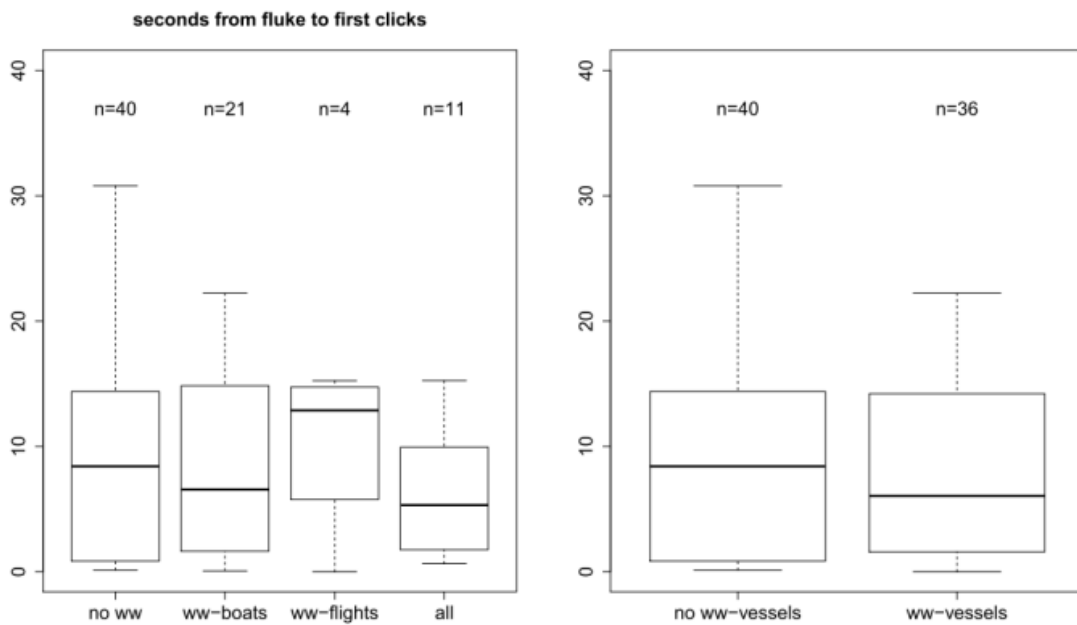
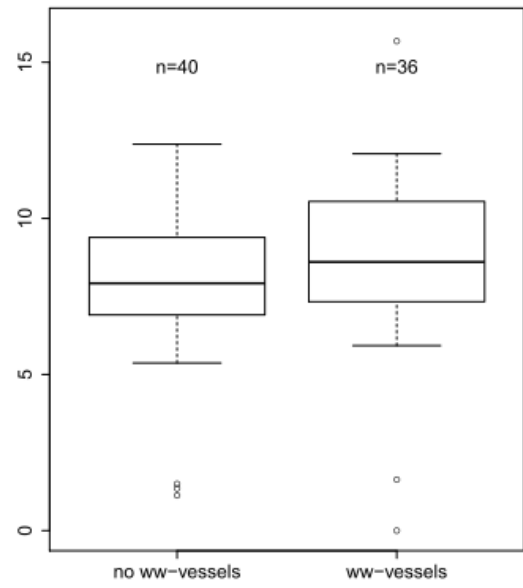
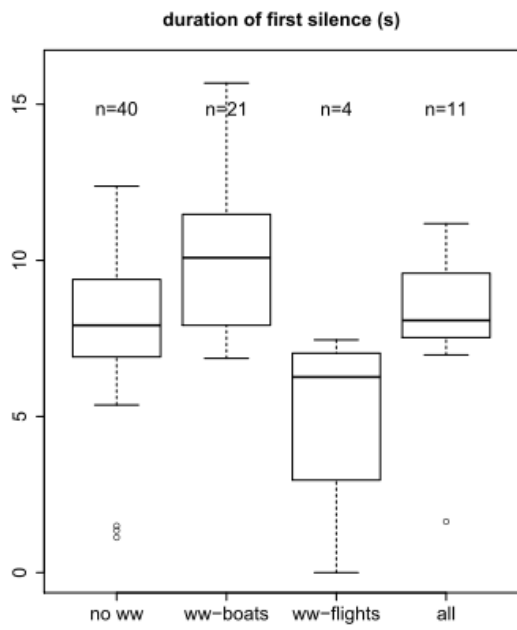
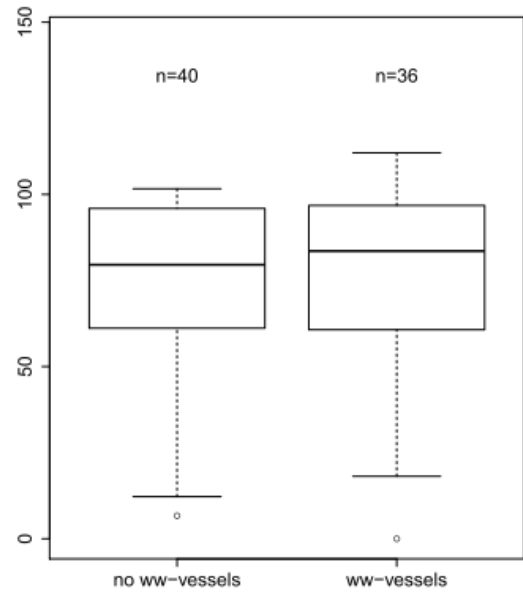
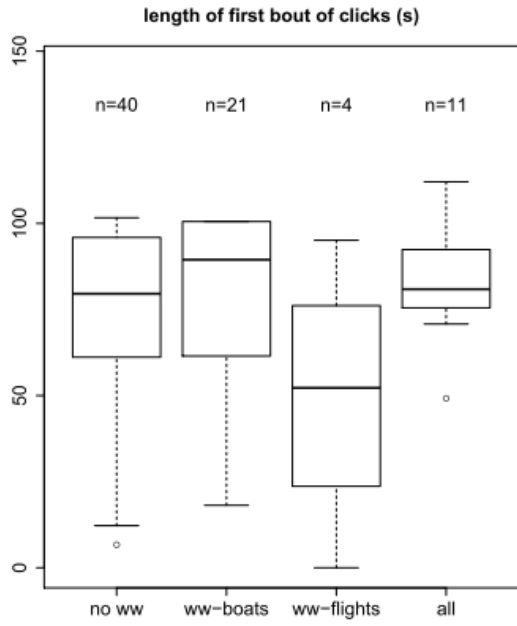


Appendix 2A Acoustic parameters in presence and absence of whale-watching

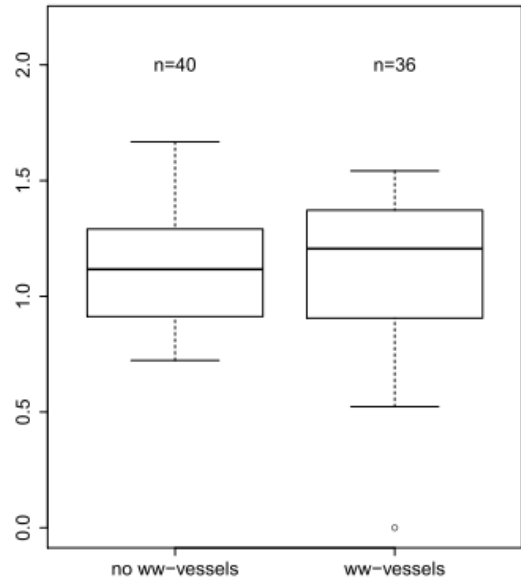
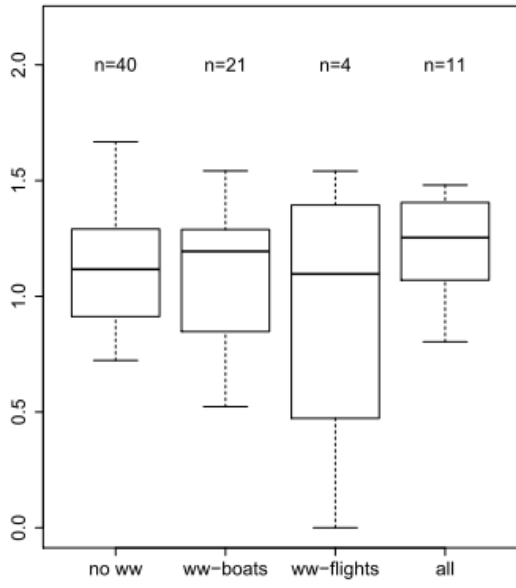
The following boxplots show all acoustic parameters grouped by presence of whale-watching vessels in the preceding surfacing: no whale-watching vessels (no ww), only whale-watching boats (ww-boats), only whale-watching helicopters or aeroplanes (ww-flights), and both ww-flights and ww-boats (all). Sample size (n) gives the number of surfacings. Data include dives that were not complete, but include at least first regular click train and the following pause.

In the boxplots, the boxes contain the 25 to 75 percentiles. The middle line shows the median and whiskers stretch 1.5 times the interquartile range. Circles denote values beyond 1.5 times the interquartile range.

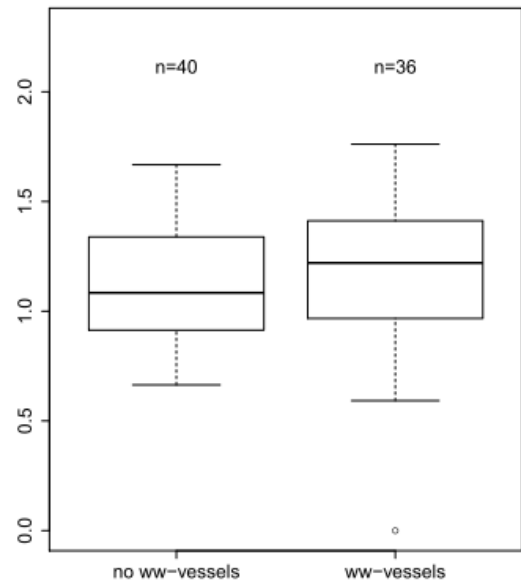
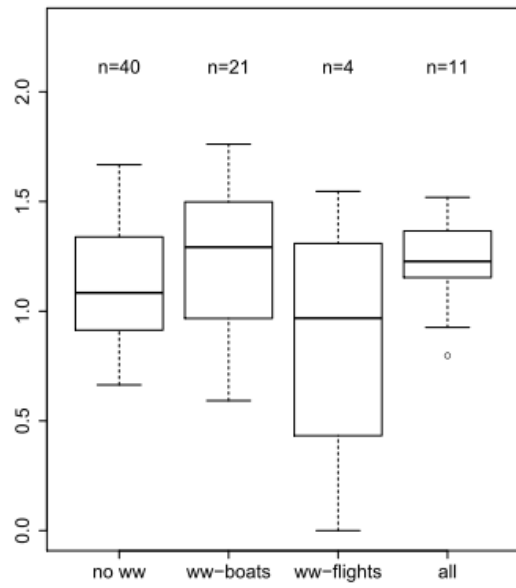




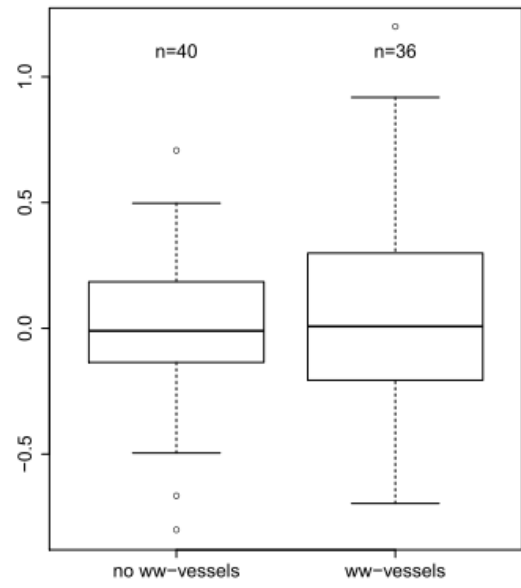
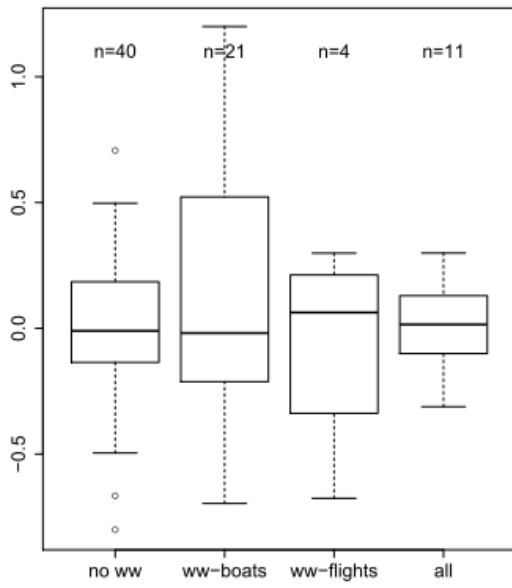
initial mean ICI (s)



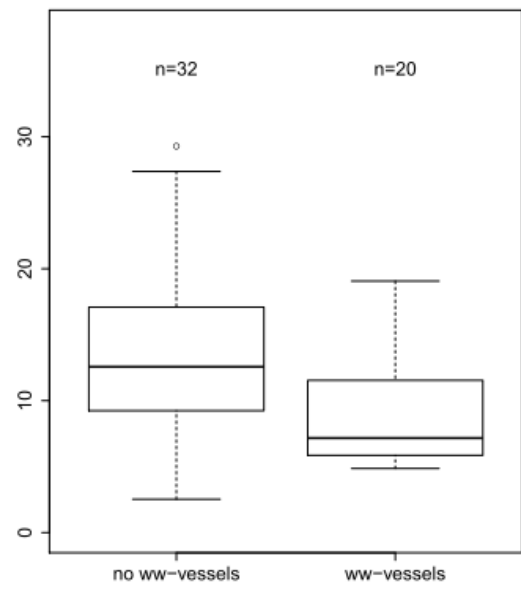
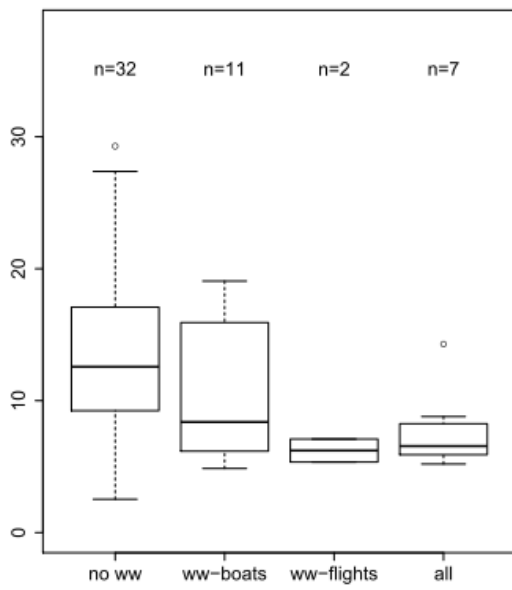
mean ICI at the end of first bout (s)



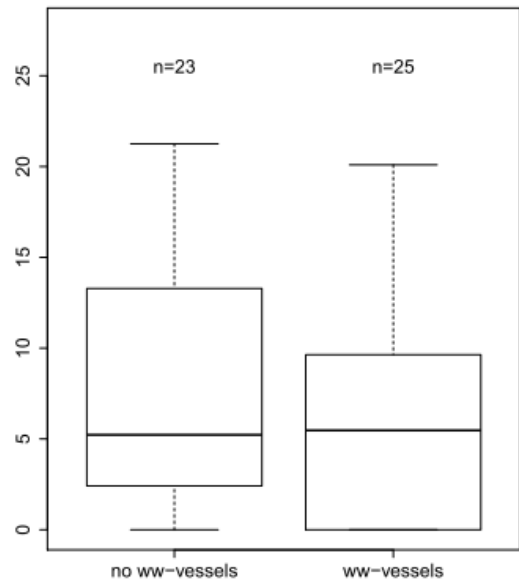
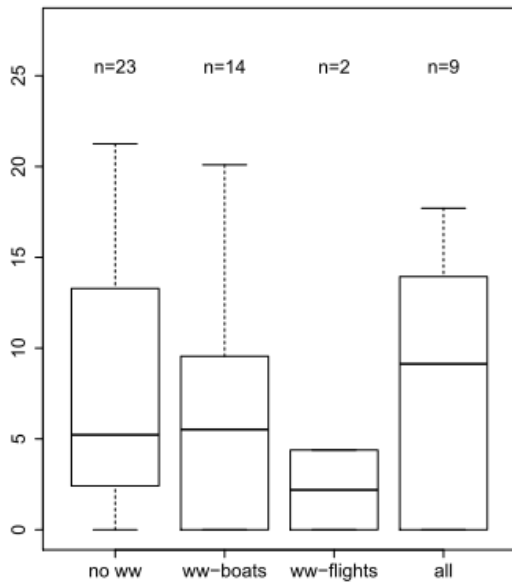
change in ICI during first bout (s)



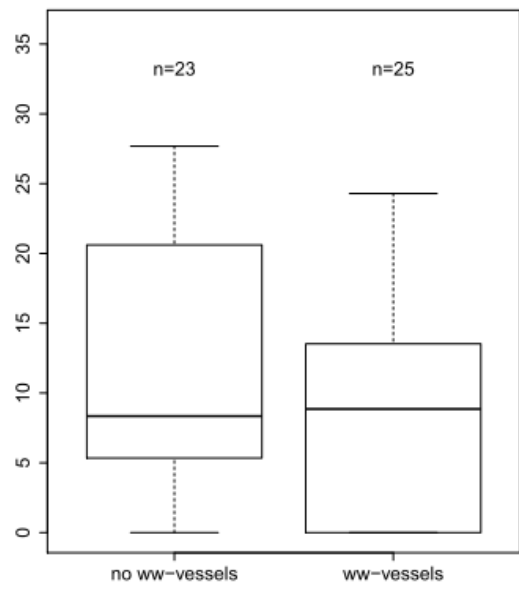
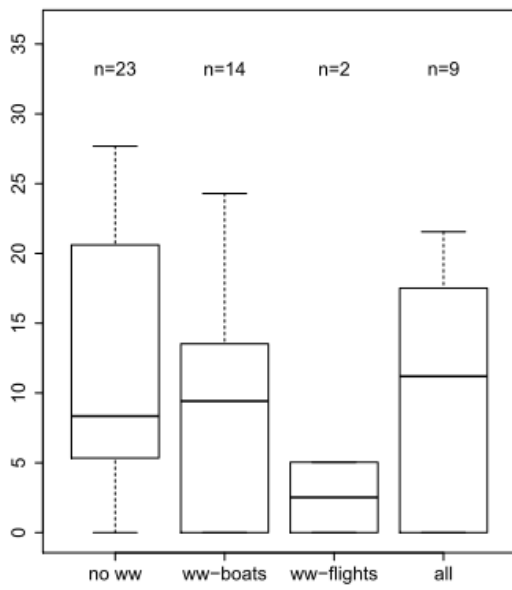
seconds from fluke to first creak (min)



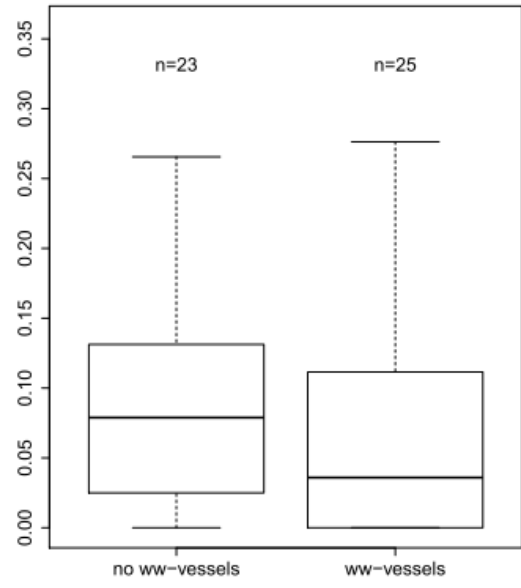
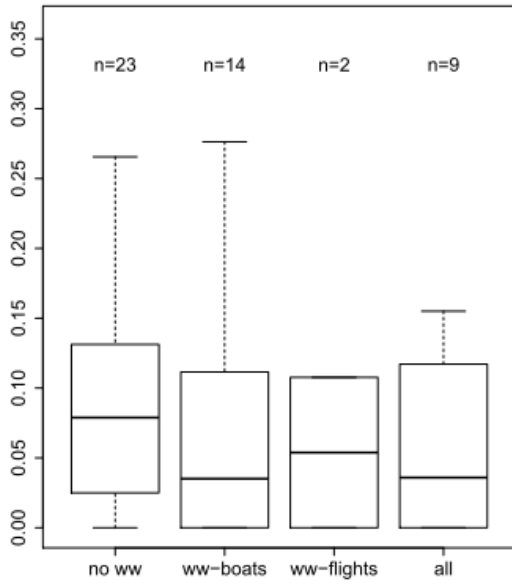
creak activity (-h)



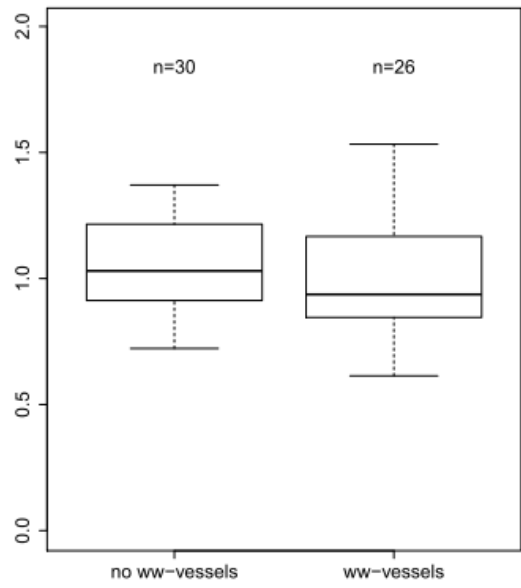
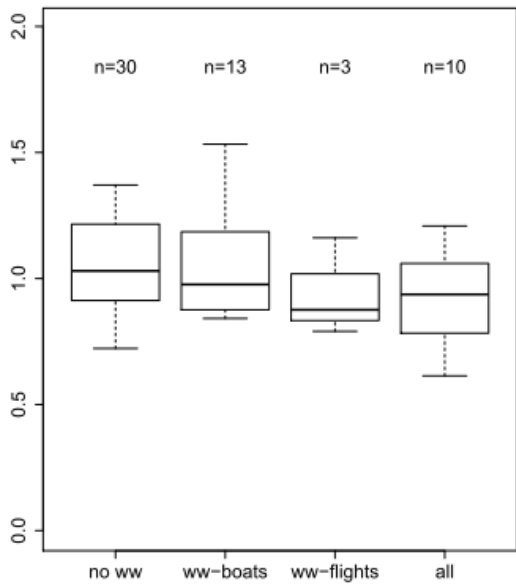
creak rate from first creak (-h)



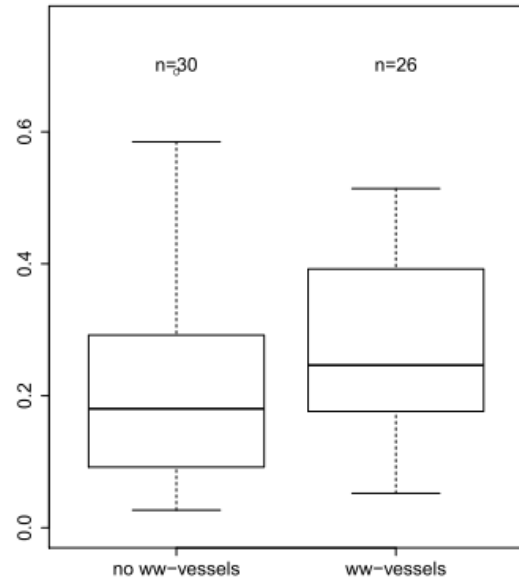
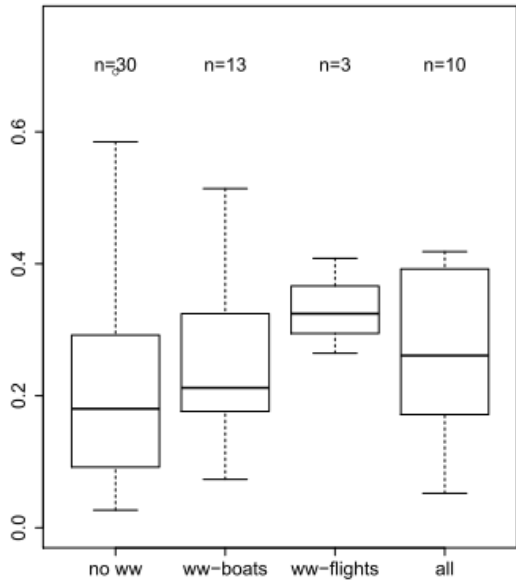
proportion of time spent creaking



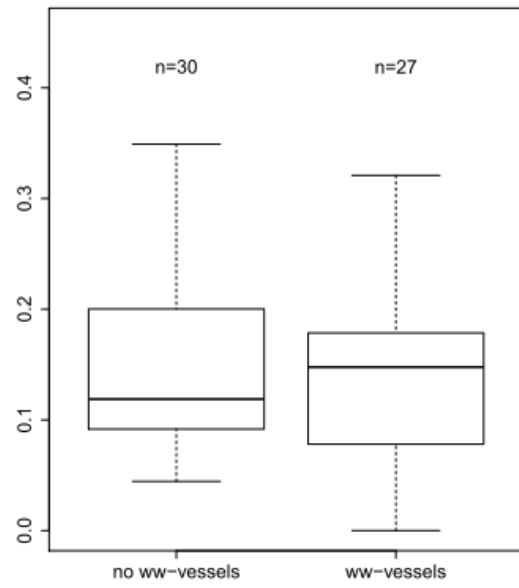
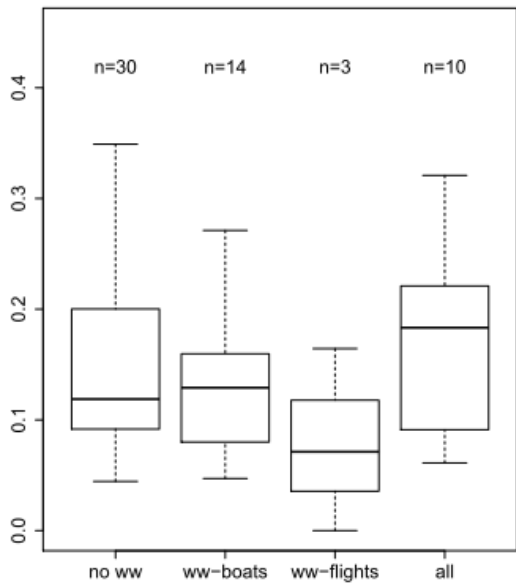
median ICI of regular clicks (s)



proportion of clicks within 0.1 seconds of median



proportion of time spent silent



Appendix 2B Model residual plots

The following plots are:

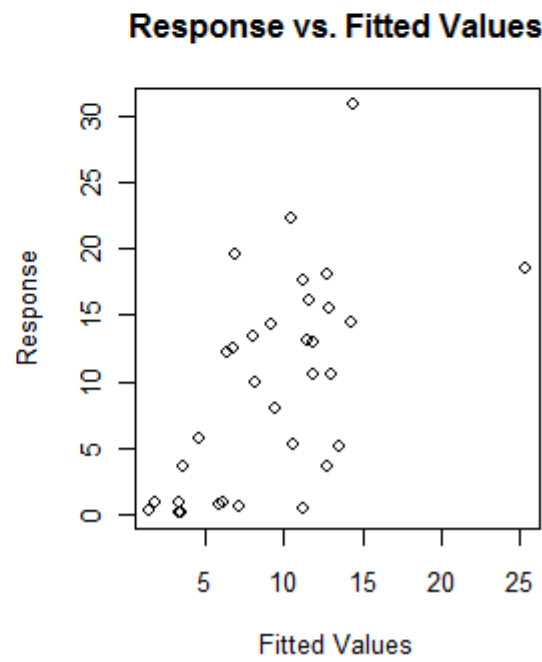
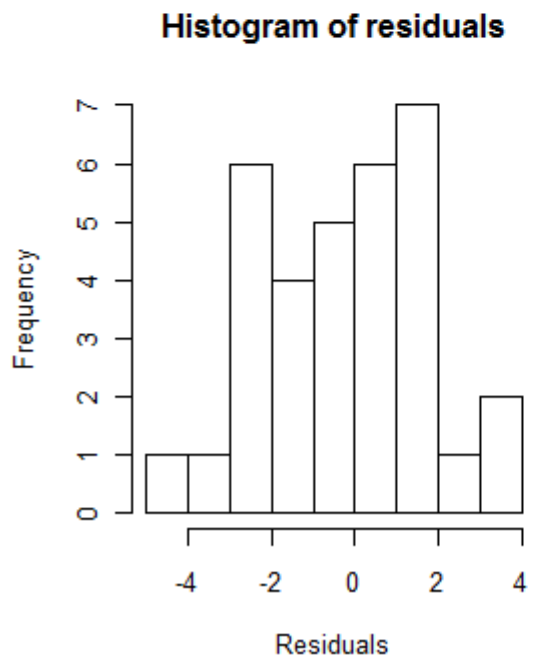
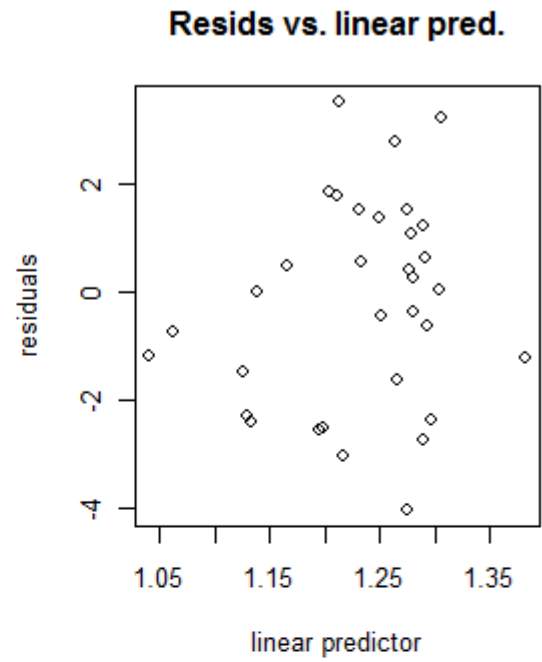
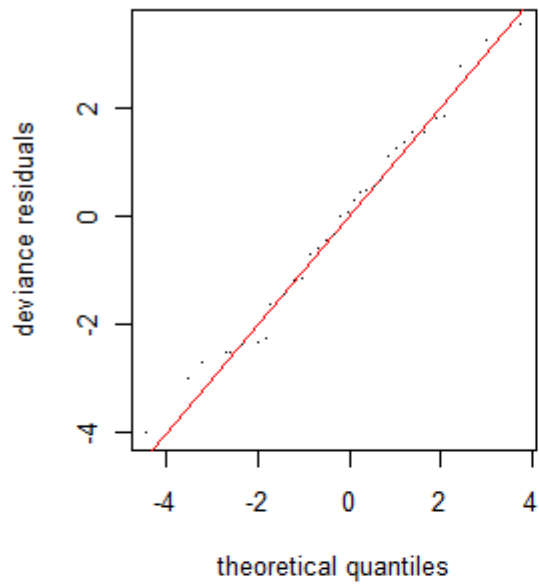
1. Deviance residuals as a function of their theoretical quantiles (simulated from the assumed distribution) (QQ-plot). Deviances from the 45 degree line indicate over- or underfitting.

2. Deviance residuals as a function of the linear predictor, i.e. response values transformed using the link function. These residuals should be spread evenly across the linear predictor, if not, the data may be under/over dispersed or influenced by an unmodelled factor in the data.

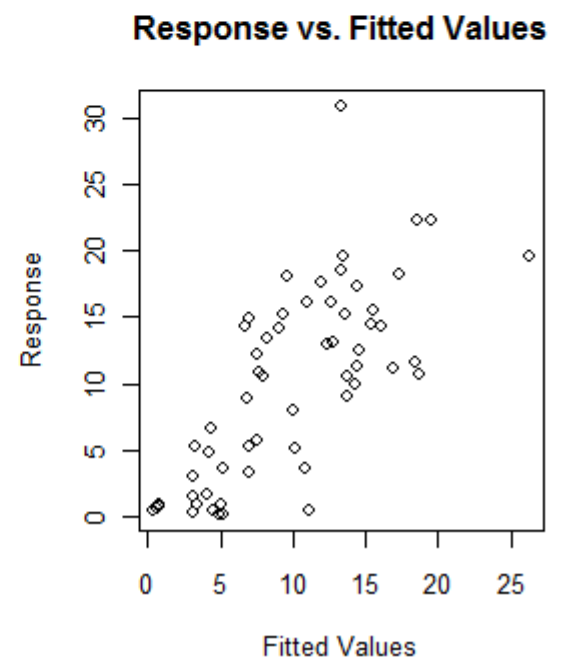
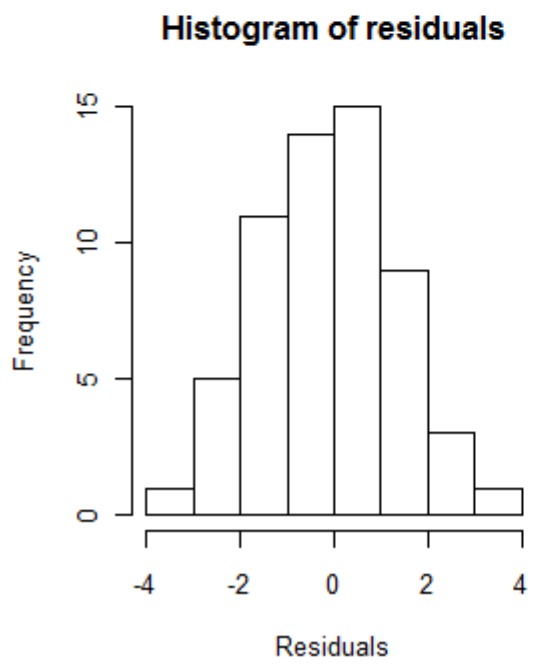
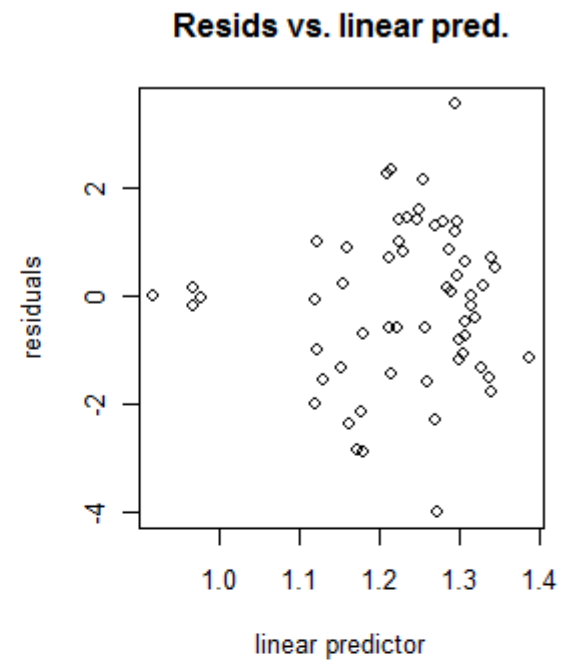
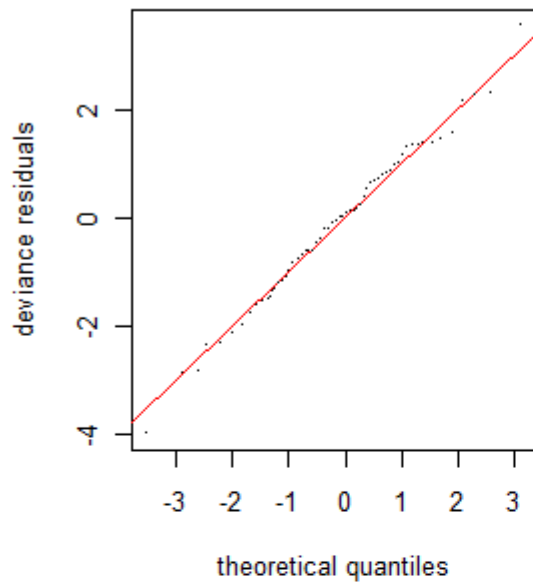
3. Histogram of deviance residuals. The distribution should have mass in the centre and balanced tails, if not, the model could be under- or overfitting.

4. Response values as a function of the predicted values. Describes model fit.

Captions give the model number in Table 7, name of the response variable, assumed distribution, link function, sample size and adjusted R-square as a percentage.



Model 1 Time to first click
 Family Tweedie(1.1)
 Link $\mu^{0.1}$
 N 33
 r-sq 26.98%



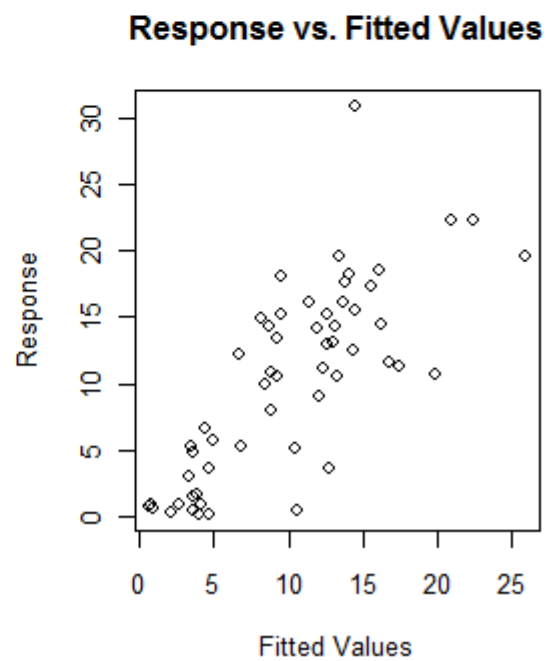
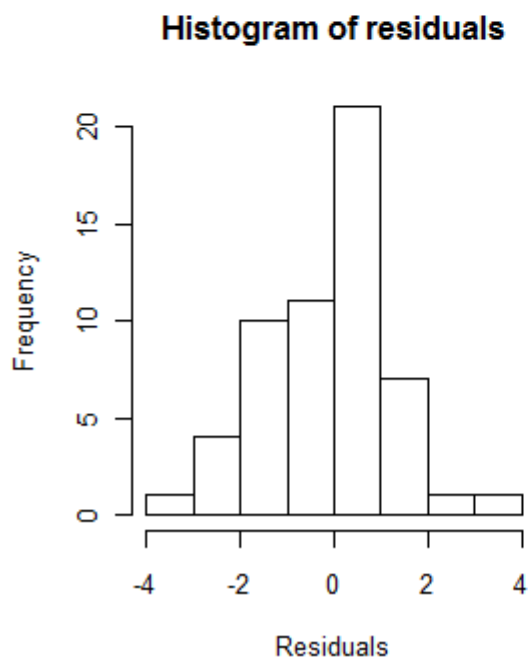
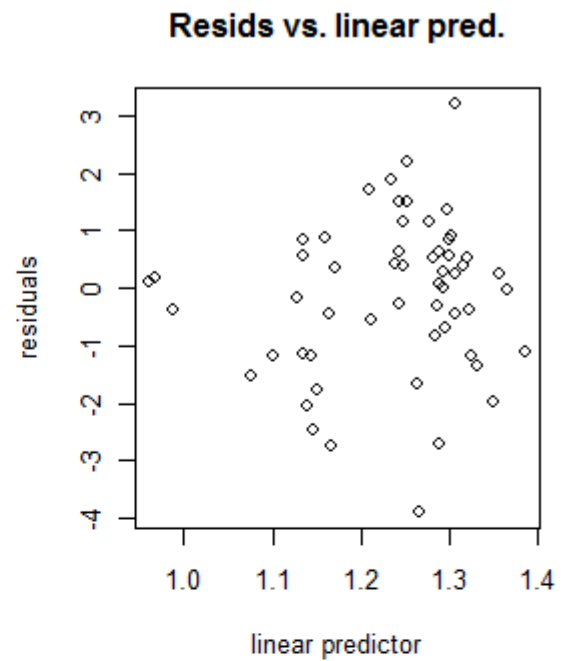
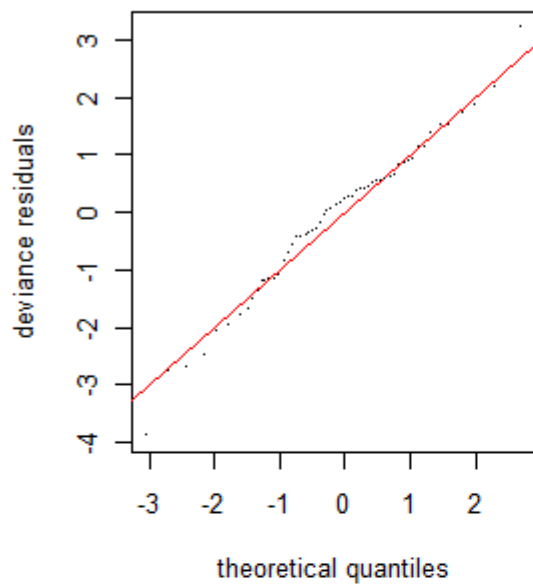
Model 2 Time to first click

Family Tweedie(1.1)

Link $\mu^{0.1}$

N 59

R-sq 37.12%



Model 3 Time to first click

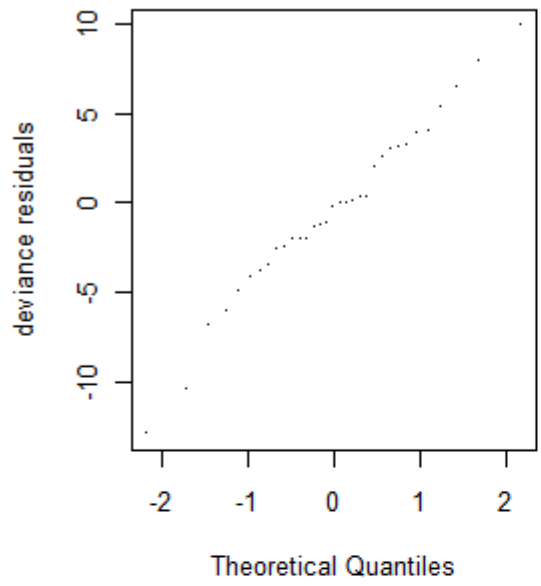
Family Tweedie(1.1)

Link $\mu^{0.1}$

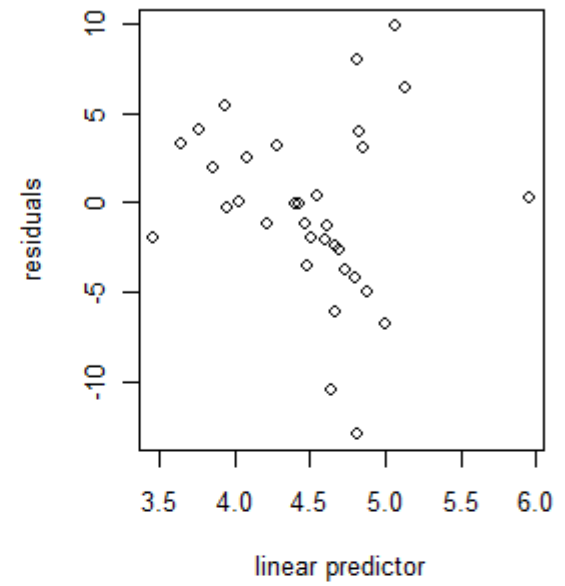
N 56

R-sq 43.30%

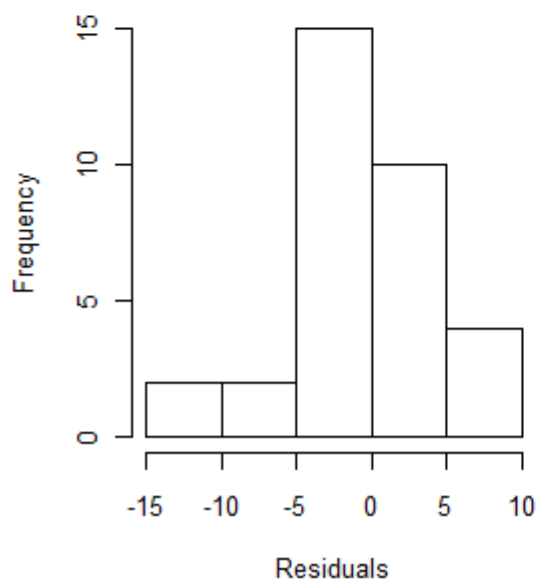
Normal Q-Q Plot



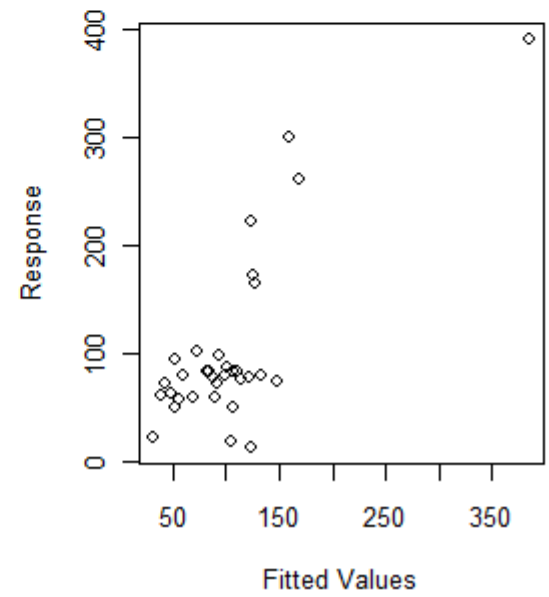
Resids vs. linear pred.



Histogram of residuals



Response vs. Fitted Values



Model 4 Duration of first bout of clicks

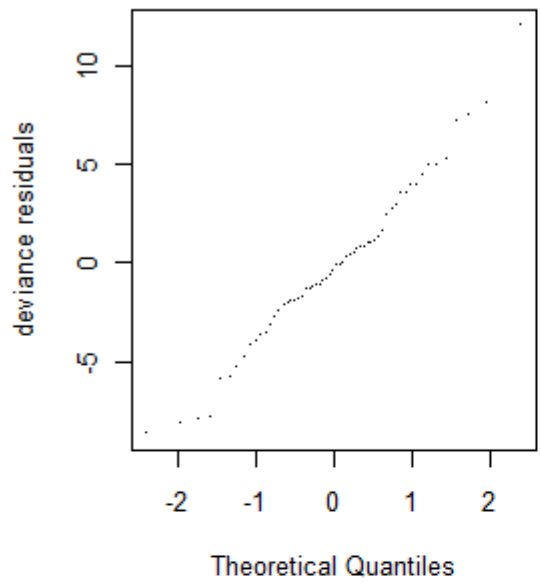
Family quasi

Link log

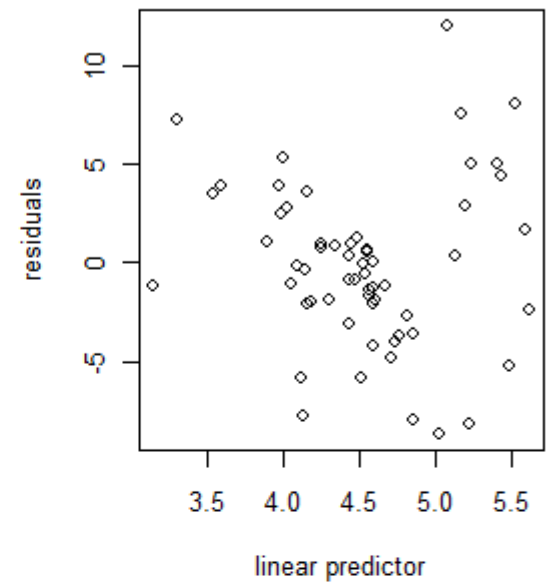
N 33

R-sq 56.44%

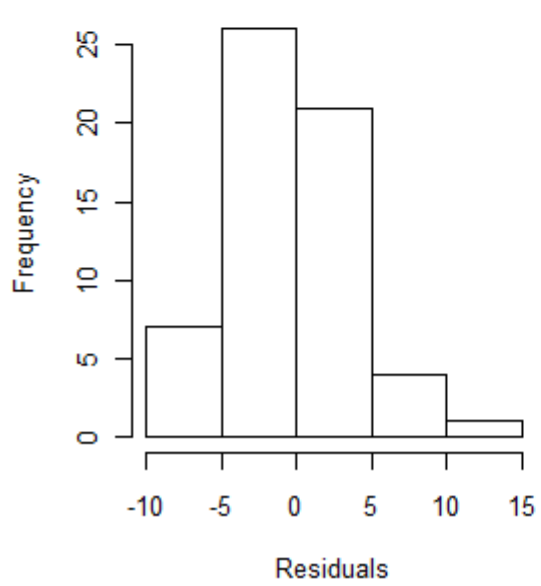
Normal Q-Q Plot



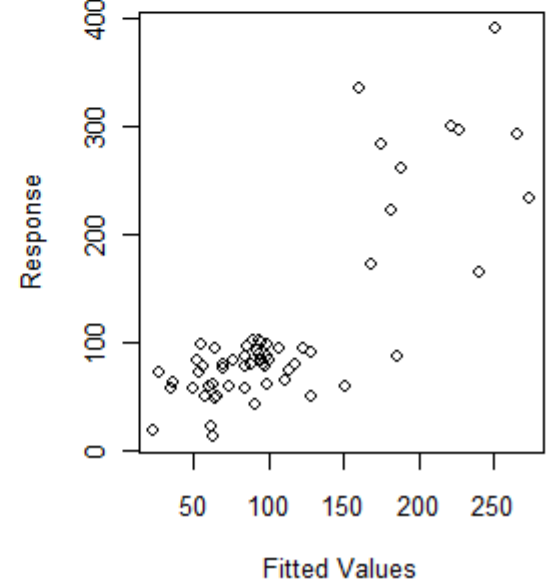
Resids vs. linear pred.



Histogram of residuals



Response vs. Fitted Values



Model 5 Duration of first bout of clicks

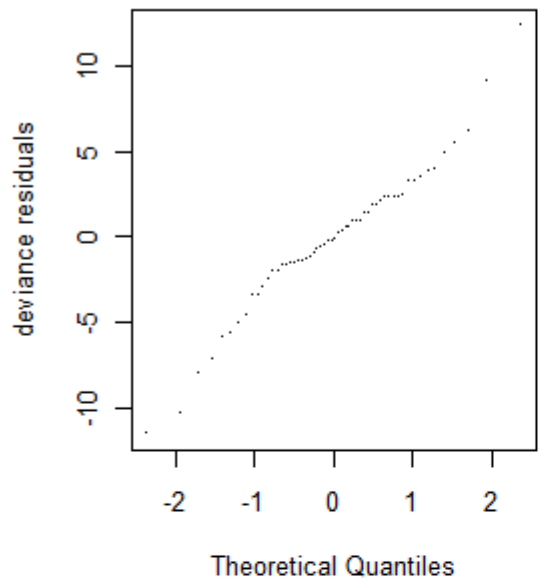
Family quasi

Link log

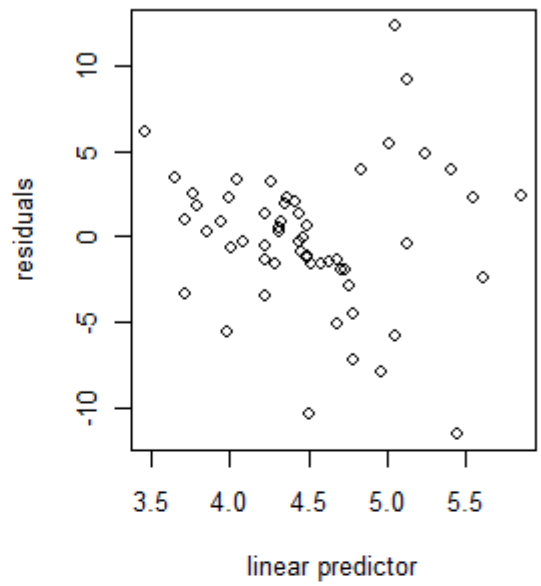
N 59

R-sq 51.87%

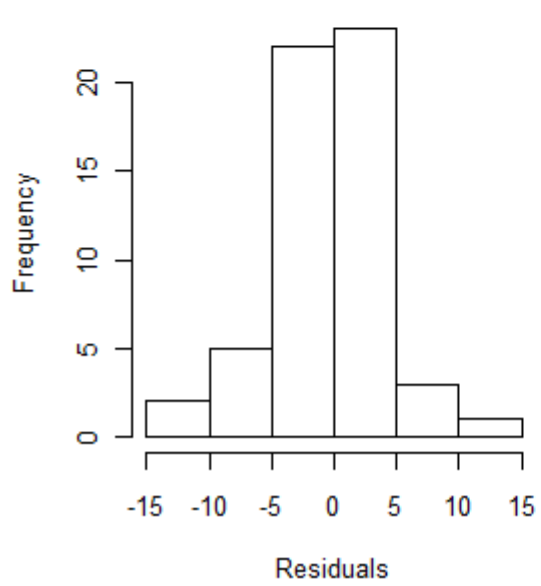
Normal Q-Q Plot



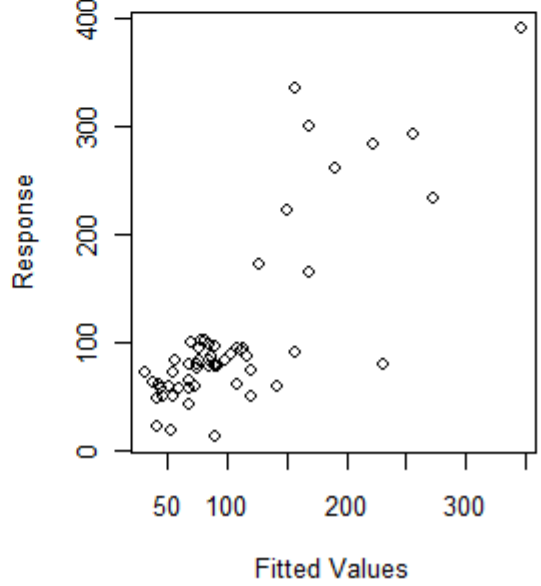
Resids vs. linear pred.



Histogram of residuals



Response vs. Fitted Values



Model 6 Duration of first bout of clicks

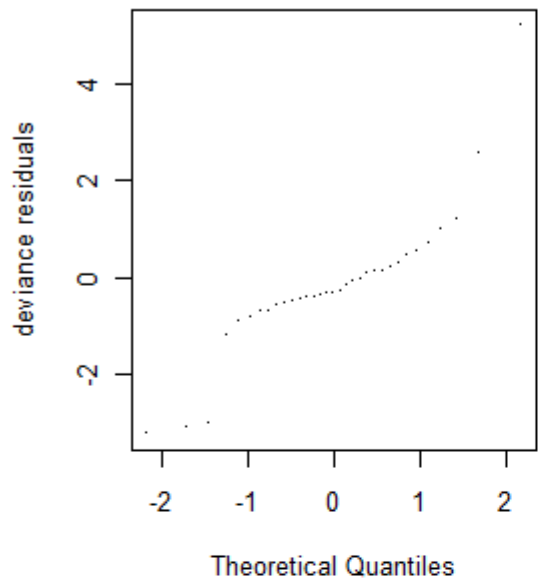
Family quasi

Link log

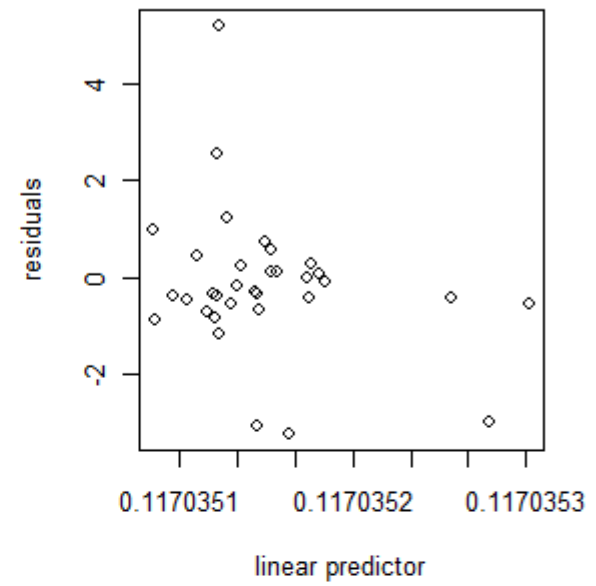
N 56

R-sq 51.52%

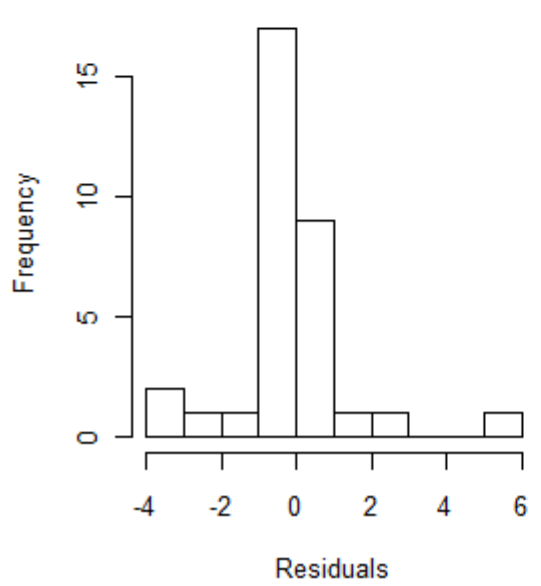
Normal Q-Q Plot



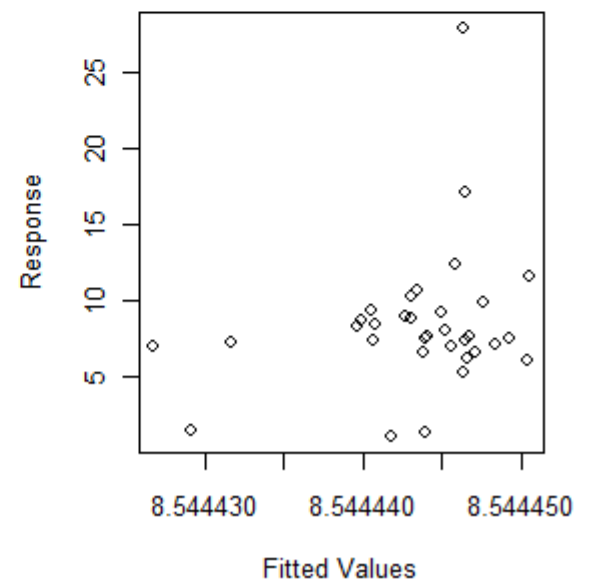
Resids vs. linear pred.



Histogram of residuals



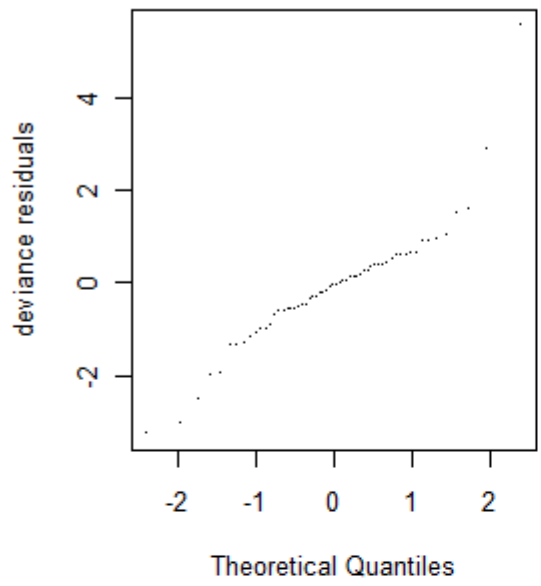
Response vs. Fitted Values



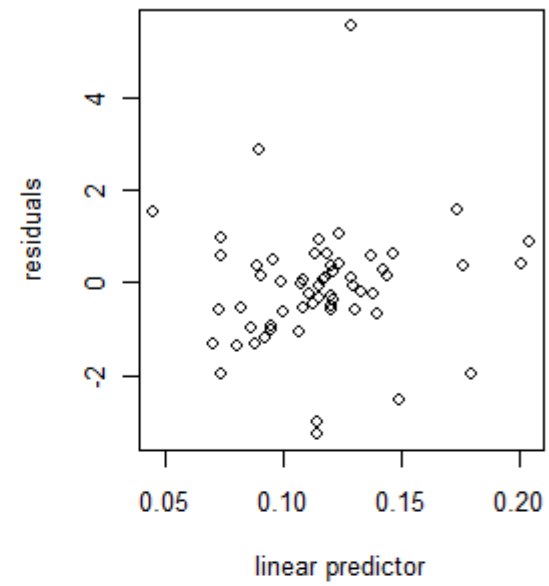
Model 7 Duration of first silence

Family quasi
Link inverse
N 33
R-sq 0.00%

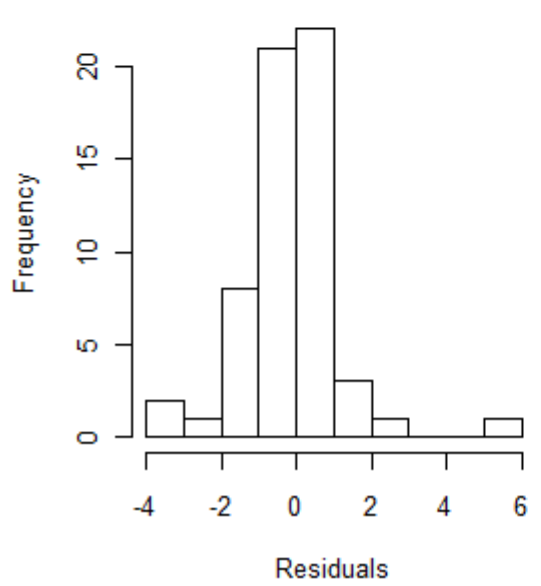
Normal Q-Q Plot



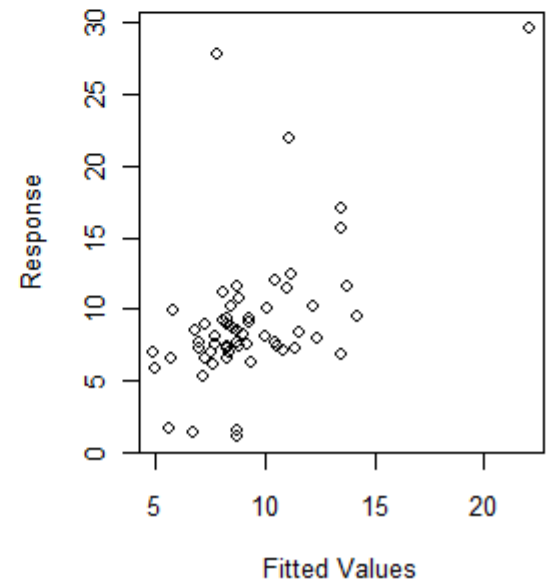
Resids vs. linear pred.



Histogram of residuals



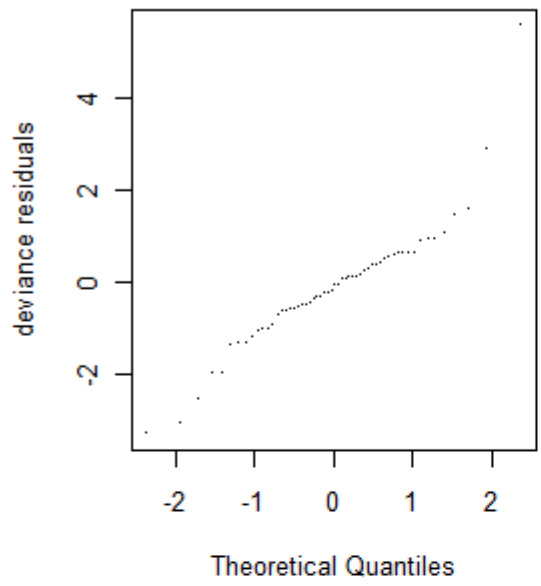
Response vs. Fitted Values



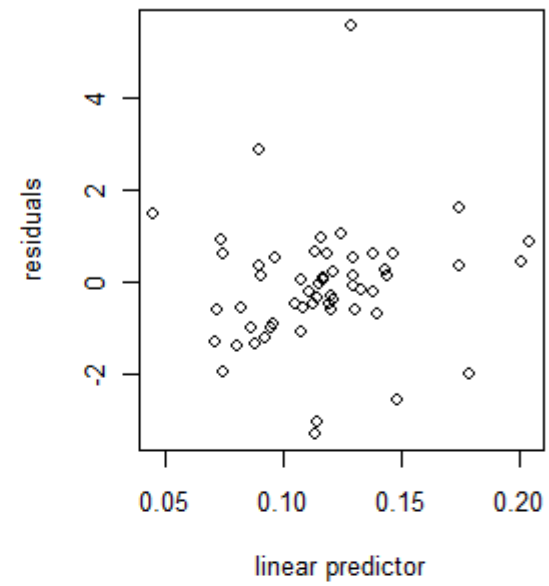
Model 8 Duration of first silence

Family quasi
Link inverse
N 59
R-sq 7.40%

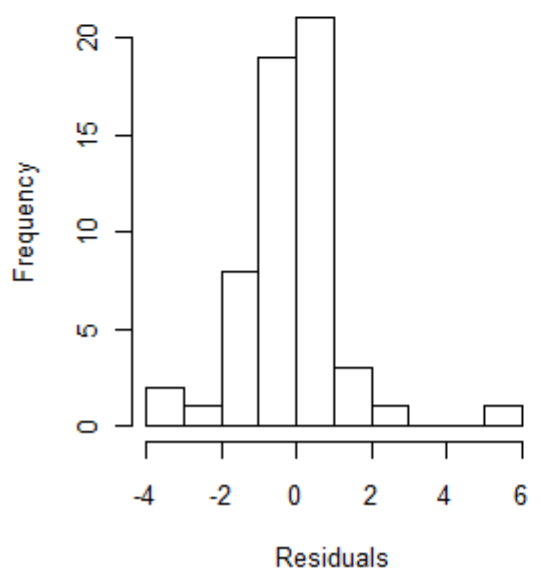
Normal Q-Q Plot



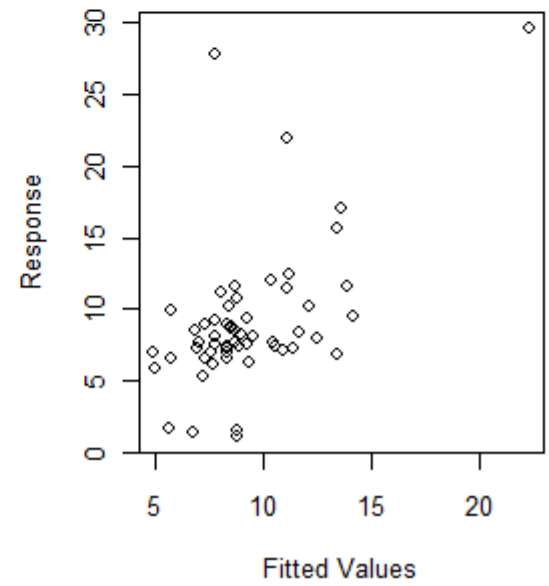
Resids vs. linear pred.



Histogram of residuals

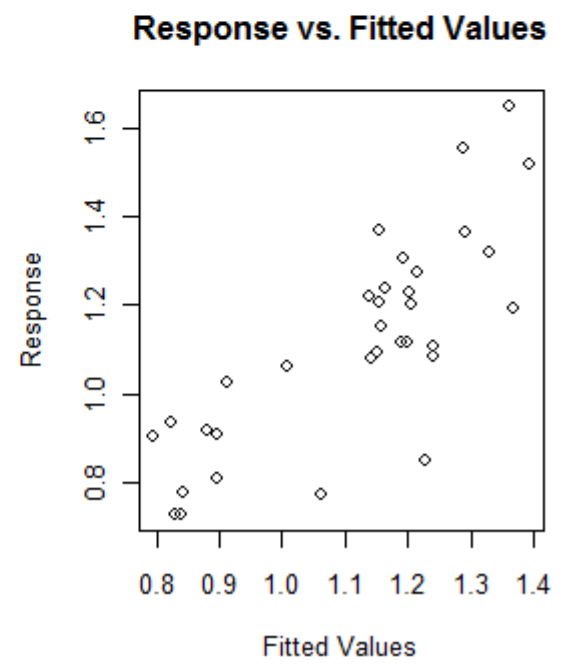
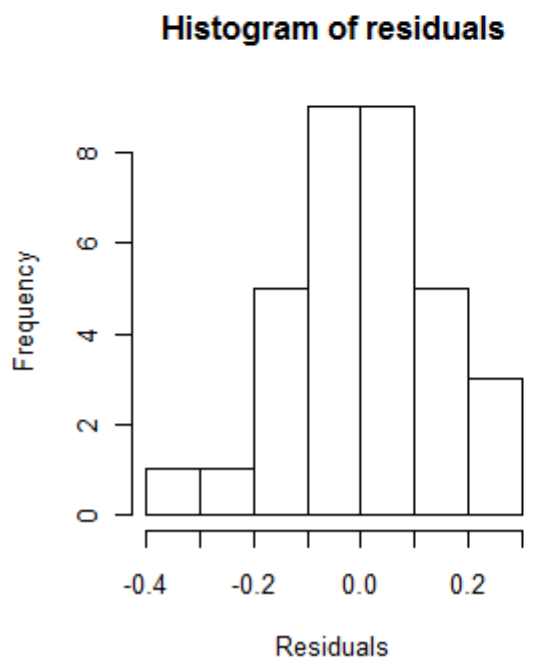
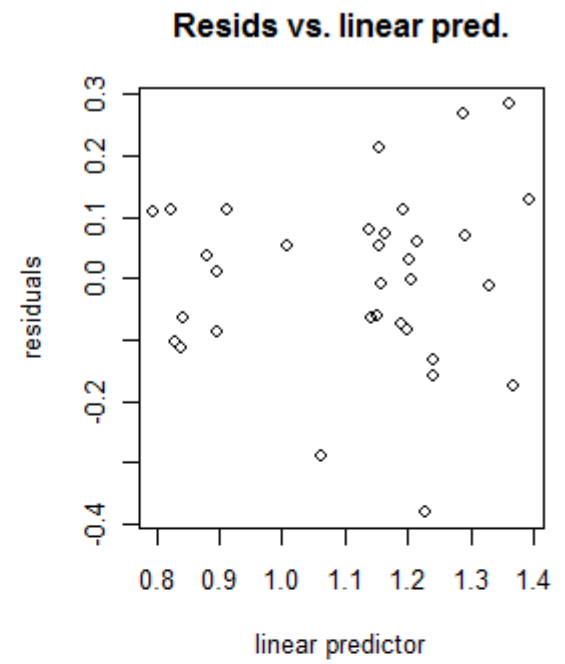
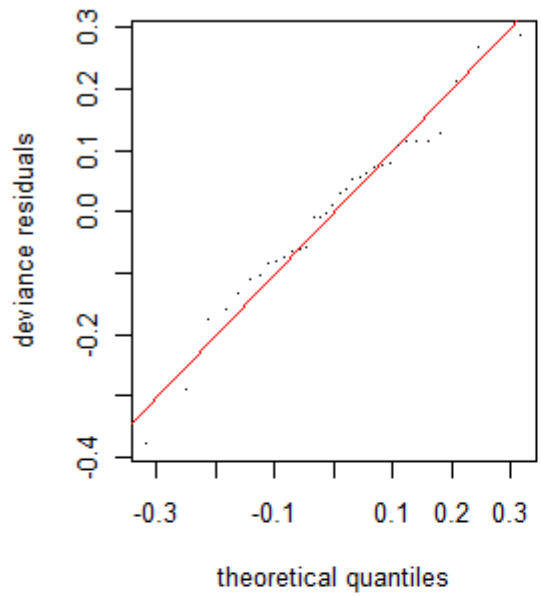


Response vs. Fitted Values



Model 9 Duration of first silence

Family quasi
Link inverse
N 56
R-sq 8.28%



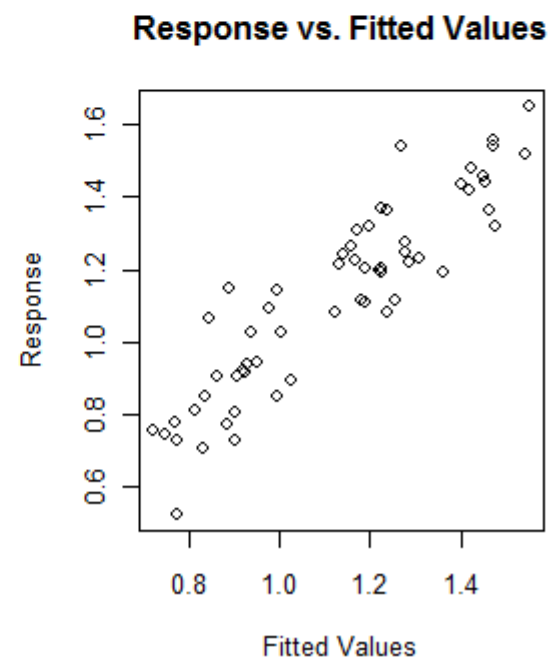
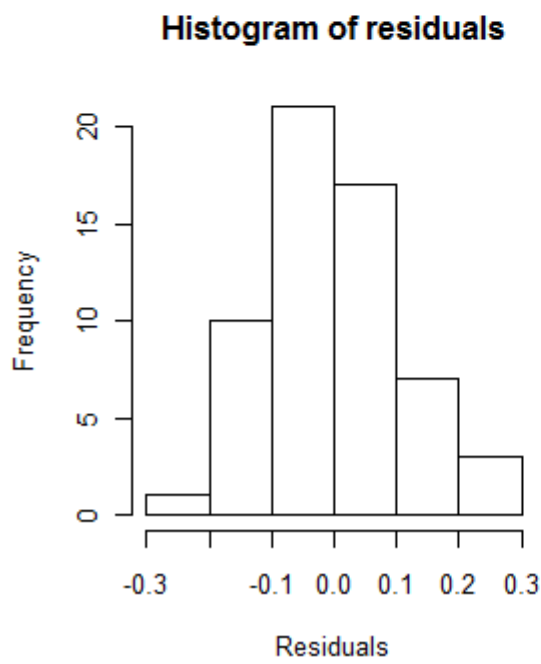
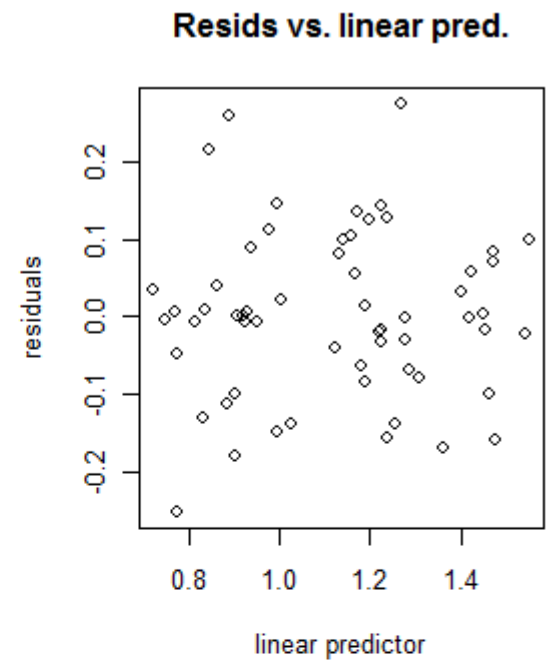
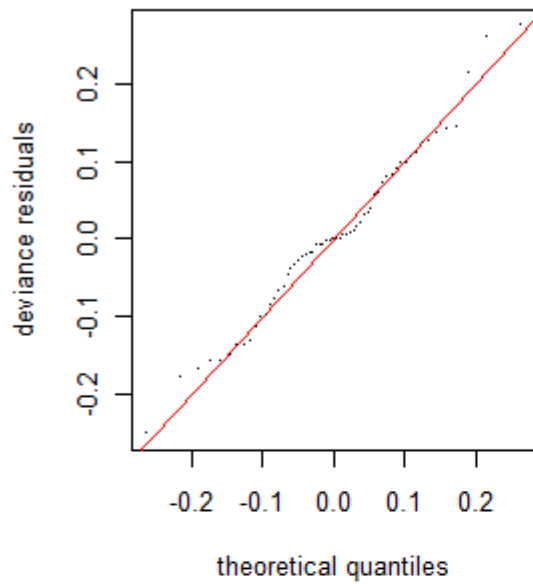
Model 10 ICI of the first five clicks

Family *Gaussian*

Link *identity*

N 33

R-sq 60.58%



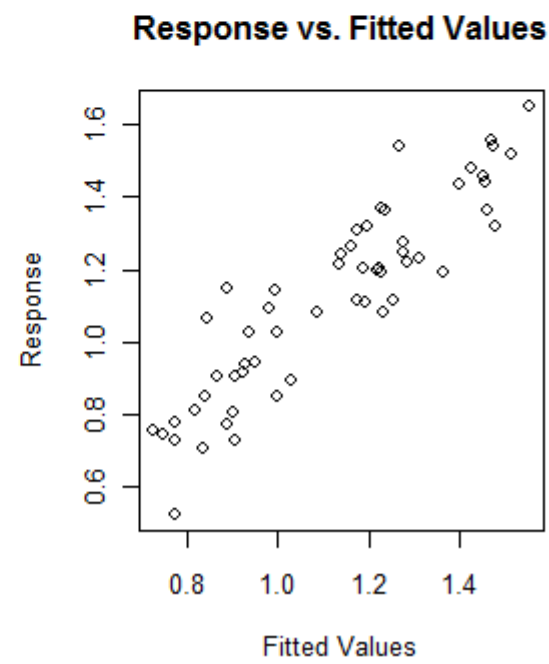
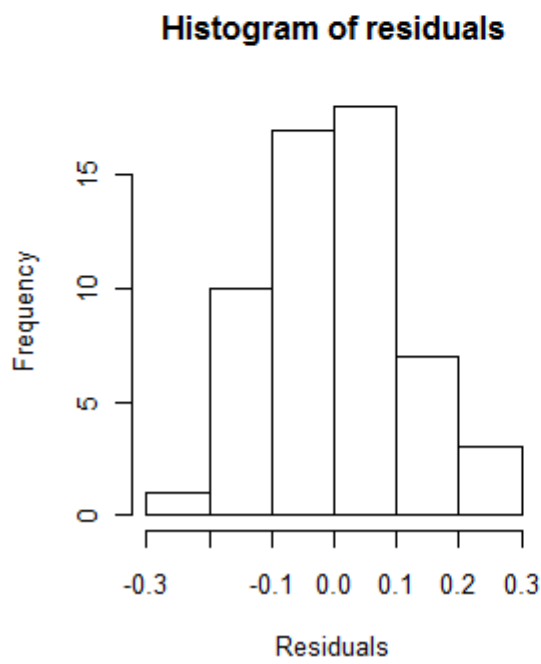
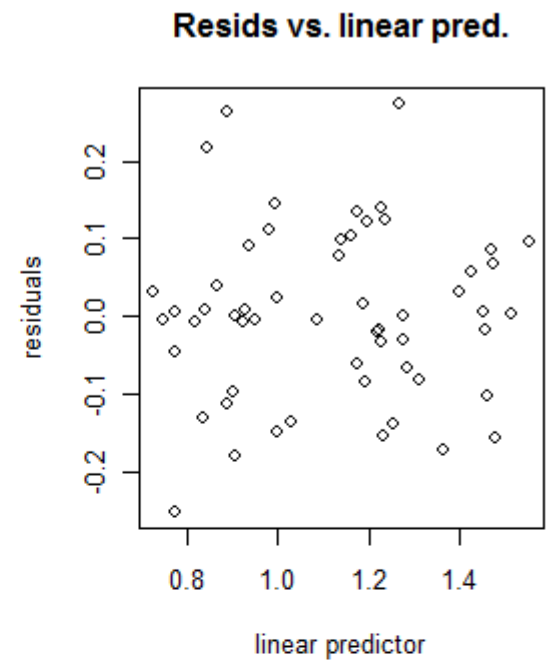
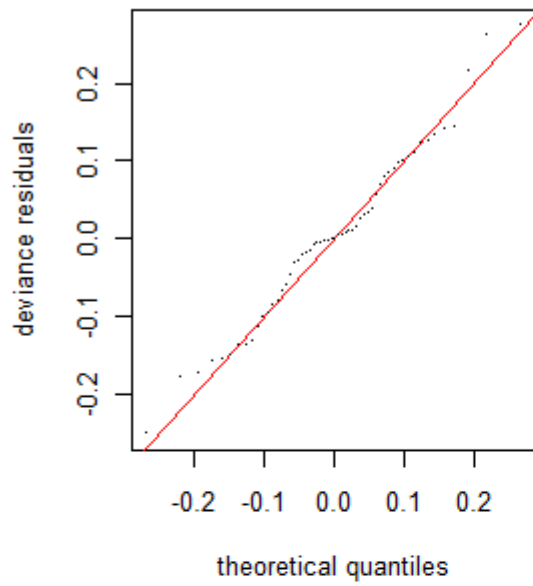
Model 11 ICI of the first five clicks

Family *Gaussian*

Link *identity*

N 59

R-sq 75.81%



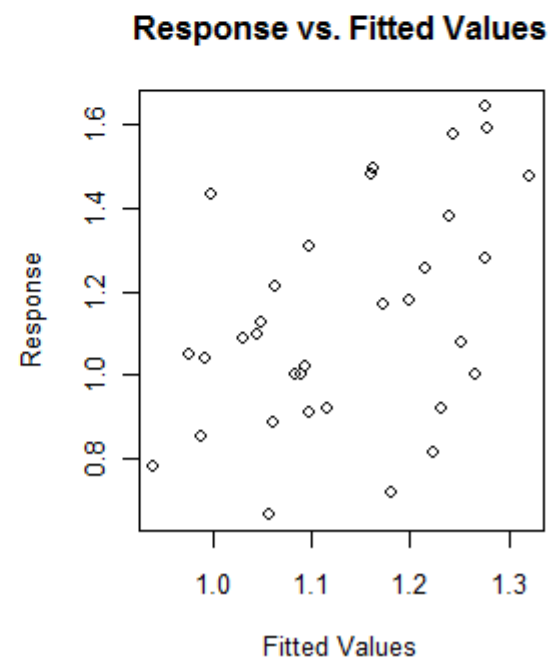
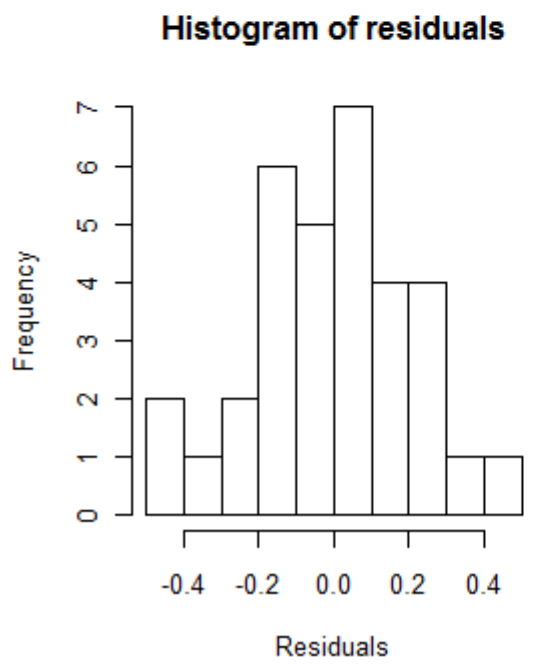
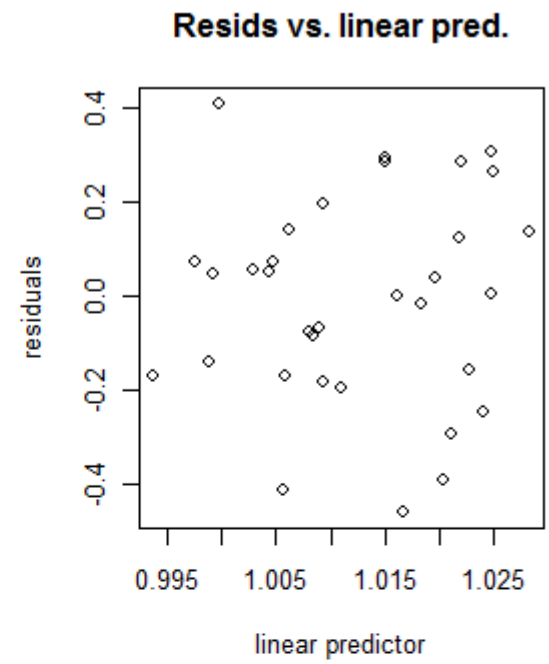
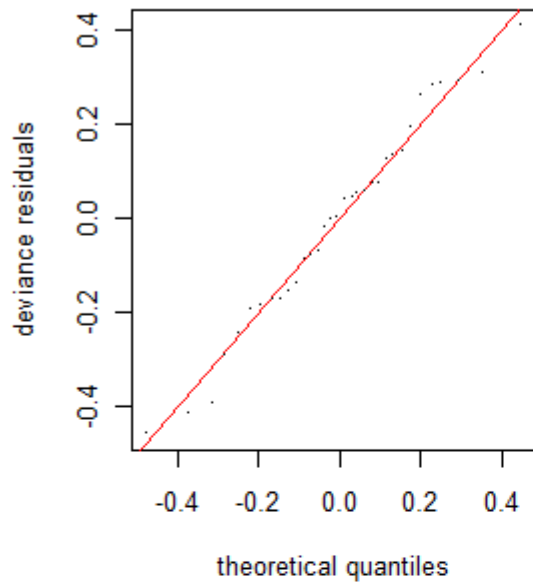
Model 12 ICI of the first five clicks

Family *Gaussian*

Link *identity*

N 56

R-sq 75.21%



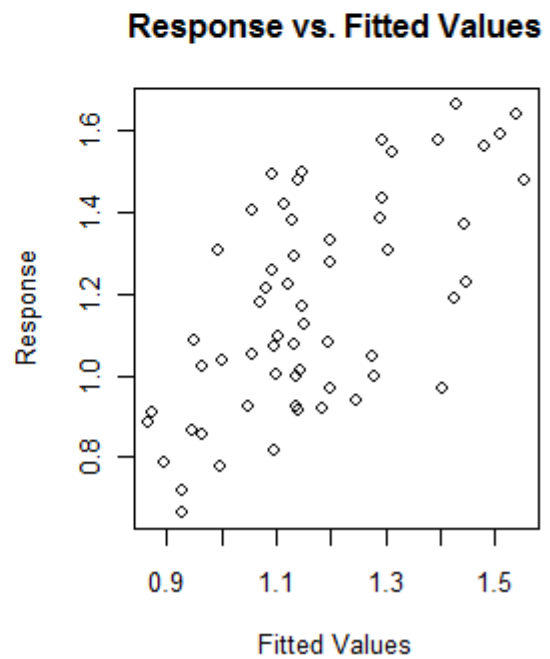
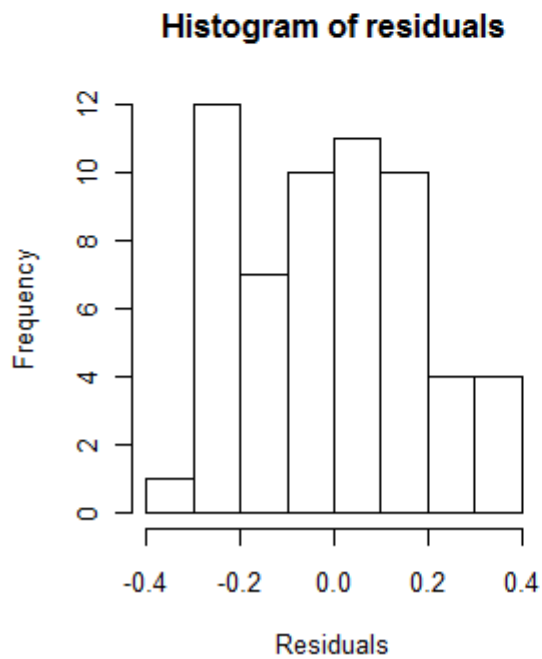
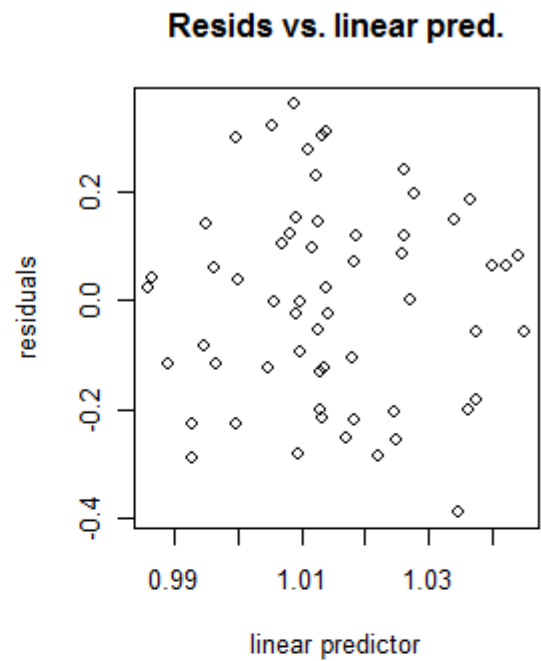
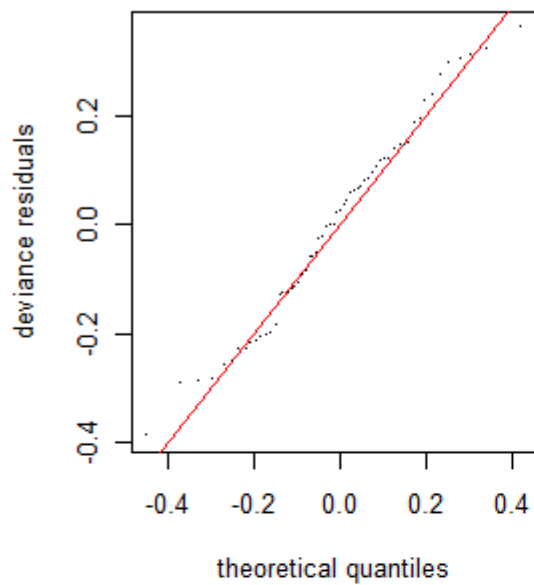
Model 13 ICI of the last five clicks of the first bout

Family Tweedie(1.1)

Link $\mu^{0.1}$

N 33

R-sq 16.91%



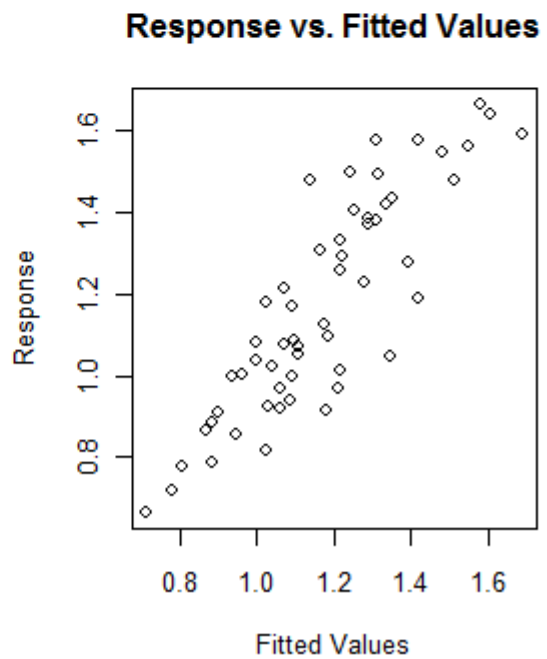
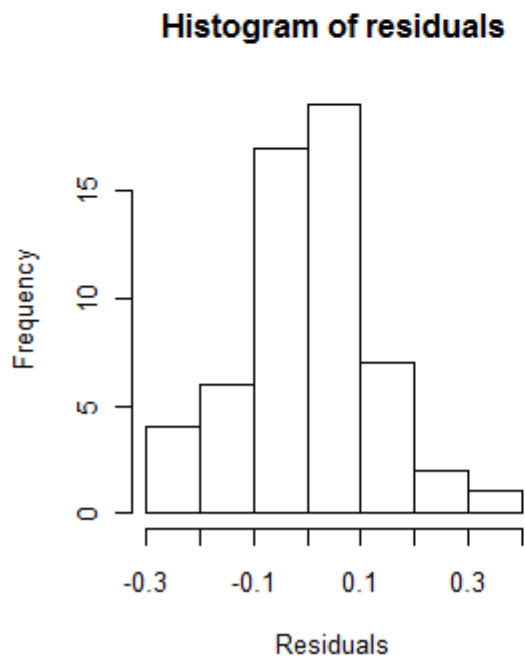
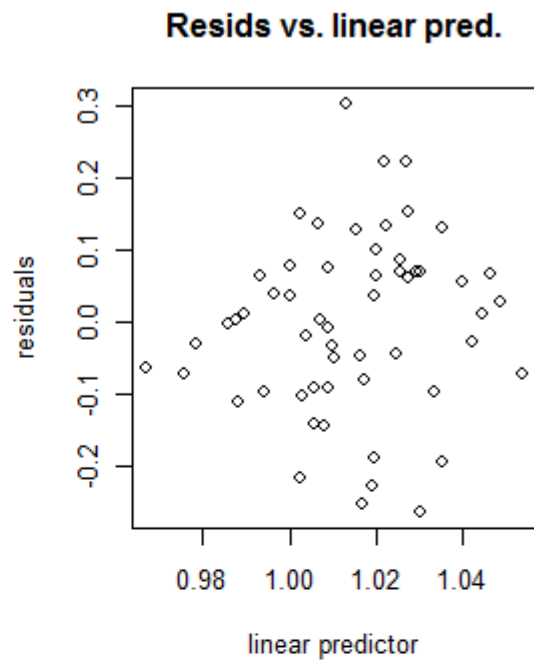
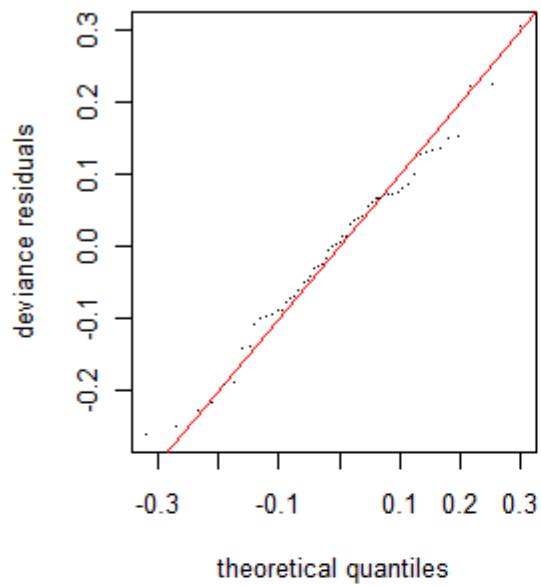
Model 14 ICI of the last five clicks of the first bout

Family Tweedie(1.1)

Link $\mu^{0.1}$

N 59

R-sq 18.15%



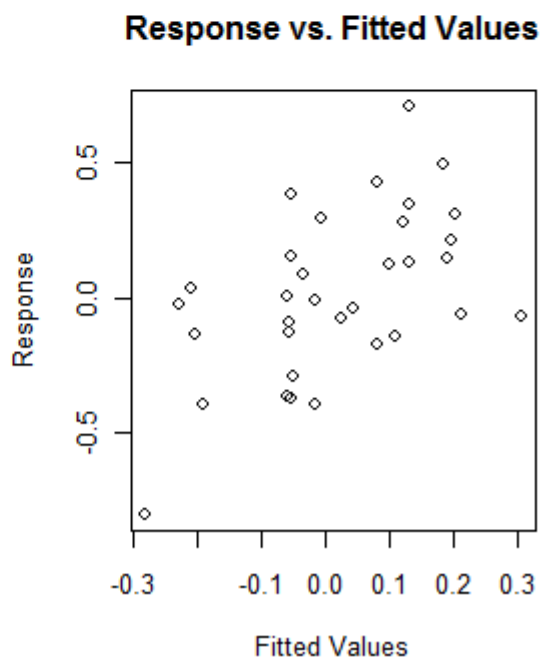
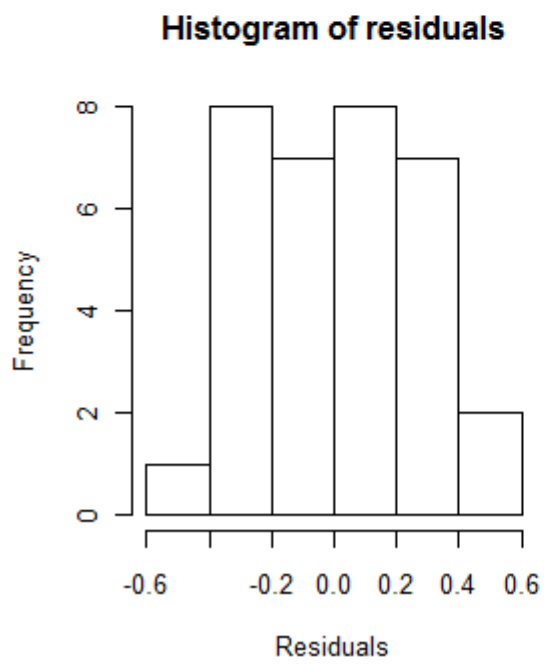
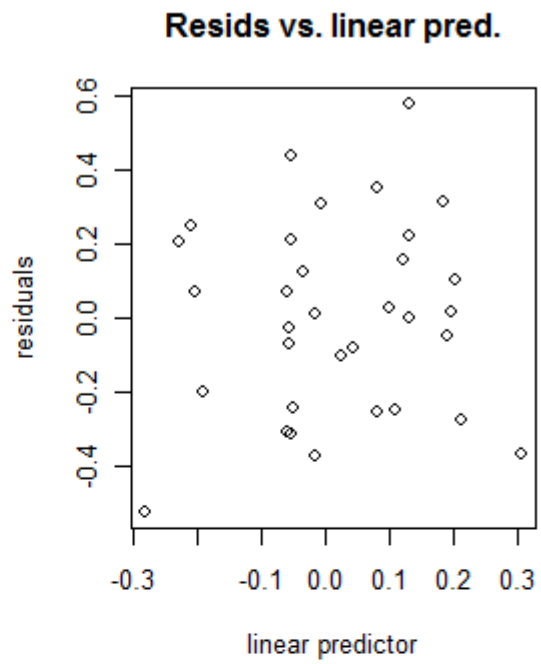
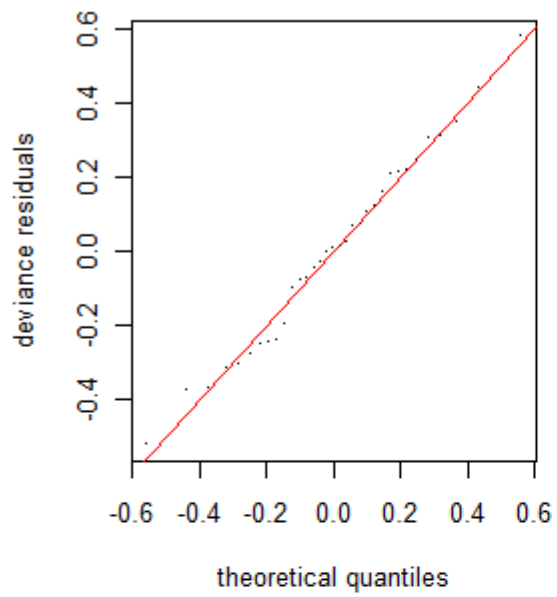
Model 15 ICI of the last five clicks of the first bout

Family Tweedie(1.1)

Link $\mu^{0.1}$

N 56

R-sq 57.32%



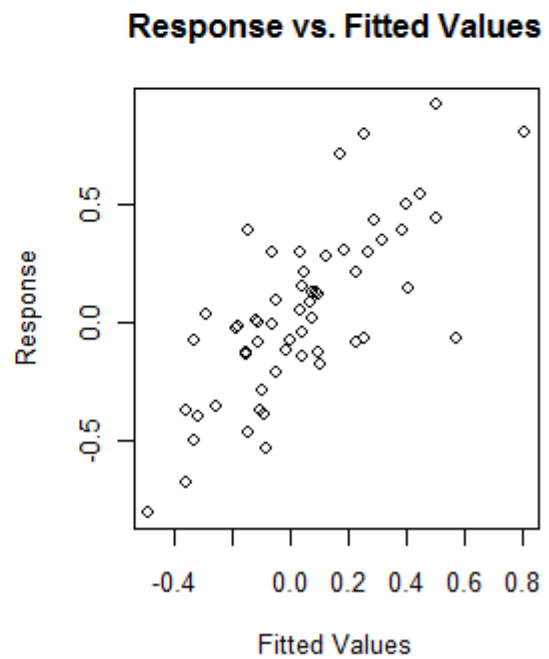
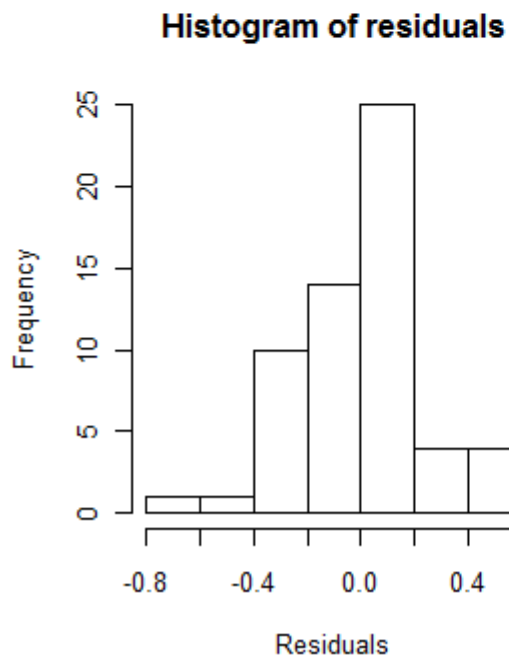
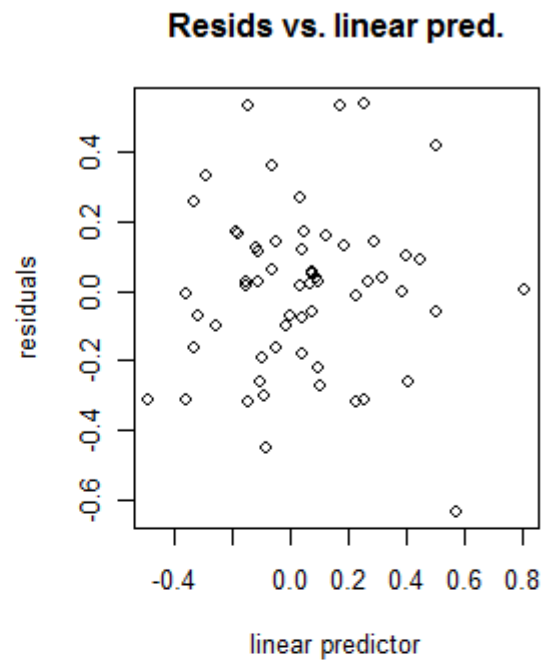
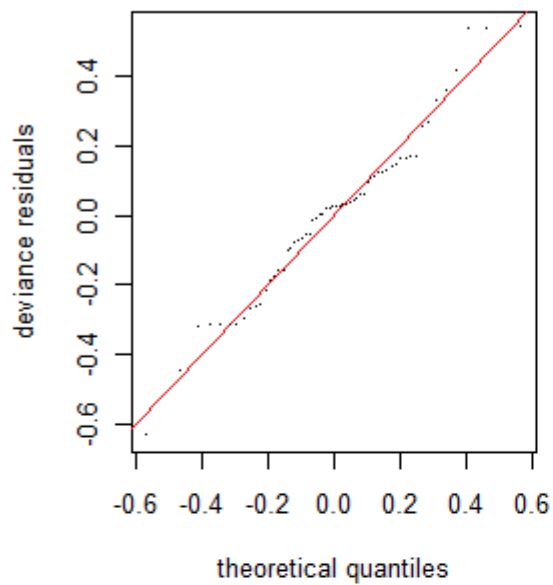
Model 16 *Change in ICI during the first bout of clicks*

Family *Gaussian*

Link *identity*

N 33

R-sq 25.71%



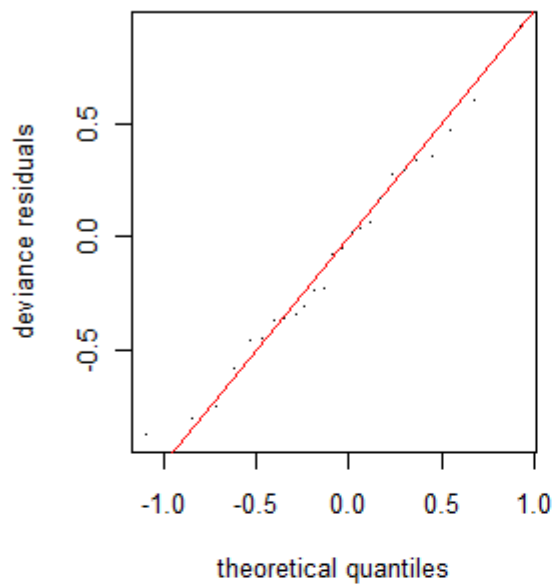
Model 17 *Change in ICI during the first bout of clicks*

Family *Gaussian*

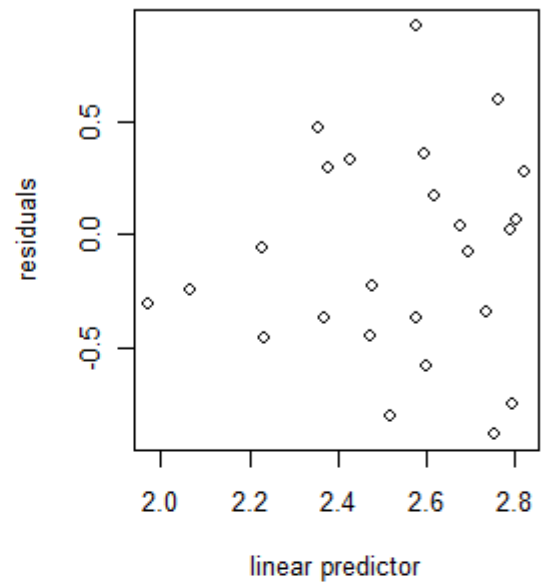
Link *identity*

N 59

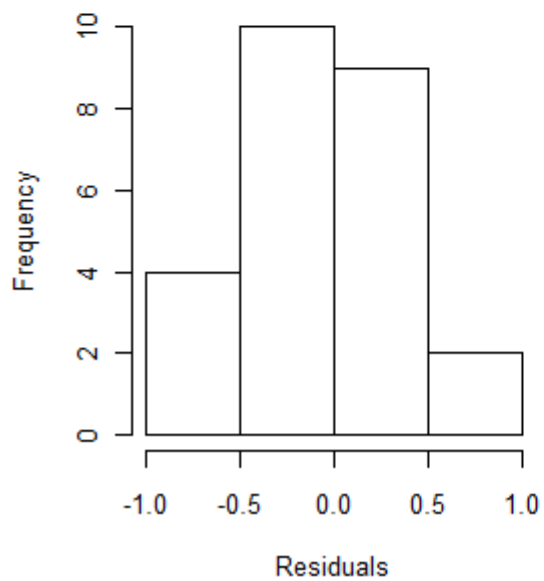
R-sq 40.01%



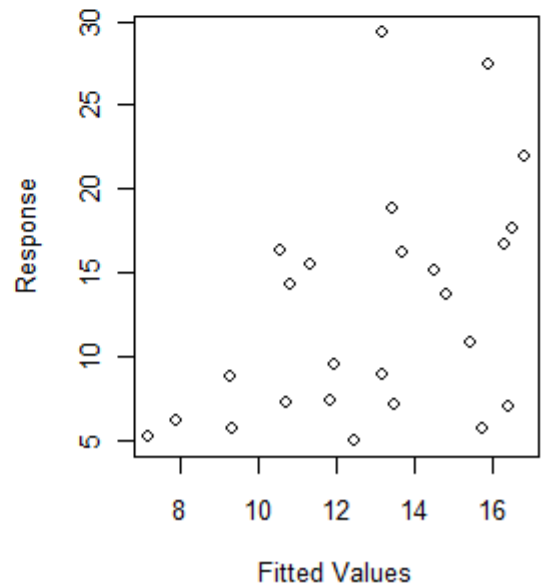
Resids vs. linear pred.



Histogram of residuals



Response vs. Fitted Values



Model 18 Time to first crack

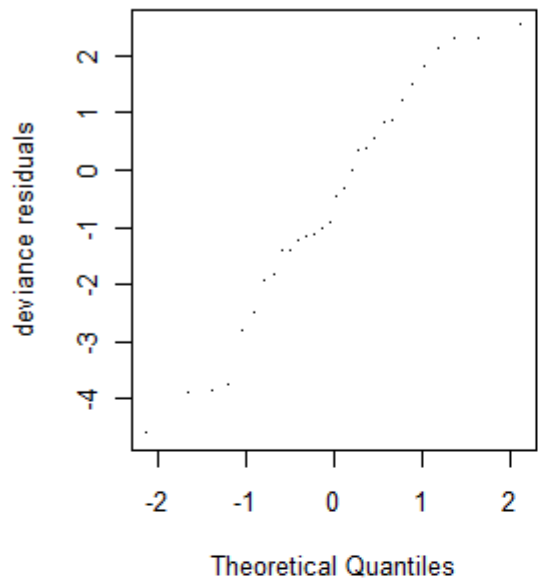
Family Gamma

Link log

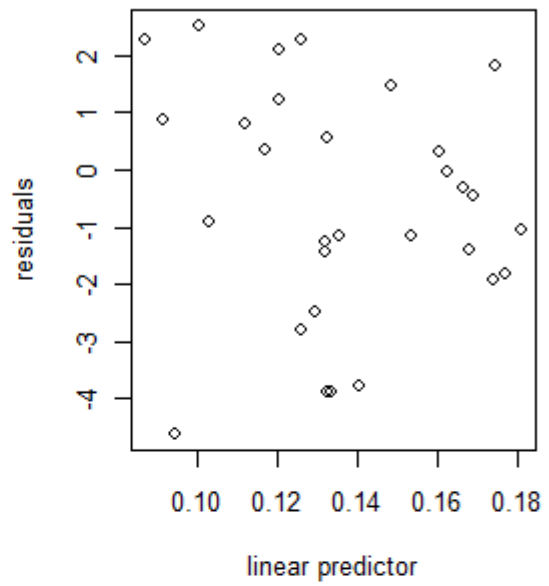
N 25

R-sq 13.68%

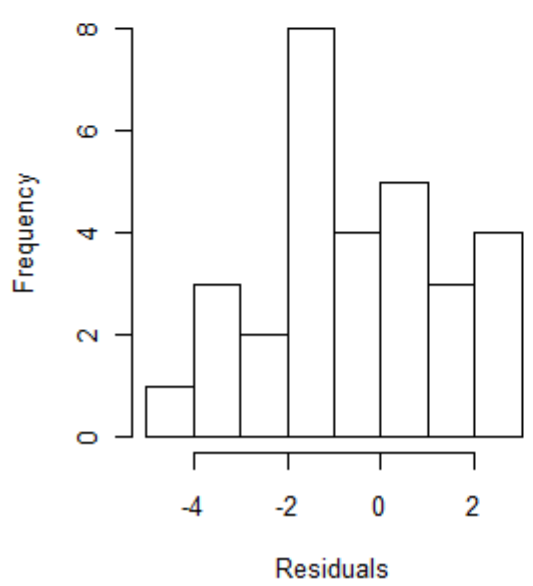
Normal Q-Q Plot



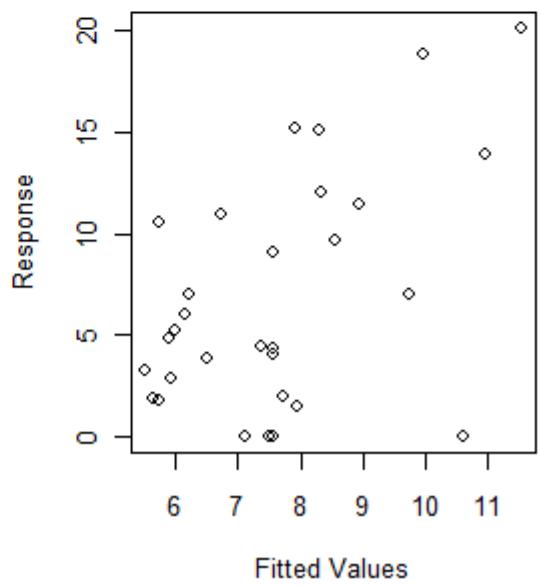
Resids vs. linear pred.



Histogram of residuals

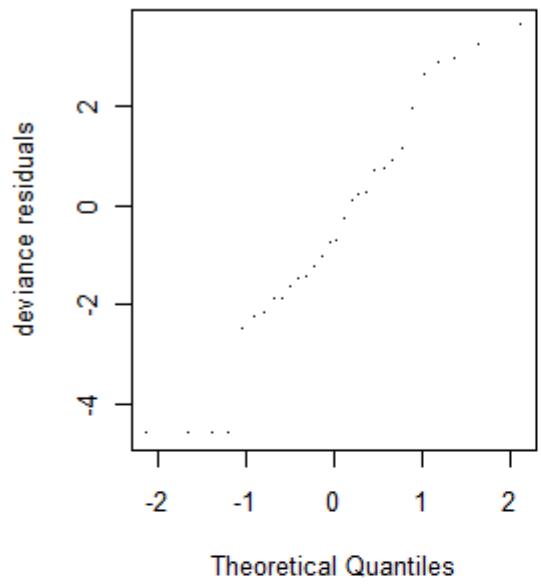


Response vs. Fitted Values

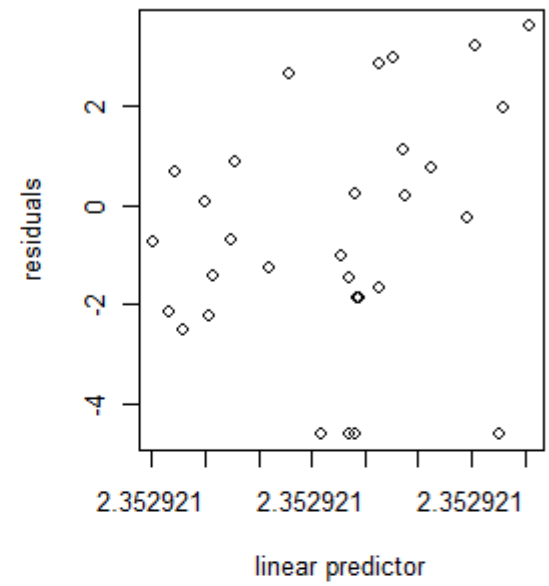


Model 19 Creak activity
Family *quasi*
Link *inverse*
N 30
R-sq 18.46%

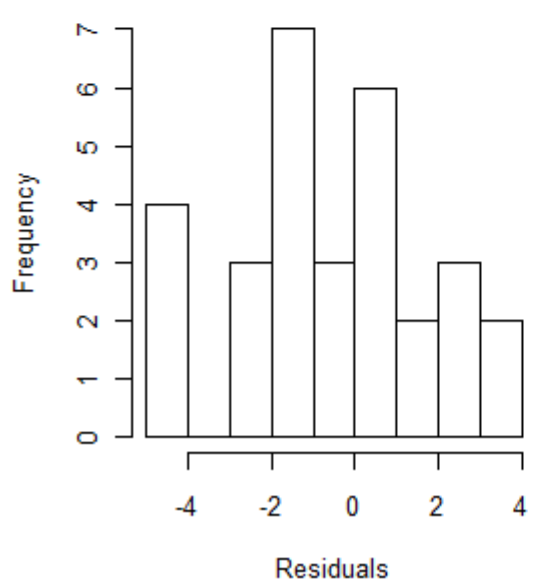
Normal Q-Q Plot



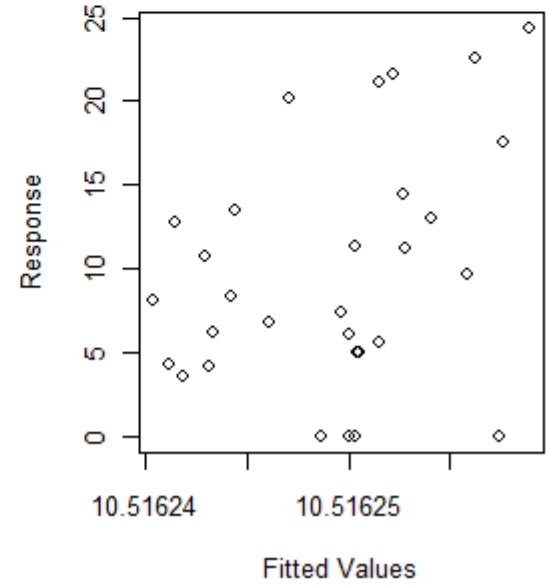
Resids vs. linear pred.



Histogram of residuals



Response vs. Fitted Values



Model 20 Creak rate

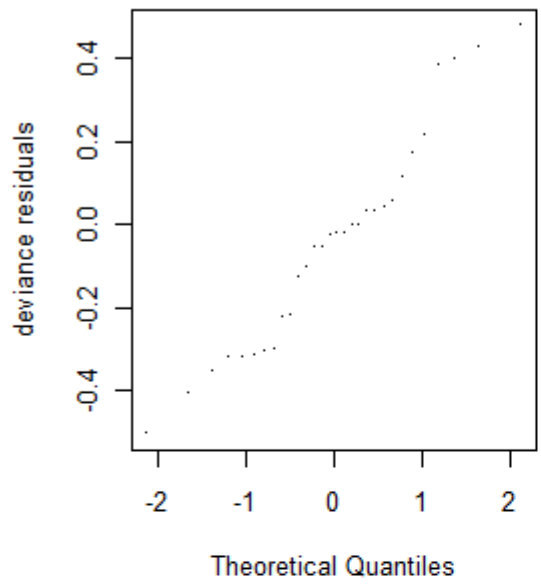
Family *quasipoisson*

Link *log*

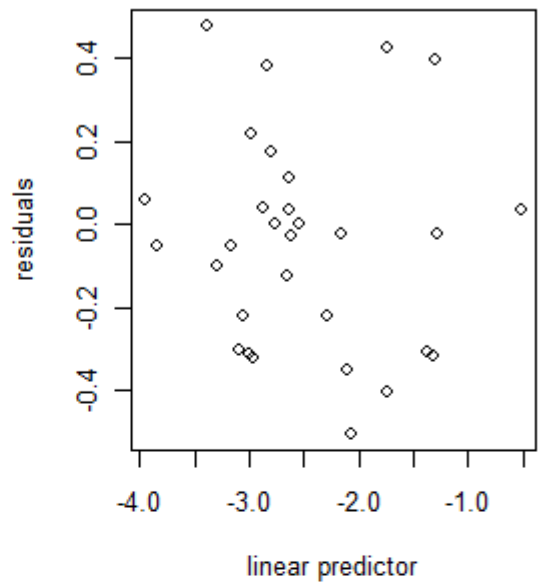
N 30

R-sq 0.00%

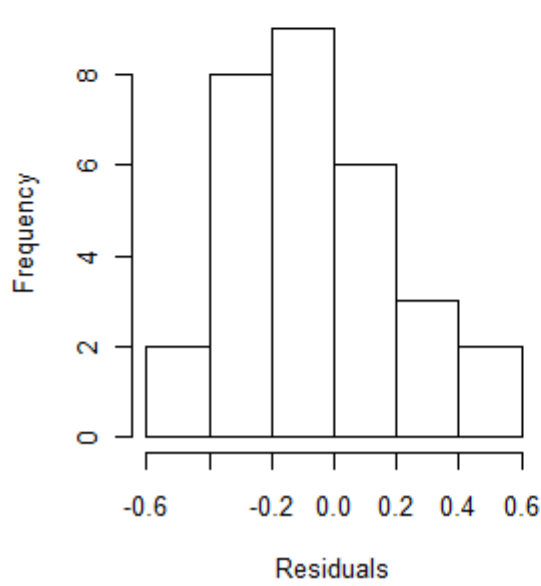
Normal Q-Q Plot



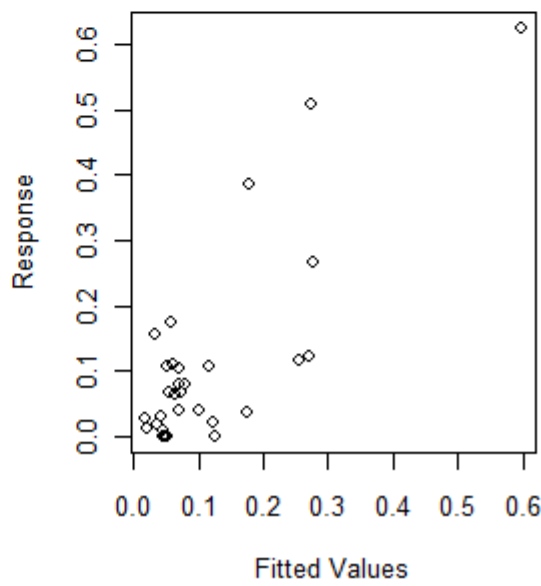
Resids vs. linear pred.



Histogram of residuals

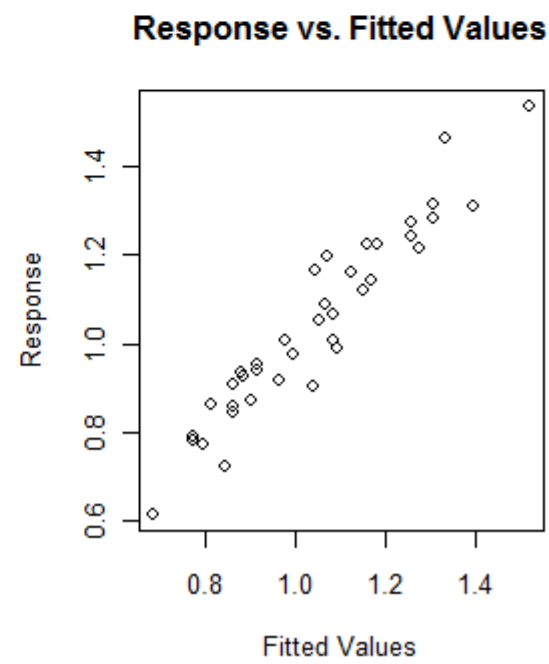
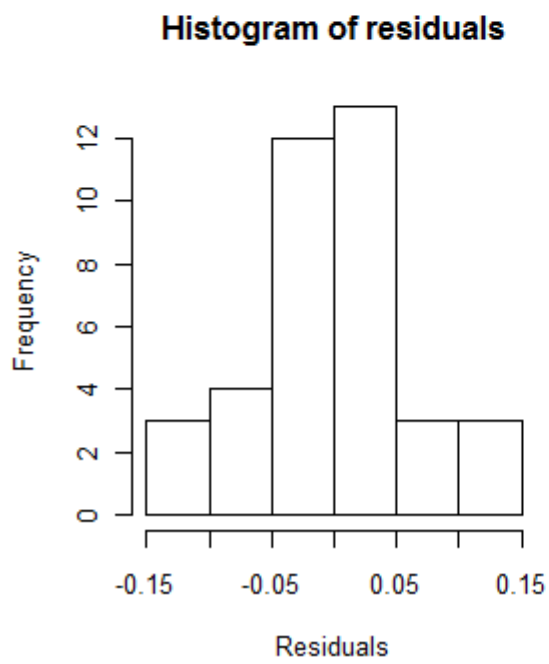
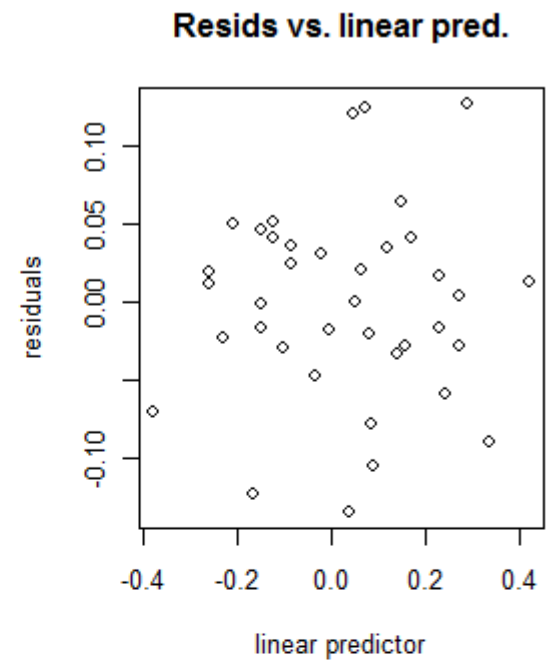
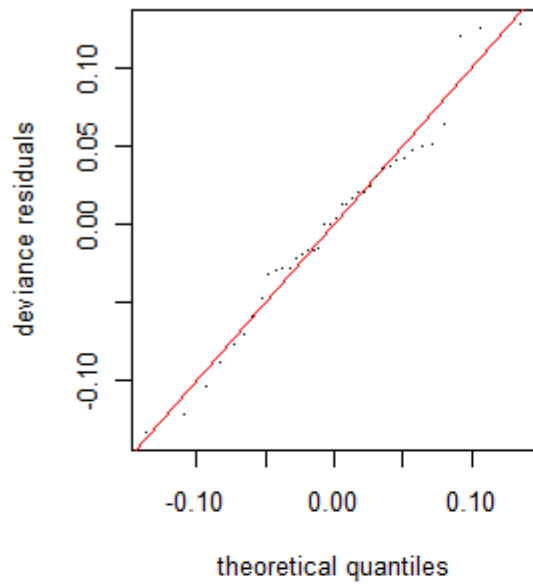


Response vs. Fitted Values



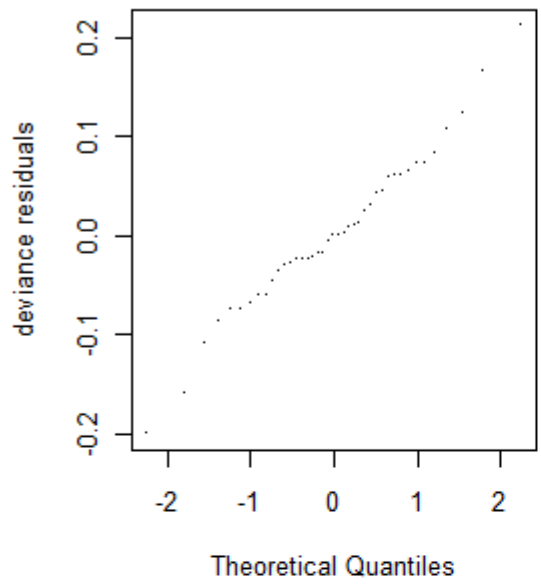
Model 21 % Time spent creaking

Family quasi
Link log
N 30
R-sq 45.04%

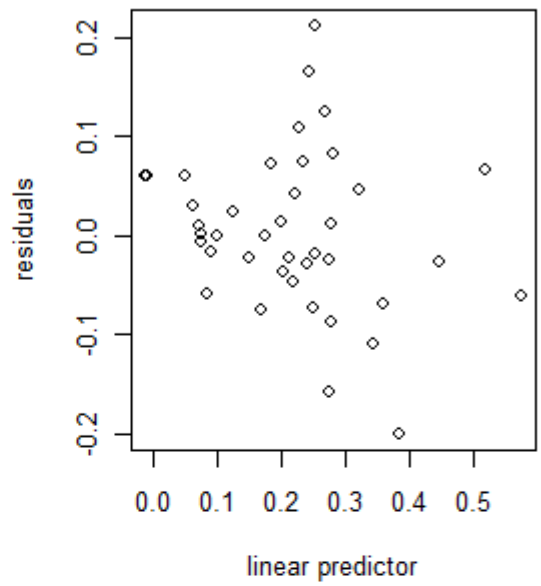


Model 22 Median ICI
 Family *gaussian*
 Link *log*
 N 38
 R-sq 85.57%

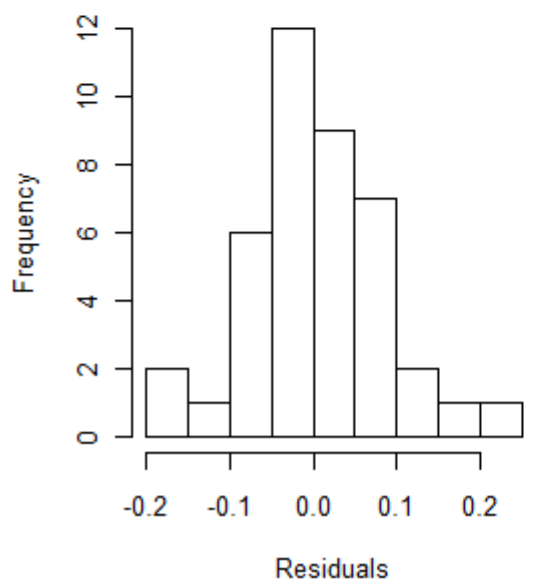
Normal Q-Q Plot



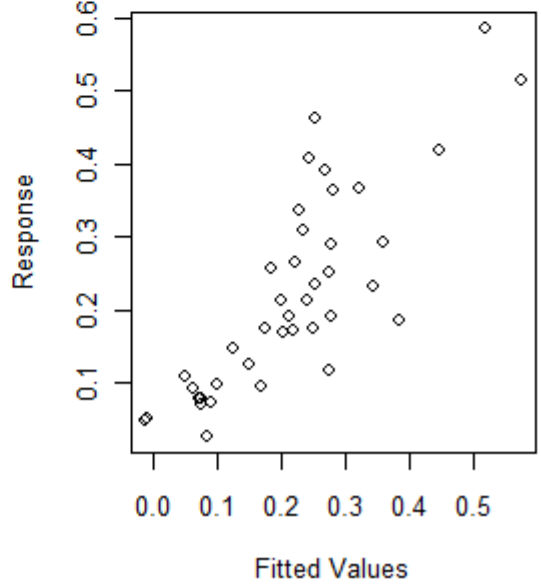
Resids vs. linear pred.



Histogram of residuals



Response vs. Fitted Values



Model 23 % Regular clicks in median

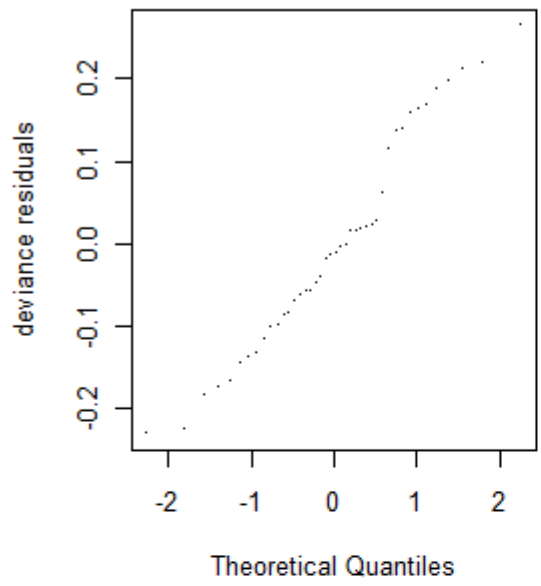
Family *quasi*

Link *identity*

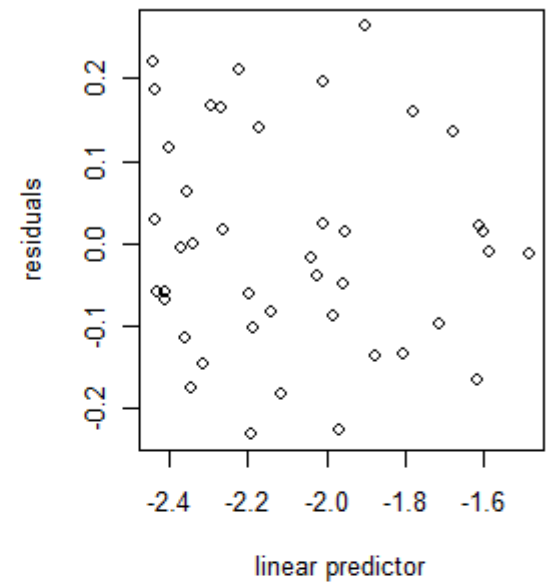
N 41

R-sq 45.15%

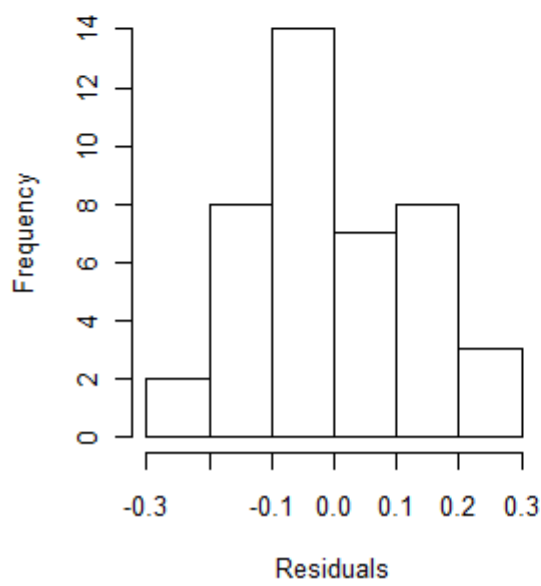
Normal Q-Q Plot



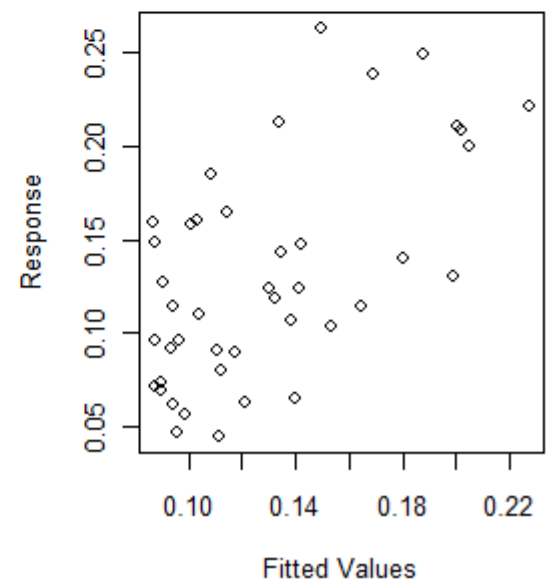
Resids vs. linear pred.



Histogram of residuals



Response vs. Fitted Values



Model 23 % Regular clicks in median

Family *quasi*

Link *identity*

N 42

R-sq 34.69%

