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**COMPILERS:**

**Yakup Kaska, Bektaş Sönmez, Onur Türkecan, Çisem Sezgin**



**Abstract ID:** 6196 **Type:** Poster **Subject:** Nesting Biology **Country:** Turkey  
**Submitted By:** Doğan Sözbilen

## ARE NESTING LOGGERHEAD TURTLES CHANGING THEIR REPRODUCTIVE SCHEDULES ON DALYAN IZTUZU BEACH, TURKEY? NEST EARLIER, NEST EVERY YEAR

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Conservation and monitoring studies have been carried out for 26 successive years on Dalyan Iztuzu Beach which is one of the main nesting beaches for loggerhead turtle (*Caretta caretta*) in Turkey. First clutch is being laid in mid May and remigration interval is 2 to 3 years for nesting females until recent years. In this study, we used last 7 years nesting and tagging data to investigate alterations in the reproductive schedule and remigration intervals of nesting loggerhead turtle on Dalyan Iztuzu Beach. Nesting and tagging data were used and significant changes were observed on the time of the first nest of the year and the distribution of the number of nests laid per month. First observed nest date shifted from mid May to late April ( $R^2= 0,81$ ). The proportion of nest being laid in May was increased ( $R^2= 0,736$ ) while the number of nests laid in June ( $R^2= 0,363$ ) and July ( $R^2= 0,356$ ) were slightly decreasing. Remigration interval was calculated as 2 years but we observed that 7 females visited nesting beach for 2 successive nesting season. This may suggest that nesting loggerheads are changing their reproductive schedule and migration pattern in order to prevent the effects of climate change or other anthropogenic factors are affecting their reproductive behavior.

**Abstract ID:** 6197 **Type:** Poster **Subject:** Nesting Biology **Country:** Japan  
**Submitted By:** Hideo Hatase

## LOGGERHEAD TURTLE OFFSPRING SIZE DOES NOT VARY WITH MATERNAL ALTERNATIVE FORAGING BEHAVIORS: SUPPORT FOR THEIR EPIGENESIS.

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The occurrence and maintenance of alternative life histories have become central issues among previously untrackable species. In the case of loggerhead turtles (*Caretta caretta*) nesting on one Japanese beach, small females tend to forage on planktonic prey in oceanic waters (depth > 200 m), while large females tend to forage on benthic prey in neritic waters (depth < 200 m). These alternative foraging behaviors are presumably maintained by a conditional strategy. By incubating clutches of similar egg size derived from oceanic and neritic foragers in a common environment, we examined whether the morphology of emerged hatchlings varies with maternal alternative foraging behaviors. There were no significant differences in straight carapace length and width and body mass of emerged hatchlings between the two foraging groups, which were classified based on stable isotope ratios, suggesting the development of hatchling tissue from yolk is genetically similar between the two groups. Egg mass significantly increased with female body size only in neritic foragers that laid larger clutches than oceanic foragers, whereas hatchling morphology significantly increased with egg mass in both groups. This suggests larger females produced larger hatchlings within neritic foragers. However, we found no significant correlations between egg number and hatching and emergence success in either oceanic or neritic foragers that could explain the above phenomenon. Effects of incubation environment on embryonic development and hatchling morphology were also similar between the two foraging groups, implying their genetic similarity in thermal response, consistent with their epigenesis. This work was supported by the ISTS Travel Grant and the JSPS KAKENHI Grant Number 25870141.