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.

Model AICc	Δ AICc	Predictor	Coeff-icient (b)	SE	Hazard Ratio e^b	95% CI for e^b	P	log-rank test $\chi 2$	d.f.	Over-all Model P	n
FULLEST POSSIBLE MODEL								9.06	7	0.50	35
41.86	13.13	length	0.002	0.006	1.002	0.991 - 1.014	0.717				
		fight time	-0.005	0.008	0.995	0.980 - 1.011	0.44				
		hand. time	-0.001	0.011	0.998	0.978 - 1.019	0.857				
		site depth	0.032	0.148	1.033	0.773 - 1.381	0.827				
		surface $T°$	-0.655	0.851	0.519	0.098 - 2.751	0.441				
		bottom $T°$	0.593	0.566	1.809	0.597 - 5.480	0.295				
		descender	0.288	1.649	1.333	0.053 - 33.784	0.862				
2nd BEST MODEL								8.63	3	**0.030**	35
30.92	2.19	surface $T°$	-0.718	0.301	0.488	0.270 - 0.880	**0.017**				
		bottom $T°$	0.608	0.335	1.836	0.951 - 3.544	0.070				
		fight time	-0.003	0.006	0.997	0.986 - 1.009	0.658				
BEST MODEL								8.41	2	**0.010**	35
28.73	0	surface $T°$	-0.651	0.245	0.521	0.323 - 0.843	**0.008**				
		bottom $T°$	-0.612	0.333	1.844	0.960 - 3.545	0.066				
NULL MODEL											
32.77	4.04										

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