Table 2. Output of GLMM estimating the effect of sugar excretion by bats fed on different piperine concentrations. The bat identity and trial date were included as random effects in the models. Effect sizes are reported in relation to the control. Intervals are back-transformed from the logit scale.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Treatment | Coefficient | SE | 95% CI [lower CI, upper CI] | Effect size | P |
| 0.1% | 0.04 | 0.03 | [0.125, 0.174] | -3.27e-05 | 0.250 |
| 0.5% | 0.05 | 0.03 | [0.127, 0.175] | -4.49e-05 | 0.110 |
| 1.5% | 0.04 | 0.03 | [0.125, 0.173] | -3.23e-05 | 0.247 |
| 2% | -0.01 | 0.03 | [0.120, 0.166] | 1.26e-05 | 0.644 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Treatment | Coefficient | SE | 95% CI [lower CI, upper CI] | Effect size | P |
| 0.1% | -0.03 | 0.12 | [ 0.0113, 0.0210] | 0.000056 | 0.791 |
| 0.5% | 0.06 | 0.11 | [ 0.0125, 0.0229] | -0.000113 | 0.575 |
| 1.5% | -0.09 | 0.12 | [ 0.0107, 0.0198] | 0.000165 | 0.430 |
| 2% | 0.29 | 0.11 | [0.0157, 0.0285] | -0.000530 | 0.008\* |

Table 3. Output of GLMM estimating the effect of protein excretion by bats fed on different piperine concentrations. The bat identity and trial date were included as random effects in the models. Effect sizes are reported in relation to the control. Intervals are back-transformed from the logit scale.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Treatment | Coefficient | SE | 95% CI | P |
| 0% piperine, control | 0.03 | 0.06 | [1.23, 2.27] | 0.603 |
| 0.1% piperine | 0.02 | 0.06 | [1.04, 2.28] | 0.765 |
| 0.5% piperine | 0.04 | 0.06 | [1.21, 2.57] | 0.533 |
| 1.5% piperine | 0.04 | 0.05 | [1.16, 2.06] | 0.436 |
| 2% piperine | 0.04 | 0.09 | [1.51, 3] | 0.679 |

Table 4. Output of the different GLMM estimating the association between sugar and protein excretion by bats fed on different piperine concentrations One independent model was run per concentration of piperine. The bat identity and trial date were included as random effects in the models.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Treatment | Coefficient | SE | 95% CI [lower CI, upper CI] | Effect size | P |
| Low nutrients versus high nutrients | -1.23 | 0.44 | Low nutrients, [0.140, 0.371]  High nutrients, [0.364, 0.663] | 1.35 | 0.005 |
| 0.1% piperine versus 2% piperine | 1.91 | 0.60 | 0.1% piperine  [0.3586, 0.750]  2% piperine  [0.0721, 0.321] | -1.71 | 0.002 |
| Low nutrients, 0.1% piperine versus high nutrients, 2% piperine | -1.78 | 0.42 | Low nutrients, 0.1% piperine,  [0.101, 0.279]  High nutrients, 2% piperine,  [0.413, 0.684] | 1.12 | <0.001 |

Table 1. Output of the different GLMM exploring bat preference for different concentrations of nutrients and defensive compounds. One independent model was run per treatment. The bat identity and the date were included as random effects in the models.