

THE ENDANGERED LOGGERHEADS OF ZAKYNTHOS (GREECE): A PART OF THE MEDITERRANEAN SEA TURTLE CONSERVATION ISSUE. THE FORMATION OF MEDASSET (Mediterranean Association to Save the Sea Turtles).

L. E. Venizelos

*Governing Council of the Hellenic Society for the Protection of Nature
Management of the Greek Animal Welfare Fund (GAWF U.K.)
U.N.E.P. Roll of Honour "Global 500".
Athens Academy Award
3 Merlin St., 10671 Athens 2 Greece.
c/o Daphne Corp., 24 Park Towers, 2 Brick Str. London W1Y7DE, England*

ABSTRACT. The island of Zakynthos lies off the North West coast of the Peloponese in the Ionian Sea and, in Laganas Bay, has the largest single concentration of nesting Loggerhead (*Caretta-Caretta*) sea turtles in the Mediterranean. The Loggerhead is endangered due mainly to - loss of habitat from beach development - accidental or intentional catchings by fishermen (Malta, Balcaric Islands, Tunisia and Italy) - pollution from discarded plastic bags mistaken for jellyfish and consumed, discharged oil etc. - speed boats - and human disturbance i.e. activities on nesting beaches. The Greek Government has signed several international conventions (Berne and Bonn) and national laws (Presidential Decrees (1985) and Ministerial Decision (1987)) for its protection. Nevertheless legislation remains on paper alone and so far has not been implemented. As a result detrimental land and sea activities by local landowners, mismanagement by the Local Administration responsible for implementation of the laws, general Government inactivity and lack of on - going research data, are contributing to the extinction of the species in the Mediterranean. The Mediterranean Association to Save the Sea Turtles (MEDASSET) was formed with the aim of co-ordinating efforts, research, finance, publicity, education, lobbying etc. in order to save this endangered species.

INTRODUCTION - HISTORY, LEGISLATION AND LOCAL RESPONSE THERETO.

Destruction of the sea turtles' breeding habitat in Zakynthos continues and responsible Government officials are indifferent to the destruction, even fostering it by their inaction. International organizations for the protection of the European environment proclaim their intention to help save the Loggerhead of Zakynthos, while Council of Europe fora continuously present the Greek Government with agreed recommendations (C.o.E. Rec. No. 9. Dec. 87) and proposals, ac-

cepted by the Greek Government and other State delegations. However, so far they have not been implemented. Detailed reports and inputs from several organizations have not solved the problem: hence the chaos which prevails today in Laganas Bay.

Yet, remarkably, the Deputy Minister of the Environment announced on Greek TV (2.6.88) that "the problems have been solved and the sea turtle is now fully protected." Obviously he was referring to legislation on paper and which has now been challenged in the Courts and is constantly "under review". The long promised Presidential Decree

to specify, strengthen and prolong the existing Ministerial Decision of 29.12.87 has been turned down by the Greek High Court (of 14.7.88), thus creating complete legal confusion. If the Government turns down the changes imposed by this Court on the Presidential Decree (16.6.88) then automatically the Presidential Decree of 1985 and its detrimental building effects will enter into force. A co-ordinated three Ministerial Decision (10.3.88) controlling marine traffic in the Bay is valid only until December 1989.

On June 7th 1988 twenty-nine eminent Greek personalities signed a statement (Annex 2) stressing the need for immediate action. However, if "protection" continues at today's current pace sea turtles will stop nesting in Zakynthos and the species could remain only as a memory. It is therefore vital properly to protect the remaining important nesting beaches in the Mediterranean as they are the only means to propagate and safeguard the existence of the species for the future. Some pessimistic scientists consider that sea turtles could already be extinct as a breeding species in the Mediterranean.

PRESENT SITUATION

a) Detrimental Building Activities.

Rock blasting last May at Cape Yerakas next to Yerakas nesting beach was a threat to the ecological balance of the whole of Laganas Bay. A cafeteria declared illegal in 1985 by the local Administration (Fig. 1) right on Kalamaki nesting beach (Annex 1.) was doubled in size in 1988 (Fig.2). A low, 60 metre long wall also declared illegal (1986) at the crucial nesting point 15-20 metre from the water's edge (Fig.1) and parallel to the sea in front of the cafeteria, was completely concealed with sand and plants, in order to mislead and defy the Council of Europe (C.o.E. Rec. No. 9 Dec. 87) and the local administration (Fig.2).

Further along the Bay, in Kalamaki, another 25 metre wall has been built illegally on the nesting beach (1987), with the fictitious claim that it was a "protective break-water wall." The owner has since won his case in the courts....the wall will remain. Plans are under consideration to level the sand dunes in Kalamaki in order to build three to four hotels with a total of 1,700 beds and also a golf course, all at 250 metres from the sea. The owner was granted permission to proceed with the building. In 1988 the same land-owner opened a road leading to the beach and built a villa "illegally" at less than 100 metres from the shore (Fig.3). In



Figure 1.



Figure 2.

Daphni, one of the important nesting beaches (Annex 1.) two prefabricated houses built and officially declared illegal by the local Administration in 1986, still remain there. In 1988 a house and a restaurant (Fig. 4), both illegally built, completed the picture. A road was opened leading to the beach (1987), yet another breach of the Council of Europe's recommendation No.9. On densely forested Marathonissi islet (Annex 1.), where sea turtles nest, in an area facing Laganas Bay trees and maquis were cut down, in order to change the land to agricultural use (Law 998/79), thus enabling the owner, a Professor, to develop it for tourism. Furthermore, during a three month period inbetween laws (1987) dozens of new buildings had already sprung up all along Kalamaki beaches. The laying out of settlements and the successive extensions of their respective limits represent in Greece the greatest danger for the environment. In particular in Zakynthos and more specifically within the limits of the Zone of Controlled Residential Development, the limits of settlements have been considerably extended and are continuously being revised so that more plots may be included in the settlements. Such regulations have already been issued in respect of the village of Laganas and are being presently drafted for the Kalamaki settlement, which may lead to

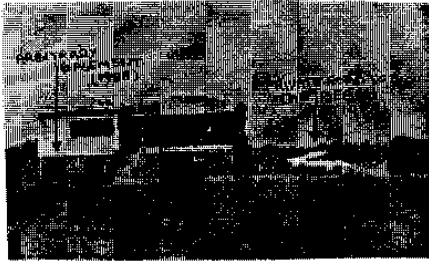


Figure 3.

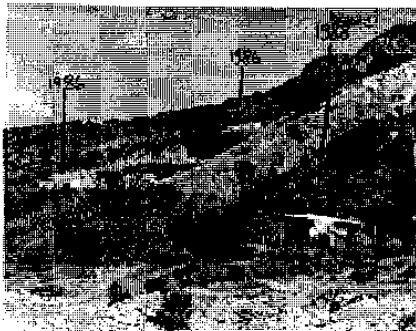


Figure 4.

construction reaching as far as the beach or very close to it (150 to 200 m). These building regulations will inflate building construction and tourist development of the above area to possibly more than 30,000 beds, creating additional pressure on sea turtle nesting beaches. In the meantime the Government has not yet acquired land in sensitive areas of the bay since it has not yet defined the legal limits of public land (Ministerial Decision of 29.12.87 and C.o.E. Rec No. 9. Dec. 87).

b) Other Detrimental Activities

Lights, so distracting to both nesting and hatching turtles, have vastly increased yet no agreed measures to control them have been taken so far, due to the inactivity of the local administration C.o.E. Rec No. 9 Dec. 87).

The extension of the air strip, bringing it closer to Kalamaki village and the beach, has already dramatically increased noise and lights during the night. In the summer of 1988 about 50 charter flights were landing every week. Some roads leading to nesting beaches were closed (Ministerial

Decision 1.12.88). However, most were barred in such a way as "conveniently" to allow access to vehicles (Fig. 5) from the side (C.o.E. Rec No. 9 Dec. 87). Mopeds and cars with their blazing lights raced over East Laganas and Kalamaki nesting beaches all night long, and a 4 - wheel - drive vehicle deliberately in broad daylight destroyed all nests along Daphni beach to demonstrate the landowners' feelings. Tractors hired by Kalamaki and E. Laganas hoteliers to clear seaweed from the beaches for the benefit of tourists, have destroyed dozens of nests. (Fig. 6) Ironically, since the Tamarisk trees were removed to protect the turtles there is now no obstruction in the path of the tractors. A picket line of hundreds of sun-umbrellas, deck-chairs and pedalos on the foreshores (Fig. 7) of Kalamaki, Yerakas etc. were causing more direct obstruction for nesting turtles because they were not removed at nightfall (Ministerial Decision 29.1.88 and C.o.E. Rec. No. 9 Dec. 87). Night guards to patrol nesting beaches were appointed only for E. Laganas, Kalamaki and Marathonissi (June 10th only) but to little effect due to opposition from the local communities and fear of reprisals by local landowners. The digging of pits and building of sand castles, accumulation of litter, horse riding along the beaches of



Figure 5.



Figure 6.

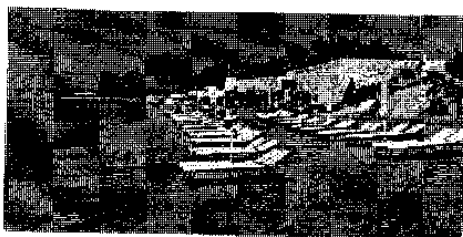


Figure 7

East Laganas and Kalamaki, caused even more damage, whilst the low frequency sound of the discos heard all over the Bay completed the picture of Laganas, keeping humans happy and driving the turtles away.

c) Detrimental Sea Activities

The rubber dinghy to be used by the coastguard to enforce legislation on sea traffic in the Bay (Ministerial Decision Dec. 87) (Annex 1.) remained "grounded" in Zakynthos town all summer 1988. No Ministry would pay for its fuel! Buoys defining the protected area and delineating sea traffic kept disappearing. Dozens of speed boats defying openly the seven miles per hour speed limit imposed by law (Three Ministerial Decision of 10.3.88) crisscrossed around Marathonissi and, despite anchorage prohibition, disembarked about 300 visitors daily on the islets' nesting beach. As a result masses of private sun umbrellas were stuck into the nesting beach. Illegal scuba diving and trawling around the islet provoked protest and anger even from local fishermen and tourist-boat operators. In the summer of 1987, research by the Sea Turtle Protection Society (S.T.P.S.) revealed to the Press ("NEA" 10.12.87) that half of the nesting turtles were injured in various degrees, some very seriously, presumably by motor boats. In 1988 at least 5 turtles with one or more flippers missing, with head injuries and still bleeding had to be helped by members of the S.T.P.S. to dig their nests. A tragic sight. Local communities systematically refused to co-operate and young research biologists of the S.T.P.S. and W.W.F. Austria (Traffic) were intimidated and driven from the most important nesting beaches (2.7.88) of Daphni, Yerakas and Sekania (Annex 1.), fearing assault and personal injury. This is totally

unacceptable, since, according to Greek law beaches belong to the State and also S.T.P.S. is funded by the Government and the E.E.C.

d) Detrimental Administration

The Prefect's (Governor of Zakynthos) Committee for the "Organization Management and Protection of the nesting area" (established in Dec. 87) is not working. This Committee is also responsible for the handling of U.S. \$ 423.000 given by the Greek Government in January 1987 for the implementation of its regulations. Furthermore, in August last, a Public Prosecutor assaulted a member of the S.T.P.S. who had observed him violating the speed limit in the controlled area in the Bay in a fast speed boat. This incident was widely reported in the Greek Press. It is a sad and infuriating fact that although national (1978) and international (1983) awareness of the need to protect the Zakynthos Loggerhead population, was initiated so long ago, the situation on nesting beaches continues to deteriorate year after year. Indications are that the "protection" of the species will remain indefinitely at the stage of modest public awareness, but without adequate action on the ground, until the largest concentration of nesting sea turtles is extinct in the Mediterranean.

e) Unfortunate lack of data.

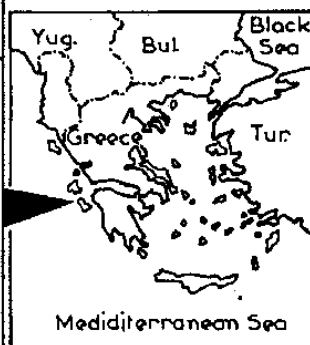
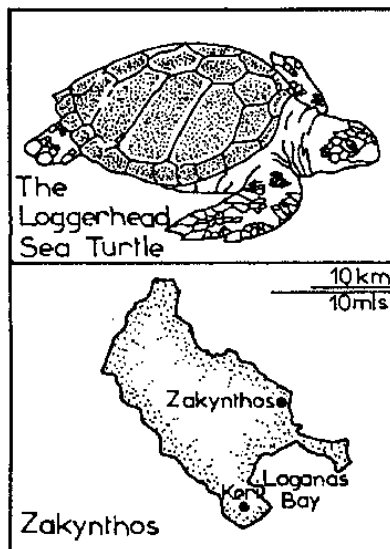
I am greatly concerned at the secrecy and the lack of, and withholding of, available information on comparative studies, data etc., collected in Zakynthos and the Peloponese since 1984, by the responsible researchers of the University of Salonika and the Ministry of the Environment (Dr. K. Corbett, S.E.H. in Litt. 29.1.88). Consequently we are not in a position to know whether the study of the extinction of the species which is being carried on in Laganas is a comparative and applied one or simply pure research. Nor do we know if the data gathered up to now is destined only for the study of a species which is considered condemned to extinction or with the aim of its protection and survival. This parochial attitude of researchers does little to defend the truly international importance of Laganas Bay and its turtles. Relevant data must be made available; the results of on-going research must be communicated as they occur because the goal is to Save the Sea Turtle!

ANNEX 1



% - PERCENTAGE OF NESTS AFTER OBSERVATION IN 1983-84-85
KEY

- Black Areas: settlements and their expansion.
- Dotted line: Marine Areas of restricted access
- A: No navigation; B: Navigation at 7mph speed.
- 1 - nesting beaches
- 2 - core area: construction of 60 m² houses on 4 ha plot permitted.
- 3 - medium protection: 120 m² houses permitted on 2 ha plot.
- 4 - partial protection: 15 beds per ha permitted.
- 5 - agricultural land.
- 6 - medium scale tourism (units of 100 beds per 0.4 ha plot).
- 7 - tourism development zone.
- 8 - intensive tourism development zone.
- Islets of Marathonisi and Pelousi: only one private house is permitted on each of 200 m².



CO-ORDINATION OF PROTECTION EFFORTS - THE FORMATION OF MEDASSET

After more than five years of constant struggle, enlightening experience, and dedication to the sole cause of safeguarding the Mediterranean's-Sea turtles, I now announce the formation of a co-ordinating body 'MEDASSET' - Mediterranean Association to Save the Sea Turtles. This association would act as an 'umbrella' body linking all European and Mediterranean organizations and individuals concerned with conservation and research on these species. It would endeavour to co-ordinate efforts for sea turtle research, conservation, fund raising, political liaison, publicity, education and associated activities. It would, therefore, participate in and assist with relevant conferences, symposia, meetings and other European and Mediterranean fora with and on behalf of those organizations and individuals with whom MEDASSET would fully collaborate. It is now certain that the survival of these species can only be effectively addressed and secured by such full co-operation and joint effort. For only in this way would rational and practical solutions to the common and specific problems confronting their Mediterranean survival become possible. We might also hope that by such example and information action might be encouraged from those few States who have yet to participate in turtle conservation.

Presumably we would accept that the survival of marine turtles is now a recognized international priority, and if so then the need for one voice for the Mediterranean must be long overdue. Yet, at present, there are still somewhat 'ad hoc' arrangements of occasional meetings hosted by different groups across Europe. At best, this scarcely makes an efficient use of limited resources; at worst, it is a recipe for the solutions and strategies for this international problem to be dictated by perceived local needs and priorities. We hope that you would agree that one strategy should be drawn up and resourced with all necessary co-operation; MEDASSET offers the required co-ordination to achieve this.

With MEDASSET initiated one of the most obvious benefits will be the maximisation of efficiency in terms of the very limited resources presently available for sea turtle research and conservation. To achieve this aim, it is essential that the Steering Committee be properly representative of all national and international expertise. For the mechanics of this venture we can already offer the exclusive use of a large office in the centre of Athens for the purpose of housing MEDASSET,

and an executive address in London's West End for correspondence and contacts.

We are very mindful of the expansion at this time of the Berne Convention to encompass other non-European Mediterranean states; of the expanding Bonn Convention; of the forthcoming EEC Habitats Directive, and of the 1992 common aims and frontiers of their members. Surely marine turtle conservation should be equally pushed and achieved via a common approach?

At yet another symposium for marine turtles that took place within the I.C.S.E.M. 31st Congress and Plenary Assembly in Athens in October 1988 I took this opportunity to launch MEDASSET. Many international organizations including UNEP and WWF International, have promised to support us. Currently we are seeking the necessary funds to operate from the E.E.C. We expect to launch our Conservation Plan soon after.

BEACHES OF REPRODUCTION IN ZAKYNTHOS

BEACH	LENGTH OF BEACH THAT CAN BE USED BY NESTING TURTLES (IN METERS)
-------	---

VRONDONERO	150
GERAKAS	500
DAPHNI	250
KALAMAKI	250
LAGANAS	2000
MARATHONISI	200
SEKANIA	350
TOTAL	3700

THE NEED TO PROTECT *CARETTA-CARETTA*, THE SEA TURTLE OF ZAKYNTHOS

DECLARATION

The recent campaigning by the Press about the threatened destruction of the natural breeding conditions of the sea turtle *Caretta-caretta*, and the risk of extinction of the species, obliges us as citizens of this country to take a stand.

The enormous ecological destruction caused nowadays by the unthinking pursuit of maximum profit makes it essential to mobilise every possible force to protect the ecological balance of our

planet, in order to safeguard Life itself, which in the final analysis secures the life of Man.

It is a provocation to our culture, at a time when the technical progress permits exploration of the planets and when Nature has ordained one small bay amongst the thousands in the Mediterranean (i.e. in Greek Zakynthos) as a breeding place for a species, today under threat of extinction, that we, citizens of the land of Greece, should remain with hands crossed. Historically it is both perverse and petty to plead the need to pander to minor vested interests which unfortunately are, in part, the hallmark of our age, as against the above-mentioned need to protect life.

The Greek State must stop trying vainly to square the circle and must apply the already existing Greek and international legislation for the protection of Nature. The measures that it has taken so far for Laganas Bay have been proved inadequate, and both the creation of the Controlled Building Zone and previous Presidential Decrees have merely altered the form of things and will simply encourage rather than deter and prevent the tendency to erect hotel installations, etc.

Recently there has been menacing evidence of this: a) the attempt to erect a 700-bed hotel, which remains unbalked by any existing legislation and b) activities such as rock-blasting at Cape Yerakas which are a threat to the ecological balance of Laganas Bay.

The State disposes of land everywhere: only the smallest amount in Zakynthos is needed for development in favour of affected interests, in this way creating positive conditions for investment by them.

There is an urgent need for a proper study and evaluation of the effects on the sea turtle's breeding, conducted by specially trained biologists to a fixed timetable, for the protection of the species and the rational development of the area. This can produce better economic prospects than frontiersman colonisation of the land behind Laganas Bay, which in the end will prove catastrophic for the breeding habitat.

The State must immediately approach the Environmental Department of the U.N. (UNEP), the Council of Europe, the EEC, and the recognised international Nature-preservation societies, seeking their contribution (both in infrastructure and finance) by means of necessary expropriations and by alternative solutions for the comprehensive assistance of the landowners/investors whose interests are affected in Zakynthos.

A. Delivorias, Director "Benaki Museum".
 G. Dontas, Presiden of "Greek Archeological Society",
 A. Fragiskos, Rector Technical University of Athens.
 Niki Goulandrís, Founder Museum of Nat. History.
 S. Gourdomihalís, Presiden of "The Union of Greek Shipowner's".
 Manos Hadjidakis, Composer.
 V. Kiortsis, Prof. of Zoology Athens University
 Presiden "Hellenic Society for the Protection of Nature".
 G. Kontogeorgis, Rector Pantios School of Political Science.
 Th. Couroussopoulos, Pressident Council of State.
 F. Kouvelis, Presiden of Athens Bar Association.
 N. Kranidiotis, Form. Ambassador of Cyprus in Greece Corresponding member Greek Academy.
 S. Kydoniatis, Vice Presiden of Athens Academy.
 N. Margarís, Prof. of Biology Aegian University.
 I. Marinopoulos, Industrialist.
 S. Mericas, Presiden Athens Academy.
 Alexis Minotis, Actor-Director former Presiden of Hellenic Nat. Theater.
 E. Moutselos, Member Athens Academy Prof. Sorbonne University (France).
 S. Nicolaou, Member of Council of State.
 A. Poulouvassilis, Rector Graduate Agricultural School.
 P. Psomopoulos, Director Athens Center of Ekistics.
 B. Rotis, Vice Presiden of Council of State.
 Ch. Selianitis, Presiden Architects Graduate of Higher Schools.
 A. Spanidis, (Rtd) Vice Admiral Hellenic Navy Presiden SMEIS.
 I. Tsarouhis, Painter.
 M. Stathopoulos, Rector Athens University.
 Lily Venizelos, UNEP "GLOBAL 500" award 1987.
 N. Vrettakos, Poet-Member of Athens Academy.
 E. Zafropoulos, Form. Presiden of Athens Bar Association.
 N. Zalaoras, Journalist-UNEP-"Global 500" award 1988.