## The Loggerhead Turtles (Carettinae) of Europe

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Very little is known about the Carettinae of Europe. The first authentic name conferred upon one was when Schoepff restricted Linné's name Testudo caretta to a specimen of what is undoubtedly the Mexican olive loggerhead or ridley now known as Lepidochelys olivacea kempi (Garman). The correct name for the brown-red loggerhead is not the one generally assigned to it today, namely Caretta caretta (Linné) and might well be Thalassochelys caouana (Daudin), type locality Jamaica, West Indies (Deraniyagala 1943; Smith and Taylor, 1950). The names now in general use for Atlantic loggerheads are Lepidochelys olivacea kempi (Garman) for the ridley or olive-back and Caretta caretta caretta

(Linné) for the brown-red.

Until recently it was generally assumed that the East Atlantic possessed only a single loggerhead, but in 1939 it was shown to harbor two races of olive-back and one brown-red (Deraniyagala 1939). The identity of the last however remained obscure since its two races were then known apart by a single variable character of differentiation, namely the neural bones of the carapace, and an examination of a series of skeletons from Europe was impracticaable. The recent discovery of a more accessible character was the difference in the average number of marginal scutes, the 'forma typica' generally possessing 12 pairs, the race gigas 13. Examination of the European material tabulated below now reveals that the Indo-Pacific race gigas of the brown-red has accompanied its olive-backed associate into the east Atlantic as was suspected some time ago (Deraniyagala 1943).

Specimens of Caretta caretta in the British Museum Marginals Locality Adult 12/12 Sicily (a) (b) Adult 13/13 Italy 13/13 (c) Adult Atlantic (d) 1/3 Grown 13/13 Atlantic (e) 1/4 Grown 13/13 Atlantic (f) 1/4 Grown 13/13 Selsey Bill, Sussex (g) 1/4 Grown 13/13 Eire

Specimens of Caretta caretta in the National Museum of Eire include (a) Reg. No. 75—1938 from Black Sod Bay, West Mayo; (b) No. 11. 1945 from Galway Bay and (c) No. 39. 1945 from Tralee, County Clare.

This knowledge is now utilized in unravelling another problem. The discovery of the ridley in British waters (Deraniyagala 1938) aroused much interest, being commented upon in a series of articles in such diverse British publications as Nature, the Proceedings of the Linnean Society of London, the Illustrated London News, the Times, and Blue Peter. It was then surmised that both the ridley and its companion, the brown-red loggerhead, were transported from American waters by the Gulf Stream. However, the capture of a young ridley from the Azores suggested these islands as the probable source from which the turtles entered British waters (Deraniyagala 1939) but this possibility was not generally accepted. It is now shown that the brown-red companion of the ridley found in European waters is not of American origin, consequently it is extremely unlikely that the latter alone is American.

The probability is that the original range of the ridley has been greatly curtailed with the extension of cold conditions in the northern Atlantic, but in retreating southward it left a colony at the Azores which persisted owing to the warm influence of the Gulf Stream. Supporting this view are the marine shells that have also retreated southwards occurring only as fossils at Sankaty Head in Nantucket Sound but found alive further south along the American coast (Cushman 1906; Shimer 1918).

The question as to whether the European ridleys differ from those of America, e.g., in being of smaller size, of a different color, and also in the average number and arrangement of the neural bones, is worth investigating since the British Museum possesses a sufficient number of

specimens for such a study.

I here wish to express my cordial thanks to Dr. H. W. Parker of that institution and to Miss Geraldine Roche of the National Museum of Eire for their kindness in permitting me to examine the collections in their charge.

In conclusion it will be perceived that:—

(1) Both the Indo-Pacific race of brown-red loggerhead Caretta caretta gigas Deraniyagala and the olive-backed Lepidochelys olivacea olivacea (Eschscholtz) inhabit the East Atlantic, which also possesses a small colony of Lepidochelys olivacea kempi (Garman).

(2) The West Atlantic possesses the 'forma typica' of the brown-red loggerhead Caretta caretta caretta (Linné) and also a race of the olive loggerhead Lepidochelys olivacea kempi (Garman).

(3) The existing nomenclature of the Carettinae or loggerhead turtles will be completely demolished if the law of Priority is enforced.

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