

Satellite-telemetry reveals different behavioural patterns for three loggerhead turtles *Caretta caretta* tagged at a foraging ground in Albania

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During MEDASSET's (Mediterranean Association to Save the Sea Turtles) three-year study (2008-2010) of turtles captured as bycatch at an important foraging ground, Drini Bay, northern Albania, satellite transmitters (SPOT5, Wildlife Computers) were attached to three *Caretta caretta* so that their movements and habitat-use could be determined; they were released into Drini Bay on 12/09/2009. One turtle was an early-adult female (Shpresa), the other two were adolescent males (Guximtari & Patoku); Drini Bay hosts an unusually-high proportion of males (27%; 112/407 turtles). ARGOS was the data-provider; Web-pages were established (www.medasset.org & www.seaturtle.org), and both STAT & MapTool were utilised for data-presentation. Each turtle exhibited a different strategy during the first winter: the female remained in Drini Bay; one male (Guximtari) went north to Croatia (coastal foraging and offshore-onshore movement), returning to Albania in summer 2010; while Patoku went south and utilised an underwater ridge to the north of Corfu island (Greece) during the winter months; this ridge is likely to have extensive limestone caves and abundant foraging resources. Patoku also revealed the first timing for a remigration into Albanian waters: leaving Corfu in early-April 2010 and being recaptured in Drini Bay later that month. Indications are

all three loggerheads used Drini Bay in two consecutive summers (2009 & 2010), signifying that the bay could be an important foraging ground and developmental habitat. In March 2011 Guximtari migrated southwards to Corfu and into the Ionian Sea; it is possible that Patoku and Shpresa may forage in Drini Bay for a third summer. As little is known of the marine ecology or distribution of turtles in Albania, transmitters were configured solely to provide locational data. Transmission anomalies were encountered in Drini Bay and northern Corfu; these limited the Class-accuracy for data from ARGOS; Shpresa was the most-affected, as she remained in Drini Bay: her transmitter appears to be up linking, but ARGOS has not provided an accurate location since April 2010. It is likely that if she migrated elsewhere then positional data would be received, especially from open sea areas. Likewise, no transmissions were received from Patoku in Drini Bay after November 2010. This extended study shows that loggerheads demonstrated intra-annual and inter-annual site-fidelity, and provided some insight into overwintering behaviour and habitat use, of importance is that two of the subjects are adolescent males, a life-stage for which little is known.