Glimpses of Nature

Climate worries turtles too….

"Climate change"…….we are really feeling it now. Be it tropical rainforest, temperate boreal forest or arctic tundra, the sun is getting mightier year after year. Not only we humans, there are reports how plants reciprocate by changing their flowering and fruiting time or their habitats, birds change their nesting habits and migration pattern, even insects are facing the threat of extinction. The list of victims stretches longer day by day and it poses a great challenge to biologists as hitherto unknown behavioral and physiological phenomena are rising up simultaneously. A fascinating example is Olive ridley turtle (*Lepidochelys olivacea*) - one of the famous yearly visitors of the Indian sea coasts. Every year usually from November onwards, they come in large group to the Indian coast for laying eggs and raising their hatchlings. However, things do not look like the same in recent years A long term observation based on Olive Ridleys of Chavakkad beach, Kerala has detected a considerable shift in breeding season from November – March to January - March. Remarkably, a reduction in incubation period from 45-50 days to 40-42 days has also been observed. Researchers attributed the change to increase sea surface temperature and sand temperature in beach. Also, a gender imbalance, as higher temperature tends to favour female hatchling production, is also noted by researchers. So, at the extreme point we can imagine all female population which is not in an order with natural dynamics.

Handling the climate dilemma is not an easy task as it often considered at regional or global scale. However, often local actions turn out to be essential, as in case of this species, potential strategies to minimize the heat effect through nest relocation, artificial incubation, and changing the thermal gradient in beach might offer a short-lived solution.

Image and Collector: Sujit Sundaram, N. J. James & Abdul Saleem. *Green Habitat, Pavaratty, Thrissur Dst., Kerala, Pin – 680507, India*