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**PROCEEDINGS OF THE  
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## INTERCHANGE OF NESTING LOGGERHEADS AMONG GREEK BEACHES

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### INTRODUCTION

The loggerhead turtle, *Caretta caretta*, in the Mediterranean has important nesting areas in Greece (Fig. 1). These are found on the island of Zakynthos (Bay of Laganas), in Peloponnese (Bay of Kiparissia and Lakonikos Bay) and on the island of Crete (Rethimnon and Bay of Hania). All these areas are monitored by the Sea Turtle Protection Society of Greece in the context of a long-term conservation project. In the period 1982-1996, a total of 2,971

loggerheads have been tagged at these areas. Of the tagged turtles about 71% were tagged on Zakynthos which is the oldest monitored area and, by far, the most densely-nested.

## METHODOLOGY

Tagging was done during the night, after oviposition of eggs. A specific beach or beach sector (usually the most turtle-frequented) at each nesting area was patrolled every night, during the nesting season, by experienced project personnel. Nesting turtles were recorded and in case they did not bear old tags, they were tagged with one or two tags.

## RESULTS

In the course of this 15-year period, nine individual turtles were observed to change nesting area. One turtle changed nesting area twice (Table 1). In total, 10 cases of interchange between nesting areas were documented. Seven cases of interchange occurred in different seasons while three cases occurred during the same season.

Most changes occurred between Zakynthos and the Bay of Kiparissia. This is understandable as the distance between these two nesting areas is about 85 km. The longest interchange occurred between Kiparissia Bay and Rethimnon, the shortest route being about 365 km (Fig. 1).

## DISCUSSION

It is generally known that sea turtles exhibit a strong philopatry. Why these individuals changed their traditional nesting area? Were they disturbed in such a way that they were forced to abandon their original site? As can be seen from Table 1, most turtles left one of the least developed nesting areas in Greece (*i.e.*, Kiparissia Bay) for more touristic places, namely Zakynthos and Rethimnon. It seems, therefore, rather improbable that disturbances at the nesting site can make an individual turtle change its general nesting area. Nevertheless, changes due to disturbances between adjacent or nearby beaches are known to occur (*i.e.*, among the 6 beaches in the Bay of Laganas, Zakynthos).

Another possibility could be that the individuals that changed their nesting area, were somehow lost or confused. The case of Y5833 is characteristic. This turtle after 2 seasons of nesting (1992, 1994) at Kiparissia Bay, ventured to build a nest during 1996 on the island of Crete (Rethimnon) and after eight days appeared back at its original site (Kiparissia Bay). This looks as if the animal was confused and made a nest at Rethimnon, before "finding", after a while, its traditional site. This kind of opportunistic nesting might explain the widely distributed "diffuse" nesting on Greek beaches (Margaritoulis *et al.*, 1995).

## ACKNOWLEDGMENTS

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## LITERATURE CITED

Margaritoulis, D., M. Dretakis and A. Kotitsas. 1995. Discovering new nesting areas of *Caretta caretta* in Greece. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-SEFSC-361: 214-217.

Table 1. Interchange of nesting loggerheads among Greek beaches in the period 1982-1996.

Tag Number	Locality & season(s) of nesting before the (observed) interchange	Locality & season(s) of nesting after the 1st (observed) interchange	Locality & season of nesting after the 2nd observed interchange
A1241	KIPARISSIA (1984)	ZAKYNTHOS (1986,1988)	
B2314	KIPARISSIA (1985)	ZAKYNTHOS (1987,1989,1993)	
B2352	KIPARISSIA (1985)	ZAKYNTHOS (1986)	
P4669	KIPARISSIA (1987)	ZAKYNTHOS (1995)	
N5069	ZAKYNTHOS (1988)	KIPARISSIA (1988)	
E583	KIPARISSIA (1994)	HANIA (1994)	
H3213	LAKONIKOS (1989)	KIPARISSIA (1992)	
Y5780	ZAKYNTHOS (1992)	KIPARISSIA (1995)	
Y5833	KIPARISSIA (1992,1994)	RETHIMNO (1996)	KIPARISSIA (1996)

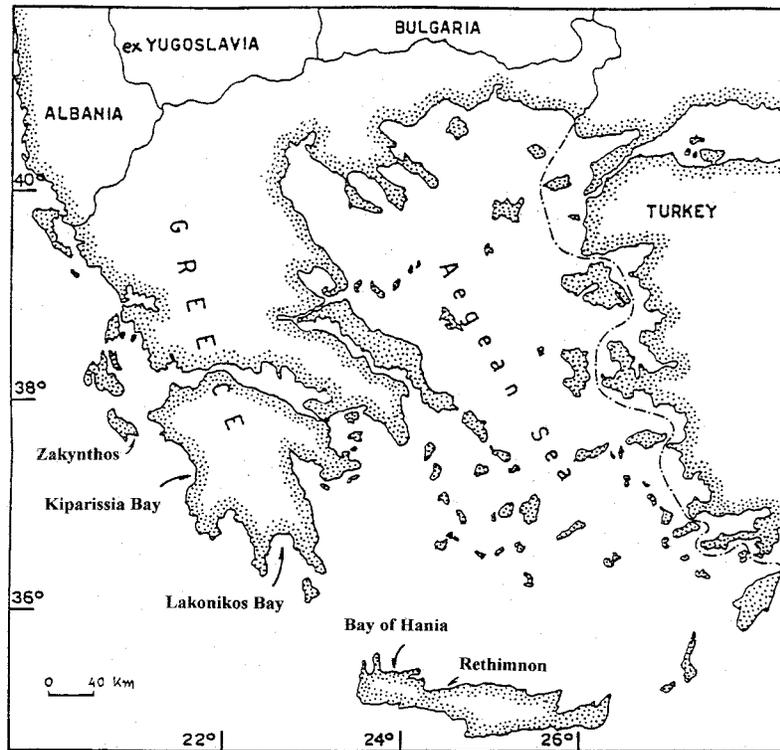


Fig. 1. Map of Greece showing the main nesting areas of the loggerhead turtle.