

Spatial ecology of critically endangered hawksbill turtles *Eretmochelys imbricata*: implications for management and conservation

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Table S1. *Eretmochelys imbricata*. Data from inter-nesting phase for individual turtles (dash indicates turtles were not tracked during the phase), including turtle ID number, curved carapace length (CCL; cm), nesting site/country, release coordinates, activity at time of capture, duration tracked (days), average distance travelled per day (km), average distance between points (km), average speed (km h⁻¹), average distance to original nesting beach (km), average distance from coast (km), total coastline used (km), foraging area type (NS: nearshore; IN: inshore), points within a marine protected area (MPA; %) and home range area (90 and 50% utilization distribution; km²). n: number of points used in local nearest-neighbor convex hull (LoCoH); *k*: *k*-value used for LoCoH

Tag ID	CCL (cm)	Nesting site/country	Release coordinates	Activity at time of capture	Duration (d)	Distance travelled per day (km)	Distance between points (km)	Speed (km h ⁻¹)	Distance to nesting beach (km)	Distance from coast (km)	Coastline used (km)	Inter-nesting area type	Points in MPA	Home range area (km ²)			
														n	90%	50%	<i>k</i>
17434	74	Los Cobanos, El Salvador	13°31'N, 89°48'W	Nesting	34.8	3.94	1.32	0.22	3.64	2.15	12.46	NS	100.0%	87	16.68	4.95	14
42987	87	Los Cobanos, El Salvador	13°31'N, 89°48'W	Nesting	32.6	8.91	3.00	0.43	2.56	1.66	14.94	NS	42.7%	96	77.30	17.89	19
5155	83	Bahia Jiquilisco, El Salvador	13°11'N, 88°21'W	Nesting	11.4	3.04	1.74	0.19	5.31	0.17	6.27	IN	100.0%	19 ^a	–	–	–
79784	89	Bahia Jiquilisco, El Salvador	13°11'N, 88°21'W	In-water ^b	–	–	–	–	–	–	–	–	–	–	–	–	–
5394	74	Bahia Jiquilisco, El Salvador	13°11'N, 88°21'W	Nesting	14.7	4.13	1.44	0.23	3.79	0.23	13.85	IN	100.0%	38	11.00	2.88	7
42993	83	Punta Amapala, El Salvador	13°09'N, 87°55'W	Nesting	2.7	4.28	1.16	0.19	0.97	0.96	1.55	NS	0.0%	7*	–	–	–
5396	83	La Flor, Nicaragua	11°08'N, 85°47'W	Nesting	46.8	2.53	1.41	0.18	9.34	1.12	15.56	NS	0.0%	83	19.24	4.64	10
37616	68	La Flor, Nicaragua	11°08'N, 85°47'W	Nesting	30.7	2.46	1.42	0.16	9.74	0.56	21.79	NS	0.0%	53	4.37	0.96	11
78501	79	Estero Padre Ramos, Nicaragua	12°47'N, 87°29'W	Nesting	15.1	2.88	0.92	0.15	1.82	0.07	5.28	IN	100.0%	47	5.29	0.97	14
80590	88	Estero Padre Ramos, Nicaragua	12°47'N, 87°29'W	Nesting	10.5	2.76	0.83	0.17	2.13	0.43	11.14	IN	100.0%	35	24.10	2.23	10
37623	92	Machalilla, Ecuador	01°33'S, 80°50'W	Nesting	36.1	3.37	2.29	0.22	8.99	1.36	16.04	NS	66.0%	53	47.81	2.50	12
52670	88	Machalilla, Ecuador	01°33'S, 80°50'W	Nesting	22.9	6.24	3.32	0.42	6.16	2.16	17.63	NS	48.8%	43	41.19	14.52	15
44359	93	Machalilla, Ecuador	01°33'S, 80°50'W	Nesting	17.9	3.70	2.01	0.24	10.15	1.05	6.74	NS	81.8%	33	7.73	2.32	12
22130	95	Machalilla, Ecuador	01°33'S, 80°50'W	In-water ^c	64.4	4.38	2.65	0.34	15.88	1.30	58.39	NS	55.6%	99	110.53	6.05	10
37613	85	Machalilla, Ecuador	01°33'S, 80°50'W	Nesting	30.3	1.54	1.41	0.19	17.96	0.69	21.48	NS	78.8%	33	9.54	0.88	13

^aNo home range calculated for n < 20

^bRecorded nesting at site 2 yr after original in-water capture

^cRecorded nesting at site 1 wk after original in-water capture

Table S2. *Eretmochelys imbricata*. Data from migration phase for individual turtles (dash indicates turtles were not tracked during the phase), including turtle ID number, duration tracked (days), displacement (km), migration straightness index (MSI), average distance between points (km), average speed (km h⁻¹), movement type (according to Godley et al. 2008), average distance from coast (km) and points within an MPA (%)

Tag ID	Duration (d)	Displacement (km)	Distance travelled (km d ⁻¹)	MSI	Distance between points (km)	Speed (km h ⁻¹)	Movement type	Distance from coast (km)	Points in MPA (%)
17434	3.0	18.07	6.02	0.86	3.46	0.29	A3	2.67	33.3%
42987	5.7	136.61	23.96	0.85	8.50	1.15	A1	1.05	52.6%
5155	3.5	35.30	10.09	0.71	4.61	0.75	A3	0.44	90.9%
79784	–	–	–	–	–	–	–	–	–
5394	3.5	59.73	17.06	0.70	7.07	1.19	A1	0.28	41.7%
42993	16.6	37.62	2.27	0.30	2.70	0.36	A3	0.64	80.9%
5396	15.5	283.11	18.26	0.78	10.34	1.27	A1	1.93	11.1%
37616	–	–	–	–	–	–	–	–	–
78501	4.4	107.11	25.40	0.96	6.99	1.17	A1	2.22	31.3%
80590	8.3	63.82	19.70	0.39	5.10	0.83	A1	1.22	50.0%
37623	11.3	215.42	19.06	0.79	13.15	0.96	A1	4.2	14.3%
52670	12.2	194.83	15.97	0.69	7.19	1.25	A1	3.62	0.0%
44359	5.1	90.46	17.75	0.62	6.14	1.27	A1	0.61	0.0%
22130	–	–	–	–	–	–	–	–	–
37613	–	–	–	–	–	–	–	–	–

Table S3. *Eretmochelys imbricata*. Data from foraging phase for individual turtles (dash indicates turtles were not tracked during the phase), including turtle ID number, foraging site/country, duration tracked (days), average distance travelled per day (km), average distance between points (km), average speed (km h⁻¹), average distance from coast (km), total coastline used (km), foraging area type (NS: nearshore; IN: inshore), points within an MPA (%) and home range area (90 and 50% UD; km²). n: number of points used in LoCoH; k: k-value used for LoCoH

Tag ID	Foraging site/country	Duration (d)	Distance travelled per day (km)	Distance between points (km)	Speed (km h ⁻¹)	Distance from coast (km)	Coastline used (km)	Foraging area type	Points in MPA	Home range area (km ²)			
										n	90%	50%	k
17434	Los Cobanos, El Salvador	110.9	2.05	1.29	0.15	1.24	13.9	NS	1.7%	172	10.76	2.02	14
42987	Bahia Jiquilisco, El Salvador	44.0	2.10	0.91	0.12	0.02	6.36	IN	100.0%	101	1.34	0.53	16
5155	Bahia Jiquilisco, El Salvador	409.9	0.94	1.49	0.08	0.03	17.32	IN	99.6%	256	1.45	0.17	14
79784	Bahia Jiquilisco, El Salvador	178.0	0.86	0.90	0.09	0.03	6.74	IN	100.0%	171	2.90	0.58	15
5394	Gulf of Fonseca, Honduras	189.6	1.66	1.32	0.12	0.10	10.32	IN	93.7%	239	1.30	0.50	15
42993	Gulf of Fonseca, Honduras	165.2	1.40	0.63	0.09	0.02	6.94	IN	100.0%	366	1.46	0.21	15
5396	Gulf of Fonseca, Honduras	136.5	1.74	0.99	0.13	0.78	9.05	IN	100.0%	240	16.80	2.26	14
37616	-	-	-	-	-	-	-	-	-	-	-	-	-
37623	Jambeli Canal, Ecuador	2.1	5.04	2.08	0.24	0.02	9.88	IN	0.0%	52	6.18	1.80	15
78501	Gulf of Fonseca, Honduras	51.8	2.10	0.72	0.1	0.01	-	IN	100.0%	6 ^a	-	-	-
80590	Bahia Jiquilisco, El Salvador	21.5	4.10	1.13	0.18	0.13	6.08	IN	100.0%	187	5.76	2.17	14
52670	Jambeli Canal, Ecuador	43.8	2.28	0.77	0.12	0.02	3.68	IN	0.0%	129	0.86	0.06	16
44359	Chanduy, Ecuador	81.8	6.23	1.95	0.3	1.29	12.64	NS	0.0%	257	27.63	5.86	14
22130	-	-	-	-	-	-	-	-	-	-	-	-	-
37613	-	-	-	-	-	-	-	-	-	-	-	-	-

^aNo home range calculated for n < 20