

Marine Turtle Conservation in Zakynthos (Laganas Bay), Greece.

**UPDATE REPORT TO THE 19TH MEETING OF THE STANDING
COMMITTEE OF THE CONVENTION ON THE CONSERVATION
OF EUROPEAN WILDLIFE AND NATURAL HABITATS
BERN CONVENTION, Nov. 30th - Dec. 4th 1999.**

Report prepared by

MEDASSET

The Mediterranean Association to Save the Sea Turtles

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INTRODUCTION.

In 1985, the founder of MEDASSET (The Mediterranean Association to Save the Sea Turtle) commenced drawing the attention of the Standing Committee to the Bern Convention to the plight of the sea turtles on their significant nesting beaches in Zakynthos. The initiative was taken over and carried on after 1988 by the newly formed MEDASSET.

At Bern Convention Standing Committee Meetings MEDASSET has been continuing to present yearly reports with recommendations to the Government, exerting pressure for change regarding the Zakynthos turtle nesting areas.

Since its inception the organisation has been very active, mobilising International pressure, with hundreds of articles published, numerous press conferences, much lobbying, public awareness projects, speaking at international forums and conventions, giving talks on every possible occasion and making many yearly visits to Zakynthos initiating discussions with the local People and authorities. Playing a significant role in the constitution of the legal framework for protection, as a consequence protection laws were drafted for the Laganas Bay area. All done with paramount attention to the interests of the people and environment of Zakynthos.

MEDASSET's annual complaints to the EC (since 1994) for non-implementation by the Greek State in Zakynthos, of national and international protective legislation, and EC Directives, finally proved effective in 1998. The complaint to the EC had been put in abeyance in 1997. Then MEDASSET appealed to the EC Ombudsman, this led to an "on the spot appraisal" by the DG XI, whose representative at the 18th Bern meeting announced the commencement of infringement procedures.

During all this time:

- At the 5th Meeting of the Standing Committee, in 1986, the subject of Zakynthos turtles was first discussed, and a file opened..
- The 6th Meeting, in 1987, made a list of Recommendations to the Greek Government on the subject.
- The 11th Meeting, in 1992, adopted a declaration that the Convention had not been as effective in the case of Laganas Bay as it should be, expressing concern that the credibility of the Convention was at stake.
- The 14th Meeting, in 1995, urged Greece to rapidly carry out a list of actions, stating that failure to comply would be taken by the Committee as a grave and repeated breach of Greek Government obligations under the Convention..
- The 15th Meeting, in 1996, stated that Greece had failed to comply, and asked for a legal report.
- The 16th Meeting, in 1996, accepted the legal report, and decided that Greece would be in compliance if it created the National Marine Park by 25th March 1998, and the Greek Government accepted the obligation to do so.

As we have said before, **there are in fact two separate aspects of the sea turtle conservation issue on Zakynthos, the presence and preservation of the marine turtles, and the creation of the National Marine Park** which cannot be regarded as anything else but a long-term project. There are so many barriers and hurdles to be cleared before it can become reality, that it should not be allowed to marginalise current protection measures.

CURRENT ISSUES.

- Since October 1998, Zakynthos has a new Prefect, who as far as sea turtles are concerned seems intent on following the style and policies of his predecessor. He too wants to “have his cake, and eat it”! Unfortunately for him he has been disappointed. The EU, as part of their infringement procedures have frozen the flow of infrastructure funding for work vital in the Laganas Bay area.
- Tourism this year in the area has shown an incredible increase of 30% over the levels of 1998, with a corresponding increase in the impact of tourist pressure on the local environment.
- The gate at the main town of west Laganas is often left open at night providing vehicle access to the whole length of the protected beaches, and vehicles often use the beaches as a short cut to entertainment venues.
- The road from East Laganas to Kalamaki has been widened using EU funds (2nd Delors), and although an environmental impact assessment was carried out permitting a 2 metre widening, the road has actually been widened by 13 metres. Sand dunes were bulldozed and trees cut down to facilitate this, although there seems no logical reason why the road could not have been widened on the other side with little or no environmental impact. The assessment provided for appropriately shaded lights, we will wait to see what is eventually erected.
- A six-month local government training programme for beach guards was held on Zakynthos this year, but there seems to be little or no follow up into employment. Only two of the attendees at the Beach Guard training course held early 1999 have actually been employed, and no guards were on the beaches until the first week of August.
- New sea turtle awareness signs were erected at the end of August, but they are of such poor quality that already letters are peeling off. Whether by chance or by the work of vandals, signs now read “stick umbrellas in the sand”. At Daphni nesting beach erection of the signs is being actively hampered by local landowners, who refuse the erection crews access over their land.
- Monitoring of turtles at night was not possible for the appropriate NGO on Sekania or Marathonisi until 20th July, due to the lack of tents to accommodate STPS volunteers which had previously been supplied by the Prefecture of Zakynthos from their stock of tents held for earthquake emergency use, which had apparently been lost! The STPS had no choice but to purchase new tents from their limited resources and vital data on night time turtle nesting will have been missed.
- A sample amount of the garbage littering the seashore, beaches and top of the beach was gathered in July by MEDASSET volunteers to illustrate the escalating problem of tourist litter. Three volunteers filled 7 large supermarket carrier bags with garbage from the waters edge on the nesting beach between eastern Laganas (Zante Beach Hotel) and the illegal taverna (Kalamaki Beach Taverna). On the whole of this 1000 m protected area there is only one inadequate public garbage disposal facility. Local Authorities are responsible for attending to the cleaning of beaches, however staff were only seen to be cleaning areas where tourist facilities exist. i.e. Around the sunbed areas on the redundant part of Laganas Bay nesting beaches. An independent report entitled “Caretta caretta on Zakynthos – In deep detritus” has been prepared regarding rubbish and garbage collected from the beaches of Laganas Bay on

just two days during August 1999. It records quantities and types of garbage found during a one man voluntary beach cleaning operation.

Using a selected area 500 m long and 40 m wide on the east Laganas protected nesting beach, in the 2 days 20-21st August 1999, between 10am and 7pm, 1.5 tonnes of plastic, rope, oil residue, etc was collected by hand, all from the surface. It is impossible to determine how much more is buried in the sand, to be revealed as the wind and storms move the sand.

NATIONAL MARINE PARK.

On 4 & 10 February 1999 the 5th Department (concerning environmental law) of the Greek Constitutional Court met to discuss the proposal by the Ministry of Environment Physical Planning & Public Works (MEPPPW) for the National Marine Park of Zakynthos. The first meeting involved NGOs and the Department of Environment. From these meetings, the Court concluded that restrictions pertaining to the ZNMP as proposed by the MEPPPW were insufficient and measures should be brought into line with the restrictions proposed by the 1990 Presidential Decree No 347D/1990 concerning the protection measures for the Laganas Bay area.

Of the three Presidential Decrees needed before the establishment of the ZNMP, the first having been redrafted by the legal department of the Ministry of the Environment, is now circulating around the various Ministries for the necessary Ministerial signatures before being signed by the President and Gazetted, with a provisional completion date of mid October. Publication will reveal whether the revised draft fully complies with the existing protection legislation.

This long awaited progress is not reflected by the other two decrees, which are said to be "under consideration". The response to our extensive enquiries and meetings with the Zakynthos Local Authority and Central Government officials as to what action had been taken so far at Local Authority and Ministerial level, were most unsatisfactory.

Delimitation of the coastal zone of Zakynthos (according to the highest point of the winter wave), and the Cadastral plan of land ownership, a necessity for the establishment of the Marine Park, is showing no sign of progress. The local Zakynthos Office of Land Development has advised MEDASSET "that if progress continues at the present rate, establishing ownership of just one plot could take over four years, and that the whole process could take over 20 years"!

Of the other decree to establish adequate compensation levels to landowners within the ZNMP boundaries, there is no sign.

EUROPEAN COMMISSION "ON-THE-SPOT" APPRAISAL.

An interim report was sent to the DG XI, and the EC Ombudsman, dated 21st July 1999 and prepared on the basis of a two week assessment of the Laganas Bay nesting beaches by 3 MEDASSET volunteers.

In August 1999 there was a further visit to Zakynthos by a representative of the DG XI for a further appraisal of the situation on the nesting beaches.

NESTING BEACH REVIEW.

Gerakas (Nesting beach length 500 m).

Granted a Local Authority permit for 60 sun beds for the 1999 season, 90 were observed in July with 45 umbrellas, all on prime nesting soft sand, and all left in position at night. Local fishermen have been observed operating in the bay off Gerakas

Daphni (Nesting beach length 800 m).

This year in July there were 230 sun beds and 115 umbrellas mainly positioned on the soft sand where turtles nest and again furniture was not removed from the nesting beach at night. Sand from the nesting area of the beach is now being transferred to the back of the beach to cover stones on the artificial shelf created by bulldozing the dunes last year. Such activity is

conducive to the breakdown of the eco-system and natural characteristics of the area, thus threatening the destruction of yet another prime nesting site.

According to local sources, the Banana plants, dwarf palms and other “exotic” plants on Daphni beach have been imported from South America. Planting such vegetation close to the shore not only obstructs turtle paths to the nesting beach, but also may have a devastating effect on the indigenous flora and fauna.

There is vehicle access to the back of the beach, and burnt wood indicates that fires are being lit, presumably for barbecues at night. Local fishermen are known to be operating in the area and the use of spear guns for fishing has been observed along the beach.

Two illegal tavernas reported by us in 1998, continue to operate and three seating/bar areas have subsequently been established. The new illegal building reported in March 1999, remains and is operating as a taverna – covered with a makeshift bamboo roof.

The three wooden boardwalks from the taverna across the sand to the sea remain in place, despite evidence recorded last year that these clearly impede the pathway of nesting turtles.

The thirteen illegal prefabricated dwellings in the area remain in situ.

Sekania (Nesting beach length 250 m).

Although nesting began earlier than usual this year (22.5.99), night guarding of Sekania began on 20th July, when there were already 150 nests.

Local conservation groups and Boy Scouts collected garbage in dozens of large industrial waste disposal bags on 31st May and conservationists handpicked garbage on 26th June. Despite this a visiting environmentalist conducting a survey of garbage on the Laganas beaches in August removed 8.5 kilos of plastic and an empty gas bottle during a mere two days, and reported 80 kilos of mooring rope and a large oil drum among the high density of nests on this unique beach.

Spear gun fishing was observed.

Kalamaki (Nesting beach length 600m).

There was in July, a total of 570 sunbeds and 285 umbrellas in position on the 600 m of Kalamaki beach although only 300 metres is sanctioned by the Presidential Decree of 1990. A further 122 sunbeds were stacked at the back of the beach, presumably to be deployed during August (photo 1). Umbrellas have been stuck in the sand between the existing pockets of tourist use, effectively linking them. Undoubtedly the thin end of the wedge, and if no action is taken, the entire beach of Kalamaki will inevitably be taken over by the tourists.

The dunes at the back of the beach have been further bulldozed (for the 4th consecutive year) extending the two tiers of ground for sun beds (photo 2), **further lowering the height of the dunes**, which previously had hidden the hotels behind the dunes, and **now allowing even more of the lights of the hotels to shine full onto the beach**.

Lights from the Kalamaki road thus filtered across the dune system on to the beach at night, and many hatchling tracks wandered across the dunes away from the sea. **It is not unusual to find dead or exhausted hatchlings up to half a kilometre away from the sea.**

The cafeteria built near to the caves above the beach destroying the sand dunes, and **a boardwalk track laid from it to the water's edge**, remains.

Any remaining area of the beach was filled with the private umbrellas of day visitors, the spikes thrust into the sand.

This year again, the beach furniture was in place to within 6 - 12 metres of the water's edge on the wider sections of the beach, and on the narrower sections on top of the nesting area. As last year none was lifted at night.

At the site of the illegally built Kalamaki Beach Taverna, the car parking area has been extended further into the dunes, causing further destruction. In July three caravans, one selling refreshments, were parked on the bulldozed dunes at the top of the nesting beach.

90% of the sand dunes from the Kalamaki Beach Taverna to the WWII Fortress have now been destroyed. The wall on the narrow part of Kalamaki beach that serves no apparent purpose has further deteriorated and due to storm action the stone blocks litter the nesting beach.

East Laganas (Nesting beach length 2,000 m).

There are many horses hoof prints and vehicle tracks in the sand indicating a high use of the beach by these agents. The sand dunes are used for motor cycle racing, and horse riding. They are full of litter and debris.

Groups of up to eight horse and pony riders regularly traverse the beach, hoof prints bringing the death sentence for turtle hatchlings on their journey to the sea, and heaps of manure decorating the beaches where children play and tourists sunbathe. Local police continue to ignore this illegal activity. MEDASSET brought it to their attention, but an official complaint was not accepted with the comment "it is not our business, it is the Mayor's responsibility". A visit to the Mayor elicited, "it is not my responsibility but that of the police". The Mayor then spoke to the police on the telephone, but neither could decide who was responsible!

Kalamaki and E. Laganas.

Often horse and pony riders were seen to pound over the soft sand at the top of the beach where the nests were located, and during the hatching season hatchlings had become trapped in the hoofmarks.

Torches were often used on the beaches at night by tourists returning along the protected beach between Laganas and Kalamaki, to their hotels and apartments after an evening out. Hatchlings were often found stranded outside hotels, confused by the lights, particularly at the Zante beach hotel, where tourists reported that they often found hatchlings wandering around outside their apartments because lights above the doors were left on during the night.

MARATHONISI ISLET (nesting beach length 200 m).

A fruit seller was operating on the islet in July, and as there are no garbage facilities this is becoming a problem.

There are at least three turtle trip operators this year with the potential to carry up to 90 people at a time to the islet. With private boats as well, the total numbers visiting have increased substantially.

Conservationists began patrolling the beach towards the end of July.

The sea.

Along the developed area of Laganas Bay, raw untreated sewage from the seafront hotels and tavernas can now be seen in the sea. It is to be expected that this will be a deteriorating situation.

Mooring and anchoring of large vessels continued in July in restricted sea zones, although this year to a lesser extent. There has been a drastic reduction in the numbers of speeding boats, however there are still the habitual perpetrators who have featured in our reports for the past three years, notably the vessel "Angel Heart" mentioned in last years report, and a boat belonging to a local skin diving school, even though last year MEDASSET had signed an official complaint against them at the Port Authority, obviously to no effect.

According to the Port Master of Zakynthos, news alone of a new patrol boat had drastically reduced the number of trespassers in restricted sea zones. A suitable patrol boat was finally purchased by the Department of Environment and handed over to the Port Authority on 7 July, however at the same time the Port Authority advised us that there had been no response to their request for sufficient crew to man the boat for the maximum part of the day. Patrolling would only be possible for 8 hours daily whereas to be effective the Port Authority believes the area should be patrolled between 08.00 and 20.00 daily. Two weeks later the boat was still not in use. Patrolling, still on a reduced basis, began during the 1st week of August.

One turtle is known to have been severely injured by long line fishing.

Problems of sustainable tourism aside, the consequences of such a lack of Government measures to control illegal tourist activities were recently very tragically illustrated when an

overloaded tourist boat with inadequate lifesaving equipment sank off St Nicholaos beach, Volimes, causing the loss of four lives – two of them children.

ZAKYNTHOS AIRPORT.

Despite official restriction of night flights at Zakynthos Airport, flights at night continue, for delayed and emergency flights. Three night flights were witnessed on the nights of 5th and 6th July.

There is local Authority and public support for the proposed expansion of Zakynthos Airport, in order to radically expand tourist traffic on the island next year. In the present situation regarding conservation issues, any increase in the number of uncontrolled tourists will probably finally bring to an end any hope of preserving the remaining nesting areas on all but the tiny Sekania (WWF) beach area, where overpopulation and competition for nesting space will bring the consequent disease epidemics and nest destruction.

BIOLOGICAL DATA.

There is a desperate need for the survey data collected on the beaches during the past 16 years, to be made available. To effectively conserve the endangered sea turtles of Zakynthos, comparative raw data on percentage of successful nesting (nests) and emergences for each individual Laganas Bay beach should be processed and made available for comparative studies with tourist data and data from other turtle nesting areas. Only in this way can the true impact of development, infrastructure and tourism be quantified in order to better protect the species.

One of the local diving schools in Laganas Bay said that the summers of 1998 and 1999 had been the worst for sea turtles, as **they had never before seen so many turtle eggs discarded and dropped on the seabed**. This indicates that the situation of turtles being unable to find a nesting place may be worse than we have believed.

The Standing Committee 1995 recommendations to the Government of Greece, embodied in T-PVS (95) 9 Appendix 5: (Originally formulated 11/12/1987)

<p>Recommendation No.1. Remove the prefabricated houses in Daphni.</p>	<p>The 13 illegal buildings in Daphni remain in place - no action has been taken to demolish them under Greek National Law 1337 of 1983. Temporary compensation provided in 1995 and 1996 by the Ministry of the Environment, through the Local Administration of Zakynthos, to keep the owners from using the illegal buildings was not allocated since the summer of 1997, at which point they were completed and brought into use.</p>
<p>No. 2. Remove walls and concrete platforms built in the optimal sites for turtle nesting at Kalamaki and eastern Laganas unless these are supporting the soil of existing dwelling places.</p>	<p>The walls and concrete platforms, on optimal turtle nesting sites in Kalamaki and Eastern Laganas, have not been removed. Collapsed parts now litter the nesting beach with stone blocks.</p>

<p>No. 3. As a matter of priority, acquire the hundred-metre band closest to the beach limit, wherever this land is not developed, in Kalamaki and eastern Laganas, and a band of appropriate land width in Sekania and Daphni.</p>	<p>Acquisition of land for the ZNMP, now falls within the proposed park constitution - The land has not yet been defined, or ownership confirmed nor has compensation been dealt with. Two further Presidential Decrees are required. (Most of Sekania was purchased by WWF in 1995).</p>
<p>No. 4. Set the legal limits of the public land on all beaches at Laganas Bay.</p>	<p>Legal limits of all public land have not yet been set. The Local Office of Land Development has advised MEDASSET "that if progress continues at the present rate, establishing ownership of just one plot could take over four years, and that the whole process could take as much as 20 years"!</p>
<p>No. 5. Remove trees and ban and penalise the use of deckchairs, sunshades and pedalos on the nesting beaches of Gerakas, Kalamaki, eastern Laganas and Marathonisi.</p>	<p>The Tamarisk trees were removed, but now we have planting of other "exotic" species on Daphni beach. On the beaches of east Laganas Kalamaki, Daphni and Gerakas in July (1999), there were along the nesting beaches:- 445 sunshades 1012 Sunbeds</p>
<p>No. 6. Close the access of vehicles to the beaches from all roads and effectively enforce this ban.</p>	<p>Roads and vehicle tracks remain open, and mopeds, motor cycles, cars, bulldozers, horses and carts have free access to the beaches of Kalamaki and East Laganas. Some cars, but mainly motor bikes, were driven on the beaches by day and night, and horse riders, in groups of as many as ten at a time, rode along the nesting beaches. The presence of local community guards only commenced the 1st week of August 1999 and were at best incompetent.</p>
<p>No. 7. Replace existing lights shining on the beaches or re-orientate them in such a way that their impact on turtles is minimised.</p>	<p>Lights from hotels, restaurants, etc. are still glaring on nesting beaches particularly at East Laganas and Kalamaki, disorientating hatchlings.</p>
<p>No. 8. Assess the potential of Laganas Bay (Except western Laganas beach) to qualify for a stricter protection category, such as marine park, natural park, natural monument or other appropriate legal term.</p>	<p>Assessment of Laganas Bay as a Marine Park has been completed. However progress on the three Presidential Decrees needed to set up a Marine Park is very limited. The first is promised for October 1999 and the other two are in very early stages.</p>
<p>No. 9. Reassess the potential image of the development of the village of Kalamaki and the neighbouring areas on sea turtle nesting.</p>	<p>Development of Kalamaki continues unabated, the sand dunes ecosystem is destroyed and 90% of the Kalamaki beach is now denied to turtles during the summer nesting period.</p>

**T-PVS (95) 9 Appendix 6 Measures for the consideration of the Greek Government
concerning Laganas Bay. (1995)
Urgent (1989)**

1. There must be urgent negotiations between the Ministry of the Environment and the local communities on all matters affecting legitimate land owners, including offsetting by appropriate means all and any restrictions necessary to ensure turtle conservation.	It has not yet even been determined who are the legitimate landowners.
2. The Greek Government must find immediate means to release funds made available by the EEC for the above purpose, and match them where relevant. Full STPS accounts must be made freely available.	Some funds have been released and spent without noticeable conservation effect.
3. A meeting should be arranged in Zakynthos early in the new year (1996) to explain and discuss all necessary conservation and management measures to <u>all</u> involved.	Many meetings have been held since 1996 with much talk and little action.
4. The Greek government should consider the possibility of setting up an advisory committee comprising representation of all the concerned authorities, political bodies and private organisations under the chairmanship of a high non-governmental personality on the island, not directly involved in the problems but being familiar with them.	Does not exist. In the circumstances this appears to be unrealistic!
Before next spring and the onset of the nesting season (1990)	
5. The critical nesting zones on E. Laganas and Kalamaki beaches must be conserved within areas of tourist (day time) and non-tourist use, and adequately controlled by wardens appointed by the local community and financed centrally.	Inadequately applied.
6. The three walls on eastern Laganas beach (on the eastern side of Kalamaki rock) should be completely removed and all lighting from the Cristal Beach and Kalamaki Beach Hotels and the taverns on East Laganas must be screened from the beach, or changed to prevent any photopollution from the sea.	Situation deteriorates. Walls not removed but now storm damaged and crumbling on nesting beaches. Lights not screened or changed.
7. Sekania beach and immediate surrounds must be designated as an inviolate Turtle nesting sanctuary.	Thanks to WWF alone, there is some degree of implementation.

<p>8. At the same time the potential for eco-tourism should be evaluated and pursued with the examination of nocturnal viewing from possible centre on a) Kalamaki Rock and b) the heights above either Sekania or Daphni.</p>	<p>Kalamaki rock is now developed with a cafeteria and a road.</p>
<p>9. A clear chain of command and liaison must be established for enforcement matters between central government in Athens and the Prefecture, Port and Island Police, the local Communities, landowners and the STPS. A senior post of authority should be considered an essential first step.</p>	<p>Totally uncoordinated.</p>
<p>10. The planned increase in development around Kalamaki "village" must be halted pending a reconsideration of the future effects on the areas nesting beaches.</p>	<p>Development boom in progress!</p>
<p>11. The ownership of all land related to turtle nesting sites must be fully determined in terms of private and public/state control in function of the following problems involved:</p> <ul style="list-style-type: none"> a) what belongs to the sea and what to the land area? b) What is forest land and what should not be considered as forest land? c) What are the consequences for areas being considered as forest land, are they owned by the state? d) Also in cases where taxes have been charged and paid by the local people? e) Who owns what of the areas that are being considered to be in private ownership? 	<p>Not carried out. The two Presidential Decrees needed for this, are in the very early stages of consideration.</p>
<p>Before the end of 1990</p>	
<p>12. As an interim measure for 1990 tourists shall be limited to a restricted area and least sensitive nesting parts of Daphni beach while careful monitoring of nesting patterns is used to determine what if any, future compromise for day time tourist use might not damage the nesting use by turtles. A similar pattern and compromise should be investigated for Gerakas. Proposals to allow some limited development on the island of Marathonisi should be fairly examined, but with the pre-requisite that the nesting beach is out of bounds and that no lighting or boat disturbances be created <i>a novo</i>.</p>	<p>What restrictions there are, are not adequately enforced</p>

<p>13. All these projects should be included in an integrated management plan for the whole of Laganas Bay, which could include the park, foreseen by the Greek authorities. The elaboration of this plan, with the contribution of all parties concerned, and this from the beginning of the exercise, should in no case prevent the beginning of immediate concrete actions in specific cases.</p>	<p>Issues raised by the plans for the National Marine Park have been allowed to deflect attention from the lack of implementation and enforcement of existing measures.</p>
<p>14. A modest "Environment tax" should be investigated as soon as possible for future charter flight passengers into Zakynthos, and made directly available each season to the relevant Communities to enable their direct involvement in conservation measures. This could on the one hand finance beach cleaning, monitoring, etc, while on the other, would offset the persistent calls from other sources for a tourist boycott.</p>	<p>If considered, there is no public record.</p>

RECOMMENDATIONS.

1. The **three** Presidential Decrees should be completed - **NOW**. Without them progress with the establishment of the ZNMP is impossible. This will solve the problems of compensation, delimitation of the shoreline, legal ownership etc. In the meantime the **urgency** of conservation measures should not be ignored.
2. The EC should withhold all forms of Community Aid for the Island of Zakynthos until satisfactory tourist control and conservation measures are fully in place **and enforced**.
3. That the Greek Government ensure that comprehensive data regarding the use of Laganas Bay beaches by both turtles and tourists is made available in the public domain. This will enable realistic assessment of the impact of tourism, in order to both control tourism and optimise conservation.

The above recommendations are **not** withstanding those detailed in the past 13 years which are still not implemented.

ENVIRONMENTAL SITUATION AND TECHNICAL REPORTS PRESENTED BY MEDASSET TO THE STANDING COMMITTEE TO THE CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS (BERN CONVENTION) AT THE COUNCIL OF EUROPE, PUBLISHED UNDER T-PVS REFERENCE:

ZAKYNTHOS (GREECE)

Updated Reports presented yearly since 1984:

T-PVS (93) 32: Marine Turtle Conservation in Zakynthos, Laganas Bay, Greece, 5 July-16 August 1993, p.p. 10.

T-PVS (95) 63: Specific sites, *Caretta caretta* in Laganas Bay, Zakynthos (Greece), p.p. 3.

T-PVS (96) 86: *Caretta caretta* in Laganas Bay, Zakynthos (Greece), p.p. 5.

T-PVS (97) 46: Marine Turtle Conservation in Zakynthos (Laganas Bay), Greece, p.p. 5.

T-PVS (98) 48: Specific sites, Marine Turtle Conservation in Zakynthos Laganas Bay, Greece, p.p. 10.

T-PVS under "Statement by delegations":

T-PVS (91) 4: Statement about Zakynthos (p.p. 16,17,30).

T-PVS (91) 80: Declaration on item 11.13 and intervention about Zakynthos by Dr Jacques Maigret (p.p. 21-25).

T-PVS (92) 83: Declaration of MEDASSET on item 12.1 (pages 16-18)



Kalamaki beach use during July 1999.



Kalamaki dunes flattened by bulldozer to accommodate sunbeds, etc.



Illegal walls collapsing on to the narrow beach of Kalamaki.