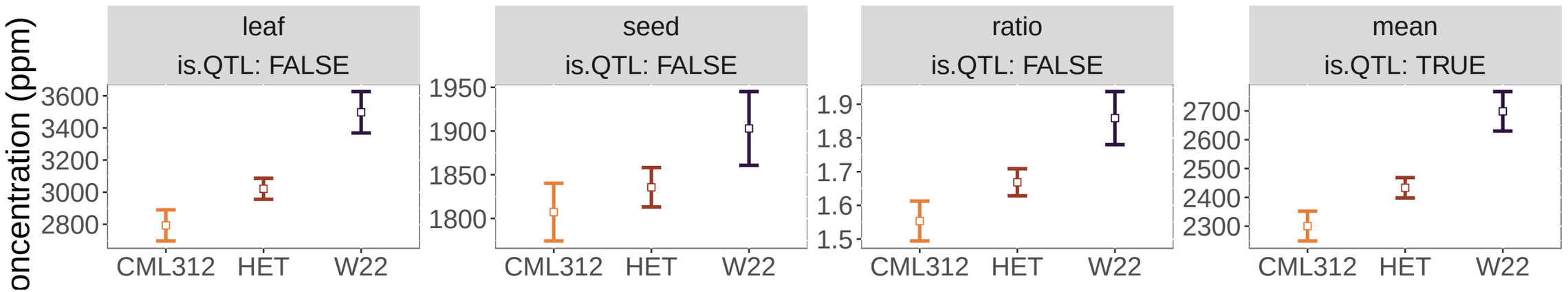


Ion: Mg

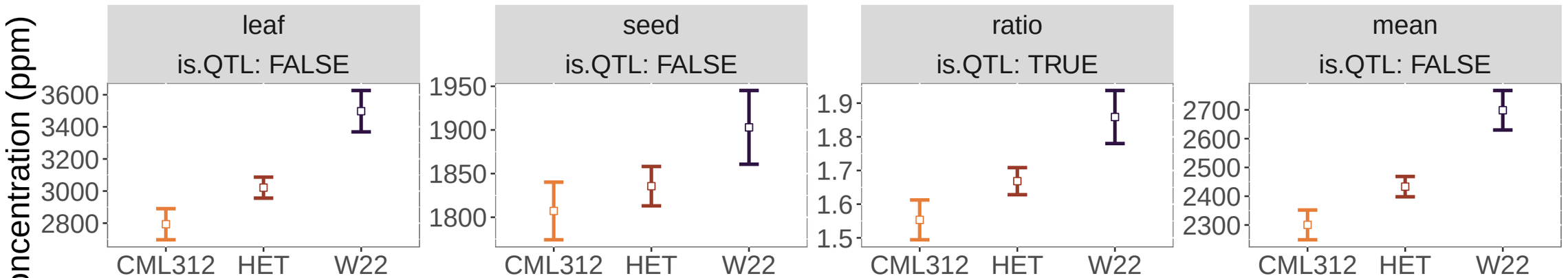
Effect plots for Mg_leaf QTL in position 1@154



Effect plots for Mg_mean QTL in position 1@154

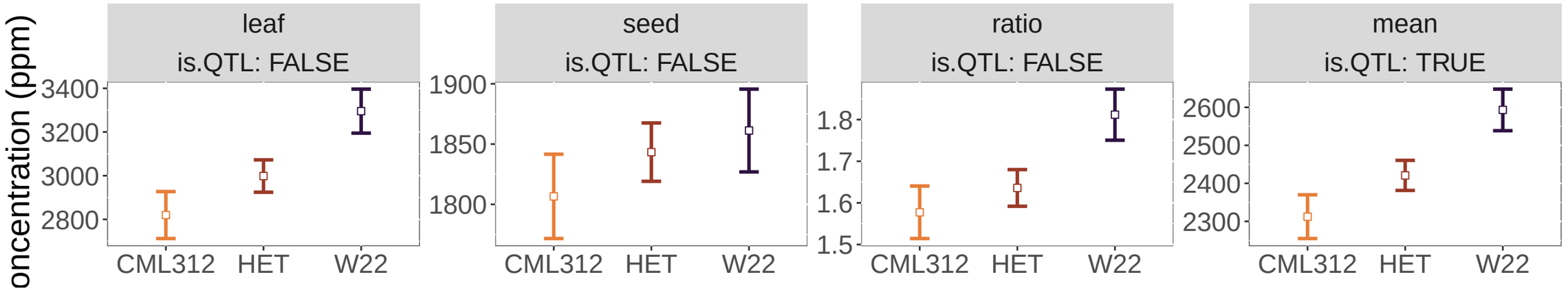


Effect plots for Mg_ratio QTL in position 1@154

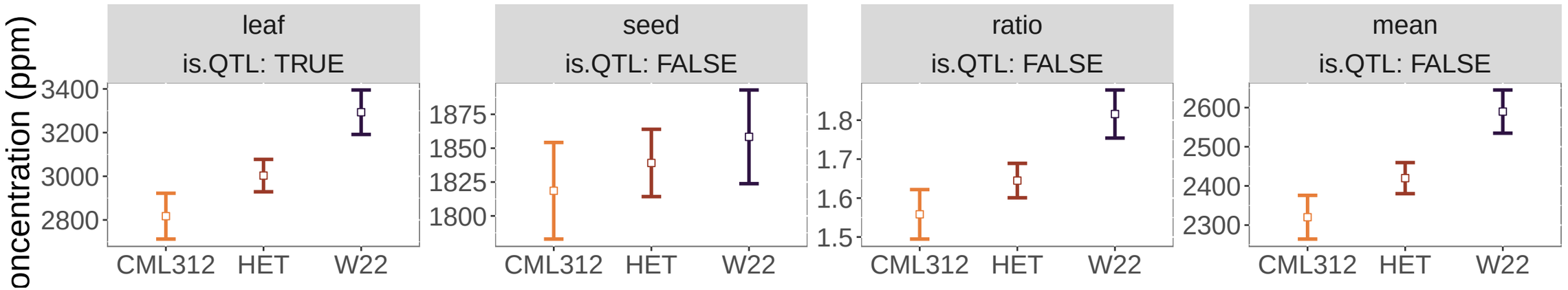


Ion: Mg

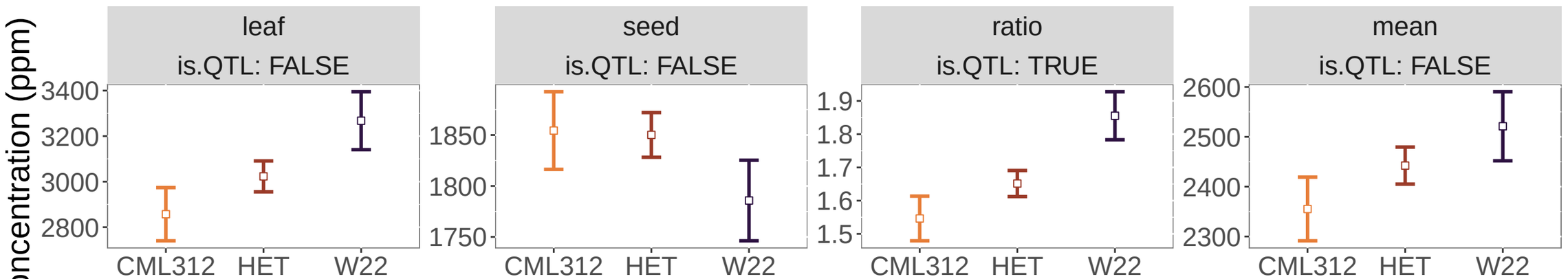
Effect plots for Mg_mean QTL in position 3@28



Effect plots for Mg_leaf QTL in position 3@30

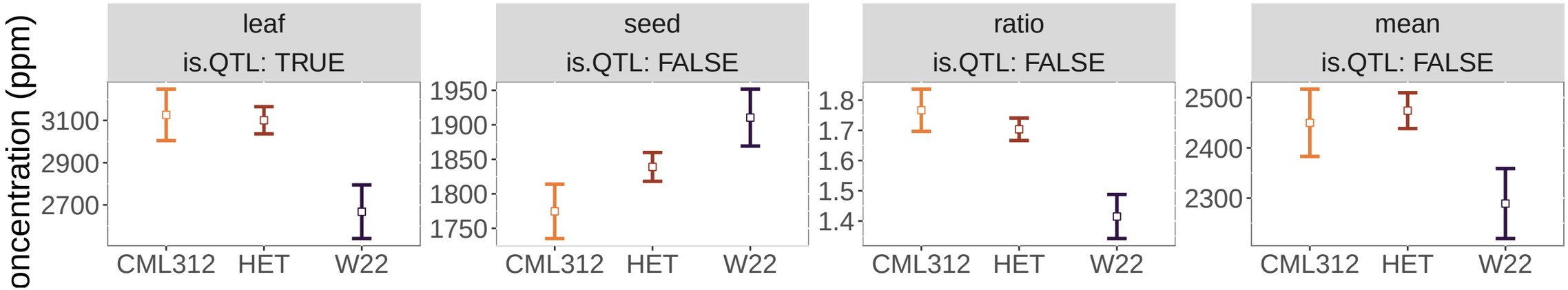


Effect plots for Mg_ratio QTL in position 3@66

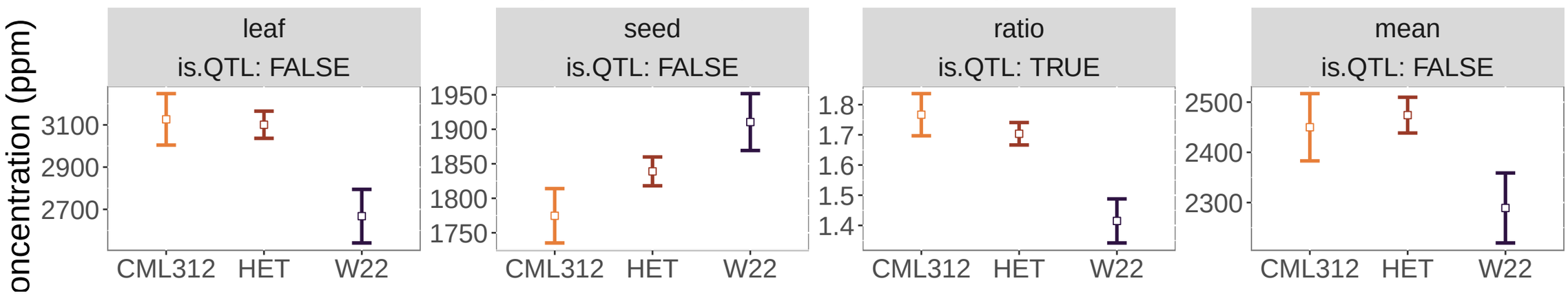


Ion: Mg

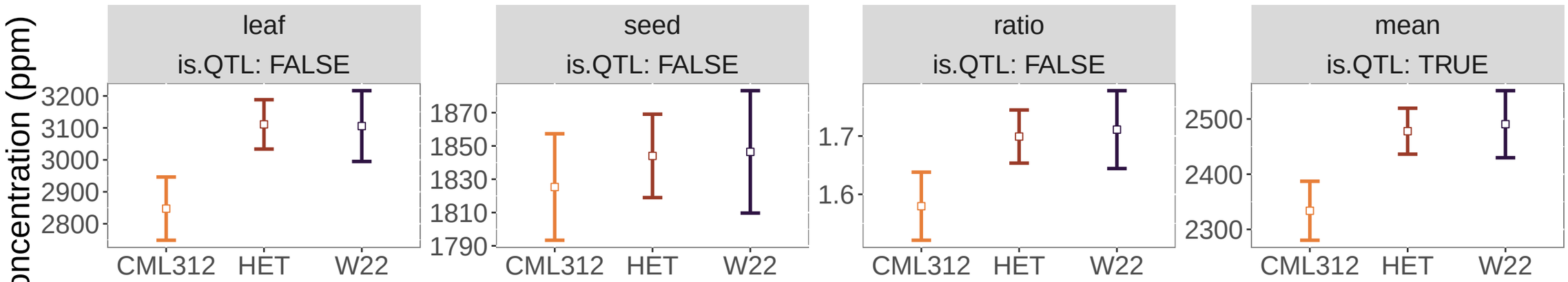
Effect plots for Mg_leaf QTL in position 7@45



Effect plots for Mg_ratio QTL in position 7@45

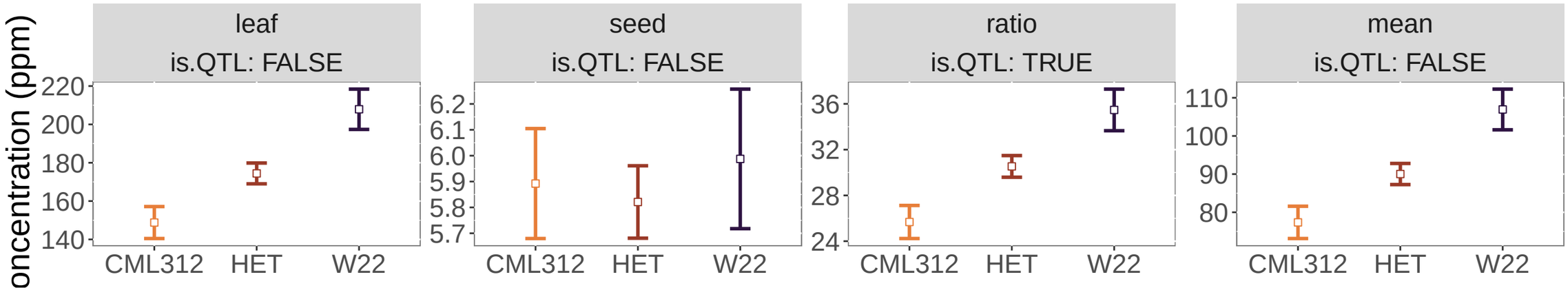


Effect plots for Mg_mean QTL in position 7@117

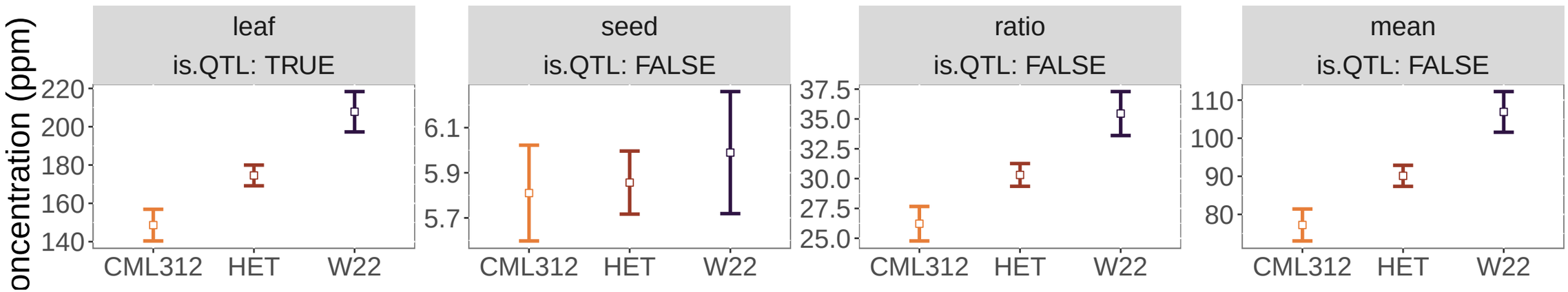


Ion: Mn

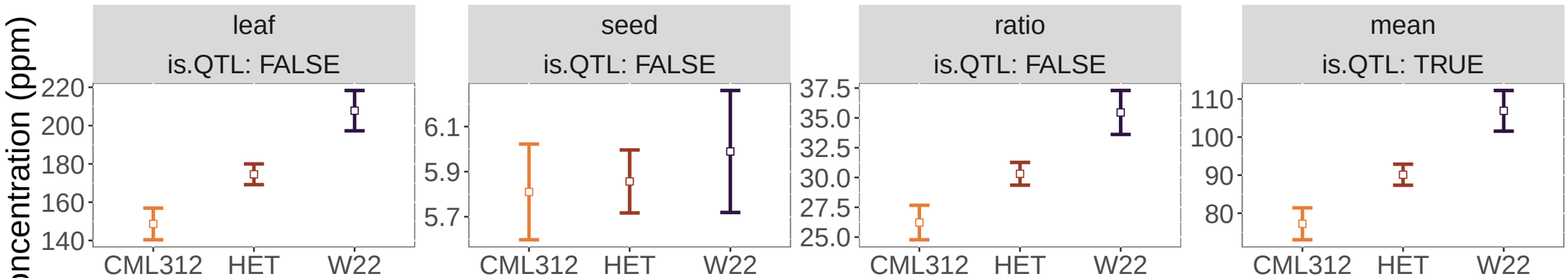
Effect plots for Mn_ratio QTL in position 1@155



Effect plots for Mn_leaf QTL in position 1@156

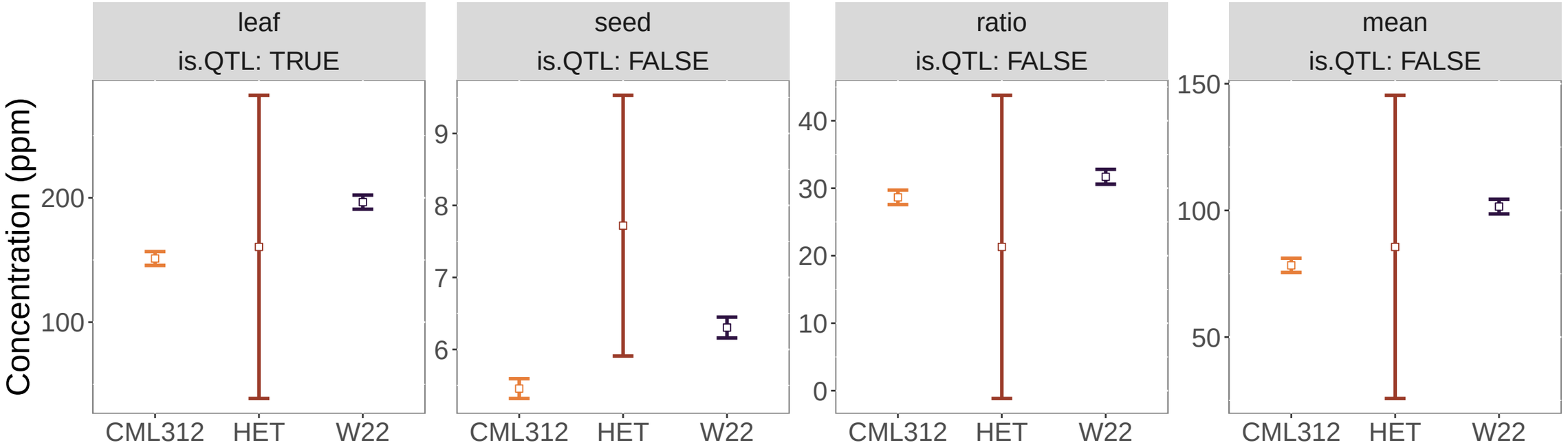


Effect plots for Mn_mean QTL in position 1@156

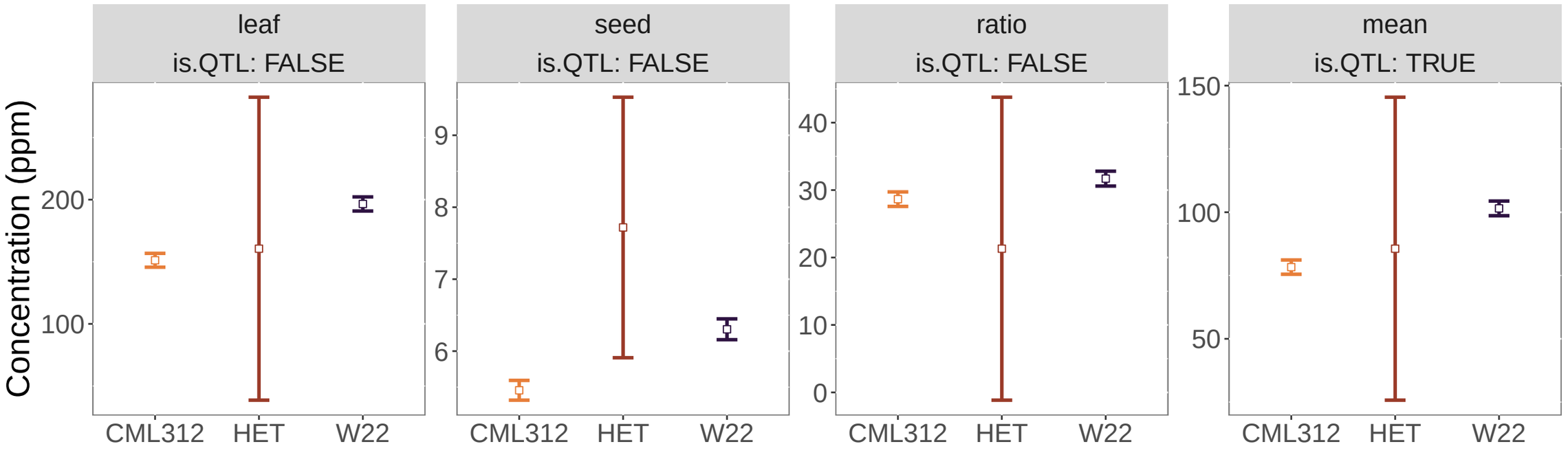


Ion: Mn

Effect plots for Mn_leaf QTL in position 5@0



Effect plots for Mn_mean QTL in position 5@0



Ion: Mo

Effect plots for Mo_mean QTL in position 5@0

leaf
is.QTL: FALSE

seed
is.QTL: FALSE

ratio
is.QTL: FALSE

mean
is.QTL: TRUE

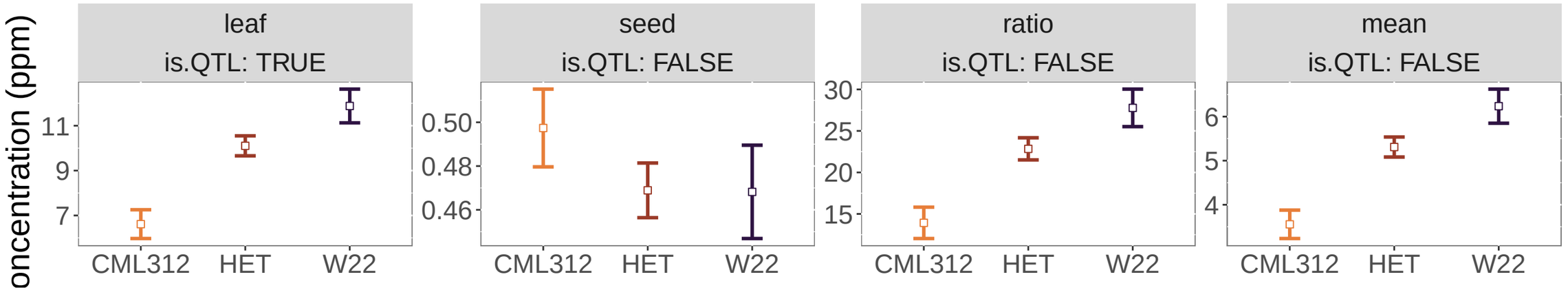
Concentration (ppm)

CML312 HET W22

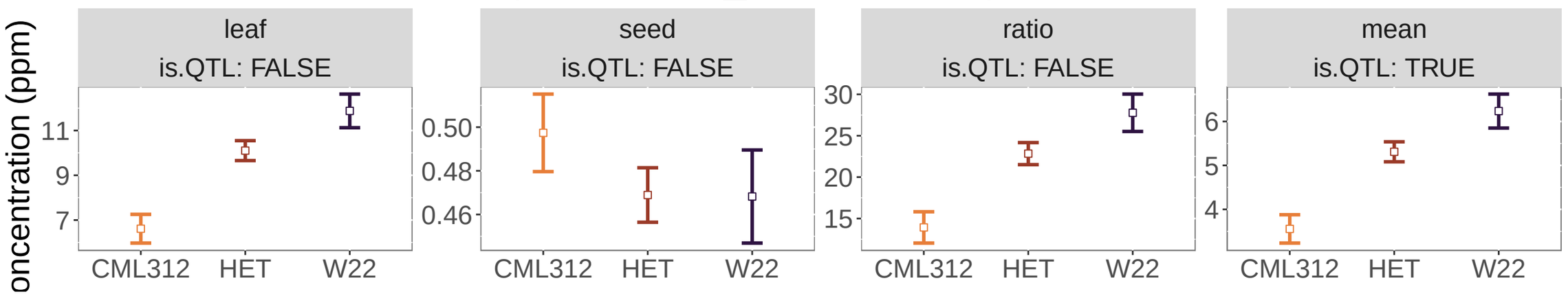
Genotype
CML312
HET
W22

Ion: Na

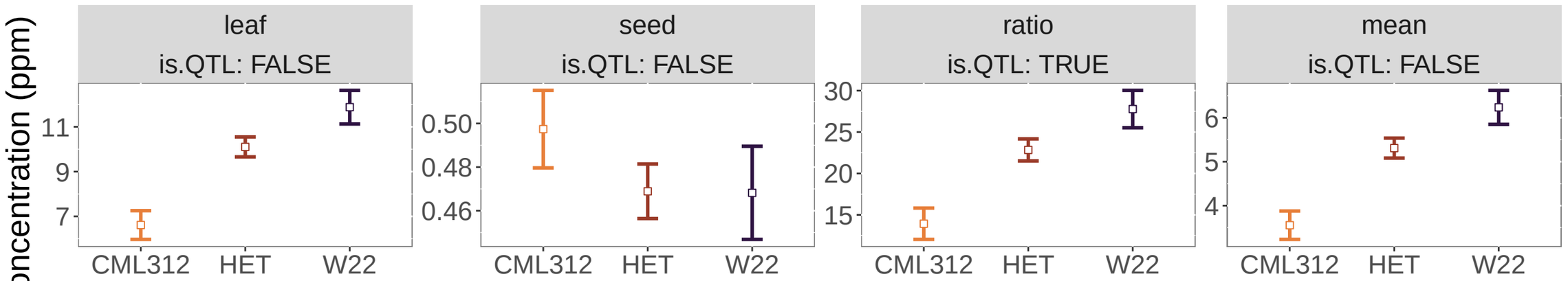
Effect plots for Na_leaf QTL in position 9@65



Effect plots for Na_mean QTL in position 9@65

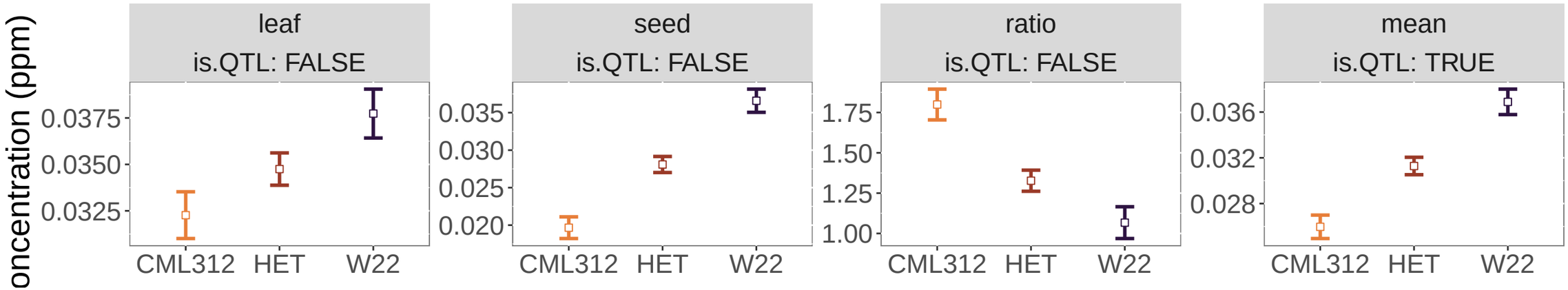


Effect plots for Na_ratio QTL in position 9@65

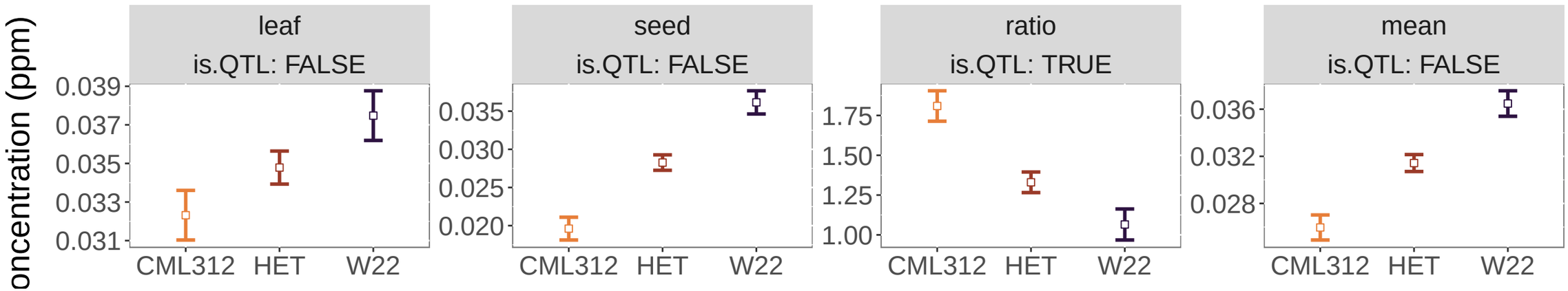


Ion: Ni

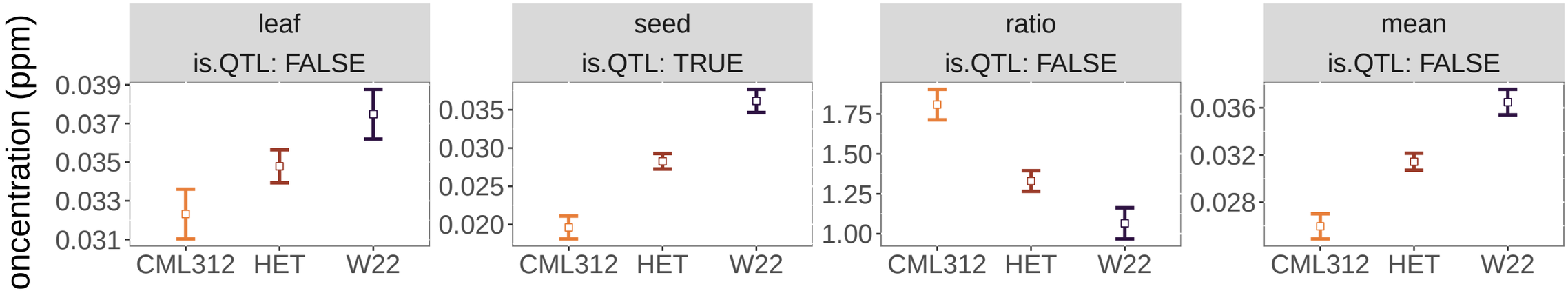
Effect plots for Ni_mean QTL in position 9@1



Effect plots for Ni_ratio QTL in position 9@2



Effect plots for Ni_seed QTL in position 9@2



Ion: P

Effect plots for P_mean QTL in position 1@129

leaf
is.QTL: FALSE

seed
is.QTL: FALSE

ratio
is.QTL: FALSE

mean
is.QTL: TRUE

Concentration (ppm)

2600
2500
2400
2300

3000
2900
2800
2700

0.92
0.90
0.88
0.86

2800
2700
2600
2500

CML312 HET W22

Genotype
CML312
HET
W22

Ion: Rb

Effect plots for Rb_leaf QTL in position 3@130

leaf
is.QTL: TRUE

seed
is.QTL: FALSE

ratio
is.QTL: FALSE

mean
is.QTL: FALSE

Concentration (ppm)

7.5
7.0
6.5
6.0

1.8
1.7
1.6

5.2
4.8
4.4
4.0

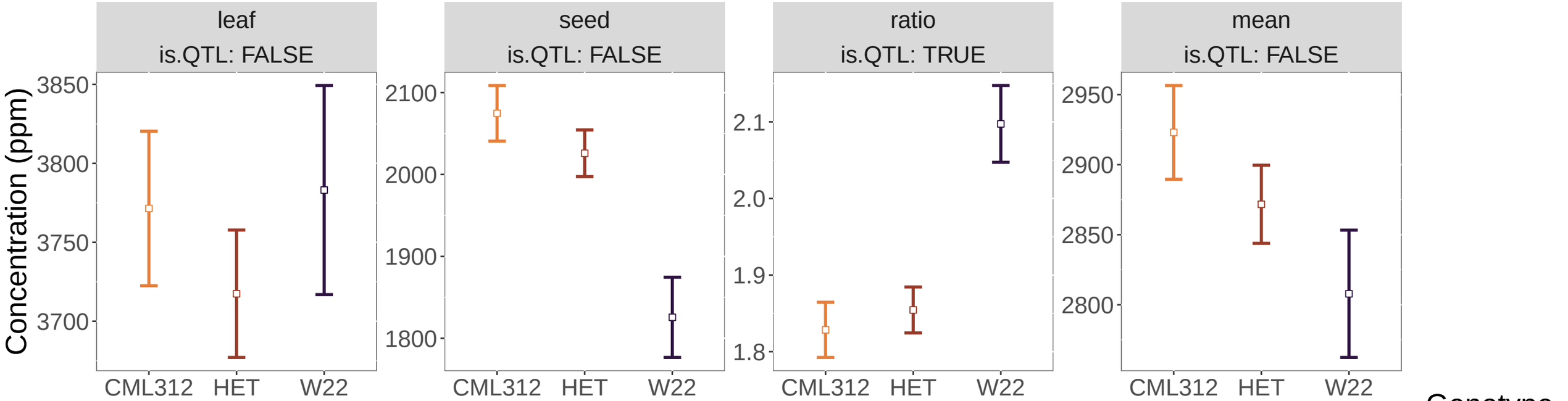
4.50
4.25
4.00

CML312 HET W22

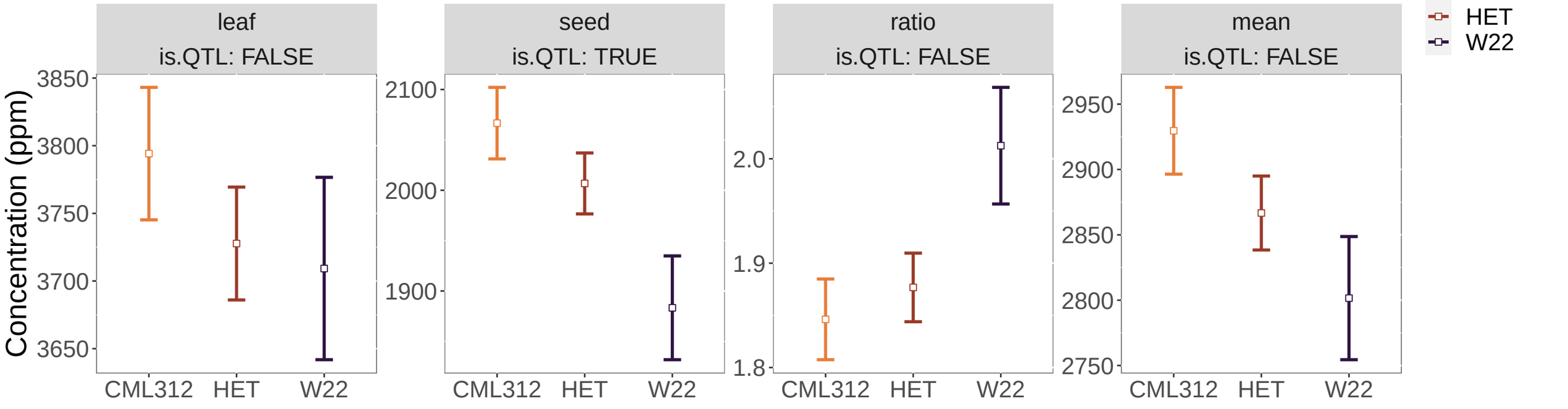
Genotype
CML312
HET
W22

Ion: S

Effect plots for S_ratio QTL in position 1@60

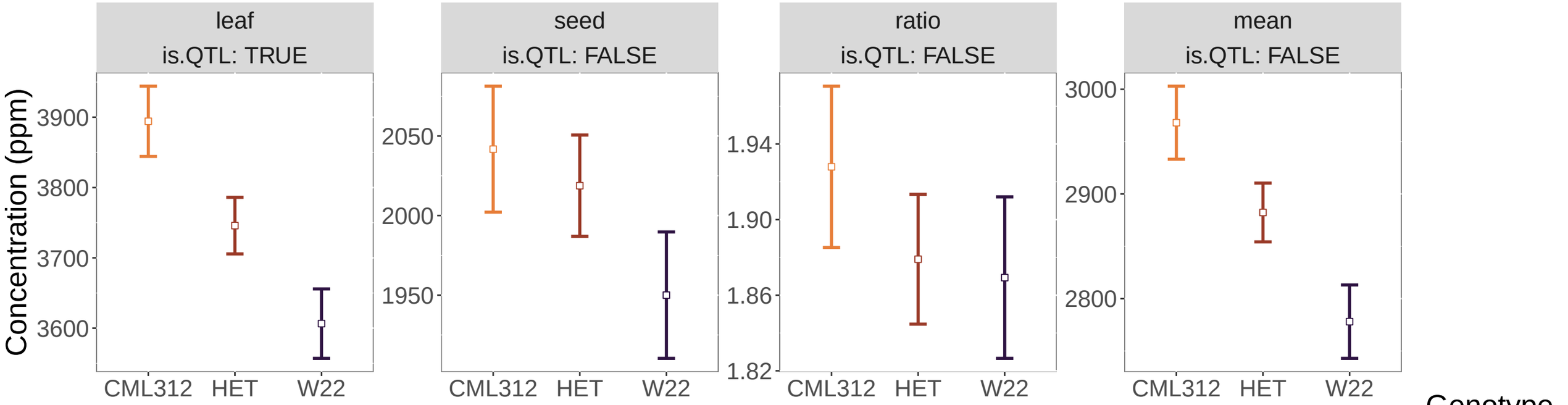


Effect plots for S_seed QTL in position 1@78

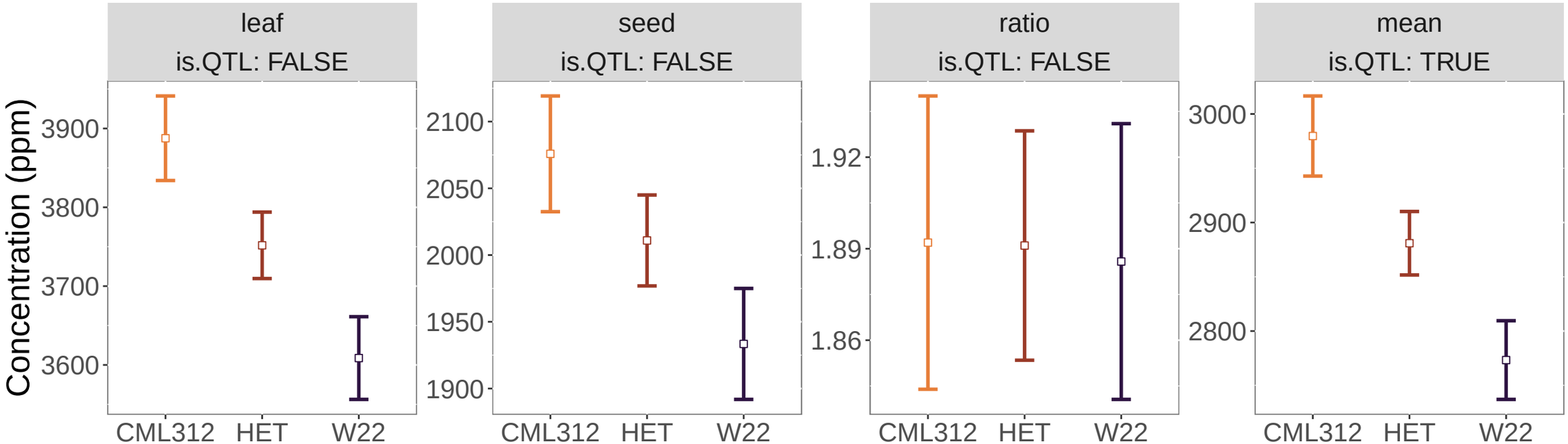


Ion: S

Effect plots for S_leaf QTL in position 2@6



Effect plots for S_mean QTL in position 2@11



Genotype

- CML312
- HET
- W22

Ion: Se

Effect plots for Se_mean QTL in position 5@0

leaf
is.QTL: FALSE

seed
is.QTL: FALSE

ratio
is.QTL: FALSE

mean
is.QTL: TRUE

Concentration (ppm)

0.024
0.020
0.016
0.012

0.016
0.012
0.008

5
0

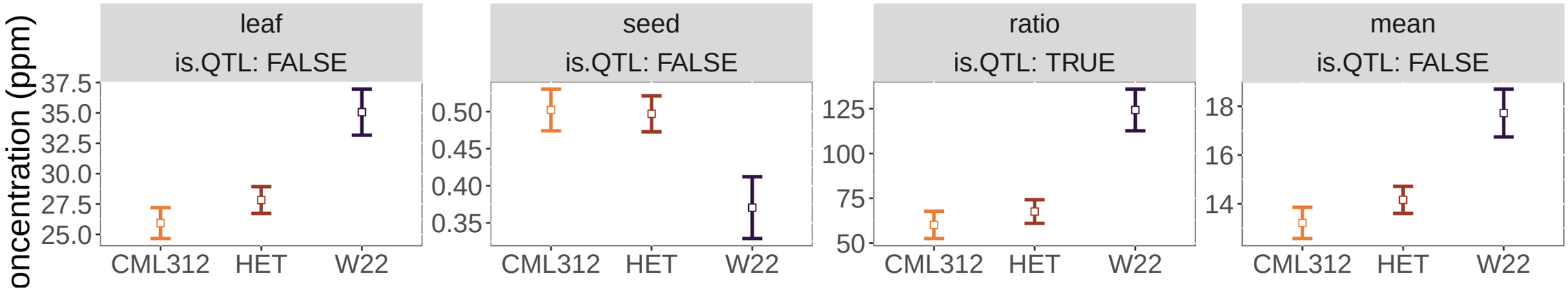
0.018
0.015
0.012
0.009

CML312 HET W22

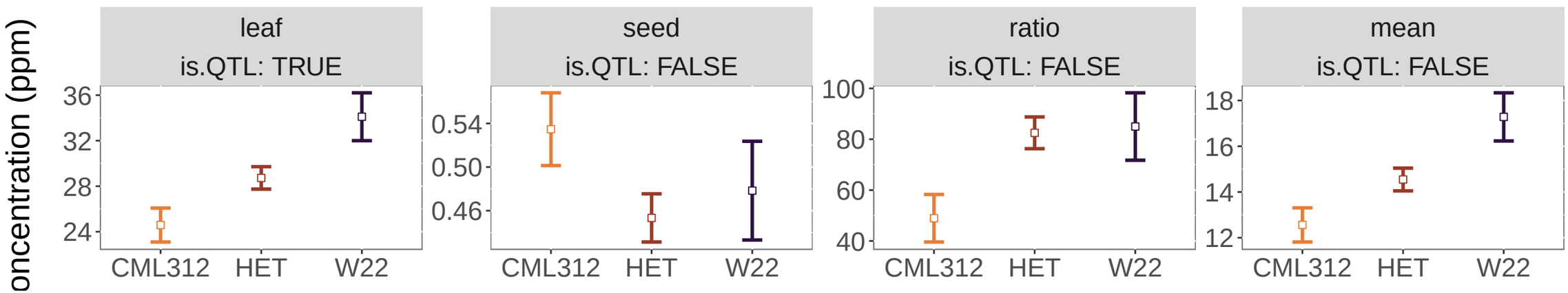
Genotype
CML312
HET
W22

Ion: Sr

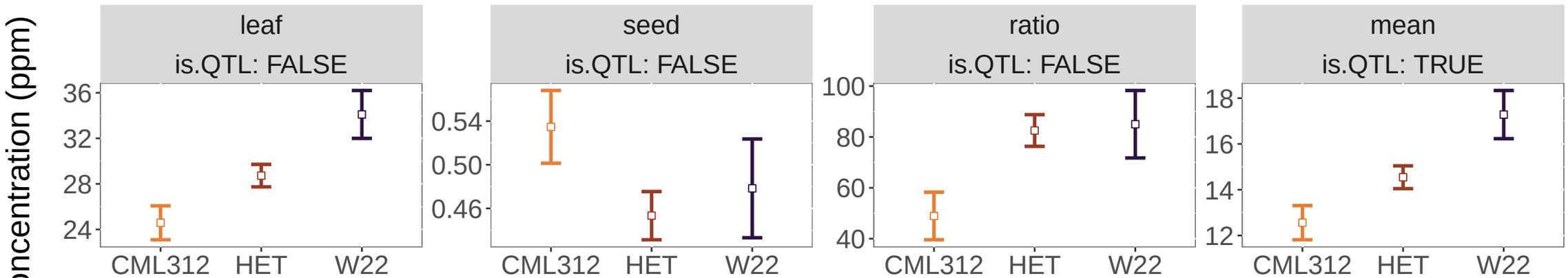
Effect plots for Sr_ratio QTL in position 1@67



Effect plots for Sr_leaf QTL in position 1@157



Effect plots for Sr_mean QTL in position 1@157



Ion: Sr

Effect plots for Sr_mean QTL in position 3@87

leaf
is.QTL: FALSE

seed
is.QTL: FALSE

ratio
is.QTL: FALSE

mean
is.QTL: TRUE

Concentration (ppm)

32.5
30.0
27.5
25.0
22.5

0.500
0.475
0.450
0.425

110
100
90
80
70
60
50

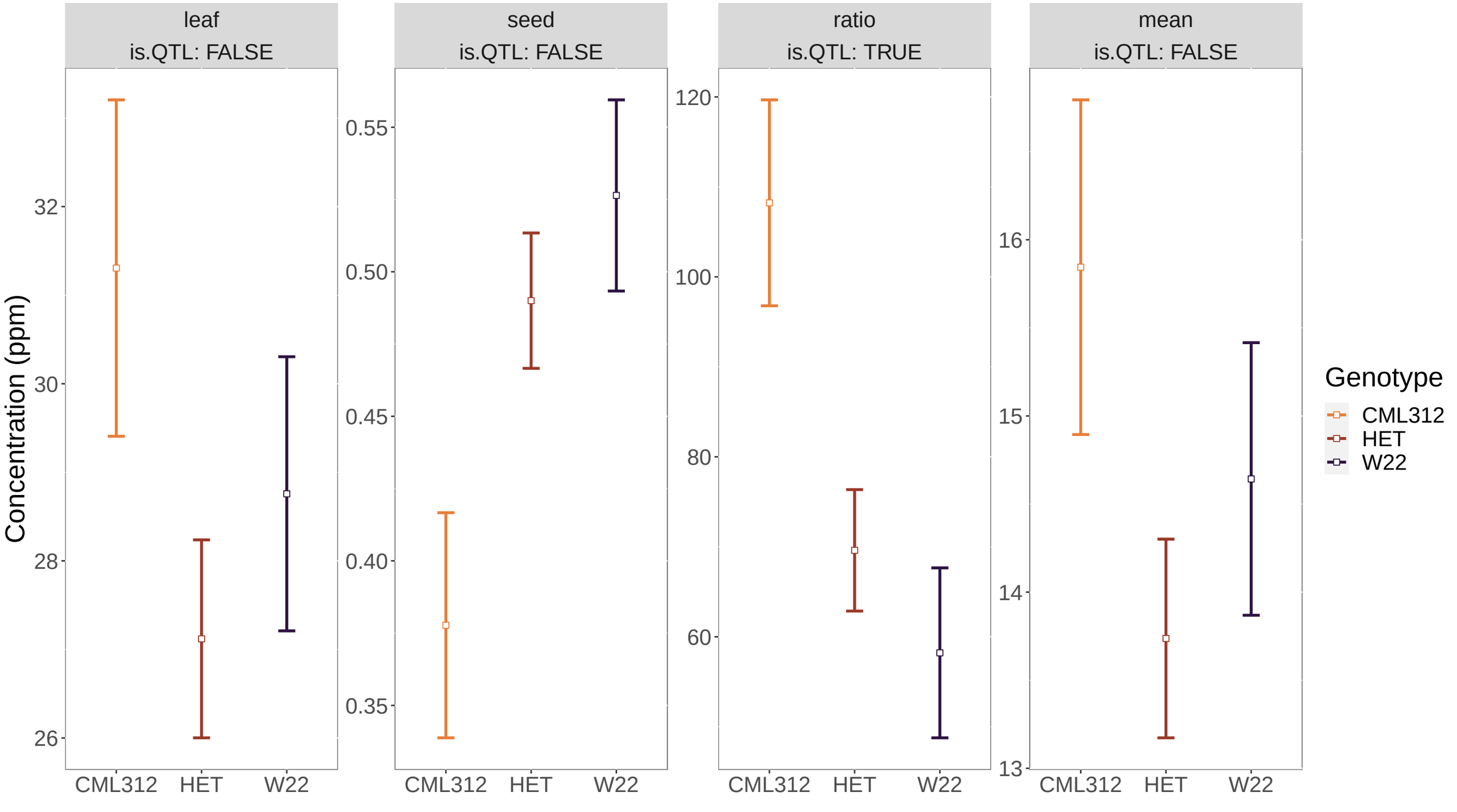
16
14
12

CML312 HET W22

Genotype
CML312
HET
W22

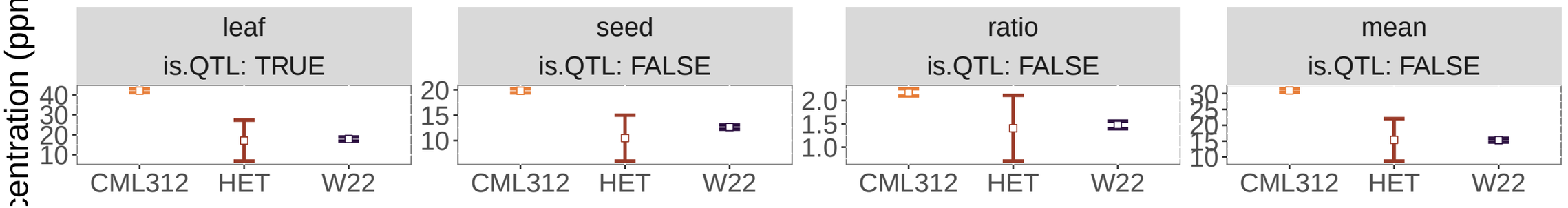
Ion: Sr

Effect plots for Sr_ratio QTL in position 5@44

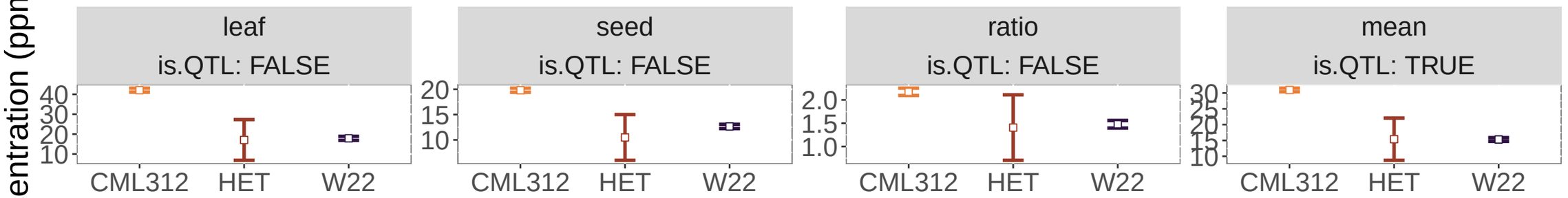


Ion: Zn

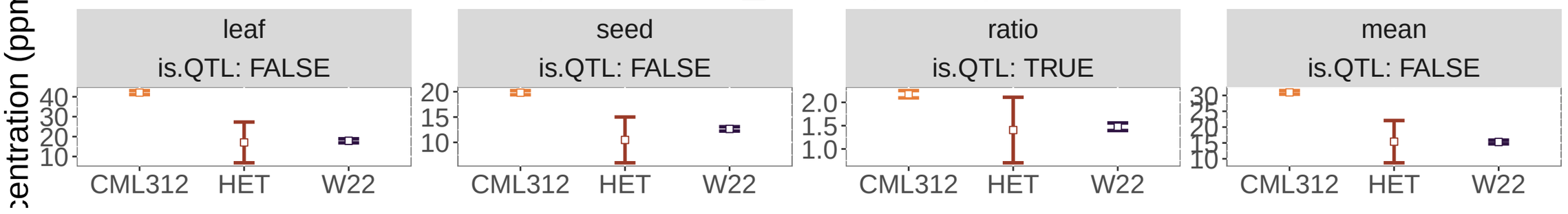
Effect plots for Zn_leaf QTL in position 5@0



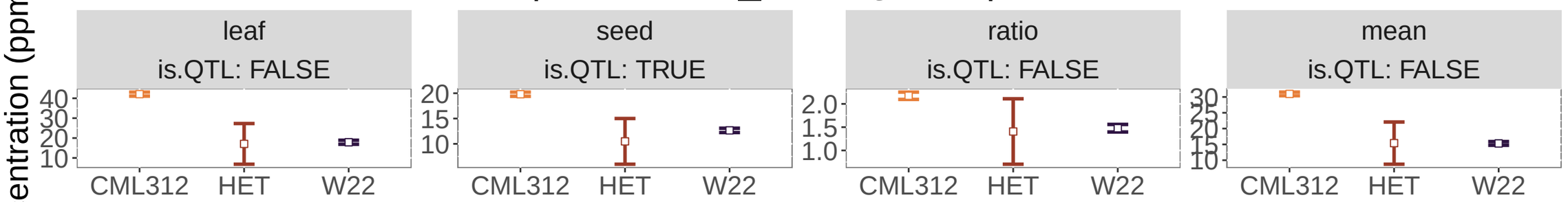
Effect plots for Zn_mean QTL in position 5@0



Effect plots for Zn_ratio QTL in position 5@0



Effect plots for Zn_seed QTL in position 5@0



centration (ppm)

Genotype

CML312

HET

W22