Goose flock data

Population trends

Sampling frequency

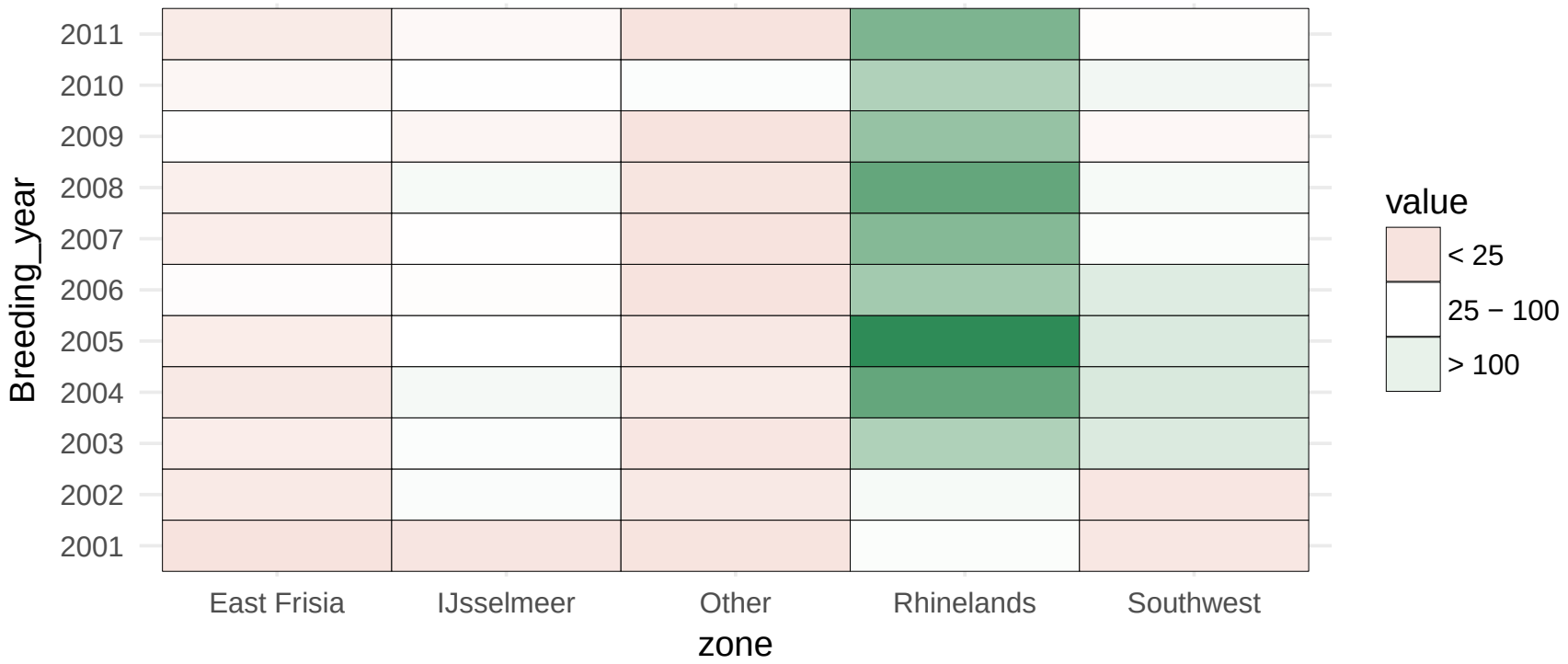

Figure 1: Sampling times in each region. Sampling is not even over zones.

Global flock size trend

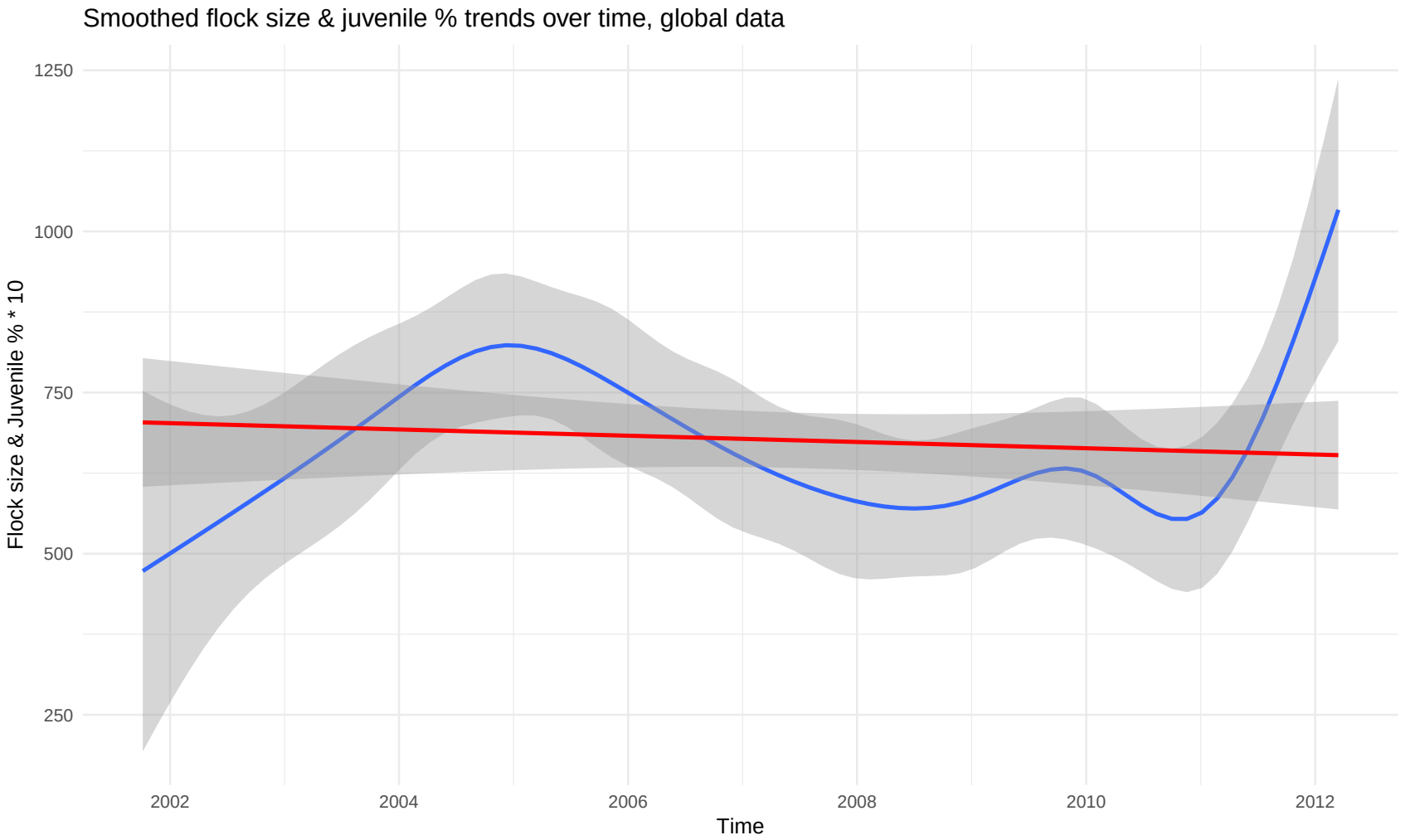

Figure 2: Global flock size trend follows the lemming cycle.

Zonal flock size trend

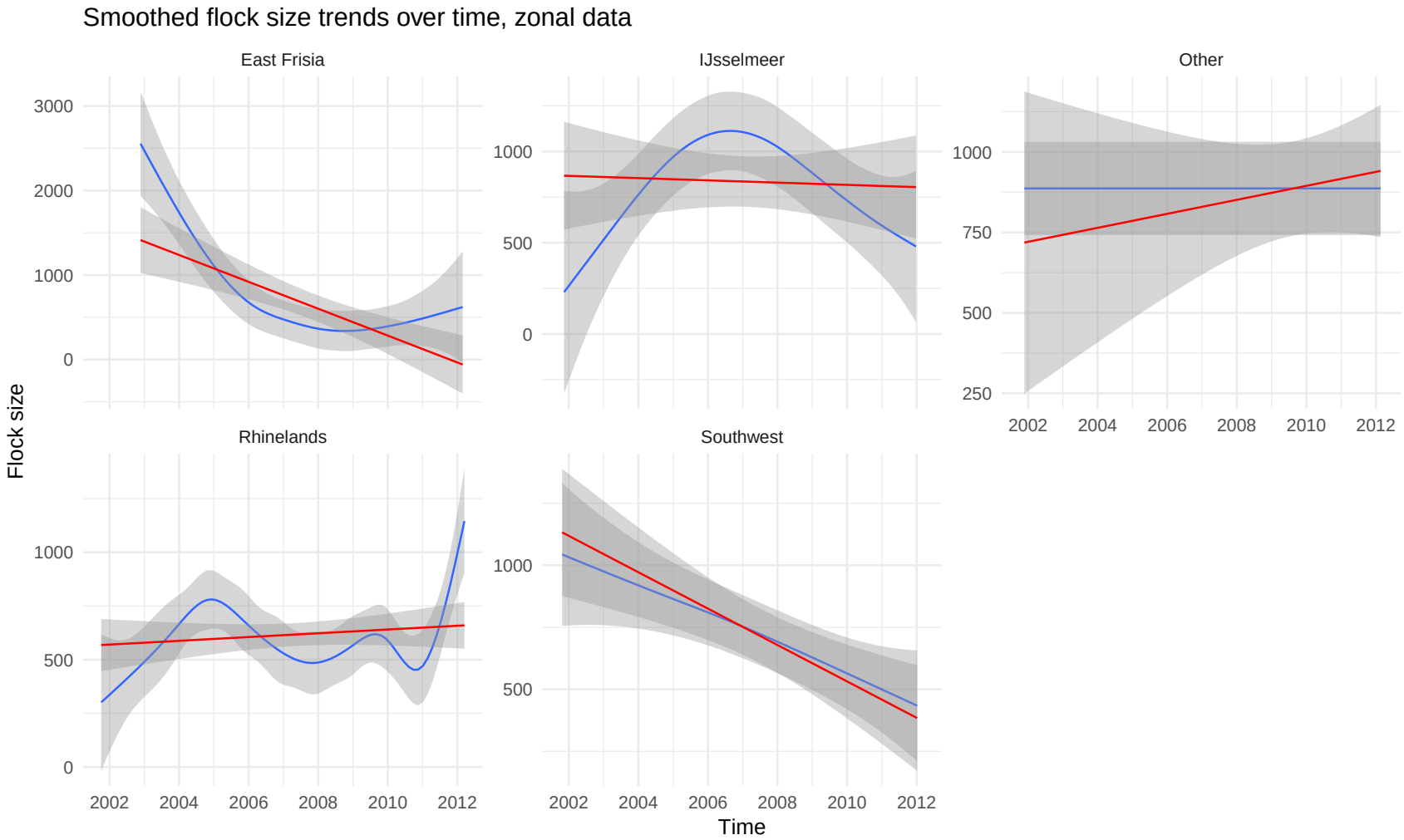

Figure 3: Rhinelands drive the global flock size trend. GAM smoothing: blue, linear trend: red.

Global juvenile % trend

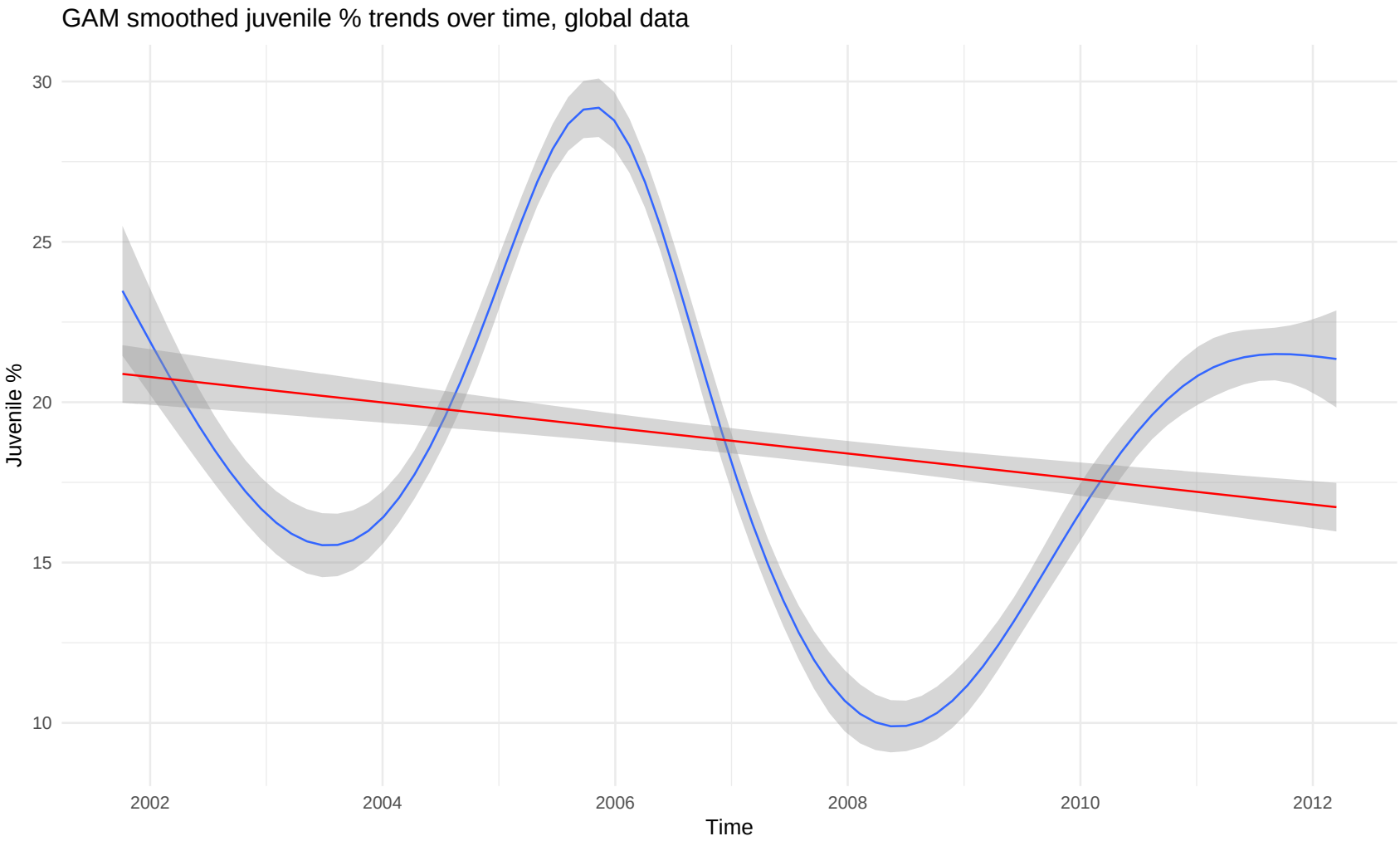

Figure 4: Global juvenile % trend also follows lemming cycle. GAM smoothing, blue; linear trend, red.

Zonal juvenile % trend

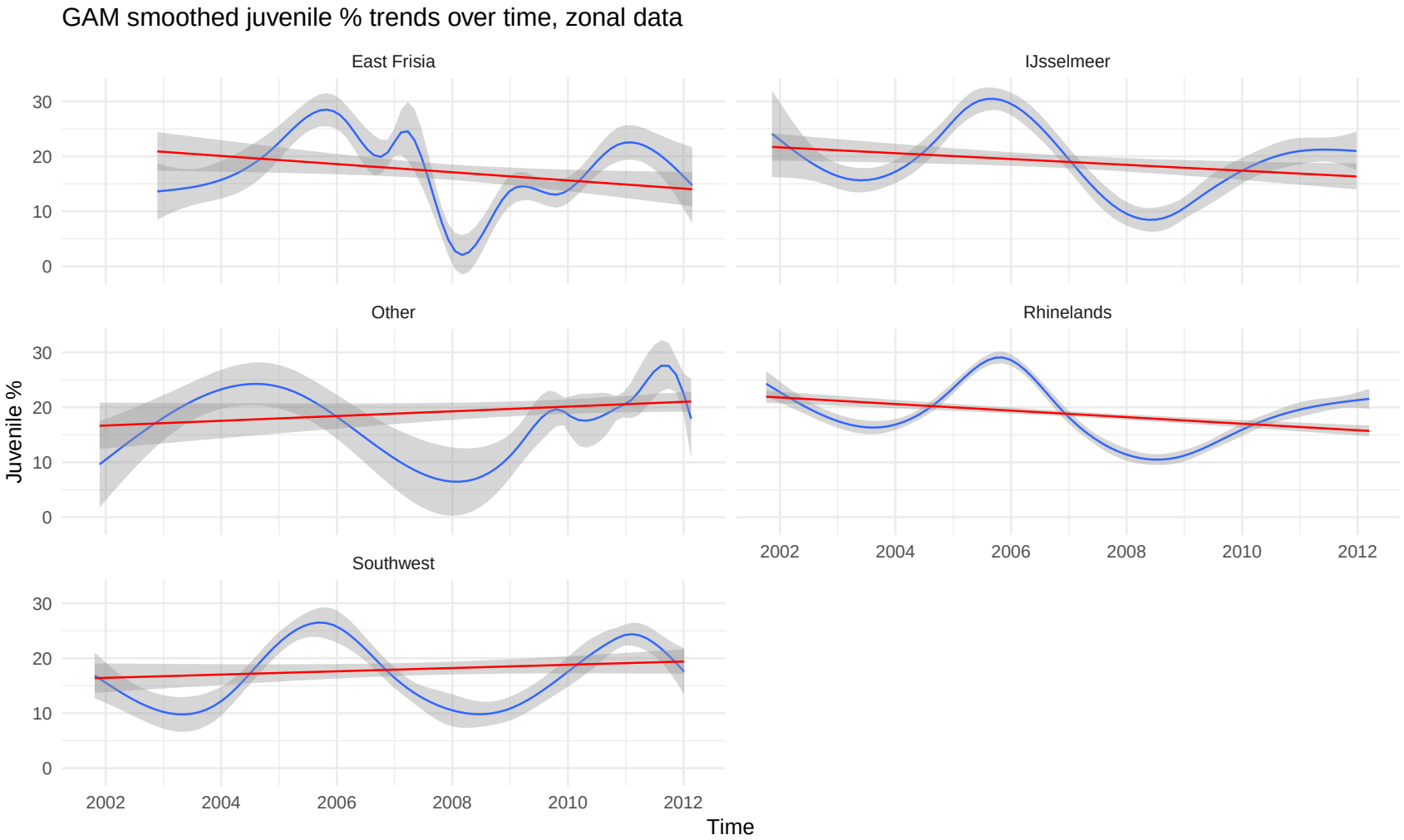

Figure 5: Zonal juvenile % trends are similar.

Global flock size within years

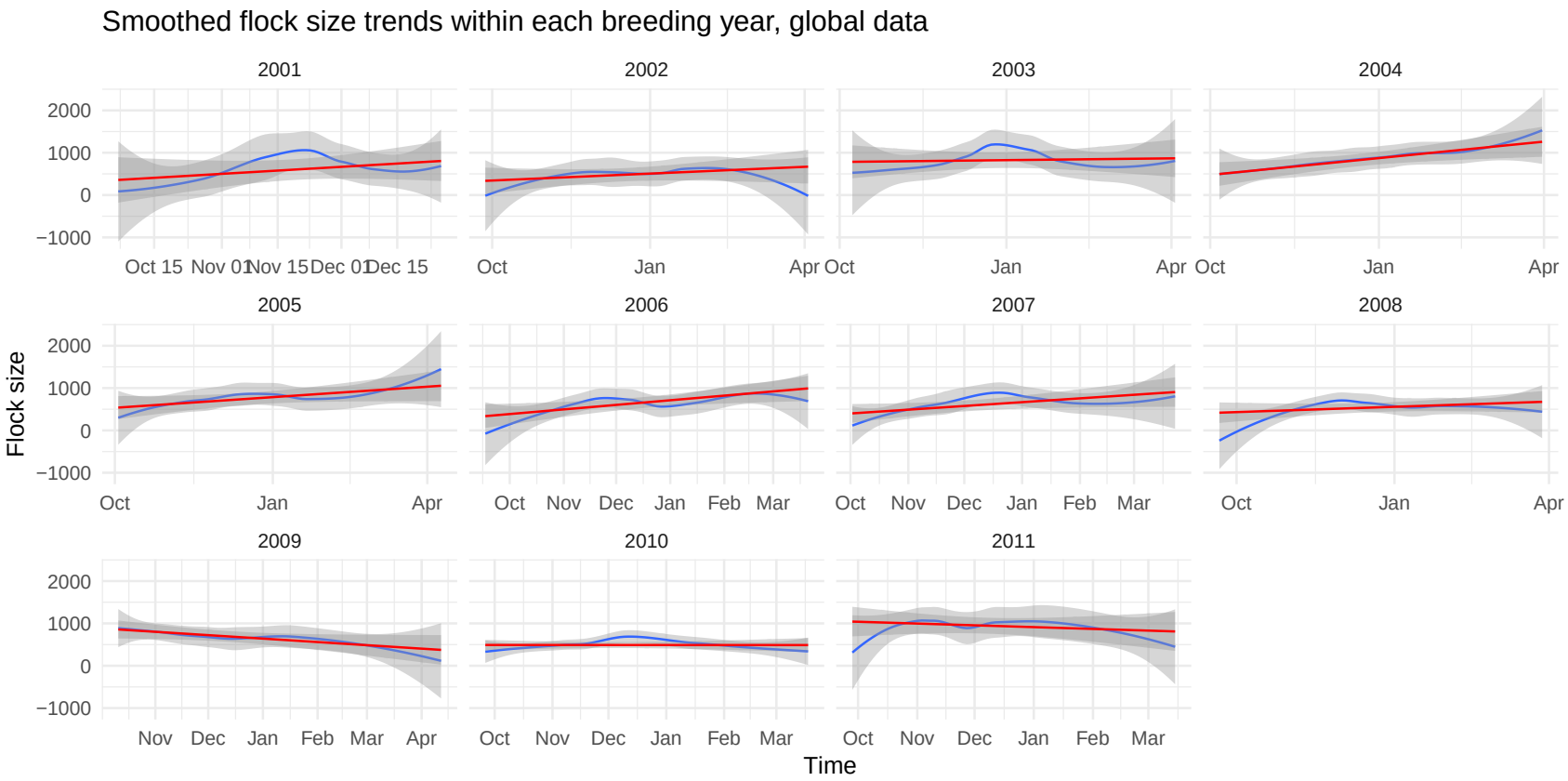

Figure 6: Global flock size trend within years is unrelated to lemming cycle. Loess smoothing, blue; linear trend, red.

Global juvenile % within years

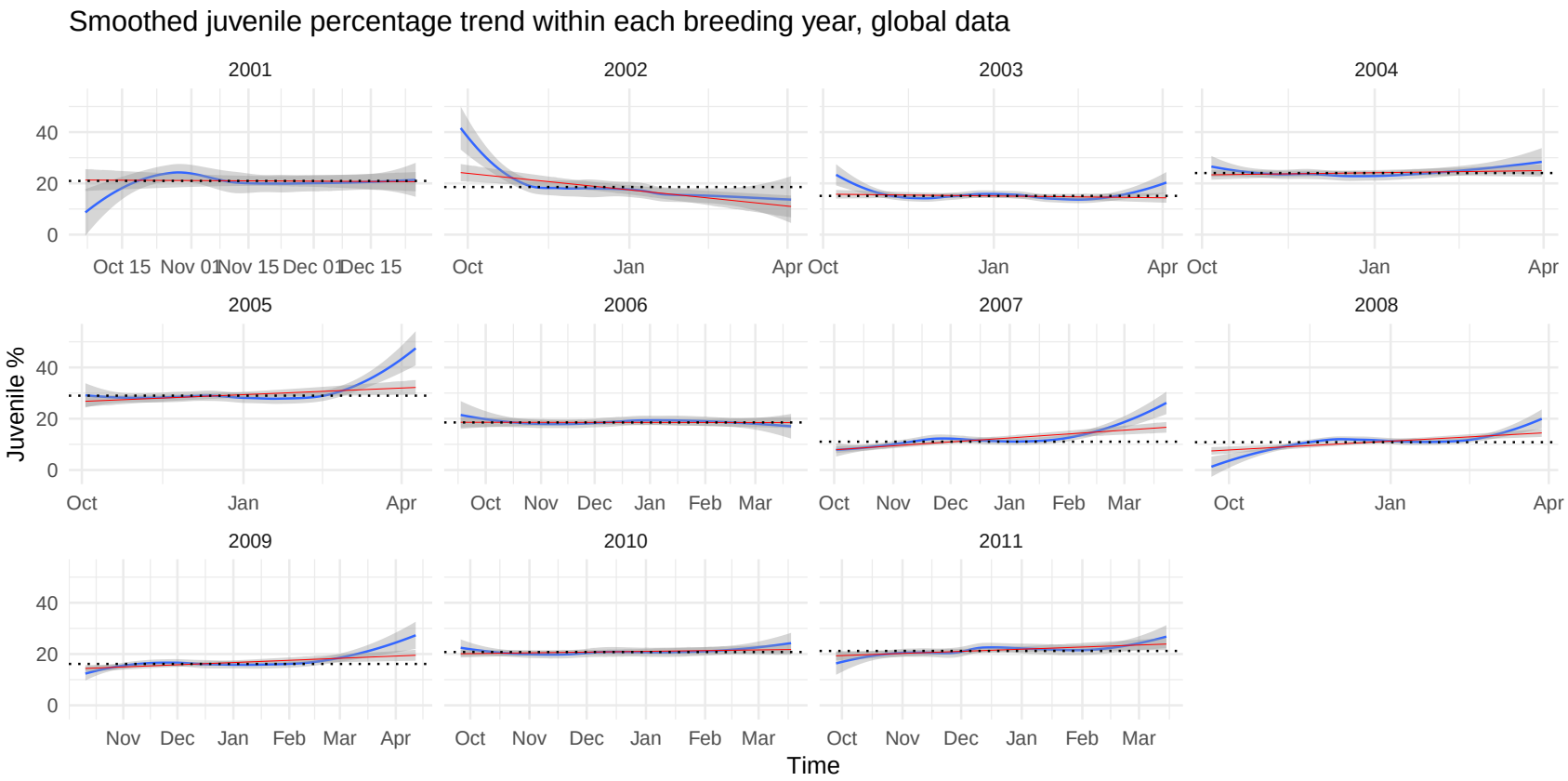

Figure 7: Global juvenile % rises over the winter. Loess smoothing, blue; linear trend, red; mean %, dotted line.

Family size trend

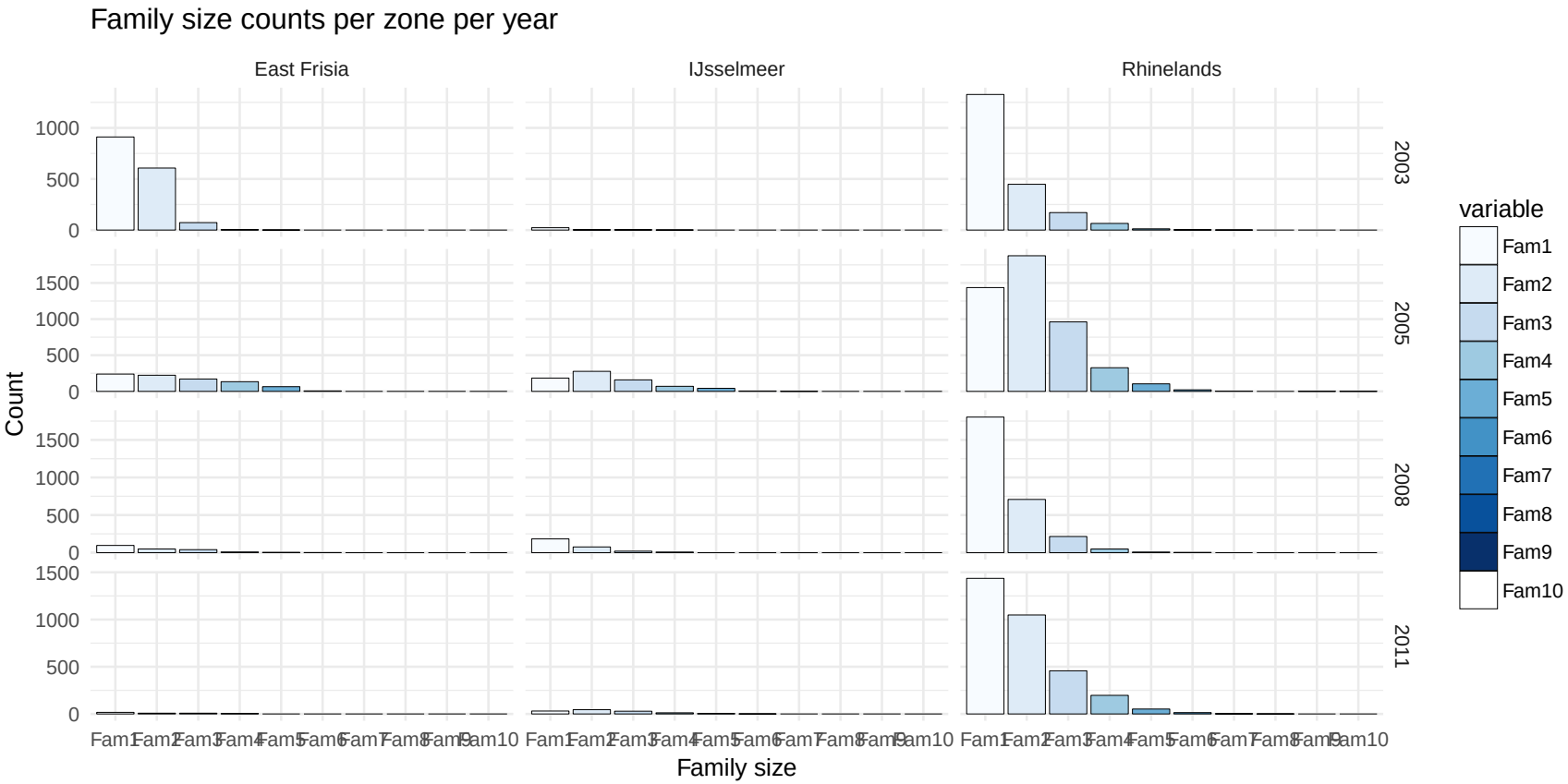

Figure 8: Families of size n are distributed similarly across zones. Fam2 more in lemming-peak year (2005), less in crash years ('03, '08).

Number of families ~ number of juveniles

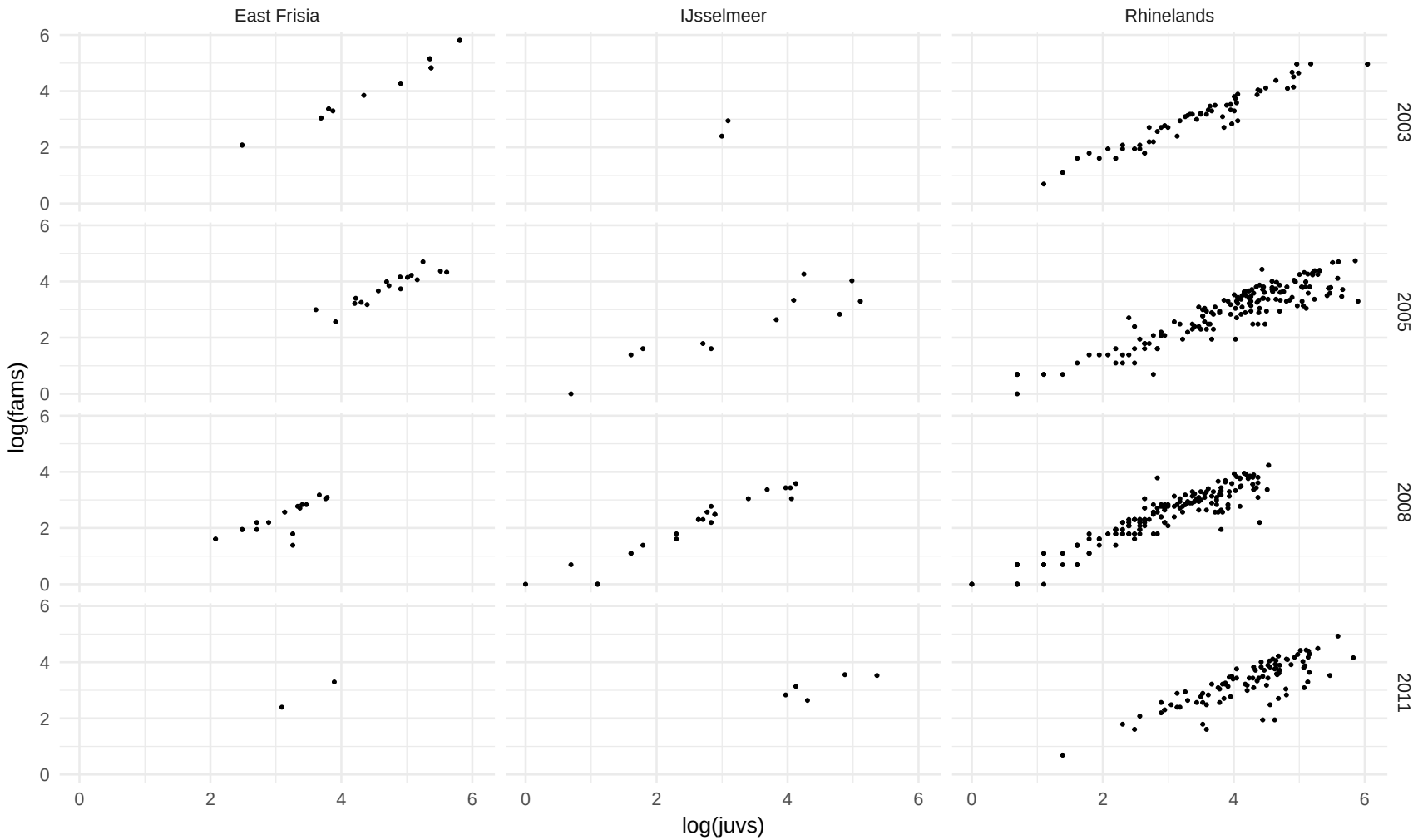

Figure 9: Total families ~ juvenile count is a linear relationship on log-log axes.

Predicting number of families

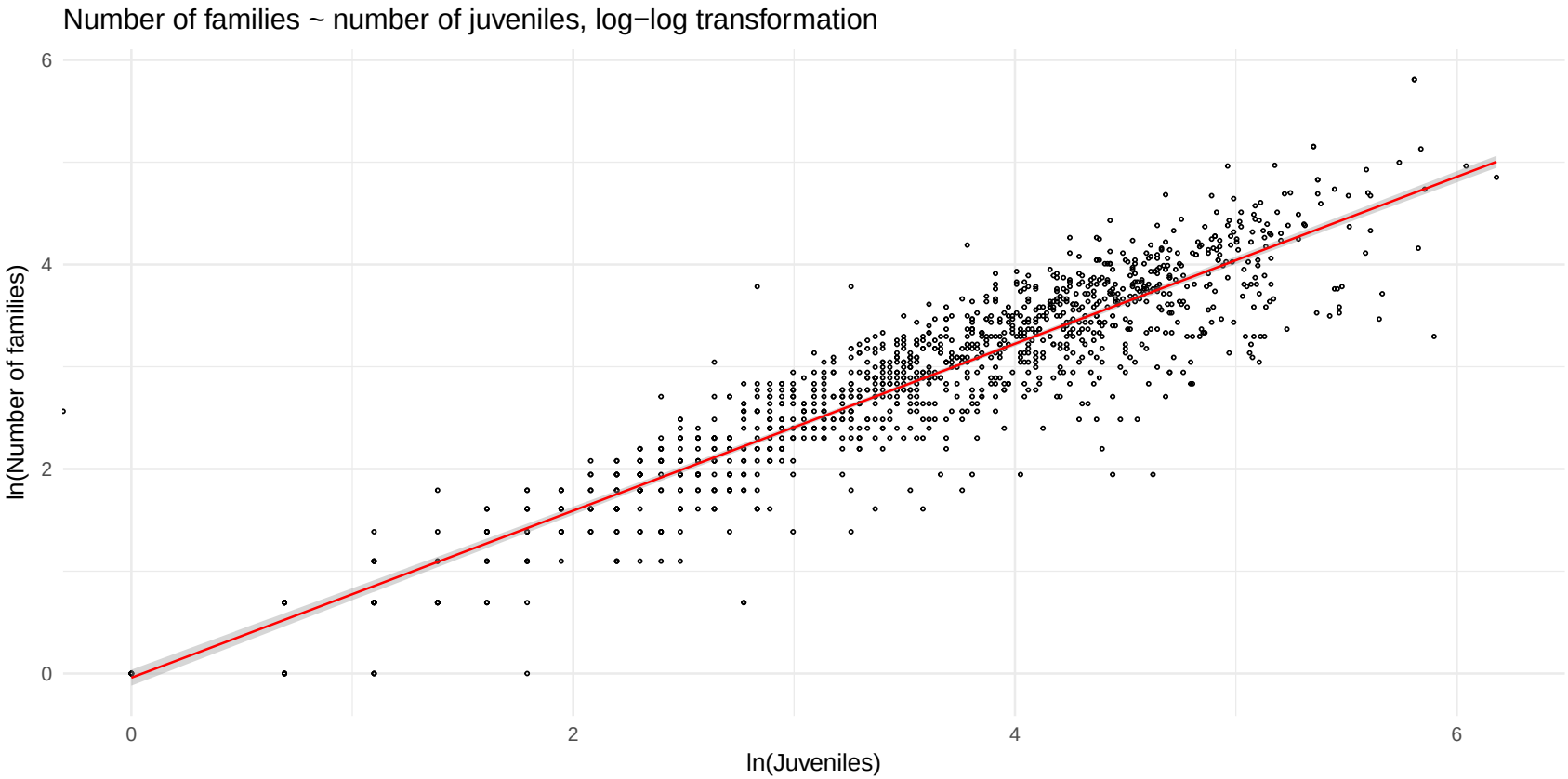

Figure 10: Model fit and data. Adj. R-squared = 0.83. Possible to get sum families from juvenile count.

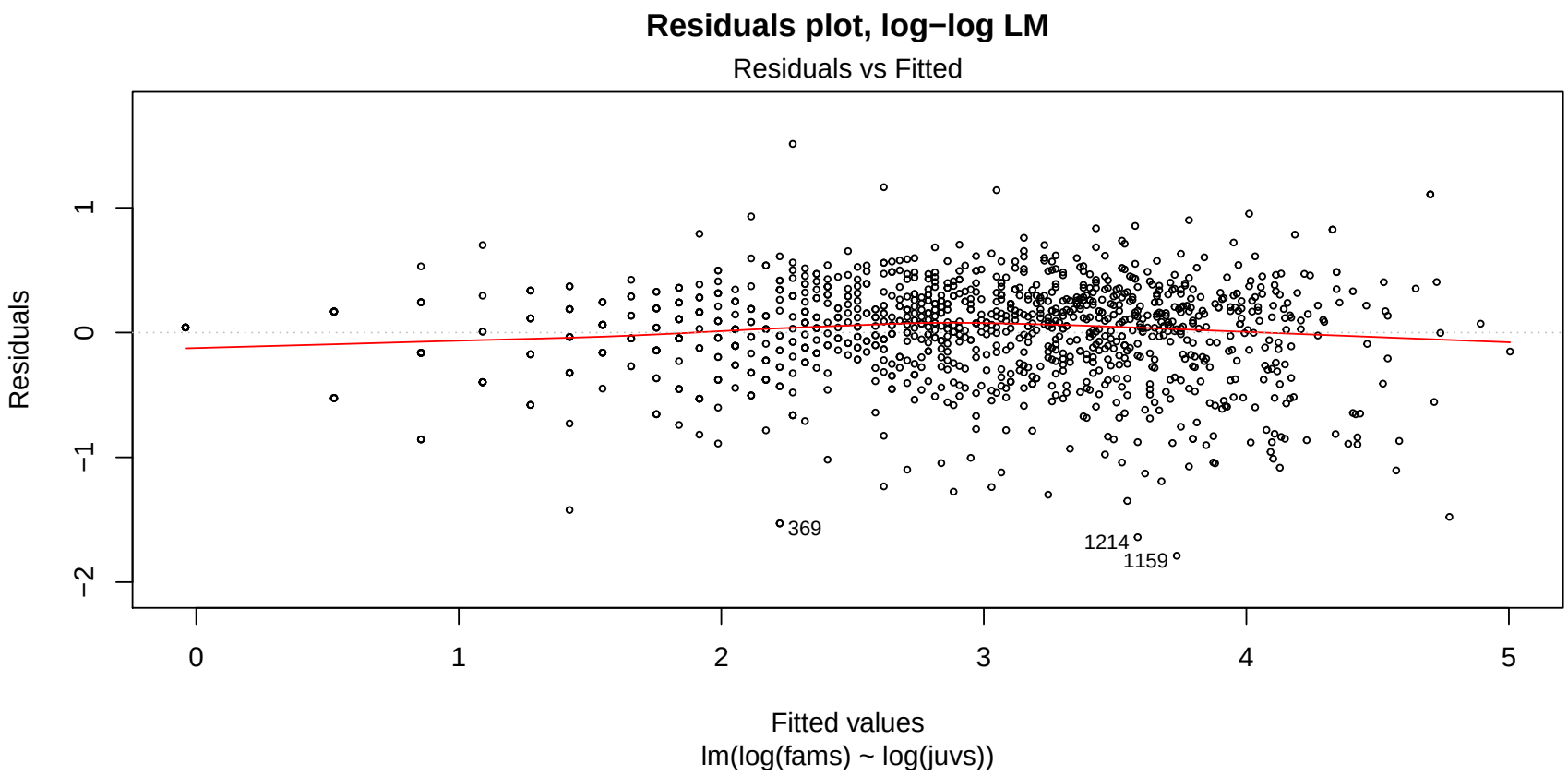

Figure 11: Linear model residual plot.