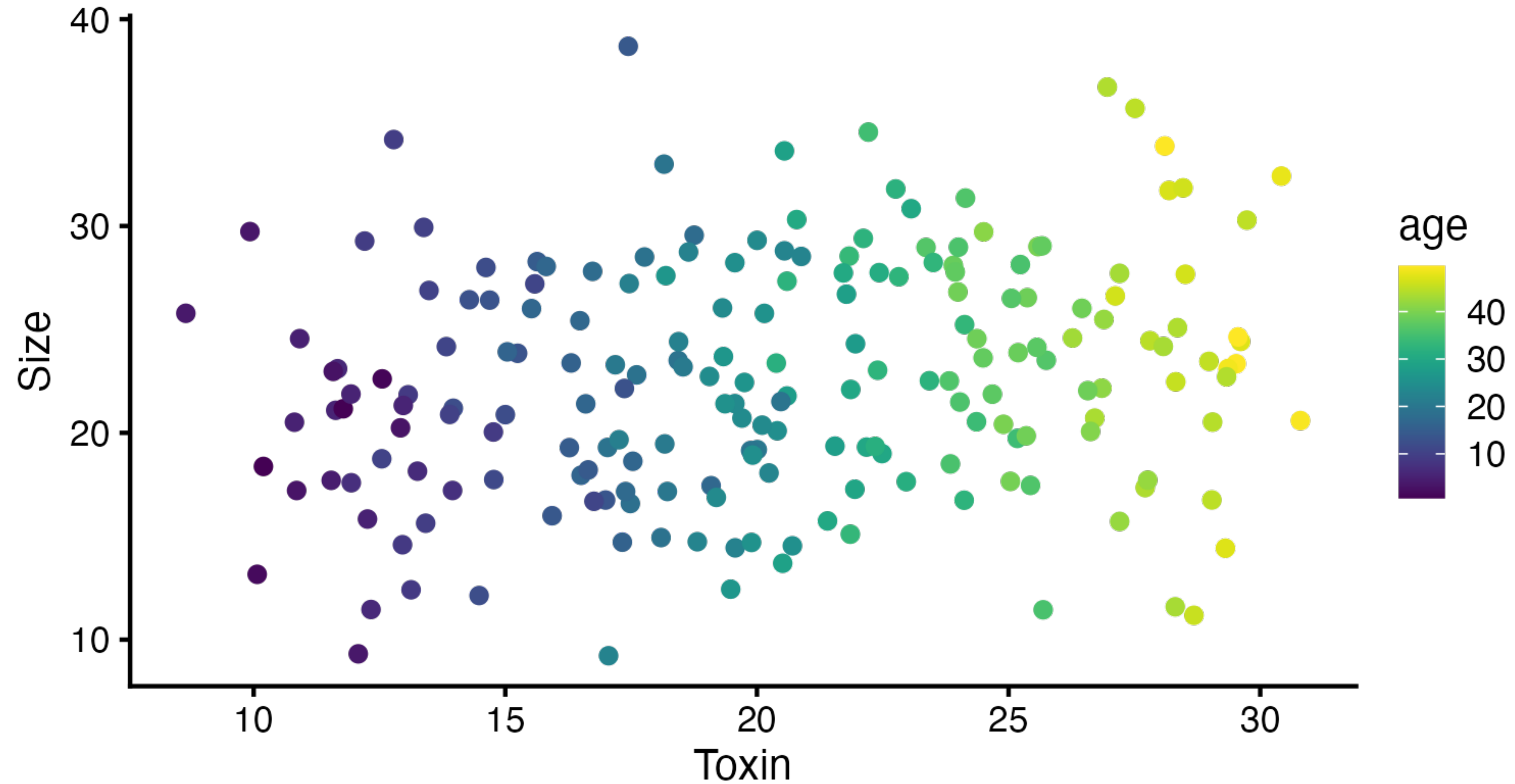


Simulated data



Center data and define model

```
df0 = df
df0$age = scale(df0$age, scale = FALSE)
df0$toxin = scale(df0$toxin, scale = FALSE)
df0$size = scale(df0$size, scale = FALSE)
```

$$size_i \sim \text{Normal}(\mu_i, \sigma)$$

$$\mu_i = a + b \times \text{toxin}_i + c \times \text{age}_i$$

```
rt_fit = ulam(alist(size ~ normal(mu, sigma),
  mu <- a + b*toxin + c*age,
  a ~ normal(0, 0.3),
  b ~ normal(0, 1),
  c ~ normal(0, 1),
  sigma ~ exponential(1)),
  data = df0, chains = 4, cores = 4)
```