Supplementary Table 7

Cox proportional hazards models on subset of greater amberjack fitted with internal acoustic transmitters in 2019 and 2020. This subset (n=35 of n=55 total acoustically tagged fish) was tested to examine the influence of all predictors considered in this study after examining for confounding correlations among predictors. A full model considering length (fork length), fight time, handling time, site depth, surface temperature, bottom temperature, descender device, bait / jig, fishing injury, and tagging injury was not possible because the attempted full model was overparameterized and would not converge. Bait / jig, fishing injury, and tagging injury were tested singly and had high AICc values and were thus removed from the initial model. Of n=55 internally acoustically tagged fish, bottom temperature, fight time, and handling time data were only available among 35 fish. Stepwise model selection by AIC was first conducted on this subset of data to evaluate the influence of all these predictors. The best supported model included surface temperature and bottom temperature.

<table>
<thead>
<tr>
<th>Model</th>
<th>AICc</th>
<th>Δ AICc</th>
<th>Predictor</th>
<th>Coefficient (b)</th>
<th>SE</th>
<th>Hazard Ratio e^b</th>
<th>95% CI for e^b</th>
<th>P</th>
<th>log-rank test χ²</th>
<th>d.f.</th>
<th>Overall Model P</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULLEST POSSIBLE MODEL</td>
<td>41.86</td>
<td>13.13</td>
<td>length</td>
<td>0.002</td>
<td>0.006</td>
<td>1.002</td>
<td>0.991 - 1.014</td>
<td>0.717</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>fight time</td>
<td>-0.005</td>
<td>0.008</td>
<td>0.995</td>
<td>0.980 - 1.011</td>
<td>0.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>hand. time</td>
<td>-0.001</td>
<td>0.011</td>
<td>0.998</td>
<td>0.978 - 1.019</td>
<td>0.857</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>site depth</td>
<td>0.032</td>
<td>0.148</td>
<td>1.033</td>
<td>0.773 - 1.381</td>
<td>0.827</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>surface T°</td>
<td>-0.655</td>
<td>0.851</td>
<td>0.519</td>
<td>0.098 - 2.751</td>
<td>0.441</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>bottom T°</td>
<td>0.593</td>
<td>0.566</td>
<td>1.809</td>
<td>0.597 - 5.480</td>
<td>0.295</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>descender</td>
<td>0.288</td>
<td>1.649</td>
<td>1.333</td>
<td>0.053 - 33.784</td>
<td>0.862</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd BEST MODEL</td>
<td>30.92</td>
<td>2.19</td>
<td>surface T°</td>
<td>-0.718</td>
<td>0.301</td>
<td>0.488</td>
<td>0.270 - 0.880</td>
<td>0.017</td>
<td>8.63</td>
<td>3</td>
<td>0.030</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>bottom T°</td>
<td>0.608</td>
<td>0.335</td>
<td>1.836</td>
<td>0.951 - 3.544</td>
<td>0.070</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>fight time</td>
<td>-0.003</td>
<td>0.006</td>
<td>0.997</td>
<td>0.986 - 1.009</td>
<td>0.658</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEST MODEL</td>
<td>28.73</td>
<td>0</td>
<td>surface T°</td>
<td>-0.651</td>
<td>0.245</td>
<td>0.521</td>
<td>0.323 - 0.843</td>
<td>0.008</td>
<td>8.41</td>
<td>2</td>
<td>0.010</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>bottom T°</td>
<td>-0.612</td>
<td>0.333</td>
<td>1.844</td>
<td>0.960 - 3.545</td>
<td>0.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NULL MODEL</td>
<td>32.77</td>
<td>7.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: hand. time = handling time, fish injury = fishing injury, tag injury = tagging injury, T° = temperature