The following supplement accompanies the article

Rousettus madagascariensis (Chiroptera: Pteropodidae) shows a preference for native and commercially unimportant fruits

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Endangered Species Research 19: 19–27 (2012)

Supplement. Additional data. Fig. S1 details the statistical results for the response variables when *Rousettus madagascariensis* was offered 10 fruit species of 2 major categories (economically important or not). Fig. S2 shows the adequacy of the flight cage data results with respect to the best fit models used in the data analysis

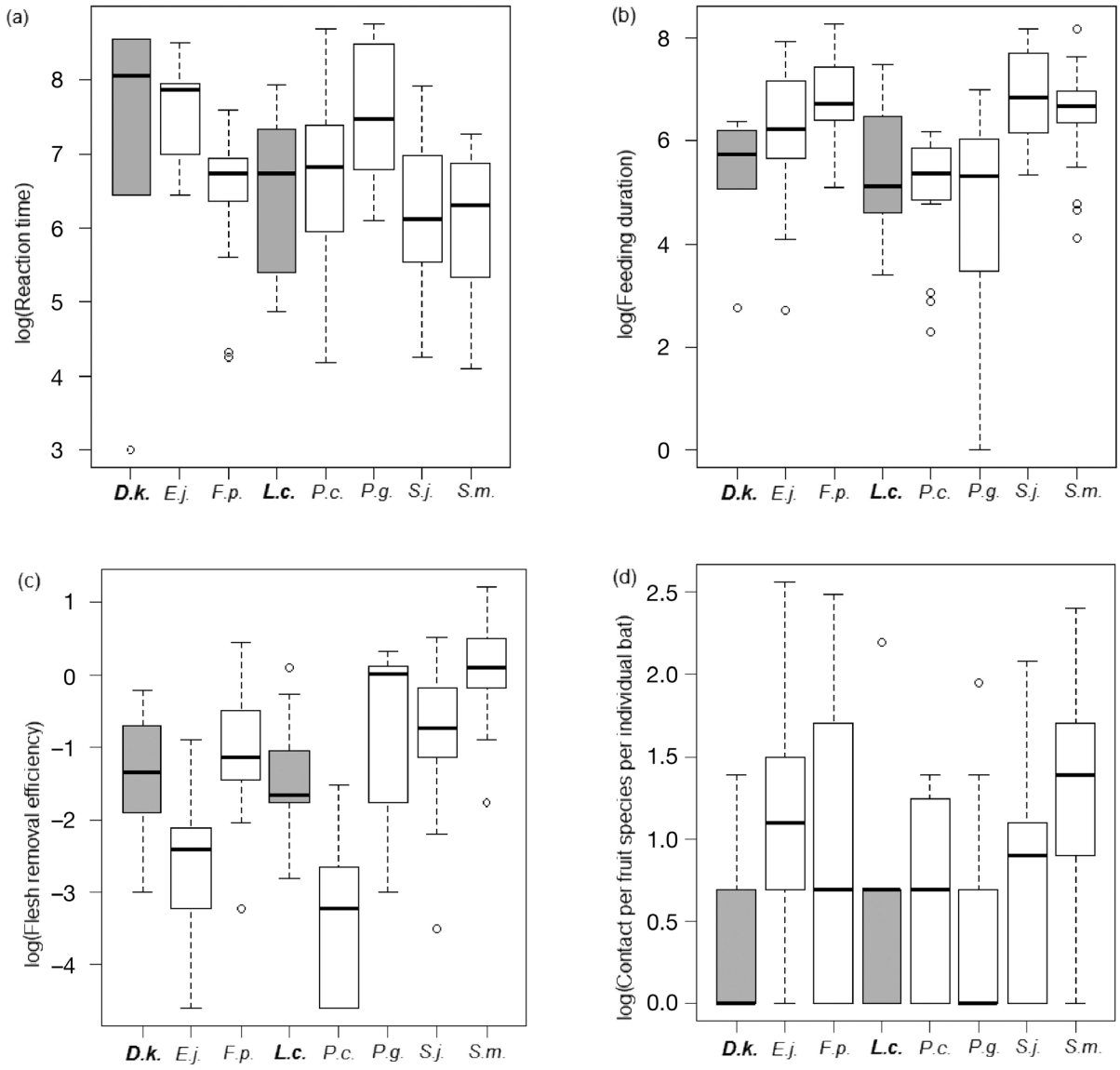

Fig. S1. Fruit species preference as a function of the log-transformed (a) reaction time, (b) feeding duration, (c) flesh removal efficiency and (d) number of contacts per fruit species and per individual bat. Bold horizontal lines are the medians, and the bottom and top portions of the boxes represent the minimum and maximum quartiles, respectively. The lowest and highest lines are the minimum and maximum measures. Circles are outliers. **Bold** letters and filled grey boxes represent the commercially important fruit species. Abbreviations: *D.k.: Diospyros kaki, E.j.: Eugenia jambolana, F.p.: Ficus polita, L.c.: Litchi chinensis, P.c.: Psidium cattleianum, P.g.: P. guajava, S.j.: Syzygium jambos, S.m.: S. malaccense*

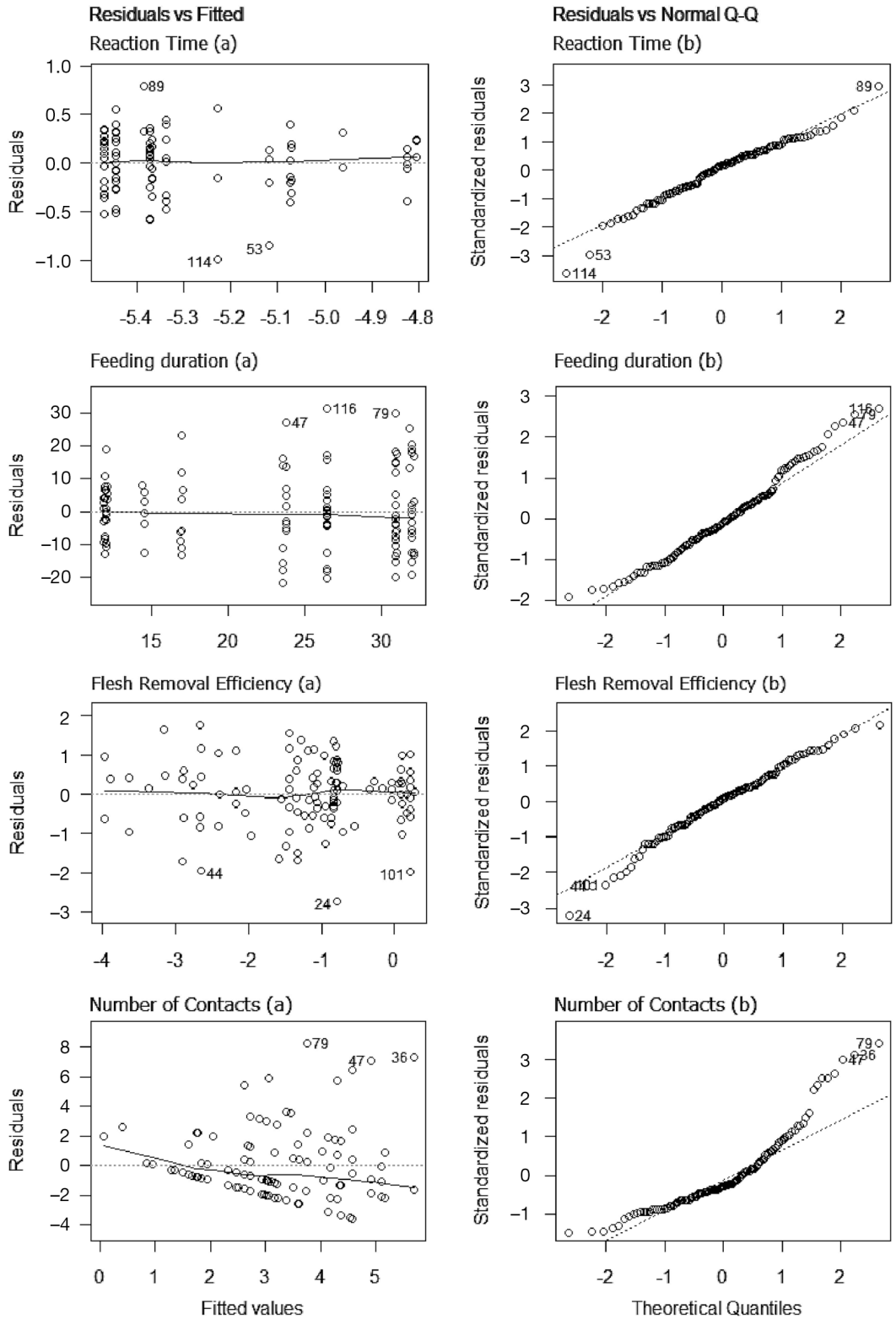

Fig. S2. Residuals vs. (left panels; a) fitted and (right panels; b) quantile-quantile (QQ)-plots to check the validity of the linear models with which we analysed log-transformed data using fruit species as an explanatory variable. The QQ-plots for 3 of the 4 response variables showed straight lines, suggesting that the errors resulting from the models were normally distributed. For these 3 variables, we also observed that the variance of residuals did not change over fitted values. This was not the case for the number of contacts, for which the standardized quantiles of residuals clearly deviated from expected values, and their variance increased with fitted values

Assessment of the model parameters affecting the choice of models

Each of the residuals against fitted graphs for the 3 response variables (Reaction time, Feeding duration, and Flesh removal efficiency) showed straight line or constancy of variance, suggesting systematic adequacy in the structure of the linear model and data transformation, as we had assumed. But for the number of contacts per individual bat and fruit species, the graph showed that the fitted values >5 forced the regression line to decline ('Number of contact', a), so the log transformation and/or the linear model would not be the preferential model here.

The residuals for the 4 response variables showed straight lines, suggesting that the transformed data (solid line) and the errors (dashed line) resulting from the model were normally distributed. Although feeding reaction and number of contacts per individual bat and fruit species ('Number of contacts', b) Showed normal regression lines but with points deviating up from the line at the right side of the graph, the deviation was caused by a few cases when a bat chewed more fruit mass than its body mass and when the number of contacts was exaggerated.