

## First Approximation to Congenital Anomalies in Kemp's Ridley Sea Turtle (*Lepidochelys kempii*) in Veracruz, Mexico

**Authors :** Judith Correa-Gomez, Cristina Garcia-De la Pena, Veronica Avila-Rodriguez, David R. Aguillon-Gutierrez

**Abstract :** Kemp's ridley (*Lepidochelys kempii*) is the smallest species of sea turtle. It nests on the beaches of the Gulf of Mexico during summer. To date, there is no information about congenital anomalies in this species, which could be an important factor to be considered as a survival threat. The aim of this study was to determine congenital anomalies in dead embryos and hatchlings of Kemp's ridley sea turtle during 2020 nesting season. Fieldwork was conducted at the 'Campamento Tortugero Barra Norte', on the shores of Tuxpan, Veracruz, Mexico. A total of 95 nests were evaluated, from which 223 dead embryos and hatchlings were collected. Anomalies were detected by detailed physical examinations. Photographs of each anomaly were taken. From the 223 dead turtles, 213 (95%) showed a congenital anomaly. A total of 53 types of congenital anomalies were found: 22 types on the head region, 21 on the carapace region, 6 on the flipper region, and 4 regarding the entire body. The most prevalent anomaly in the head region was the presence of prefrontal supernumerary scales (42%, 93 occurrences). On the carapace region, the most common anomaly was the presence of supernumerary gular scales (59%, 131 occurrences). The two most common anomalies on the flipper region were amelia in fore flippers and rear bifurcation of flippers (0.9%, 2 occurrences each). The most common anomaly involving the entire body was hypomelanism (35%, 79 occurrences). These results agree with the recent studies on congenital malformations on sea turtles, being the head and the carapace regions the ones with the highest number of congenital anomalies. It is unknown whether the reported anomalies can be related to the death of these individuals. However, it is necessary to develop embryological studies in this species. To our best knowledge, this is the first worldwide report on Kemp's ridley sea turtle anomalies.

**Keywords :** Amelia, hypomelanism, morphology, supernumerary scales

**Conference Title :** ICHAR 2021 : International Conference on Herpetology, Amphibians and Reptiles

**Conference Location :** London, United Kingdom

**Conference Dates :** February 15-16, 2021