

Marine Turtle Newsletter

Sea Turtles Tagging in Libya

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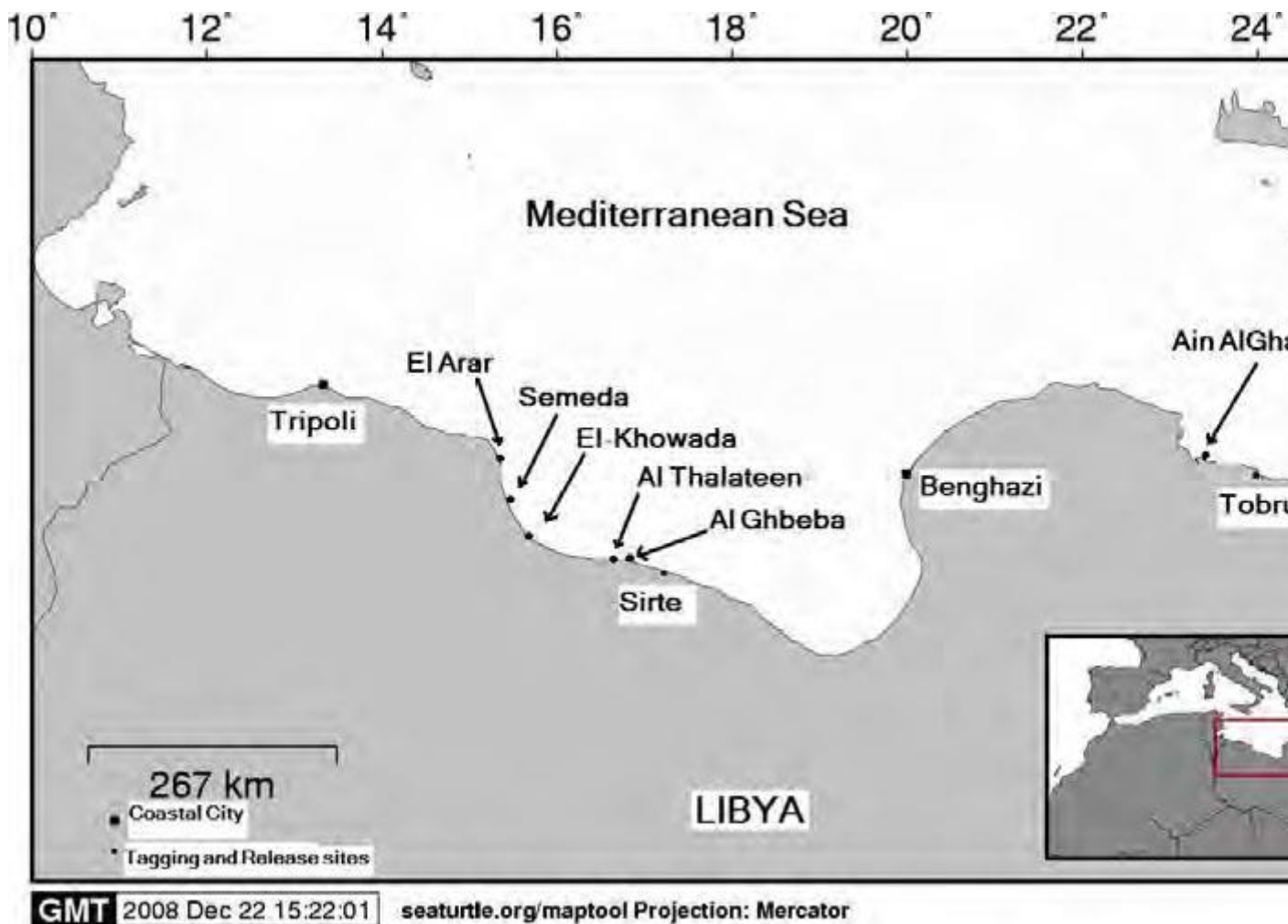
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Nesting activity of loggerhead sea turtles (*Caretta caretta*) from different nesting sites in Libya has been reported by several authors (Haddoud & El Ghmati 1996, Hamza & El Ghmati 2006, Hamza 2007, Laurent *et al.* 1997; 1999, Saied *et al.* 2008, Schleich 1987). Tagging of loggerheads in Libya started in the mid 1990s, when blue plastic flipper tags (rototags), with the RAC/SPA return addresses, were placed on eight nesting loggerhead turtles during surveys in 1996 (Haddoud & El Ghmati 1996). To date, none of these plastic tags have been reported as recovered after initial deployment.

Recent discussions in the literature about the need for standardized tagging techniques in the Mediterranean have highlighted the disadvantages of plastic tags, including shorter retention times and an increased likelihood of entanglement in nets (Margaritoulis *et al.* 2003, UNEP MAP RAC/SPA 2007). As a result, the Libyan Sea Turtle Program (a Libyan Initiative launched in 2005 to conserve sea turtles and their habitats) decided to tag with metal inconel tags, which are the most commonly recommended flipper tag. During the 2008 nesting season and part of 2009, we patrolled up to four nesting beaches either by foot or by 4x4 vehicles, between 21:00 and 04:30 to observe and tag nesting females. The beaches visited (Map 1) were Ain Al Ghazala, located 60 km east of Tobruk with two short sandy stretches of beach (1.2km and 0.8 km) intersected by a rocky medium elevated coast; El Arar (6 km) and Semida (9.4 km), located in southeast Misratah province; Al Ghbeba (5.67 km), located 20 km west of Sirte; and El-Khowada (10.9 km), located about 80 Km SE Misratah city on the Gulf of Sirte. We also patrolled Benghazi's south beaches and those of Kouf National Park (Aljabal Alakhdar), but we failed to encounter any turtles; however, turtle beach tracks were found the following morning.



Map 1. Beach locations in Libya where tagging patrols monitored for nesting loggerheads. Map was made using Maptool (<<http://www.seaturtle.org/maptool/>>)

Once a nesting female was encountered, it was left to finalize the nesting process; then at its return to the water, the turtle was measured using the curved carapace width and length (notch to tip, Bolten 1999), and tagged with one (or two, in 2009) metal inconel tag (model 681, National Band & Tag Company, Kentucky, USA) on the trailing edge of a front flipper (Balazs 1999). Each tag has a unique serial number preceded by the prefix LY (indicating Libya), with contact details on the back.

Overall, we encountered 17 nesting loggerhead females and we also tagged other two entangled turtles in fishing nets: one juvenile near Al Ghbeba nesting site of Sirte, and more recently in May 2009 one leatherback sea turtle delivered by a local fisherman near El Khowada beach SE of Misratah (Fig. 1, Table 1). All turtles were released after tagging, except for those from El Arar and Semida, which were retained until morning hours and released in the presence of beach visitors and local media, to raise awareness of sea turtles and their conservation in Libya. News about the tagging project was broadcast on national TV and in local and national newspapers.



Figure 1. Leatherback sea turtle incidentally captured and tagged before release near El Khowada beach SE of Misratah, Libya.

Date	Location	Time	Tag	CCL	CCW	Remarks
7/15/2008	Ain Al Ghazala	03:15	LY0002	73	69	
7/24/2008	El Arar	22:40	LY0012	75	68	Adult females, healthy, with several carapaces
7/30/2008	Semida	23:45	LY0013	78	69	
7/30/2008	Semida	22:40	LY0014	73	69	
5/09/2008	Al Ghbeba	21:10	LY0025	43	38	Sub-adult entangled with fishing net, n
6/07/2009	Al Ghbeba	23:30	LY0026	82	73	Old injury on front left side of the cara
6/09/2009	Al Ghbeba	21:45	LY0027- LY0028	84	73.5	
6/09/2009	Al Thalateen	23:15	LY0029- LY0030	75	67	
6/12/2009	Al Ghbeba	21:45	LY0031- LY0032	74	66	
6/13/2009	Al Ghbeba	01:10	LY0033- LY0034	77	68	
6/13/2009	Al Ghbeba	23:30	LY0035- LY0036	83	70	
6/14/2009	Al Ghbeba	21:30	LY0037- LY0038	80	73	Adult females, healthy, with several carapaces
6/14/2009	Al Ghbeba	21:25	LY0039- LY0040	70	63	
6/14/2009	Al Ghbeba	22:49	LY0041- LY0042	82	69	
6/15/2009	Al Ghbeba	00:50	LY0043- LY0044	85	70	
6/15/2009	Al Ghbeba	01:35	LY0045- LY0046	76	67	
6/15/2009	Al Thalateen	19:15	LY0047- LY0048	76	66	
6/16/2009	Al Ghbeba	00:30	LY0049- LY0050	77	70	
5/27/2009	Al Khowada	15:30	LY0016- LY0017	122	88	Healthy leatherback turtle, no exte

Table 1. Loggerhead turtles tagged on trailing edge of one front flipper in Libya in 2008. CCL = curved carapace length (cm), CCW = curved carapace width (cm). ARMSBY, J.K. 1980. Kouf National Park marine survey. Final Report: April-July 1980. ACSAD technical report.

Tagging of nesting females in Libya will continue in future nesting seasons, and we hope that data from tag recoveries will help elucidate post-nesting behavior of females from this rookery. Together with satellite tracking of loggerheads in Libyan waters (Bentivegna *et al.* 2007); ongoing opportunistic tagging of

incidentally captured turtles in Libyan waters will increase our understanding of spatial ecology of sea turtles that forage off the coast of Libya.

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