

## Supplementary Material

Here we provide some detailed results for Section 7.1.1 on assessing the shapes of the posterior distributions. Figure 1 shows the skewness and kurtosis coefficients of the posterior distributions for the male and female salamanders (random effects). Figures 2 and 3 display the approximate posterior densities for six male and six female salamanders (with the skewness coefficients around or above 0.2).

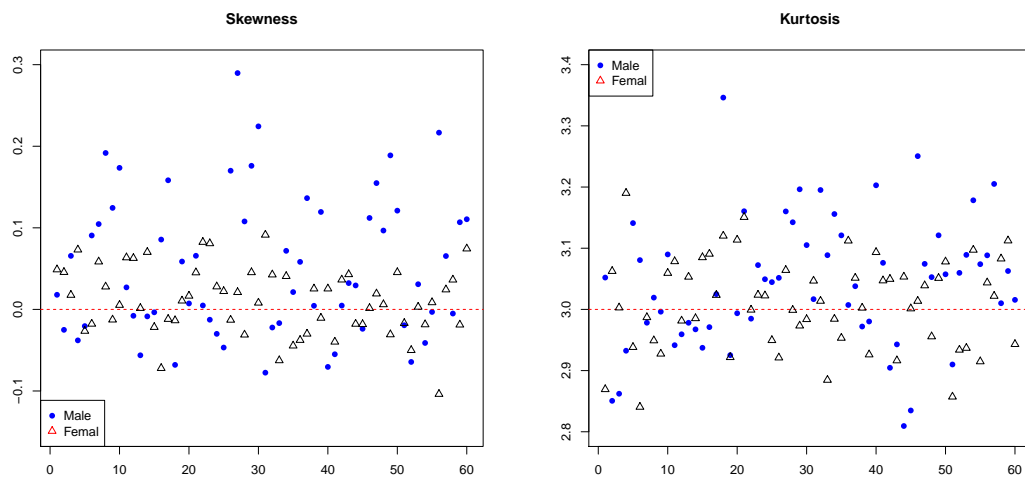


Figure 1: Skewness and kurtosis coefficients for the posterior distribution of the random effects for the salamander model

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PSYCHOMETRIKA SUBMISSION

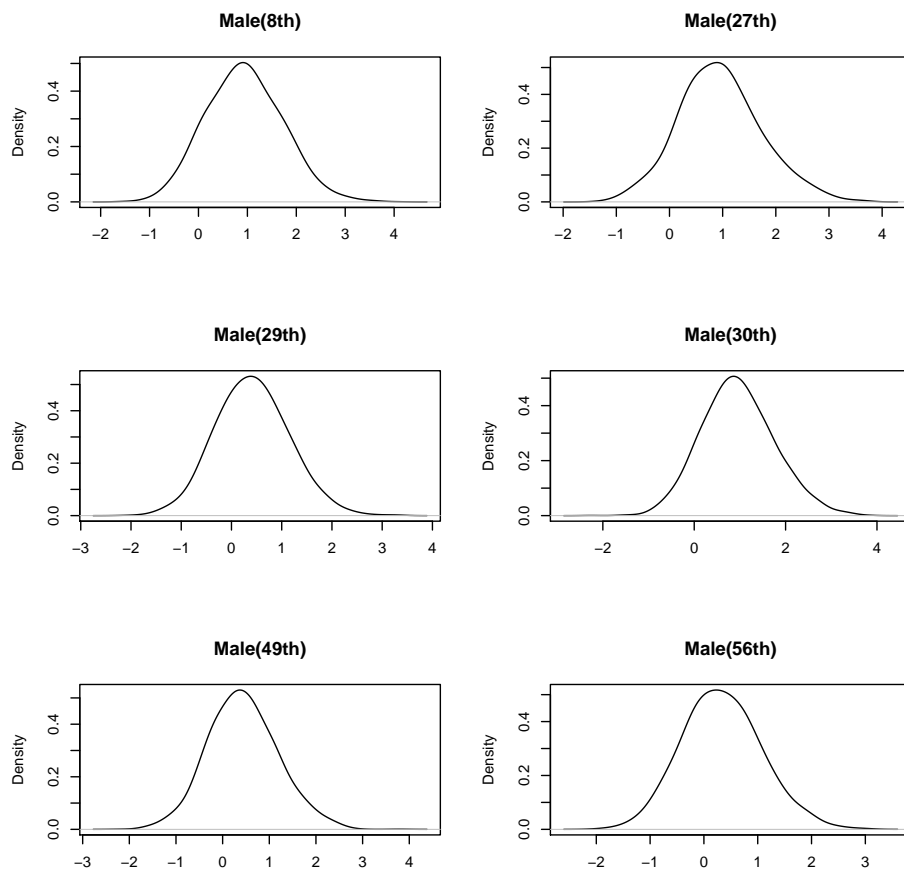


Figure 2: Posterior distributions of the random effects (six male salamanders with the skewness coefficients around or above 0.2)

## PSYCHOMETRIKA SUBMISSION

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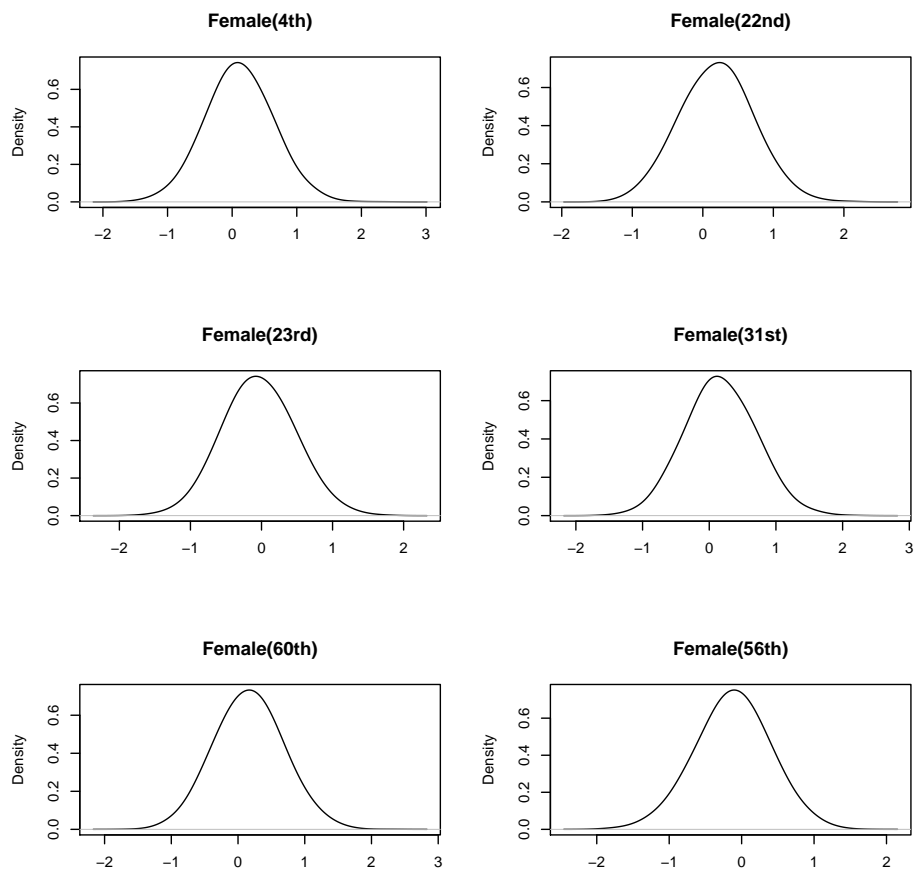


Figure 3: Posterior distributions of the random effects (six female salamanders with the skewness coefficients around or above 0.2)