**BIOL 5504:** **Quantitative Methods in Ecology and Evolution**

**Spring 2022**

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**Results**

Fish catch depends on the interaction between boat length and effort among river sites. The interaction between boat length and effort significantly affected the amount of fish caught. Catch from Amazon River has a significant difference compared to the Negro River, showing a higher catch.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variables | Estimate | SE | z- value | P-value |
| Intercept | 6.271816 | 0.018302 | 342.7 | <0.001 |
| Boat Length | 0.438050 | 0.013741 | 31.9 | <0.001 |
| Effort  Madeira River | 0.194056  0.042236 | 0.015569  0.040176 | 12.5  1.1 | <0.001  0.293 |
| Negro River | -0.633325 | 0.045189 | -14.0 | <0.001 |
| Purus River | -0.015878 | 0.026333 | -0.6 | 0.547 |
| Boat Length \* Effort | -0.074446 | 0.007883 | -9.4 | <0.001 |