

A report of nesting on a Maltese beach by the Loggerhead Turtle *Caretta caretta* (Linnaeus 1758) (Reptilia: Cheloniidae)

Alan Deidun¹ and Patrick J. Schembri¹

Of the seven species of marine turtles in the world, five occur in the Mediterranean: the Loggerhead [*Caretta caretta* (Linnaeus, 1758)], Green [*Chelonia mydas* (Linnaeus, 1758)], Kemp's Ridley [*Lepidochelys kempii* (Garman 1880)], Hawksbill [(*Eretmochelys imbricata* (Linnaeus, 1766)] and Leatherback [*Dermochelys coriacea* (Vandelli 1761)] (UNEP/IUCN, 1990; Arnold & Ovenden, 2002). Of these, only the first two listed now breed in the Mediterranean. The Leatherback is mainly an Atlantic species that regularly enters the Mediterranean in small numbers and apparently used to occasionally breed there, although there are no recent records of it doing so; the Hawksbill is a tropical species that only very rarely enters into the Mediterranean, while Kemp's Ridley is an Atlantic species for which there is only a single record from the Mediterranean (UNEP/IUCN, 1990; Arnold & Ovenden, 2002).

All the five species recorded from the Mediterranean have also been recorded from Maltese waters (Gramentz, 1989; Baldacchino & Schembri, 2002) and indeed the only Mediterranean record of Kemp's Ridley is from Malta (Brongersma & Carr, 1983). However, all apart from the Loggerhead may be considered as either vagrants (Leatherback and Green turtles) or as accidental (Hawksbill and Kemp's Ridley). On the other hand, the Loggerhead forms part of the Maltese fauna since it is relatively common in Maltese waters and, until it was declared a protected species in 1992 (Legal Notice 76 of 1992), it was regularly landed and offered for sale at the Fish Market in Valletta (Gramentz, 1989; Baldacchino & Schembri, 2002). Both Gulia (1890) and Despott (1915) reported that the Loggerhead also used to breed in the Maltese Islands. The former author makes a general statement that Loggerheads came ashore on sandy beaches to breed (Gulia, 1890), but the latter states that "it has been known during that season [spring] to lay its eggs on our unfrequented sandy beaches, especially at Gozo" (Despott, 1915). There are no other records of turtles nesting in the Maltese Islands following Despott's and it has been assumed that the Maltese beaches have been abandoned as nesting grounds for at least 75 years (e.g. Savona Ventura, 1979; Gramentz, 1989; Lanfranco & Schembri, 1989; Baldacchino & Schembri, 2002).

In August of 2005, one of us (AD) had occasion to interview a person (who wishes to remain anonymous) who described in great detail a turtle emerging from the sea, crawling up the sandy beach at Ir-Ramla tal-Mixquqa (Golden Bay), to excavate a nest in the sand and deposit a clutch of eggs. This event happened some time between the 1st and 15th of July 1960 (our informant does not remember the exact date), while he formed part of the 11th Regiment of the Royal Malta Artillery (popularly known as the 'Territorials') and was stationed at the then army barracks at Ghajn Tuffieha. Our informant witnessed the event while he and four others were relaxing on the beach at Ir-Ramla tal-Mixquqa in the evening. At around 21.30h a turtle, described to us as some 50-60cm long, some 40cm wide, and with a light brown carapace and a yellow plastron, swam to the water's edge and then crawled up the beach for some 150m until it reached the reed bed fringing the Ramla tal-Mixquqa dune, behind the position of the catering establishment that is now sited in front of this dune. The turtle then excavated a nest and deposited its eggs. When egg laying was over, the observers approached the nest and dug out the eggs, of which there were between 50 and 100 (our informant does not remember the exact number but is fairly sure that it was closer to 100 than to 50). The eggs and turtle were collected and eventually consumed. Our informant also remarked that the beach in question was completely dark in those days and was only lit when necessary by means of a generator.

This report of nesting by what is most likely to have been the Loggerhead Turtle *Caretta caretta* on a local beach in 1960 is important since it suggests that turtles may have still been nesting in the Maltese Islands up to about 45 years ago, immediately before the local tourism industry took off in the early 1960s and Maltese beaches became much more frequented, and their hinterland developed and well lit. At present the Loggerhead nests in the central and eastern part of the Mediterranean basin, mainly in, Libya, Greece, Cyprus, Turkey, Syria, Lebanon, Israel and Egypt, but small populations also nest in Tunisia, Sicily, and Lampedusa (Gramentz, 1989; UNEP/IUCN, 1990; see also papers and reports presented at the Second

¹ Department of Biology, University of Malta, Msida, Malta. patrick.j.schembri@um.edu.mt (corr. author)

Mediterranean Conference on Marine Turtles, 4-7 May 2005, Kemer, Antalya, Turkey; Ministry of Environment and Forestry of Turkey, 2005). In the past this species also nested in southern Italy and Corsica (UNEP/IUCN, 1990), apart from Malta. Thus, there are several potential sources in the central Mediterranean from where a local breeding population may be founded. However, it is not likely that local beaches will once again start being used as nesting sites, given the high level of disturbance, human activity and bright illumination at all hours of the evening and night that now occurs on the beaches where nesting has been recorded, especially during the nesting period (in the Mediterranean, from the end of May until the end of August and sometimes early September).

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