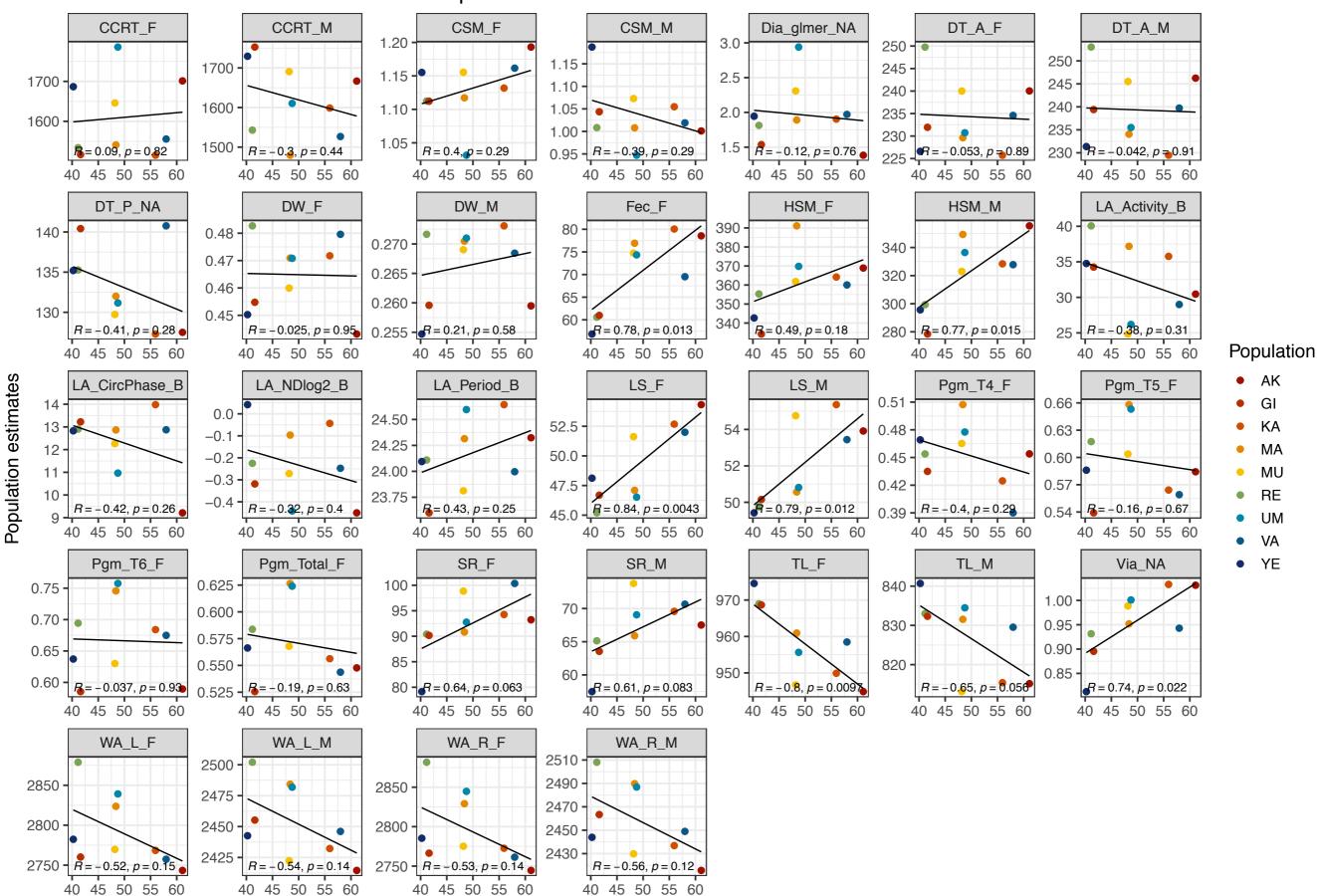
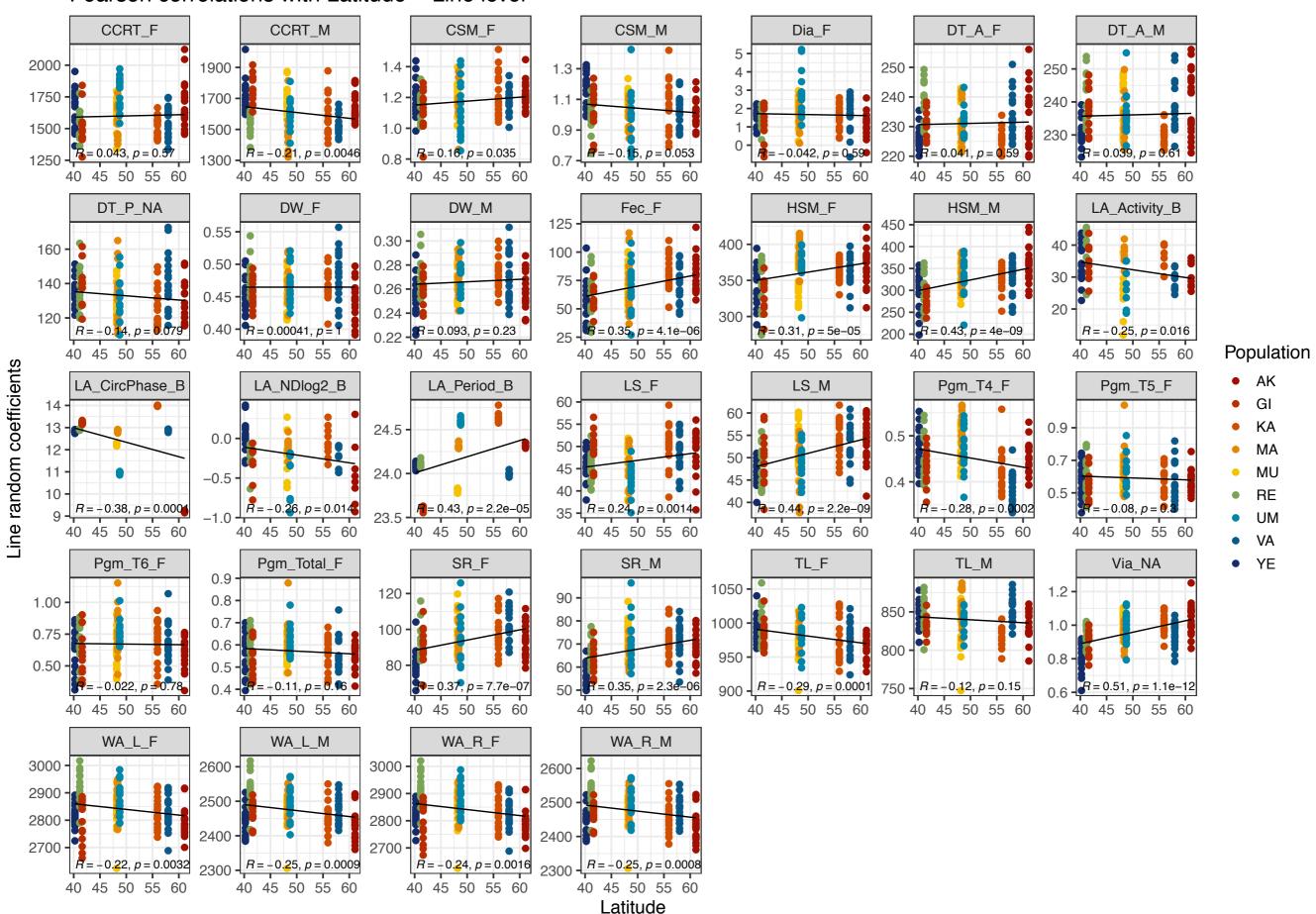
### Pearson correlations with Latitude - Population level

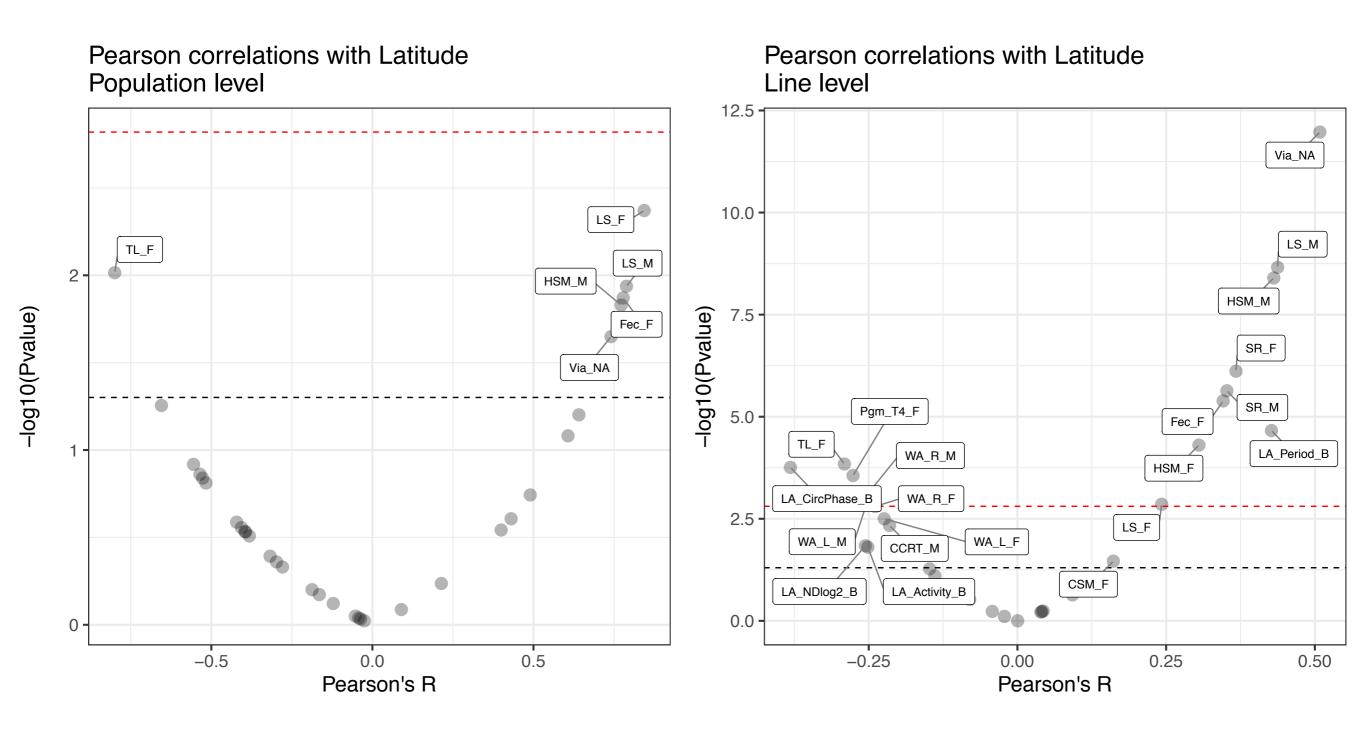


Latitude

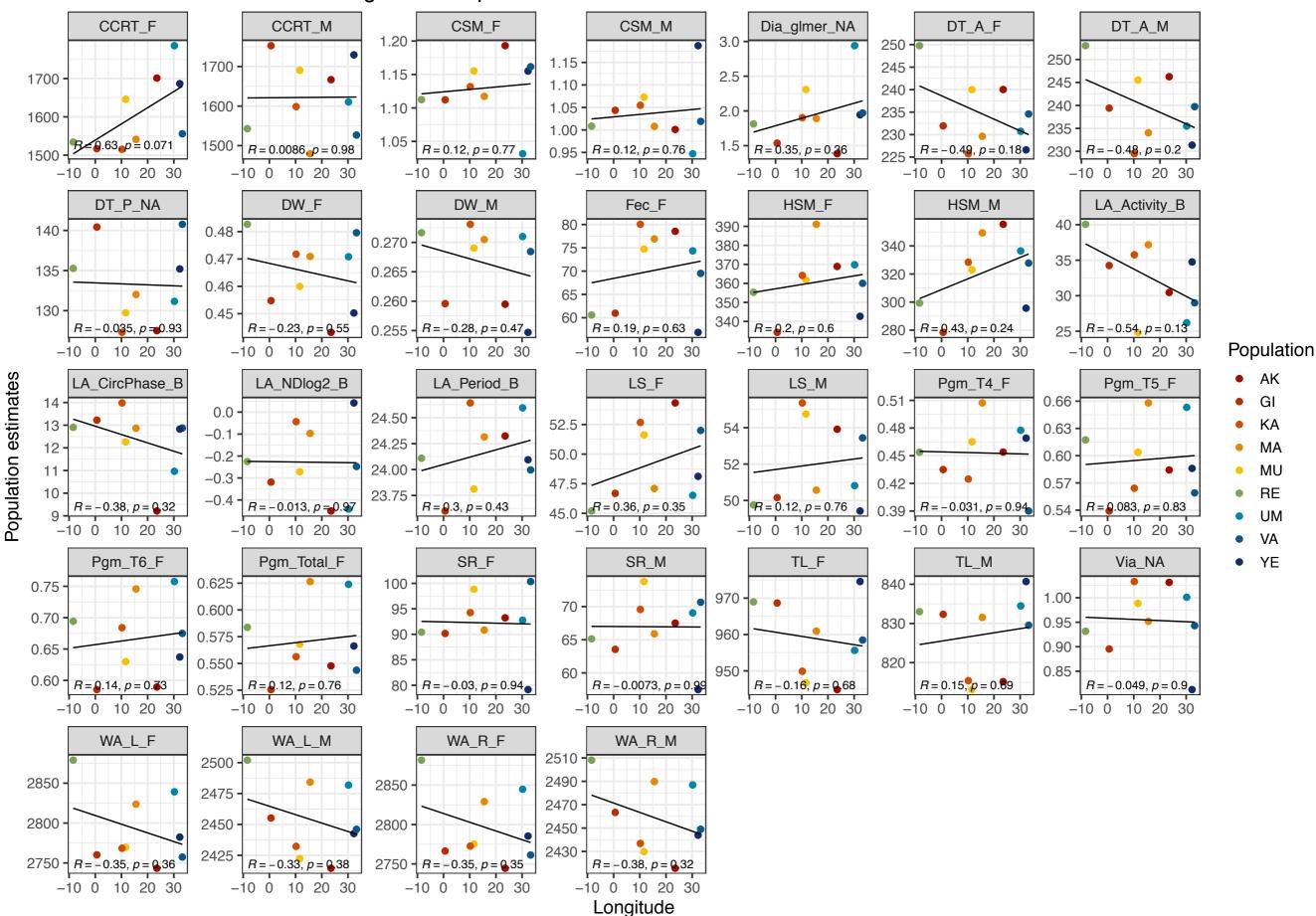
#### Pearson correlations with Latitude - Line level



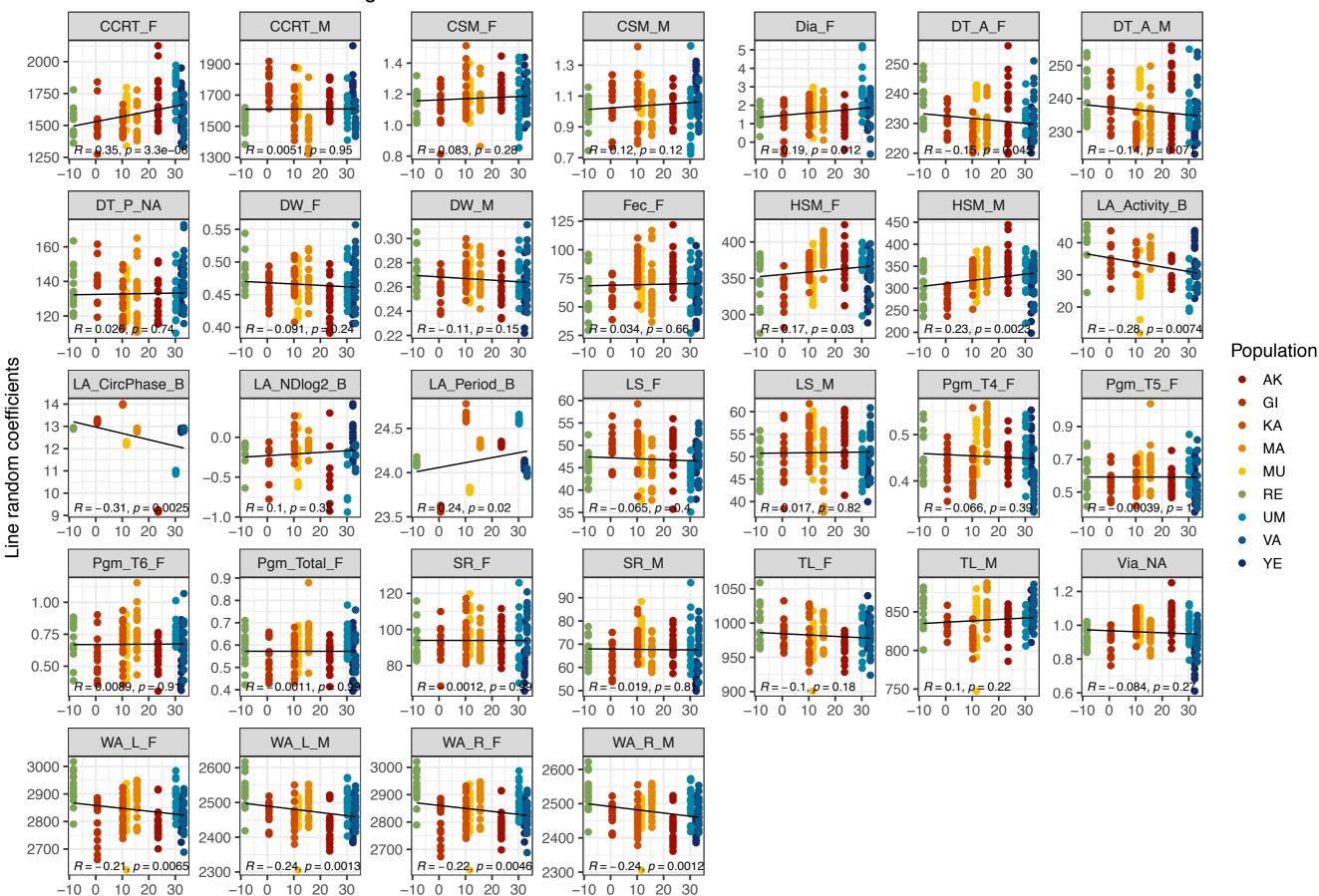
### Trait correlations with Latitude



#### Pearson correlations with Longitude – Population level

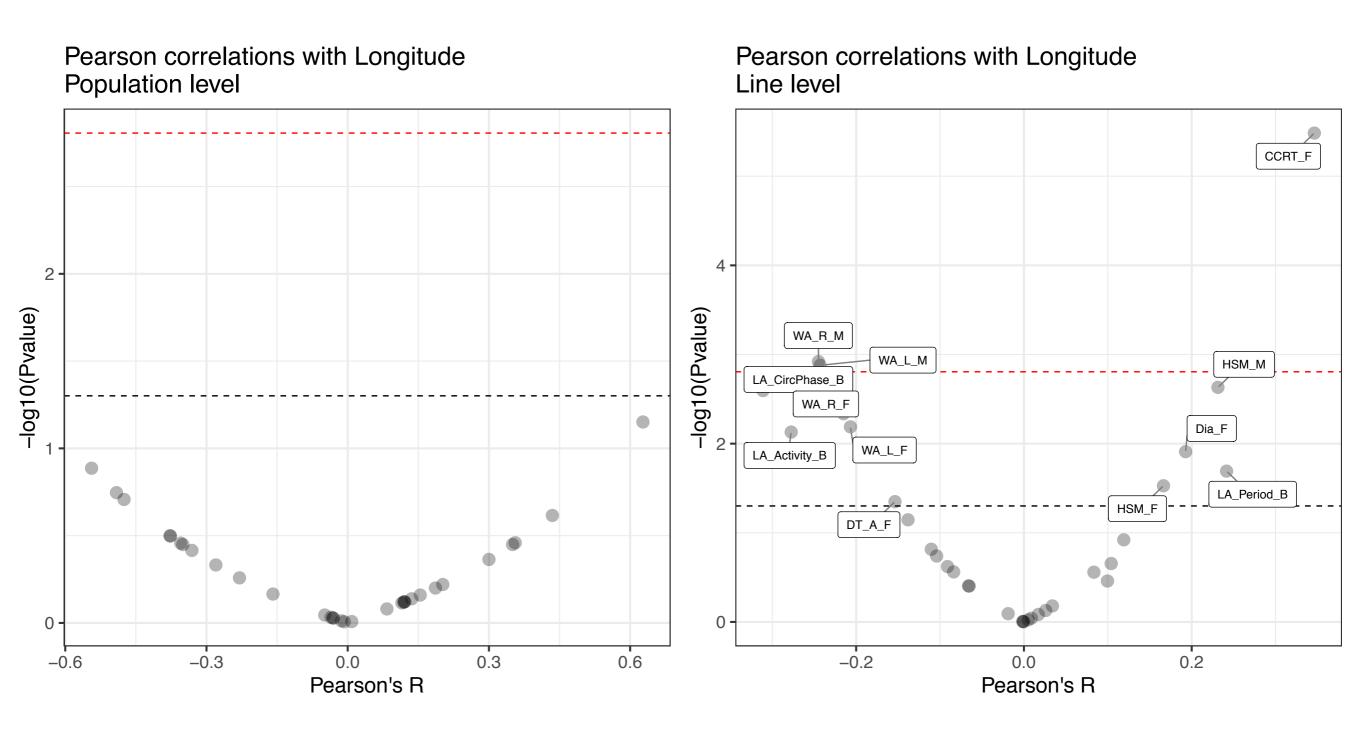


#### Pearson correlations with Longitude – Line level

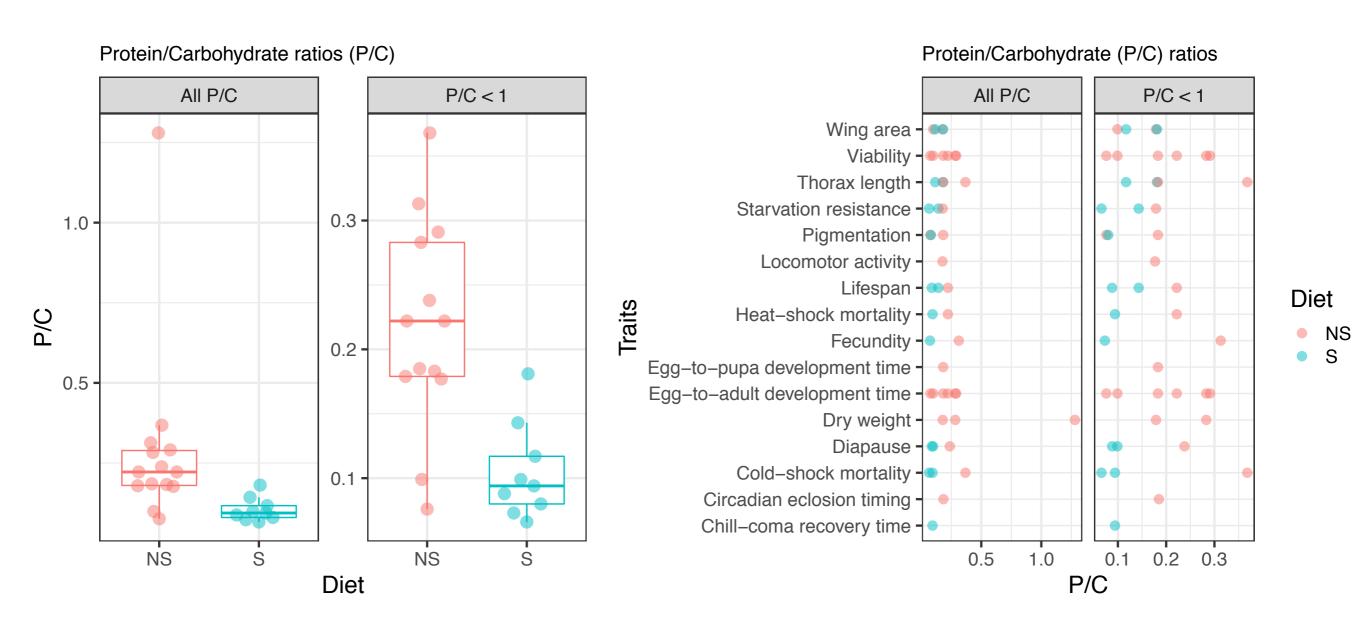


Longitude

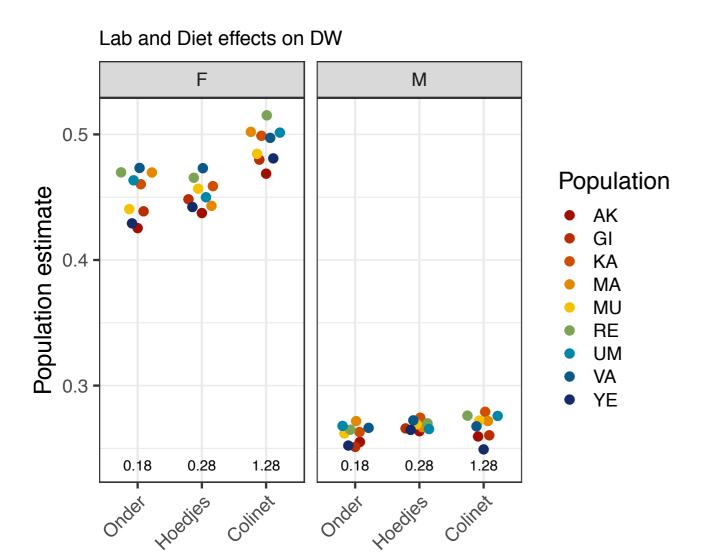
# Trait correlations with Longitude



### Variation in diets and P/C ratios



## Meta regression to the rescue - Dry Weight

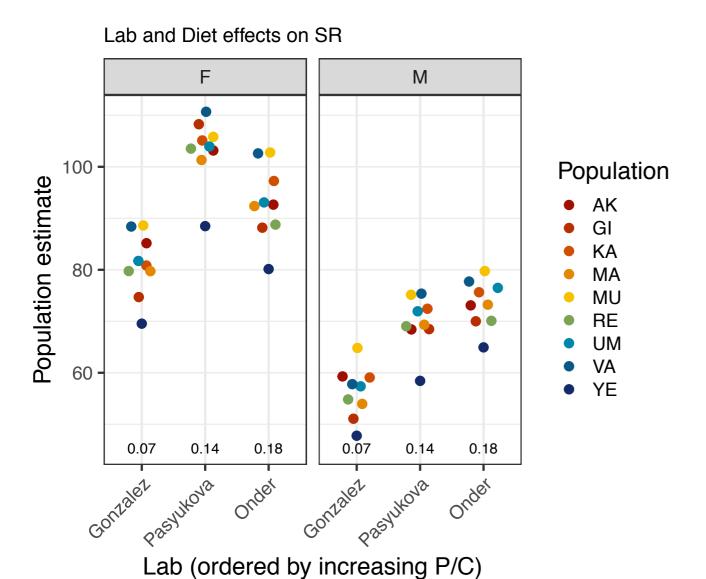


Lab (ordered by increasing P/C)

- Similar to a linear regression but in the meta analysis framework
- Comparable to subgroup meta analysis but takes it a step further
- Allow to test for the effect of several moderators

Moderators	Q	P value	R <sup>2</sup>
Pop	12.3918	0.1346	41.97%
Lab	40.8261	< .0001	77.82%
P/C	40.139	< .0001	77.25%
Pop + Lab	106.0470	< .0001	100.00%
Pop + P/C	105.5593	< .0001	100.00%

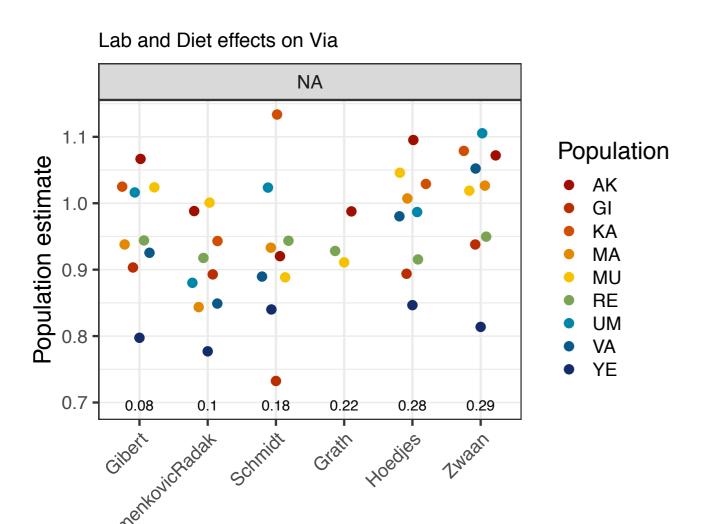
### Meta regression to the rescue - Starvation Resistance



- Similar to a linear regression but in the meta analysis framework
- Comparable to subgroup meta analysis but takes it a step further
- Allow to test for the effect of several moderators

Moderators	Q	P value	R <sup>2</sup>
Pop	10.7788	0.2145	35.13%
Lab	57.2981	< .0001	78.09%
P/C	54.6628	< .0001	76.85%
Pop + Lab	200.0104	< .0001	100.00%
Pop + P/C	197.2391	< .0001	100.00%

## Meta regression to the rescue - Viability



- Similar to a linear regression but in the meta analysis framework
- Comparable to subgroup meta analysis but takes it a step further
- Allow to test for the effect of several moderators

Moderators	Q	P value	$R^2$
Pop	71.5454	< .0001	75.19%
Lab	10.7279	0.0571	23.30%
P/C	4.5923	0.0321	11.19%
Pop + Lab	218.1964	< .0001	99.97%
Pop + P/C	103.0177	< .0001	84.80%

Lab (ordered by increasing P/C)

