> summary(brm0)

Family: gaussian

Links: mu = identity; sigma = identity

Formula: count ~ 1 + Temp\_num + State

Data: all.sum.nosex (Number of observations: 433)

Samples: 2 chains, each with iter = 3000; warmup = 1500; thin = 5;

total post-warmup samples = 600

ICs: LOO = NA; WAIC = NA; R2 = NA

Population-Level Effects:

Estimate Est.Error l-95% CI u-95% CI Eff.Sample Rhat

Intercept 8.80 1.76 5.45 12.10 600 1.00

Temp\_num -0.05 0.07 -0.18 0.08 600 1.00

StateRondonia -0.05 0.45 -0.94 0.82 558 1.00

StateTocantins -0.49 0.56 -1.55 0.67 600 1.00

StateRiodeJaneiro -0.05 0.58 -1.12 1.16 500 1.01

Family Specific Parameters:

Estimate Est.Error l-95% CI u-95% CI Eff.Sample Rhat

sigma 4.83 0.17 4.54 5.17 460 1.00

Samples were drawn using sampling(NUTS). For each parameter, Eff.Sample

is a crude measure of effective sample size, and Rhat is the potential

scale reduction factor on split chains (at convergence, Rhat = 1).

> fixef(brm0)

Estimate Est.Error 2.5%ile 97.5%ile

Intercept 8.79674756 1.75918978 5.4474335 12.09547200

Temp\_num -0.04921197 0.07164102 -0.1845052 0.07866465

StateRondonia -0.04983183 0.44707143 -0.9399359 0.81534700

StateTocantins -0.48669384 0.56363449 -1.5502070 0.67187771

StateRiodeJaneiro -0.05167428 0.57585804 -1.1244294 1.16062634

> bayes\_R2(brm0)

Estimate Est.Error 2.5%ile 97.5%ile

R2 0.008976939 0.00595602 0.001072126 0.02214511

Larvae development

> summary(brm1)

Family: gaussian

Links: mu = identity; sigma = identity

Formula: mean.sLL ~ 1 + Temp\_fac + State

Data: adult.sum.nosex (Number of observations: 232)

Samples: 2 chains, each with iter = 3000; warmup = 1500; thin = 5;

total post-warmup samples = 600

ICs: LOO = NA; WAIC = NA; R2 = NA

Population-Level Effects:

Estimate Est.Error l-95% CI u-95% CI Eff.Sample Rhat

Intercept 31.04 0.57 29.90 32.10 457 1.01

Temp\_fac -0.63 0.02 -0.67 -0.58 455 1.00

StateRondonia 1.63 0.17 1.30 1.96 571 1.00

StateTocantins 3.25 0.23 2.76 3.70 600 1.00

StateRiodeJaneiro 3.68 0.24 3.17 4.13 593 1.00

Family Specific Parameters:

Estimate Est.Error l-95% CI u-95% CI Eff.Sample Rhat

sigma 1.14 0.05 1.05 1.26 537 1.00

Samples were drawn using sampling(NUTS). For each parameter, Eff.Sample

is a crude measure of effective sample size, and Rhat is the potential

scale reduction factor on split chains (at convergence, Rhat = 1).

> fixef(brm1)

Estimate Est.Error 2.5%ile 97.5%ile

Intercept 31.0406111 0.57206532 29.8999334 32.101640

Temp\_fac -0.6259937 0.02340646 -0.6710899 -0.580452

StateRondonia 1.6316338 0.17006916 1.3013992 1.962773

StateTocantins 3.2527264 0.23370738 2.7564060 3.698666

StateRiodeJaneiro 3.6810613 0.23993265 3.1702069 4.129139

> bayes\_R2(brm1)

Estimate Est.Error 2.5%ile 97.5%ile

R2 0.8253442 0.01035892 0.8020984 0.84241

> summary(brm2)

Family: gaussian

Links: mu = identity; sigma = identity

Formula: mean.AL ~ 1 + Temp\_fac + State

Data: adult.sum.nosex (Number of observations: 232)

Samples: 2 chains, each with iter = 3000; warmup = 1500; thin = 5;

total post-warmup samples = 600

ICs: LOO = NA; WAIC = NA; R2 = NA

Population-Level Effects:

Estimate Est.Error l-95% CI u-95% CI Eff.Sample Rhat

Intercept 10.57 0.21 10.16 11.00 584 1.00

Temp\_fac -0.31 0.01 -0.32 -0.29 578 1.00

StateRondonia -0.32 0.06 -0.44 -0.20 565 1.00

StateTocantins -0.62 0.09 -0.79 -0.46 600 1.00

StateRiodeJaneiro -0.16 0.09 -0.34 0.01 600 1.00

Family Specific Parameters:

Estimate Est.Error l-95% CI u-95% CI Eff.Sample Rhat

sigma 0.43 0.02 0.39 0.47 410 1.00

Samples were drawn using sampling(NUTS). For each parameter, Eff.Sample

is a crude measure of effective sample size, and Rhat is the potential

scale reduction factor on split chains (at convergence, Rhat = 1).

> fixef(brm2)

Estimate Est.Error 2.5%ile 97.5%ile

Intercept 10.5708132 0.212701402 10.1582339 10.996699448

Temp\_fac -0.3063994 0.008609926 -0.3239842 -0.290082259

StateRondonia -0.3174390 0.063702008 -0.4417309 -0.199209437

StateTocantins -0.6237952 0.087278257 -0.7910687 -0.461440918

StateRiodeJaneiro -0.1586125 0.090349462 -0.3406958 0.005918647

> bayes\_R2(brm2)

Estimate Est.Error 2.5%ile 97.5%ile

R2 0.8528954 0.007002762 0.8370509 0.8647286

> summary(brm3)

Family: gaussian

Links: mu = identity; sigma = identity

Formula: mean.wing ~ 1 + Temp\_fac + State

Data: adult.sum.nosex (Number of observations: 232)

Samples: 2 chains, each with iter = 3000; warmup = 1500; thin = 5;

total post-warmup samples = 600

ICs: LOO = NA; WAIC = NA; R2 = NA

Population-Level Effects:

Estimate Est.Error l-95% CI u-95% CI Eff.Sample Rhat

Intercept 3.45 0.03 3.39 3.52 539 1.00

Temp\_fac -0.03 0.00 -0.04 -0.03 459 1.00

StateRondonia 0.01 0.01 -0.01 0.04 514 1.00

StateTocantins 0.08 0.01 0.05 0.10 600 1.00

StateRiodeJaneiro 0.18 0.01 0.15 0.21 513 1.01

Family Specific Parameters:

Estimate Est.Error l-95% CI u-95% CI Eff.Sample Rhat

sigma 0.07 0.00 0.06 0.07 600 1.00

Samples were drawn using sampling(NUTS). For each parameter, Eff.Sample

is a crude measure of effective sample size, and Rhat is the potential

scale reduction factor on split chains (at convergence, Rhat = 1).

> fixef(brm3)

Estimate Est.Error 2.5%ile 97.5%ile

Intercept 3.45378493 0.034008906 3.392262890 3.51608879

Temp\_fac -0.03413711 0.001398454 -0.036684565 -0.03144715

StateRondonia 0.01411588 0.011306204 -0.006312604 0.03631874

StateTocantins 0.07687021 0.013101485 0.051879697 0.10277863

StateRiodeJaneiro 0.17999728 0.014190970 0.153484677 0.20974411

> bayes\_R2(brm3)

Estimate Est.Error 2.5%ile 97.5%ile

R2 0.7868082 0.01192175 0.7595281 0.8059609