

**SUPPLEMENTAL INFORMATION**

**LONG-TERM TREND OF OLIVE RIDLEY SEA TURTLES  
(*LEPIDOCHELYS OLIVACEA*) NESTING IN BRAZIL REVEALS  
ONE OF THE LARGEST ROOKERIES IN THE ATLANTIC**

*JAQUELINE C. DE CASTILHOS, BRUNO GIFFONI, LUCIANA MEDEIROS, ALEXSANDRO SANTOS,  
FREDERICO TOGNIN, AUGUSTO CÉSAR COELHO DIAS DA SILVA, FÁBIO LIRA DAS CANDEIAS  
OLIVEIRA, EDERSON LUÍZ FONSECA, MARILDA INÊS WEBER, ANA CAROLINA CORRÊA DE MELO,  
JOÃO ARTUR GONZALEZ DE ABREU, MARIA ÂNGELA MARCOVALDI, AND MANJULA TIWARI*

The following material is provided by the authors and was not edited by *Herpetological Conservation and Biology*.

**Table S1.** Data of nesting sites and surveys from 2003/2004 to 2018/2019 nesting seasons. The acronyms represent the nesting beaches: SSA= Salvador, INT= Itapuã, BQN = Buraquinho, BUV = Busca Vida, JAU = Jauá, SMA = Santa Maria, ARE = Arembepe, BER = Berta, GRU = Guarajuba, ITC = Itacimirim, PFT = Praia do Forte, SAU = Sauípe, PSP = Porto de Sauípe, MDU = Massarandupió, SBU = Subaúma, MUM = Mamucabo, BXS = Baixios, RBR = Ribeiro, SLN = Salinas, BIT = Barra do Itariri, CNU = Corre Nu, PÇS = Poças, SRB = Siribinha, CAZ = Costa Azul, LTE = Lote, VPR= Vapor, DNS = Dunas, CQS = Coqueiro, MSC = Mangue Seco, BVI = Boa Viagem, ABA = Abaís, CAU = Caueira, BCO = Barra dos Coqueiros, IRT = Ilha do Rato, PIR = Pirambu, LRD = Lagoa Redonda, SIS = Santa Isabel, TGE = Tigre, PMG = Ponta dos Mangues, FUN = Funil, and COQ = Cabeço.

Beach	03/04			04/05		
	Estimated Nests	Length (km)	Effort	Estimated Nests	Length (km)	Effort
SSA	1	8	Daily	0	8	Daily
INT	0	5	Daily	4	5	Daily
BQN	2	7	Daily	3	7	Daily
BUV	2	6	Daily	5	6	Daily
JAU	0	5	Daily	2	5	Daily
SMA	5	5	Daily	6	5	Daily
ARE	2	4	Daily	0	4	Daily
BER	1	7	Daily	0	7	Daily
BJC	3	3	Daily	3	3	Daily
GRU	8	8	Daily	11	8	Daily
ITC	0	5	Daily	3	5	Daily
PFT	13	14	Daily	8	14	Daily
SAU	29	16	Daily	14	16	Daily
PSP	25	5	Daily	26	5	Daily
MDU	31	9	Daily	25	9	Daily
SBU	7	8	Daily	10	8	Daily
MUM	11	8	Daily	16	8	Daily
BXS	7	10	Daily	0	10	Daily
RBR	18	8	Daily	16	8	Daily
SLN	11	8	Daily	5	8	Daily

<b>BIT</b>	7	7	Daily	5	7	Daily
<b>CNU</b>	12	7	Daily	8	7	Daily
<b>PCS</b>	0	7	Daily	0	7	Daily
<b>SRB</b>	32	7	Daily	42	7	Daily
<b>CAZ</b>	49	8	Daily	51	8	Daily
<b>LTE</b>	39	6	Daily	30	6	Daily
<b>VPR</b>	28	4	Daily	40	4	Daily
<b>DNS</b>	36	5	Daily	43	5	Daily
<b>CQS</b>	149	6	Daily	141	6	Daily
<b>MSC</b>	165	8	Daily	239	8	Daily
<b>BVI</b>	102	12	No Survey	188	12	Daily
<b>ABA</b>	206	12	Daily	143	12	Daily
<b>CAU</b>	190	12	Daily	146	12	Daily
<b>BCO</b>	65	19	Daily	52	19	Daily
<b>IRT</b>	134	8	Daily	147	8	Daily
<b>PIR</b>	616	12	Daily	534	12	Daily
<b>LRD</b>	191	7	Daily	235	7	Daily
<b>SIS</b>	113	7	Daily	127	7	Daily
<b>TGE</b>	124	6	Daily	129	6	Daily
<b>PMG</b>	232	4	Daily	197	4	Daily
<b>FUN</b>	305	12	Daily	302	12	Daily
<b>COQ</b>	67	5	Daily	80	5	Daily
<b>TOTAL</b>	<b>3038</b>	<b>330</b>		<b>3036</b>	<b>330</b>	

**Table S1.** Continued.

Beach	05/06			06/07		
	Estimated Nests	Length (km)	Effort	Estimated Nests	Length (km)	Effort
SSA	2	8	Daily	2	8	Daily
INT	2	5	Daily	4	5	Daily
BQN	11	7	Daily	4	7	Daily
BUV	15	6	Daily	4	6	Daily
JAU	1	5	Daily	0	5	Daily
SMA	12	5	Daily	11	5	Daily
ARE	0	4	Daily	2	4	Daily
BER	1	7	Daily	5	7	Daily
BJC	5	3	Daily	11	3	Daily
GRU	8	8	Daily	15	8	Daily
ITC	1	5	Daily	3	5	Daily
PFT	18	14	Daily	24	14	Daily
SAU	40	16	Daily	54	16	Daily
PSP	24	5	Daily	22	5	Daily
MDU	36	9	Daily	53	9	Daily
SBU	16	8	Daily	19	8	Daily
MUM	16	8	Daily	17	8	Daily
BXS	0	10	Daily	11	10	Daily
RBR	28	8	Daily	33	8	Daily
SLN	21	8	Daily	28	8	Daily
BIT	12	7	Daily	14	7	Daily
CNU	15	7	Daily	14	7	Daily
PCS	0	7	Daily	0	7	Daily
SRB	62	7	Daily	48	7	Daily
CAZ	78	8	Daily	62	8	Daily
LTE	38	6	Daily	18	6	Daily
VPR	36	4	Daily	20	4	Daily

<b>DNS</b>	48	5	Daily	58	5	Daily
<b>CQS</b>	113	6	Daily	134	6	Daily
<b>MSC</b>	196	8	Daily	160	8	Daily
<b>BVI</b>	234	12	Daily	154	12	Daily
<b>ABA</b>	256	12	Daily	259	12	Daily
<b>CAU</b>	204	12	Daily	304	12	Daily
<b>BCO</b>	105	19	Daily	81	19	Daily
<b>IRT</b>	297	8	Daily	271	8	Daily
<b>PIR</b>	733	12	Daily	600	12	Daily
<b>LRD</b>	310	7	Daily	235	7	Daily
<b>SIS</b>	165	7	Daily	171	7	Daily
<b>TGE</b>	180	6	Daily	236	6	Daily
<b>PMG</b>	210	4	Daily	155	4	Daily
<b>FUN</b>	379	12	Daily	417	12	Daily
<b>COQ</b>	129	5	Daily	151	5	Daily
<b>TOTAL</b>	<b>4057</b>	<b>330</b>		<b>3884</b>	<b>330</b>	

**Table S1.** Continued.

Beach	07/08			08/09		
	Estimated Nests	Length (km)	Effort	Estimated Nests	Length (km)	Effort
SSA	1	8	Daily	6	8	Daily
INT	11	5	Daily	5	5	Daily
BQN	15	7	Daily	26	7	Daily
BUV	9	6	Daily	18	6	Daily
JAU	1	5	Daily	3	5	Daily
SMA	18	5	Daily	33	5	Daily
ARE	3	4	Daily	3	4	Daily
BER	5	7	Daily	2	7	Daily
BJC	9	3	Daily	16	3	Daily
GRU	17	8	Daily	23	8	Daily
ITC	3	5	Daily	0	5	Daily
PFT	28	14	Daily	50	14	Daily
SAU	77	16	Daily	107	16	Daily
PSP	44	5	Daily	58	5	Daily
MDU	72	9	Daily	74	9	Daily
SBU	29	8	Daily	16	8	Daily
MUM	40	8	Daily	34	8	Daily
BXS	24	10	Daily	20	10	Daily
RBR	23	8	Daily	32	8	Daily
SLN	27	8	Daily	43	8	Daily
BIT	29	7	Daily	29	7	Daily
CNU	32	7	Daily	42	7	Daily
PCS	0	7	Daily	0	7	Daily
SRB	64	7	Daily	116	7	Daily
CAZ	90	8	Daily	128	8	Daily
LTE	63	6	Daily	56	6	Daily
VPR	47	4	Daily	53	4	Daily

<b>DNS</b>	66	5	Daily	66	5	Daily
<b>CQS</b>	258	6	Daily	244	6	Daily
<b>MSC</b>	251	8	Daily	238	8	Daily
<b>BVI</b>	222	12	Daily	267	12	Daily
<b>ABA</b>	265	12	Daily	481	12	Daily
<b>CAU</b>	302	12	Daily	558	12	Daily
<b>BCO</b>	94	19	Daily	88	19	Daily
<b>IRT</b>	266	8	Daily	316	8	Daily
<b>PIR</b>	771	12	Daily	1058	12	Daily
<b>LRD</b>	246	7	Daily	460	7	Daily
<b>SIS</b>	202	7	Daily	259	7	Daily
<b>TGE</b>	287	6	Daily	322	6	Daily
<b>PMG</b>	217	4	Daily	306	4	Daily
<b>FUN</b>	453	12	Daily	661	12	Daily
<b>COQ</b>	136	5	Daily	214	5	Daily
<b>TOTAL</b>	<b>4817</b>	<b>330</b>		<b>6531</b>	<b>330</b>	

**Table S1.** Continued.

Beach	09/10			10/11		
	Estimated Nests	Length (km)	Effort	Estimated Nests	Length (km)	Effort
SSA	1	8	Daily	6	8	Daily
INT	7	5	Daily	1	5	Daily
BQN	16	7	Daily	12	7	Daily
BUV	13	6	Daily	5	6	Daily
JAU	1	5	Daily	1	5	Daily
SMA	22	5	Daily	34	5	Daily
ARE	2	4	Daily	3	4	Daily
BER	3	7	Daily	6	7	Daily
BJC	23	3	Daily	46	3	Daily
GRU	13	8	Daily	25	8	Daily
ITC	8	5	Daily	8	5	Daily
PFT	56	14	Daily	82	14	Daily
SAU	106	16	Daily	121	16	Daily
PSP	50	5	Daily	72	5	Daily
MDU	93	9	Daily	129	9	Daily
SBU	24	8	Daily	31	8	Daily
MUM	75	8	Daily	56	8	Daily
BXS	34	10	Daily	29	10	Daily
RBR	37	8	Daily	46	8	Daily
SLN	50	8	Daily	50	8	Daily
BIT	42	7	Daily	46	7	Daily
CNU	54	7	Daily	49	7	Daily
PCS	0	7	Daily	1	7	Daily
SRB	126	7	Daily	89	7	Daily
CAZ	107	8	Daily	96	8	Daily
LTE	50	6	Daily	82	6	Daily
VPR	44	4	Daily	44	4	Daily



<b>DNS</b>	53	5	Daily	67	5	Daily
<b>CQS</b>	235	6	Daily	252	6	Daily
<b>MSC</b>	192	8	Daily	255	8	Daily
<b>BVI</b>	300	12	Daily	345	12	Daily
<b>ABA</b>	383	12	Daily	540	12	Daily
<b>CAU</b>	692	12	Daily	665	12	Daily
<b>BCO</b>	69	19	Daily	107	19	Daily
<b>IRT</b>	371	8	Daily	316	8	Daily
<b>PIR</b>	1100	12	Daily	835	12	Daily
<b>LRD</b>	397	7	Daily	327	7	Daily
<b>SIS</b>	256	7	Daily	164	7	Daily
<b>TGE</b>	348	6	Daily	413	6	Daily
<b>PMG</b>	327	4	Daily	291	4	Daily
<b>FUN</b>	817	12	Daily	840	12	Daily
<b>COQ</b>	199	5	Daily	304	5	Daily
<b>TOTAL</b>	<b>6796</b>	<b>330</b>		<b>6891</b>	<b>330</b>	

**Table S1.** Continued.

Beach	11/12			12/13		
	Estimated Nests	Length (km)	Effort	Estimated Nests	Length (km)	Effort
SSA	2	8	Daily	2	8	Daily
INT	3	5	Daily	4	5	Daily
BQN	15	7	Daily	7	7	Daily
BUV	17	6	Daily	7	6	Daily
JAU	0	5	Daily	0	5	Daily
SMA	26	5	Daily	31	5	Daily
ARE	2	4	Daily	1	4	Daily
BER	0	7	Daily	1	7	Daily
BJC	26	3	Daily	26	3	Daily
GRU	28	8	Daily	31	8	Daily
ITC	11	5	Daily	12	5	Daily
PFT	67	14	Daily	53	14	Daily
SAU	124	16	Daily	104	16	Daily
PSP	55	5	Daily	65	5	Daily
MDU	135	9	Daily	130	9	Daily
SBU	36	8	Daily	53	8	Daily
MUM	54	8	Daily	57	8	Daily
BXS	47	10	Daily	43	10	Daily
RBR	55	8	Daily	54	8	Daily
SLN	46	8	Daily	38	8	Daily
BIT	46	7	Daily	50	7	Daily
CNU	45	7	Daily	50	7	Daily
PCS	0	7	Daily	2	7	Daily
SRB	147	7	Daily	102	7	Daily
CAZ	172	8	Daily	216	8	Daily
LTE	87	6	Daily	150	6	Daily
VPR	78	4	Daily	90	4	Daily

<b>DNS</b>	96	5	Daily	157	5	Daily
<b>CQS</b>	336	6	Daily	480	6	Daily
<b>MSC</b>	394	8	Daily	600	8	Daily
<b>BVI</b>	509	12	Daily	436	12	Daily
<b>ABA</b>	735	12	Daily	672	12	Daily
<b>CAU</b>	684	12	Daily	542	12	Daily
<b>BCO</b>	120	19	Daily	146	19	Daily
<b>IRT</b>	385	8	Daily	504	8	Daily
<b>PIR</b>	1055	12	Daily	1257	12	Daily
<b>LRD</b>	408	7	Daily	492	7	Daily
<b>SIS</b>	268	7	Daily	242	7	Daily
<b>TGE</b>	440	6	Daily	411	6	Daily
<b>PMG</b>	319	4	Daily	311	4	Daily
<b>FUN</b>	912	12	Daily	831	12	Daily
<b>COQ</b>	305	5	Daily	189	5	Daily
<b>TOTAL</b>	<b>8290</b>	<b>330</b>		<b>8649</b>	<b>330</b>	

**Table S1.** Continued.

Beach	13/14			14/15		
	Estimated Nests	Length (km)	Effort	Estimated Nests	Length (km)	Effort
SSA	1	8	Daily	0	8	Daily
INT	2	5	Daily	5	5	Daily
BQN	8	7	Daily	13	7	Daily
BUV	11	6	Daily	8	6	Daily
JAU	6	5	Daily	0	5	Daily
SMA	37	5	Daily	27	5	Daily
ARE	0	4	Daily	3	4	Daily
BER	0	7	Daily	3	7	Daily
BJC	0	3	Daily	17	3	Daily
GRU	39	8	Daily	18	8	Daily
ITC	6	5	Daily	8	5	Daily
PFT	55	14	Daily	49	14	Daily
SAU	146	16	Daily	136	16	Daily
PSP	81	5	Daily	180	5	Daily
MDU	122	9	Daily	205	9	Daily
SBU	45	8	Daily	118	8	Daily
MUM	46	8	Daily	184	8	Daily
BXS	63	10	Daily	101	10	Daily
RBR	55	8	Daily	83	8	Weekly
SLN	52	8	Daily	80	8	Weekly
BIT	59	7	Daily	67	7	Weekly
CNU	65	7	Daily	77	7	Weekly
PCS	1	7	Daily	6	7	Weekly
SRB	131	7	Daily	131	7	Weekly
CAZ	139	8	Daily	170	8	Weekly
LTE	137	6	Daily	127	6	Weekly
VPR	79	4	Daily	59	4	Weekly

<b>DNS</b>	133	5	Daily	92	5	Weekly
<b>CQS</b>	372	6	Daily	303	6	Daily
<b>MSC</b>	445	8	Daily	529	8	Daily
<b>BVI</b>	689	12	Daily	552	12	Daily
<b>ABA</b>	756	12	Daily	654	12	Daily
<b>CAU</b>	677	12	Daily	728	12	Daily
<b>BCO</b>	174	19	Daily	159	19	Daily
<b>IRT</b>	440	8	Daily	366	8	Daily
<b>PIR</b>	1336	12	Daily	1500	12	Daily
<b>LRD</b>	483	7	Daily	397	7	Daily
<b>SIS</b>	235	7	Daily	308	7	Daily
<b>TGE</b>	449	6	Daily	489	6	Daily
<b>PMG</b>	312	4	Daily	289	4	Daily
<b>FUN</b>	860	12	Daily	1035	12	Daily
<b>COQ</b>	268	5	Daily	312	5	Daily
<b>TOTAL</b>	<b>9015</b>	<b>330</b>		<b>9588</b>	<b>330</b>	

**Table S1.** Continued.

Beach	15/16			16/17		
	Estimated Nests	Length (km)	Effort	Estimated Nests	Length (km)	Effort
SSA	0	8	Daily	0	8	Daily
INT	4	5	Daily	28	5	Daily
BQN	9	7	Daily	19	7	Daily
BUV	4	6	Daily	11	6	Daily
JAU	3	5	Daily	4	5	Daily
SMA	30	5	Daily	51	5	Daily
ARE	6	4	Daily	6	4	Daily
BER	0	7	Daily	18	7	Daily
BJC	15	3	Daily	42	3	Daily
GRU	8	8	Daily	20	8	Daily
ITC	6	5	Daily	11	5	Daily
PFT	55	14	Daily	133	14	Daily
SAU	66	16	Daily	250	16	Daily
PSP	104	5	Daily	128	5	Fortnightly
MDU	72	9	Daily	127	9	Fortnightly
SBU	73	8	Daily	70	8	Fortnightly
MUM	73	8	Daily	70	8	Fortnightly
BXS	66	10	Daily	52	10	Fortnightly
RBR	60	8	Weekly	37	8	Montly
SLN	48	8	Weekly	15	8	Montly
BIT	96	7	Weekly	125	7	Weekly
CNU	98	7	Weekly	119	7	Weekly
PCS	3	7	Weekly	0	7	Weekly
SRB	211	7	Weekly	291	7	Weekly
CAZ	279	8	Weekly	387	8	Weekly
LTE	246	6	Weekly	364	6	Weekly
VPR	123	4	Weekly	186	4	Weekly

<b>DNS</b>	108	5	Weekly	124	5	Weekly
<b>CQS</b>	458	6	Daily	645	6	Daily
<b>MSC</b>	769	8	Daily	1110	8	Daily
<b>BVI</b>	523	12	Daily	680	12	No Survey
<b>ABA</b>	766	12	Daily	859	12	Daily
<b>CAU</b>	500	12	Daily	698	12	Daily
<b>BCO</b>	135	19	Daily	199	19	No Survey
<b>IRT</b>	421	8	Daily	851	8	Daily
<b>PIR</b>	1561	12	Daily	2221	12	Daily
<b>LRD</b>	294	7	Daily	552	7	Daily
<b>SIS</b>	247	7	Daily	314	7	Daily
<b>TGE</b>	339	6	Daily	556	6	Monitored on alternate days throughout the year
<b>PMG</b>	185	4	Daily	230	4	Monitored on alternate days throughout the year
<b>FUN</b>	1092	12	Daily	1655	12	Monitored on alternate days throughout the year
<b>COQ</b>	380	5	Daily	426	5	Monitored on alternate days throughout the year
<b>TOTAL</b>	<b>9534</b>	<b>330</b>		<b>13684</b>	<b>330</b>	

**Table S1.** Continued.

Beach	17/18			18/19		
	Estimated Nests	Length (km)	Effort	Estimated Nests	Length (km)	Effort
SSA	0	8	Daily	0	8	Daily
INT	2	5	Daily	2	5	Daily
BQN	4	7	Daily	12	7	Daily
BUV	8	6	Daily	7	6	Daily
JAU	0	5	Daily	0	5	Daily
SMA	34	5	Daily	28	5	Daily
ARE	1	4	Daily	11	4	Daily
BER	1	7	Daily	10	7	Daily
BJC	28	3	Daily	22	3	Daily
GRU	24	8	Daily	40	8	Daily
ITC	15	5	Daily	9	5	Daily
PFT	80	14	Daily	81	14	Daily
SAU	118	16	Daily	147	16	Daily
PSP	121	5	Fortnightly	114	5	Daily
MDU	153	9	Fortnightly	178	9	Daily
SBU	58	8	Fortnightly	45	8	Daily
MUM	71	8	Fortnightly	72	8	Daily
BXS	47	10	Fortnightly	41	10	Daily
RBR	49	8	No Survey	43	8	No Survey
SLN	19	8	No Survey	23	8	No Survey
BIT	96	7	Weekly	66	7	Daily
CNU	91	7	Weekly	63	7	Daily
PCS	1	7	Weekly	1	7	Daily
SRB	191	7	Weekly	91	7	Daily
CAZ	257	8	Weekly	126	8	Daily
LTE	248	6	Weekly	131	6	Daily
VPR	145	4	Weekly	104	4	Daily



<b>DNS</b>	121	5	Weekly	117	5	Daily
<b>CQS</b>	331	6	Daily	435	6	Daily
<b>MSC</b>	544	8	Daily	675	8	Daily
<b>BVI</b>	574	12	Monitored daily throughout the year	670	12	Daily
<b>ABA</b>	1065	12	Daily	1036	12	Daily
<b>CAU</b>	548	12	Monitored daily throughout the year	706	12	Daily
<b>BCO</b>	232	19	No Survey	264	19	Daily
<b>IRT</b>	800	8	Daily	804	8	Daily
<b>PIR</b>	1822	12	Daily	2163	12	Daily
<b>LRD</b>	369	7	Daily	793	7	Daily
<b>SIS</b>	360	7	Daily	472	7	Daily
<b>TGE</b>	590	6	Monitored daily throughout the year	625	6	Monitored on alternate days throughout the year
<b>PMG</b>	201	4	Monitored daily throughout the year	172	4	Monitored on alternate days throughout the year
<b>FUN</b>	1746	12	Monitored daily throughout the year	1837	12	Daily
<b>COQ</b>	450	5	Monitored daily throughout the year	473	5	Daily
<b>TOTAL</b>	<b>11615</b>	<b>330</b>		<b>12709</b>	<b>330</b>	