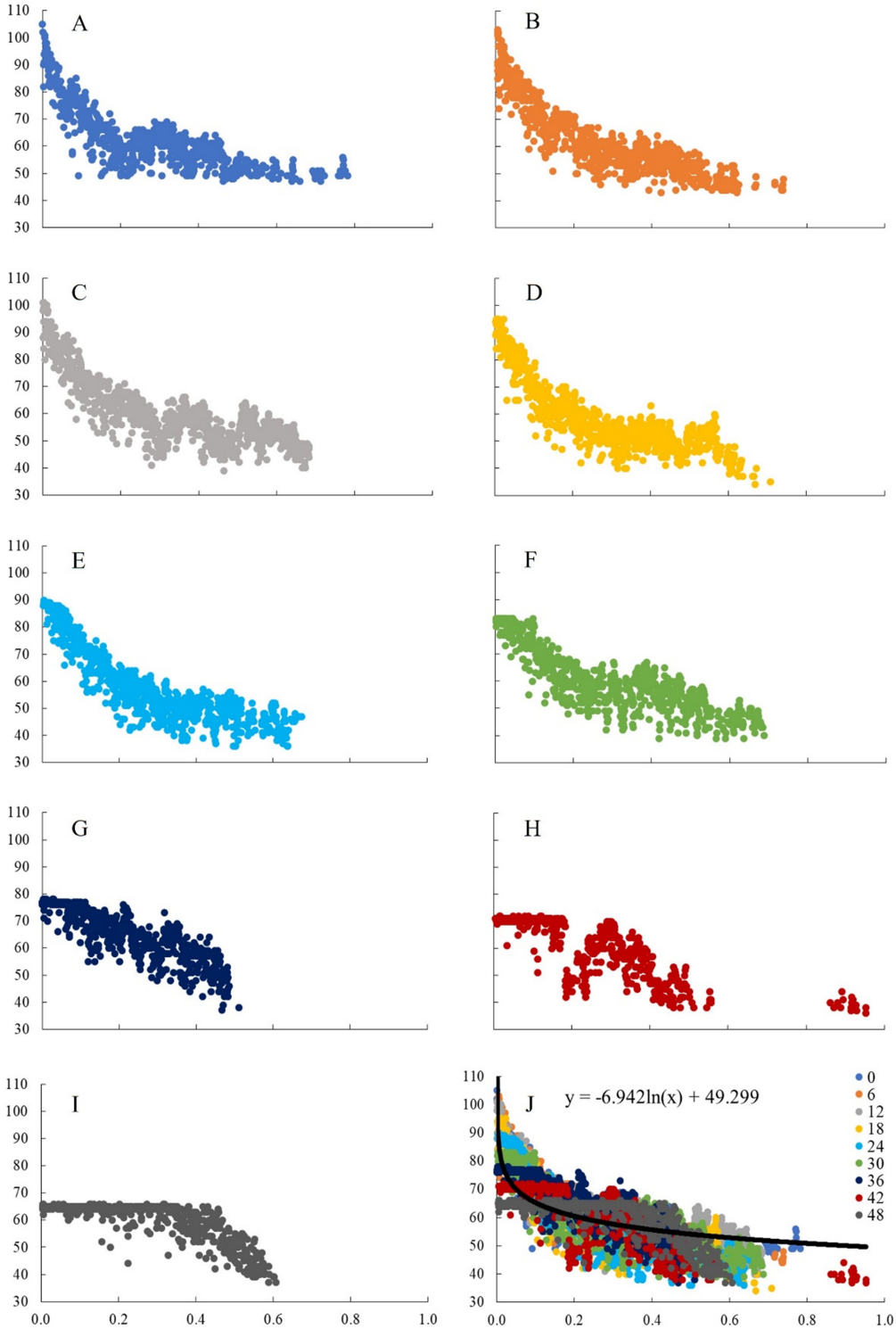
Fig. S1: Range test data by gain for a V13 1-second acoustic tag. Axes represent decibel versus distance in km; panel (A) gain 0, (B) gain 6, (C) gain 12, (D) gain 18, (E) gain 24, (F) gain 30, (G) gain 36, (H) gain 42, (I) gain 48, and (J) gains 0-48. The bold black line and formula in panel J represent the overall trendline for all data collected.



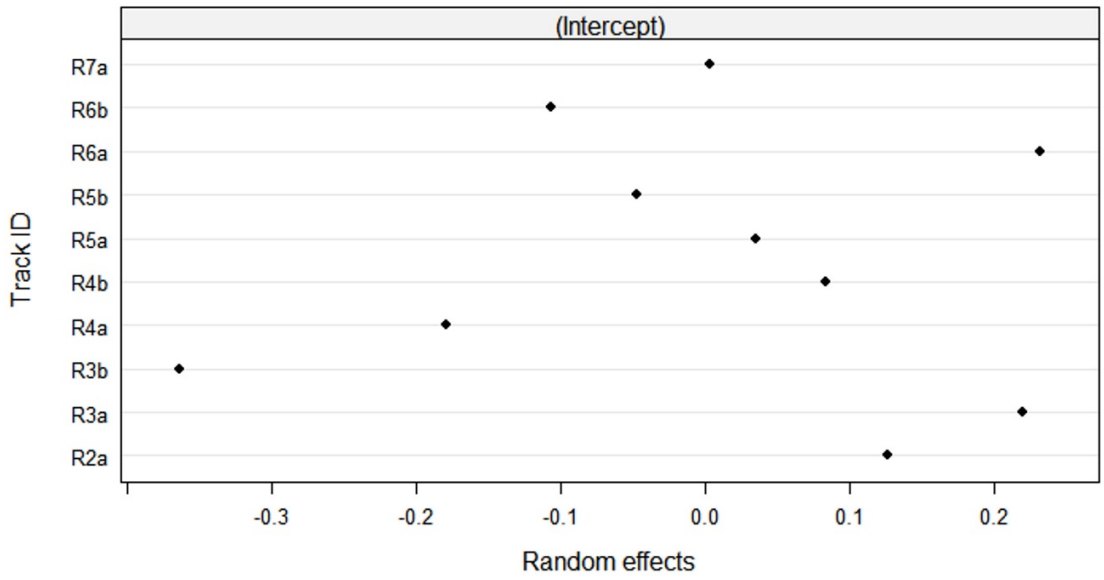


Fig. S2: GAMM plot highlighting the variation in estimated intercepts for each whitespotted eagle ray's track. For each animal, track ID "a" represents the initial track and track ID "b" represents the relocated track.

Table S1: Environmental parameters observed during the tracks of seven whitespotted eagle rays in the Indian River Lagoon. This table shows the average, minimum, maximum, and range in environmental variables each ray experienced.

	Temperature (^{o}C)				Salinity (ppt)				Dissolved Oxygen (mg/l)			
ID	$\overline{x}$	Min	Max	Range	$\overline{x}$	Min	Max	Range	$\overline{x}$	Min	Max	Range
R1	28.5	28.2	28.8	0.6	34.1	33.9	34.3	0.4	6.5	6.3	6.7	0.4
R2	27.5	24.2	31.2	7.0	34.9	32.3	37.2	4.9	6.61	5.5	9.6	4.1
R3	25.0	22.8	26.0	3.2	35.5	34.5	36.6	2.1	6.4	5.4	7.7	2.3
R4	29.7	28.0	30.9	2.9	33.3	31.2	36.3	5.1	6.54	5.1	7.2	2.1
R5	30.0	28.4	31.5	3.1	31.9	29.5	33.5	4.0	-	-	-	-
R6	28.9	27.4	31.1	3.7	32.7	30.8	34.3	3.5	-	-	-	-
R7	27.7	25.5	29.9	4.4	33.9	28.8	36.1	7.3	-	-	-	-
Average	28.1	22.8	31.5	8.7	32.9	25.1	37.2	12.1	6.7	5.1	9.6	4.5

Text S1**:** Range testing occurred in the Sebastian region of the IRL in water depth of 1.5 m. To conduct range testing, a V13 1-second continuous tag (power output dB re 1uPa @1m) was suspended mid-water column and the position of the tag was marked on a GPS. The VR100 receiver and deck box were secured in angle and depth before the vessel was driven directly at the tag starting at 1.0 km away. Speed of the vessel was approximately 1.0 km/h for each of the gains (0, 6, 12, 18, 24, 30, 36, and 42). GPS of the vessel track was used to maintain the same course for all gains and the start and end time for each pass was recorded. For each tag detection, the distance between the vessel position and the tag was calculated. This distance was then plotted by signal strength (dB) for each gain and a trend line per each gain was analyzed. To determine the average error associated with each whitespotted eagle ray's position, the average gain and dB for each track was calculated and used in the appropriate trend line.