

1 INCREASING EVIDENCE OF LEATHERBACK MIGRATIONS FROM BRAZILIAN BEACHES TO
2 THE WEST AFRICAN COASTLINE

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17 SHORT ABSTRACT - This paper highlights the transatlantic movement of a nesting
18 leatherback from southeastern Brazil to the West African continent, and reviews
19 known long distance tag recaptures of females tagged in the same nesting area..

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22 Leatherback turtles (*Dermochelys coriacea*) are known to undertake long-distance,
23 transoceanic migrations (Hays et al. 2004). In the South Atlantic, however, information
24 on transoceanic movements is very recent. The presence of leatherbacks from nesting
25 populations other than the small nesting colony in southeastern Brazil (Thomé et al.
26 2007) was suggested by Barata et al. (2004) given the high number of stranded
27 leatherbacks along the southern Brazilian coast.

28 Billes et al. (2006) finally confirmed from tag returns that some of the leatherbacks
29 stranded along the South American coast were indeed from Gabon, which supports
30 one of the largest leatherback nesting populations in the world (Witt et al. 2009).
31 More recently, telemetry studies have clearly revealed the movements of nesting
32 leatherbacks from Gabon into the south Atlantic and towards South America (Fossette
33 et al. 2010; Witt et al. 2011). However, there is increasing evidence now that
34 transatlantic migrations in the opposite direction are occurring from southeastern
35 Brazil. This region, located at the northern end of the state of Espírito Santo, houses
36 the only regular nesting area for leatherbacks known on the Brazilian coast, with 1.2 to
37 18.4 females nesting per year (Thomé et al., 2007). This paper documents known
38 transatlantic movements by nesting leatherbacks from Brazilian beaches to the West
39 African continent.

40 A nesting leatherback, which was tagged at Comboios Beach, Linhares, in the state of
41 Espírito Santo, Brazil (19°14' S), was found stranded (dead) in the vicinity of Sandwich
42 Harbour (Fig. 1), in the Namib Naukluft Park, Namibia (23°18' S) around February 2008.
43 The leatherback had been recorded nesting on the beach at Comboios on 26 October
44 2006, during a regular beach patrol by members of the Brazilian sea turtle program,

45 Projeto TAMAR. The turtle was tagged with uniquely numbered tags (style 681 monel
46 tag, National Band Co.) on both hind flippers (#BR 49211/BR 49212). It was found
47 nesting later in the same season, on 5 November 2006. By the time it stranded the
48 leatherback had only one flipper tag.

49 The only previous long distance tag return of a leatherback tagged at a Brazilian nesting
50 grounds was reported by Alvarez et al (2009), from a female tagged on Comboios
51 beach in 2006 and found stranded at Tuyú beach, on the northern coast of Argentina
52 approximately 2,500 km from where it was tagged. More recently, Almeida et al. (in
53 press) recorded a transatlantic migration of a leatherback female from Brazil to the
54 west coast of Africa, 350 km off the coast of Angola, using satellite telemetry. The
55 growing evidence suggests that leatherback migrations from Brazilian nesting grounds
56 to Africa may be more common than previously known.

57 More than 50 leatherbacks have been recorded stranded along the Namibian coast
58 between 2007 and 2009, with one having a longline hook in its mouth; some of these
59 turtles were concentrated around the central Namibian Coast between 22 and 23°S,
60 and others between 17 and 29°S (R. Braby pers. comm.). All were dead and in different
61 stages of decomposition. Leatherbacks nesting on the Indian Ocean coast of South
62 Africa are also known to migrate around the Cape of Good Hope into Namibian waters
63 (Luschi et al., 2006). Therefore, these leatherbacks may have been of South African or
64 South American origin.

65 Our increasing knowledge of leatherback movements across the Atlantic and the
66 impact of fisheries on leatherback populations in the south Atlantic (e.g., Honig et al.

67 | 2008; Sales et al., 2008) dramatically amplifies the need for transoceanic multilateral
68 | and multifaceted management of this species.

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133 FIGURE LEGEND

134 Figure 1. Tagging and stranding sites (stars) of the leatherback #49211.

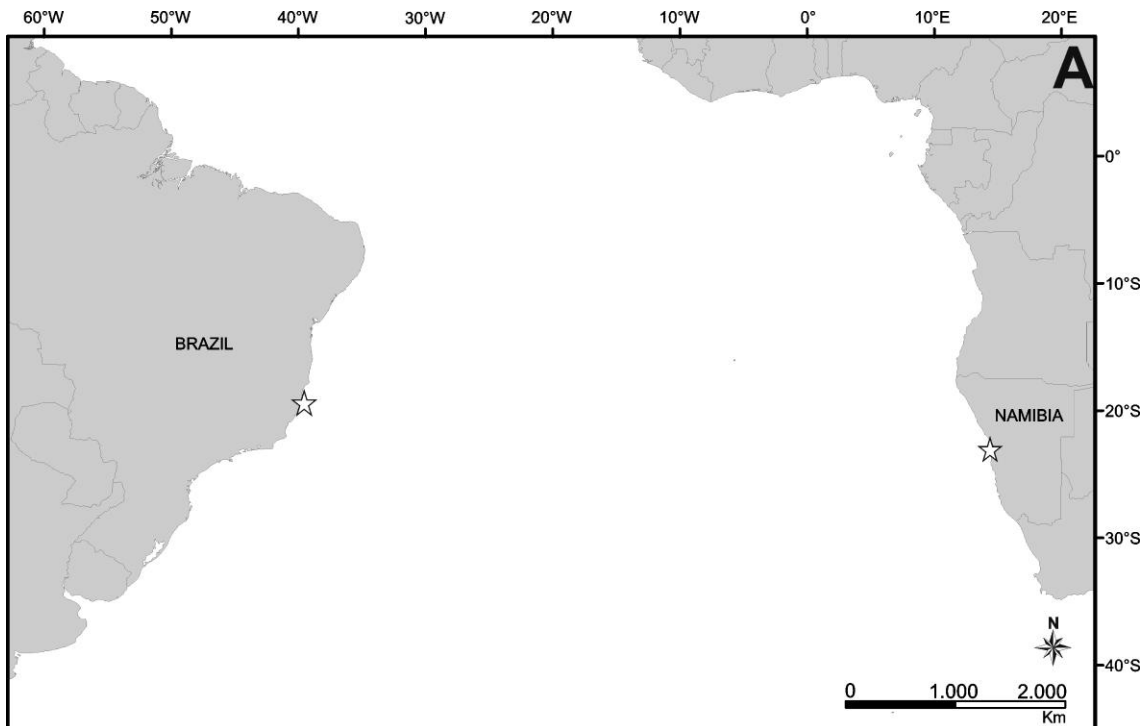
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FIGURE 1



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