A loggerhead River Turtle (*Caretta caretta)* in Lesvos Island

Dimitris Margaritoulis

ARCHELON, the Sea Turtle Protection Society of Greece, Athens, Greece (margaritoulis@archelon.gr)

ARCHELON, since its foundation collected information from various sources on sea turtles in Greece. Especially, after the creation of its Rescue Centre in Glyfada, ARCHELON receives phone calls and messages from citizens that report injured or dead turtles and sporadic nesting activities throughout the country. Since 2024, this information has been received through specific platforms at ARCHELON's website. In the early years, phone calls, if interesting enough, were noted down on paper by the person in charge and inserted in a file folder. Recently, I was searching one such file and a hand-written message drew my attention. The message read: *"24 July 1996. A Caretta caretta (SCL: 57cm, SCW: 38cm) was found in a freshwater pond about 2.5 km from the sea in Lesvos Island. The turtle was weak, put in a tank with fresh water to clean it from the mud, given some fish to eat and released next day in the Gulf of Kalloni. Informer: Markos Vratsanos"*.

Intrigued by this story, I found and contacted Mr Vratsanos in Lesvos, who confirmed the case, and added more information. Here is the full story, as recounted by Mr Vratsanos, then head of financial department at the Municipality of Kalloni. I have substantiated his account with a couple of bibliographic references.

The turtle was found by local farmers in a waterhole in the dried up river bed of Ennia Kamares. Ennia Kamares, meaning Nine Vaults, because of an old bridge with nine vaults crossing it, is a watercourse starting from mount Parthenis, at the northwestern part of Lesvos, flowing down in the Gulf of Kalloni (Fig. 1). The watercourse passes from Metohi Leimonos (Agioi Anargyroi), a dependency of the nearby Monastery of Leimonos, creates a small lake (Lake Metohi) and flows at the western side of the Gulf of Kalloni (mouth of Ennia Kamares River: 39.204°N, 26.196°E). Other watercourses join in at the estuary and create a large wetland of ornithological importance (see Heath et al. 2000), with a permanent opening to the sea (Fig. 2).

Figure 1. Sketch map of Lesvos Island, Greece, showing the location of the trapped loggerhead turtle upriver (red cross), about 2.5 km from the river mouth.

Figure 2. Part of the old Ennia Kamares bridge showing three of its nine vaults and the surrounding estuary.

Besides the ornithological interest the estuary and the watercourse host a rich fauna of fish (4 species), terrapins (2 species), frogs (4 species), and water snakes (2 species) (see Katsadorakis & Paragamian 2007). In summertime, the watercourses flowing into the estuary dry up leaving water only in the Lake Metohi and in the estuary; some water may remain in waterholes along the watercourses' beds, but these gradually dry up with the progressing summer (Fig. 3). The turtle was found trapped in one of those waterholes between the estuary and the inland lake, at about 2.5 km from the mouth of Ennia Kamares (Fig. 1). The waterhole was almost dry and the turtle covered in thick mud was weak and unable to move. Apparently, the turtle had swam up the watercourse when it had enough water, preying possibly on fish and other fauna. Farmers informed the municipality, and its employees collected the turtle, cleaned it from the mud, measured it – following instructions by ARCHELON– and released it in the Gulf of Kalloni. Regrettably, no photographs were taken.

It is known that sea turtles occasionally venture in low salinity waters in various parts of the world (Carr & Caldwell 1956; Mendonça & Ehrhart 1982; Ehrhart et al. 2003; Perez et al. 2022; Marshall & Shaver 2024) including Mediterranean (Keller 2005; Rees et al. 2013; Cerritelli et al. 2022). However, the examples of sea turtles venturing upriver, away from estuaries, are rather few (see Rees et al. 2023).

Figure 3. The loggerhead turtle was found trapped in a waterhole similar to the one shown in the photograph.

The presented example complements existing knowledge on sea turtles entering freshwater rivers and shows the ability of loggerhead turtles to survive difficult circumstances, including osmotic stress.

Acknowledgements

I thank once more Mr Markos Vratsanos for his strong memory and time to recount this event after 29 years. I thank Robin Snape for his corrections. Lenio Margaritouli made the graphics on a base map provided by MapTool, a product of seaturtle.org.

Literature cited

Carr A, Caldwell DK (1956) The ecology and migrations of sea turtles, 1: Results of field work in Florida, 1955. American Museum Novitates 1793: 23pp

Catsadorakis G, Paragamian K (2007) Inventory of the wetlands of the Aegean Islands: Identity, ecological status and threats. World Wide Fund for Nature - WWF Greece, Athens, 392 pp

Cerritelli G, Casale P, Sözbilen D, Hochscheid S, Luschi P, Kaska Y (2022) Multidirectional migrations from a major nesting area in Turkey support the widespread distribution of foraging sites for loggerhead turtles in the Mediterranean. Marine Ecology Progress Series 683: 169-177

Ehrhart LM, Bagley DA, Redfoot WE (2003) Loggerhead turtles in the Atlantic Ocean: geographic distribution, abundance, and population status. In: Bolten AB, Witherington BE (eds) Loggerhead Sea Turtles. Smithsonian Books, Washington, DC. pp157–174

Heath MF, Evans MI, Hoccom DG, Payne AJ, Peet NB (2000) Important Bird Areas of Europe: Priority Sites for Conservation. Volume 2, Southern Europe. BirdLife International, 791pp

Keller M (2005) Loggerhead turtles in the Dalyan River, Mulğa [sic] Province, Turkey, 2004. Marine Turtle Newsletter 108: 14-15

Marshall CD, Shaver JD (2024) *Lepidochelys kempii* (Kemp's Ridley sea turtle). Unusual movement and habitat. Herpetological Review 55(2): 250-252

Mendonça MT, Ehrhart LM (1982) Activity, population size and structure of immature *Chelonia mydas* and *Caretta caretta* in Mosquito Lagoon, Florida. Copeia 1982(1): 161-167

Perez MA, Limpus CJ, Hofmeister K, Shimada T, Strydom A, Webster E, Hamann M (2022) Satellite tagging and flipper tag recoveries reveal migration patterns and foraging distribution of loggerhead sea turtles (*Caretta caretta*) from eastern Australia. Marine Biology 169: 80

Rees AF, Margaritoulis D, Newman R, Riggall TE, Tsaros P, Zbinden JA, Godley BJ (2013) Ecology of loggerhead marine turtles *Caretta caretta* in a neritic foraging habitat: movements, sex ratios and growth rates. Marine Biology 160: 519–529

Rees AF, Theodorou P, Margaritoulis D (2023) The loggerhead river turtle (*Caretta caretta*). MedTurtle Bulletin 3: 13-15