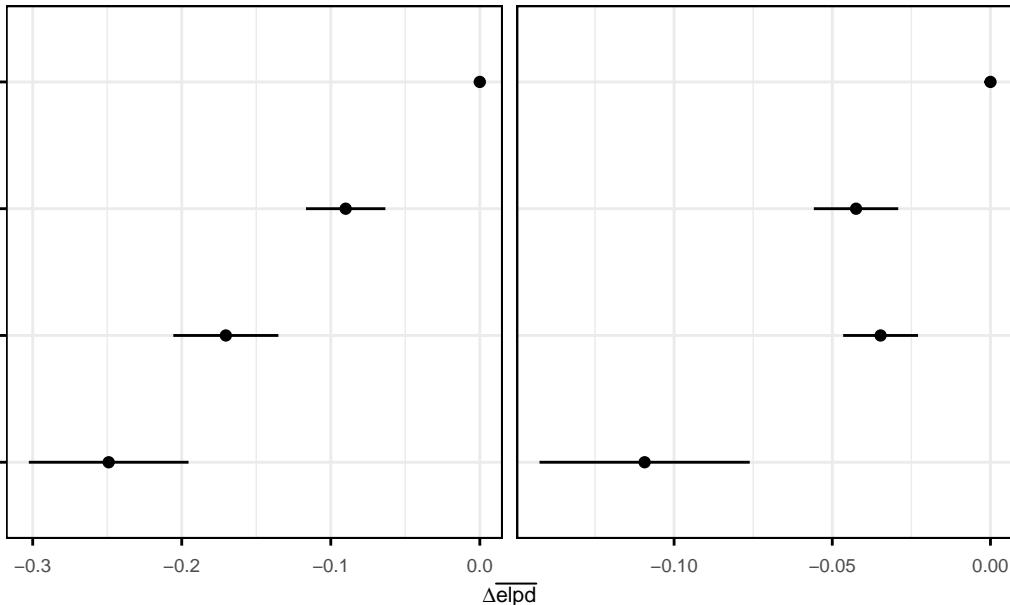


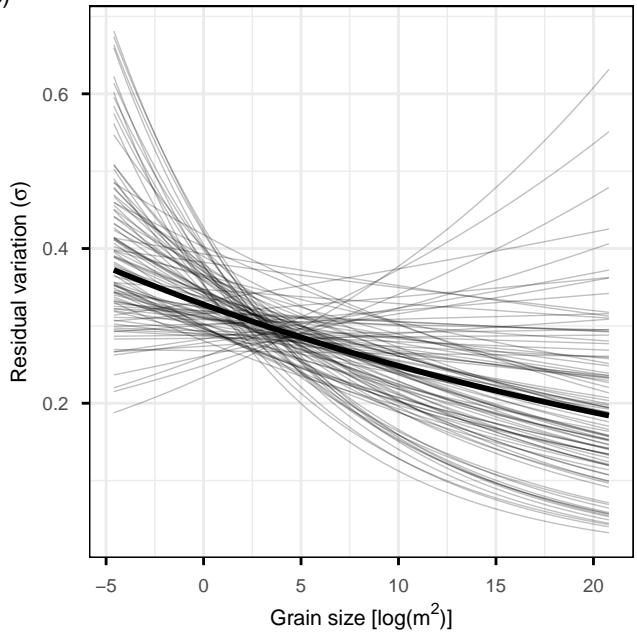
**Figure 1**(a) Stratified k-fold ( $k = 10$ ) cross validation

(b) Leave-one-group-out cross validation

Model

Model 1.4:  $\log(\sigma) \sim 1 + (1|Study)$ Model 1.3:  $\log(\sigma) \sim \text{extent}$ Model 1.2:  $\log(\sigma) \sim \log(\text{grain})$ Model 1.1:  $\sigma \sim 1$ 

(d)



(d)

