

AN INCREASING SEA TURTLE POPULATION FOLLOWING 15 YEARS OF NEST PROTECTION

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The 44-km beach of Kyparissia Bay, western Peloponnesus, hosts the second largest loggerhead turtle nesting aggregation in Greece and in the Mediterranean. An 8-km beach section, concentrating 62% of all nests in the Bay, has been monitored unflinching since 1984, including tagging of turtles at night. Turtles without tags or scars attributed to lost tags are considered as neophytes. As nests were subject to high rates of mammal predation and inundation by seawater, in-situ fencing and relocation of nests have been gradually applied, and since 1992 this covered the majority of nests. Over the 28-year period (1984-2011), the annual nesting effort ranged from 174 to 741 nests. However, in the last 6 years (2006-2011) there has been a considerable increase in nest numbers, almost doubling the annual population growth rate. Furthermore, the annual percentage of neophyte turtles has increased from 30-40% in the period 1993-2003 to 50-60% in the last 6 years. The elapsed number of years from the onset of massive nest protection (1992) to the first appearance of these increases (2006) coincides with the minimum maturation period of Mediterranean loggerheads (15 years). Our data tentatively indicate that the recent increases in nest numbers and neophyte turtles are associated with long-term nest protection efforts. The noted positive population trend, potentially resulting from ARCHELON's conservation efforts in Kyparissia Bay, make us hopeful that similar protection measures carried out since early 1990s at the nesting areas of Rethymno and Chania, on the island of Crete, may reverse the population declines recorded there.