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Aerial photo of Fundaçao Maio Biodiversidade's (FMB) celebrations at the end of the nesting season on Maio Island, Cape Verde.

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Marine Turtle Strandings at Ponta do Ouro Partial Marine Reserve, Southern Mozambique

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Beaches at the Ponta do Ouro Partial Marine Reserve (POPMR) in southern Mozambique are widely recognized as important nesting grounds for loggerhead turtles (*Caretta caretta*) and leatherback turtles (*Dermochelys coriacea*) (Costa *et al*. 2007; Videira *et al*. 2008). The adjacent waters are also vital for marine turtles, serving as feeding grounds for green (*Chelonia mydas*) and hawksbill (*Eretmochelys imbricata*) turtles (Hughes 1971).

Since its proclamation in 2009, marine turtle monitoring and conservation efforts have increased at the POPMR, resulting in a new set of data on marine turtle strandings. This short communication presents preliminary data on marine turtle strandings along the POPMR's coastline and discusses potential causes.

Data were collected between 2007 and 2014 along the 86 km of coastline between Ponta do Ouro (26°51'32.22"S; 32°53'29.61"E) and Cabo de Santa Maria (26° 5'0.64"S; 32°57'39.06"E) (Fig. 1). Data were collected non-systematically by the Reserve's rangers as well as by community turtle monitors. Stranding data were also provided to Reserve rangers by local community members, tourism operators, and tourists. Whenever possible, stranding data included species identification, curved carapace length (CCL) and curved carapace width (CCW) measurements, evidence of anthropogenic and other fauna interactions, individual marks, tags, date and location.

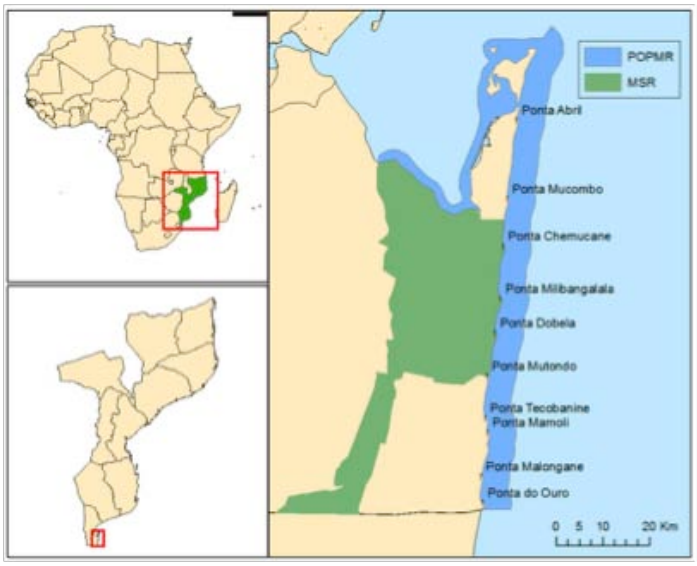

Figure 1. Map of the Ponta do Ouro Partial Marine Reserve in southern Mozambique. The Reserve is part of the Ponta do Ouro - Kosi Bay Transfrontier Conservation Area (TFCA), the first marine TFCA in Africa.

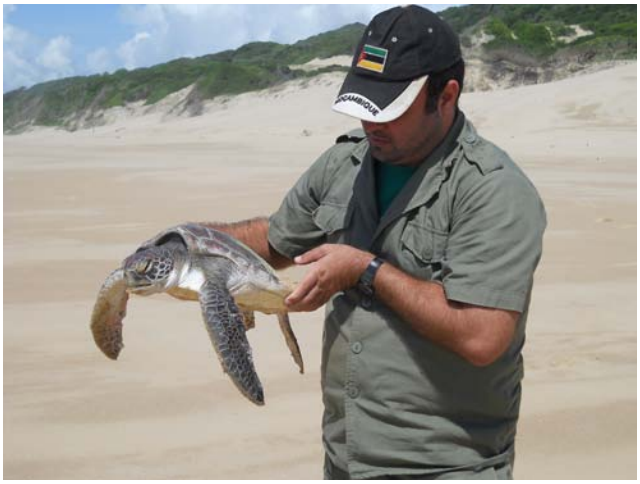

Figure 2. Stranded juvenile green turtle being returned to sea by the POPMR warden (*Photo: POPMR*).

Table 1. Marine turtles found dead, stranded on the beach at the Ponta do Ouro Partial Marine Reserve.

Species	2007	2008	2009	2010	2011	2012	2013	2014	Total	Likely Causes
C. caretta	-	-	-	3	2	-	2	1	8	Shark injuries (n=2)
										Unidentified (n=6)
C. mydas	1	-	-	1	2	4	4	-	12	Shark injuries (n=1)
										Net entanglement (n=1)
										Boat strike (n=1)
										Unidentified (n=9)
E. imbricata	1	1	-	5	-	-	3	-	10	Unidentified (n=10)
D. coriacea	-	-	-	-	-	-	-	1	1	Dune stranding (n=1)
Total	**2**	**1**	**-**	**9**	**4**	**4**	**6**	**1**	**31**	

Table 2. Marine turtles found alive, stranded on the beach at the Ponta do Ouro Partial Marine Reserve.

Species	2007	2008	2009	2010	2011	2012	2013	2014	Total
C. caretta	-	-	-	-	-	-	-	-	-
C. mydas	-	-	-	2	2	1	2	1	8
E. imbricata	-	-	-	-	-	-	1	-	1
D. coriacea	-	-	-	-	-	-	-	-	-
Total	**-**	**-**	**-**	**2**	**2**	**1**	**3**	**1**	**9**

A total of 35 marine turtle strandings were recorded over a period of seven years (2007-2014) at the POPMR. Stranded turtles found dead accounted for 26 individuals (Table 1); the remaining individuals were found alive (Table 2). Green turtles were the most common stranded species (Fig. 2), followed by hawksbills. Strandings were due to injuries likely caused by sharks (n=3), boat strikes (n=1), entanglement in nets (n=1), and a fatal fall while traversing steep sand dunes (n=1). For the remaining stranded turtles it was not possible to determine the probable cause of death or stranding. However, it could be attributed to thermal shock caused by sudden drops in sea temperature, which makes these species particularly vulnerable at the juvenile stage (G. Hughes *pers. comm.*).

Conservation efforts are clearly visible within the POPMR and as a result, the number of nesting females poached has substantially decreased (Pereira *et al.* 2014). However, marine turtles at sea still face significant human induced pressures (e.g. fishing, marine debris and pollution). The POPMR

needs to put in place a systematic stranding monitoring program including data collection on environmental parameters (e.g., water temperature and current patterns) to improve understanding of the possible causes of marine turtle strandings, and the development of protocols for necropsy analysis.

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