During observation periods formation of bats’ group was not frequent. Most of the observed bat individuals were separated from each other. As a result, structural parameters of a classical regression model constructed for the given data would be significantly biased. Verification of null hypotheses regarding structural parameters would lead to erroneous conclusions. Application of the quantile regression reduces such bias and enhances the model reliability. Conclusions concerning the model parameters are valid, regardless unbalance and specific features of the model residuals.