

TESTUDINES — TURTLES

CARETTA CARETTA (Loggerhead Sea Turtle). NESTING WITHOUT REAR FLIPPERS. The importance of the rear flippers in the nesting process of Loggerhead Sea Turtles is well established (Caldwell et al. 1959. Bull. Fla. State Mus. Biol. Sci. 4:293–308). However, what happens when turtles missing their hind limbs try to dig nests is not well documented. ARCHELON has consistently monitored the main nesting beaches of Greece for the last 39 years. Its project in Lakonikos Bay, in the southeast Peloponnese, covers about 23 km of nesting beaches: Mavrovouni, Valtaki, Vathi, Selinitsa, and Evrotas. Here we present the case of a Loggerhead Sea Turtle (*Caretta caretta*) missing both hind limbs, first observed by ARCHELON's team in July 2010 in Mavrovouni during an early morning non-nesting emergence (Fig. 1). She was nicknamed “Stumpy” as her rear limbs were severed at about the ankle level and both flipper spades were missing (Wyneken 2001. The Anatomy of Sea Turtles. NOAA technical memorandum



FIG. 1. Loggerhead Sea Turtle (*Caretta caretta*) missing both flipper spades on Mavrovouni Beach after a non-nesting emergence.



FIG. 2. The clutch of 90 eggs exposed on the sand, only 5 m from the sea in Mavrovouni Beach, in July 2020.

NMFS-SEFSC-470). As a result, she was leaving very distinctive tracks on the sand. In June 2012 Stumpy was encountered again in Mavrovouni and this time she was tagged and we helped dig her nest as per routine in similar cases (Addison 1994. Herpetol. Rev. 25:63). The nest hatched after 46 d. Post-hatch excavation revealed 155 eggs, with 45.2% hatching success and 41.9% hatchling emergence success. Of the unhatched eggs, 90.6% had no visible embryos while 9.4% had dead embryos. In July 2019, she was observed again in Mavrovouni, still tagged, making several nesting attempts. Later in the season (1 August 2019) a Stumpy emergence with three nesting attempts was recorded in Mavrovouni. On 6 July 2020, during the morning survey in Mavrovouni, a clutch of 90 eggs was found exposed on the sand, only 5 m from the sea (Fig. 2). The inspection of tracks, the several emergences with Stumpy's tracks in Mavrovouni prior to this date, and the non-excavation of a complete egg chamber suggested that this clutch belonged to Stumpy. An egg chamber was excavated for the 88 eggs that were still intact and the nest was fenced against predators. At least one hatchling emerged from this nest, reaching the sea on 20 August 2020. It is likely that more hatchlings emerged but went unrecorded because of the pebbles surrounding the nest site as a result of a recent inundation, which hindered observation of hatchling tracks. Regrettably, the nest was completely depredated on 28 August 2020. To our knowledge this is the first reported case of a *C. caretta* lacking both rear flippers repeatedly attempting to nest, and notably showing strong nest site specificity (always appearing on the same stretch of beach). In addition, the outcome of this case validates the importance of monitoring the nesting beaches so that we maximize the number of hatchlings recruited to the population every year and thus contribute to the conservation of the species.

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