

Biometric Characterization of two pond turtle populations of the South West of Sicily

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Up to a very short time ago, the taxonomic position of the pond turtle living in Sicily was still uncertain. As a matter of fact, two taxa emerged, that is *Emys orbicularis galloitalica*, distributed along the Eastern side and a model identified as part of the South of Italy and distributed in all the other regions (Fritz, 1998; Lenk *et al.*, 1998). However, on the basis of the close enquiries on the mtDNA, today the Sicilian population has resulted to be clearly distinguished from other congeneric species as much as to be described as *Emys trinacris* -new species- most certainly endemic of Sicily (Fritz *et al.*, 2005). Unfortunately up to today, as a consequence of its new taxonomic position there is poor information regarding this species in the island. This implies the inability to interfere to introduce a correct policy of conservation towards this surely weak population of pond turtles. For a few years now we have taken on a work of research of two populations both part of this new species, respectively living in the natural resort of "Lake Preola and Gorgi Tondi" and in the natural resort of "Torre Salsa", which are protected areas both located in the South West of Sicily and at 100 km far from each other. This piece of work shows the results obtained through the biometrical analysis applied to some variables body parts. Between March 2003 and June 2004, 259 turtles were captured and measured; the results prove that in both types of populations, the male's medium dimensions, as it happens for the other population of the *Emys* species, are statistically inferior compared to the respective females. Even more, utilizing univariate and multivariate techniques of analysis, the population living in the

natural resort of "Torre Salsa" proves to be of larger dimensions compared to the one living in the natural resort of "Lake Preola and Gorghi Tondi", and is also statistically smaller and mostly constituted by young examples. This difference in age structure could be related to the difference in the influence that the two areas exercise on this species, which would deserve a different kind of attention: the first one could be classified as an area more suitable for reproduction, while the other as a more marginal and of growth space.