

Northeast Brazil shows highest hawksbill turtle nesting density in the South Atlantic

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Supplement. The supplementary material includes figures on the seasonal distribution and the ratio for estimated and observed clutch frequencies (ECF and OCF respectively). The tables summarise the data in the index area (IA) and protection area (PA)

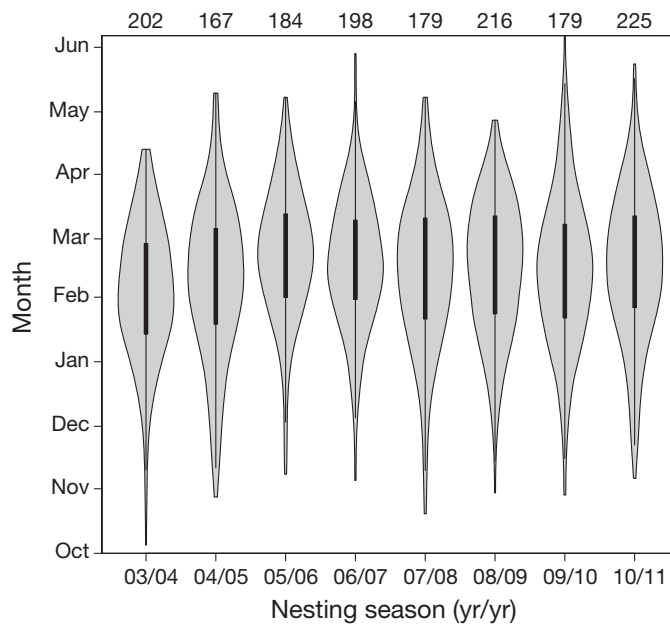


Fig. S1. *Eretmochelys imbricata*. Number of hawksbill nests registered each month in the 9 km area of Tibau do Sul municipality, northeastern Brazil, from the 2003/2004 to 2010/2011 nesting seasons. Significant variations were identified in the temporal distributions of nests among nesting seasons (Kruskal-Wallis: chi-squared = 33.5; df = 7; $p < 0.001$).

Data show that the seasons 2006/2007 to 2010/2011 have a clear maximum nesting period in the middle of February, which is not the case in 2003/2004 or 2005/2006, for instance. In addition, we performed a Shapiro test of normality for all 8 seasons, but only the seasons 2006/2007, 2008/2009 and 2009/2010 can be considered normal (significance level of 0.05); a visual inspection of the data shows that these 3 seasons have a more symmetric nesting pattern over the year, with a well-defined average nesting time around 15 February

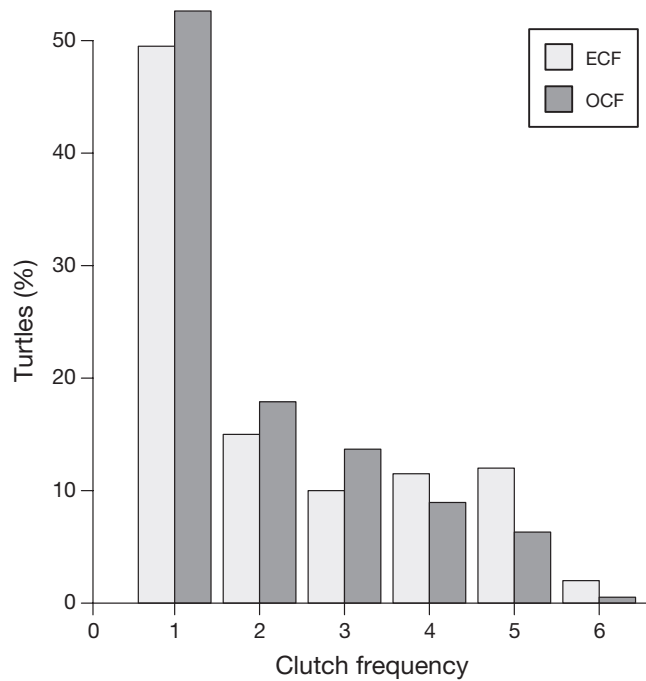


Fig. S2. Percentages of observed clutch frequency (OCF; N = 190) and estimated clutch frequency (ECF; N = 200)

Table S1. Sea turtle clutches per species recorded during 8 consecutive nesting seasons (2003/2004 to 2010/2011) in the index area (9 km in length) on the southern coast of Rio Grande do Norte. An estimate of total *Eretmochelys imbricata* nests is also provided, as well as the number of false crawls (hawksbill, loggerhead, olive ridley), hawksbill clutches per kilometer and clutches poached (all species) in each season. FT: first tagged (remigrants returning within the tagging site); R: remigrants. Gaps indicate values of 0

	Nesting season (yr/yr)								Total
	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	
<i>E. imbricata</i>	132	95	143	177	159	190	149	177	1222
<i>L. olivacea</i>	1	1	1						3
<i>C. caretta</i>	1				1		2	3	7
<i>C. mydas</i>		1	1		2		4	5	13
<i>D. coriacea</i>							1		1
Unidentified	69	69	41	23	17	26	23	40	308
% <i>E. imbricata</i>	98.5	97.9	98.6	100	98.1	100	95.5	95.7	98
Total recorded	203	166	186	200	179	216	179	225	1554
Total <i>E. imbricata</i> nests (estimated)	200	163	183	200	175	216	171	215	1523
False crawls	21	45	36	62	70	101	65	102	502
<i>E. imbricata</i> clutches km ⁻¹	22.2	18.1	20.3	22.2	19.4	24	19	23.9	21.1
Clutch poaching	6	1	1	1	0	5	2	1	17
FT(R) (for <i>E. imbricata</i>)		11	12	43(5)	24(7)	30(23)	13(15)	20(18)	153(68)

Table S2. Nests recorded in each section of the protection area (PA) (BFA: Baía Formosa; OLH: Olho D'água; BUC: Barra do Cunhaú; BIF: Barreira do Inferno; MAB: Malembá; TOT: total, all sections together). Number of clutches poached (and slaughtered females in parentheses) is given for each season. The number of individual nesting hawksbill turtles *Eretmochelys imbricata* is given as: first tagged (FT) (remigrants returning within the tagging site: R, remigrants returning from a different area; R*, remigrants came from Intensive Tagging area; 2 of the remigrations are presented in Fig. 1 in the main article). Total clutches per kilometer are given as an average number. Gaps indicate values of 0

Section	Species	04/05	05/06	06/07	07/08	08/09	09/10	10/11	Total
BFA	<i>E. imbricata</i>		2		1		1	8	12
	<i>D. coriacea</i>					1			1
	<i>L. olivacea</i>							1	1
	<i>C. mydas</i>							1	1
	Unidentified		107	78	96	70	65	125	541
	Total no. of clutches in PA		109	78	97	71	66	135	556
	Clutches km ⁻¹		7.1	5.1	6.4	4.6	4.3	9.0	6.1
	No. of clutches poached (females slaughtered)		32(2)	31(1)	13	1(1)			77(4)
FT(R; R*)		1		1			(1*)	2(1*)	
OLH	<i>E. imbricata</i>	10	1	3	1	3		10	28
	Unidentified	65	82	109	116	132	134	184	822
	Total no. of clutches in PA	75	83	112	117	135	134	194	850
	Clutches km ⁻¹	18.8	20.8	28.0	29.2	33.8	33.5	48.5	30.4
	No. of clutches poached (females slaughtered)	9	4	2(1)	1(1)	1	2		19(2)
	FT(R; R*)	3						2	5
BUC	<i>E. imbricata</i>	4		1					5
	Unidentified	14	7	18	16	20	42	45	162
	Total no. of clutches in PA	18	7	19	16	20	42	45	167
	Clutches km ⁻¹	8.8	3.4	9.5	8.0	9.8	20.6	22.1	11.7
	No. of clutches poached (females slaughtered)	1			1	1	2(1)		5(1)
	FT(R; R*)			1					1
BIF	<i>E. imbricata</i>		51	16	34	95	86	88	370
	<i>C. mydas</i>		3		2		1	1	7
	Unidentified		28	52	73	38	28	51	270
	Total no. of clutches in PA		82	68	109	133	115	140	647
	Clutches/km		13.4	11.1	18.2	21.7	18.8	22.9	17.7
	No. of clutches poached (females slaughtered)		3	1					4
	FT(R; R*)		2	2	1	28(1; 1*)	23(1)	18(17)	74(19;1*)
MAB	<i>E. imbricata</i>							1	1
	Unidentified							152	152
	Total no. of clutches in PA							153	153
	Clutches km ⁻¹							37.5	37.5
	No. of clutches poached (females slaughtered)							3(1)	3(1)
	FT(R; R*)							(1*)	(1*)

TOT	<i>E. imbricata</i>	14	54	20	36	98	87	107	416
	<i>D. coriacea</i>					1			1
	<i>C. mydas</i>		3		1		1	1	6
	Unidentified	79	224	257	301	260	269	557	1939
	Total no. of clutches in PA	93	281	277	339	359	357	667	2362
	Clutches km ⁻¹	13.8	11.2	13.4	15.5	17.5	19.3	28.0	20.7
	No. of clutches poached (females slaughtered)	10	39(2)	34(2)	15(1)	3(1)	4(1)	3(1)	108(8)
	FT(R; R*)	4	2	3	2	28(1; 1*)	23(1)	20(17;2*)	82(19;3*)