

# THE ROLE OF NGOs IN PROMOTING THE ESTABLISHMENT OF THE NATIONAL MARINE PARK OF ZAKYNTHOS, GREECE

Dimitrios DIMOPOULOS <sup>(1)</sup>, Nikos CHARALAMBIDES <sup>(2)</sup>,  
Demetres KARAVELLAS <sup>(3)</sup>, Nikos LALOTIS <sup>(4)</sup> and Lily VENIZELOS <sup>(5)</sup>

<sup>(1)</sup> ARCHELON, the Sea Turtle Protection Society of Greece,  
Solomou 57, GR-10432 Athens, Greece

<sup>(2)</sup> Greenpeace Greece, Zoodohou Pigis 52c, GR-10681 Athens, Greece

<sup>(3)</sup> WWF Greece, Filellinon 26, GR-10558 Athens, Greece

<sup>(4)</sup> Zakynthian Ecological Movement, Zakynthos, Greece

<sup>(5)</sup> MEDASSET, Mediterranean Association to Save the Sea Turtles,  
Likavitou 1c, GR-10672 Athens, Greece

## INTRODUCTION

Laganas Bay on Zakynthos island in Greece hosts an extremely important nesting aggregation of the loggerhead turtle *Caretta caretta* in the Mediterranean (Margaritoulis 2000) and, despite more recent discoveries (Baran and Kasparek 1989, Broderick and Godley 1996, Laurent et al. 1998) the Bay continues to host by far the largest single nesting colony known in the Mediterranean (Groombridge 1990). The nesting habitat comprising of six discrete beaches totals about 5.5 km in length with an annual number of nests ranging from 857 to 2,018 (Margaritoulis 2000). Zakynthos over the past 20 years has experienced a fast growing tourist industry mostly unplanned, which exerts significant pressure on the nesting beaches (Arianoutsou 1988, Katselidis and Dimopoulos 2000).

## BACKGROUND

Sea turtle nesting activity on Zakynthos was first recorded in 1977 (Margaritoulis 1982). The first monitoring projects were initiated in 1982. The Sea Turtle Protection Society of Greece (ARCHELON) was formed in 1983 mainly from the people who worked on the above projects (Theodossopoulos 1997). In 1984, legislation was introduced in order to protect the nesting beaches and regulate development in a broader zone. This was amended in 1987. In 1986, the Standing Committee of the Bern Convention opens a file on Zakynthos and urges Greece to take specific protection measures. In 1988, maritime measures were introduced to regulate traffic in a large

portion of the Bay. In 1990, a new Presidential Decree was signed and the nesting beaches were declared Nature Reserves under the national frame law 1650/86. Protection measures though were poorly enforced (Venizelos 1986, Charalambides 1990, Dimopoulos 1991). On the other hand, very little was done to seek sustainable development strategies in the Bay and alleviate affected landowners. This inevitably caused considerable tension in the area. The need for a national park was recommended and accepted by the State (Arapis and Margaritoulis 1994). A Special Environmental Study (SES), as required by law for the establishment of a National Marine Park, was started in October 1991. In 1994, night flights at the Zakynthos international airport were banned as the landing/take-off pathway passes over a nesting beach. In that year, private land behind the most densely nested beach on Zakynthos was acquired by WWF Greece (Charalambides and Katsoupas 1994), in order to be declared the core area of the imminent National Park. In 1994, maritime measures were extended (Dimopoulos 1995) which effectively banned speedboats from the whole Bay. The SES resulted in a draft Presidential Decree that was finalised in 1999. In 1999, MEDASSET filed an official complaint to the EC and Ombudsman (EC). In the same year the Standing Committee of the Bern Convention closed the Zakynthos file as the European Commission announced its decision to take Greece to the European Court of Justice on charges of infringement of the Habitat's Directive (Venizelos 1999). Finally, in December 1999 the enabling Presidential Decree of the National Marine Park of Zakynthos (NMPZ) was signed and in July 2000 its Management Agency was formed by the Ministry of Environment (Dimopoulos 2001). A hearing was held in July 2001 at the European Court of Justice and a decision is pending.

## **RESULTS AND DISCUSSION**

The role of NGOs in nature conservation is very essential. Aspects of the work of NGOs include: collecting on-site data and information (monitoring); raising of public awareness in support of protected areas; formulating and implementing policy and strategies; planning and managing protected areas; effecting on-site protection and wardening; facilitating conservation initiatives; exercising ownership in a protected area; lobbying governments and local authorities; liaising between stakeholders, creating partnerships and mediating between communities and governments; networking to create synergy; building capacity by providing training and voluntary work (IUCN/UNEP/WWF 1991, IUCN Commission on National Parks and Protected Areas 1994, Kelleher and Kenchington 1992, Davey 1998).

Five non-governmental organisations (NGOs) have mainly been active in the Zakynthos issue, each in its own capacity: ARCHELON, the Sea Turtle Protection Society of Greece

(until recently known by its acronym STPS), Greenpeace Greece (founded in 1991), the Mediterranean Association to Save the Sea Turtles (MEDASSET, founded in 1988), WWF Greece (founded in 1990) and the Zakynthian Ecological Movement (ZOK, founded in 1987). The combined efforts of the five NGOs correspond more or less to all the aspects of their role in nature conservation as mentioned above.

ARCHELON has since 1983 been providing policy makers and the government with all the nesting, tagging, and stranding data derived from systematic on-site monitoring (Spyropoulou and Dimopoulos 1999), to prepare legislation and determine management measures in the NMPZ. The main results of monitoring as well as the current conservation status of the nesting area are included in annual technical reports that are also submitted to the European Commission and the Bern Convention (at the Council of Europe). MEDASSET has also effected, since 1985, regular reporting on the state of affairs on Zakynthos to the Greek Government, the EC and Bern Convention and has been instrumental in attracting international pressure on Greece. On-site public awareness has been carried out by ARCHELON since 1986, through information stations, slide shows, daily beach patrols, leaflet distribution, and environmental education. The use of local, national and international mass media by ARCHELON was a very important tool to reach the public and change attitudes. ZOK contributed in this direction especially on a local level, and MEDASSET and WWF Greece at a national and international level. NGO efforts managed to make the sea turtle issue on Zakynthos the most popular endangered animal conservation issue in Greece and a well-known one internationally. AGA a Germany based NGO also contributed to internationalising the Zakynthos issue. Management guidelines prepared jointly by ARCHELON, Greenpeace Greece, WWF Greece and ZOK were taken into consideration by the Ministry of Environment for the planning of the NMPZ. Also, ARCHELON, MEDASSET, WWF Greece and ZOK played a very important role as mediators between the government and local communities as the latter reacted to the principles of the SES and considered proposed protection measures as an obstacle to development. As a result the basic concept of a national park was broadly accepted at a local level. Currently ARCHELON and WWF Greece are jointly represented on the Board of the Management Agency of the NMPZ and actively participate in management decisions for the Park. The two NGOs work closely with MEDASSET and ZOK in order to promote the objectives of the National Park. ARCHELON's participation in a study carried out by the Civil Aviation Service on the impact the airport had on sea turtle nesting and concurrent lobbying resulted in the banning of night flights. Greenpeace Greece took actions in 1992 and 1993 in co-operation with ARCHELON and ZOK, which effectively contributed to the ban of speedboats and thwarted development plans on a nesting site (Marathonissi islet). Despite existing problems, the pressure the five NGOs exerted on the local authorities to enforce

legislation had a positive impact on maintaining the ecological value of the rookery. As wardening by hired personnel from the Prefecture of Zakynthos, prior to the establishment of the NMPZ, was most inefficient ARCHELON conducted safeguarding at certain accesses to the nesting beaches. This resulted in controlling access at night to the beaches and minimising impact on nesting activity. In fact relative increase in nests on one sector of a nesting beach where tourism disturbance at night was high, can be attributed to effective safeguarding by ARCHELON personnel (Dimopoulos 1992). ARCHELON fieldwork was carried out with the involvement of hundreds of volunteers from all over the world. Voluntary work was a totally new concept that entered the Zakynthian society, and is considered now as a vital tool in the operation of the NMPZ. The purchase of land by WWF Greece, following recommendation by ARCHELON and with the support of the government and the EC, was a major breakthrough in sea turtle conservation on Zakynthos. The nesting area under the NMPZ has been declared a zone of strict protection and is off limit to the public.

## CONCLUSION

Definitely, ARCHELON, GREENPEACE, MEDASSET, WWF GREECE and ZOK have left their footprints on the nesting beaches of Zakynthos. The National Marine Park of Zakynthos is the end product of their synergy and their continuing co-operation is fundamental in the successful operation of the Park and the conservation of the most important loggerhead rookery in the Mediterranean.

## REFERENCES

- Arapis T., and D. Margaritoulis. 1994. Sea turtle conservation and sustainable tourism for the proposed marine park on Zakynthos island, Greece. Pages 6-7 in Proceedings of the Thirteenth Annual Symposium on Sea Turtle Biology and Conservation (compilers: B.A. Schroeder, B.E. Witherington ). Jekyll Island, Georgia, 23-27 February 1993. NOAA Technical Memorandum NMFS-SEFSC-341, Miami, USA.
- Arianoutsou M. 1988. Assessing the impacts of human activities on nesting of loggerhead sea turtles (*Caretta caretta* L.) on Zakynthos Island, western Greece. *Envir. Conserv.* 15(4): 327-334.
- Baran I., and M. Kasperek. 1989. Marine Turtles Turkey. Status Survey 1988 and Recommendations for Conservation and Management. WWF, Heidelberg, Germany, 123 pp.
- Broderick A.C., and B.J. Godley. 1996. Population and nesting ecology of the green turtle, *Chelonia mydas*, and the loggerhead turtle, *Caretta caretta*, in northern Cyprus. *Zoology in the Middle East* 13: 27-46.

- Charalambides N. 1990. On the beach with the turtles of Greece. *Earth Island Journal* 1990: 24-25.
- Charalambides N.C., and V.A. Katsoupas. 1994. New hopes for the loggerhead turtle on Zakynthos: Acquisition of the most densely nested area in the world. Pages 48-49 in *Proceedings of the Thirteenth Annual Symposium on Sea Turtle Biology and Conservation* (compilers: B.A. Schroeder, B.E. Witherington ). Jekyll Island, Georgia, 23-27 February 1993. NOAA Technical Memorandum NMFS-SEFSC-341, Miami, USA.
- Davey A.G. 1998. *National System Planning for Protected Areas*. IUCN, Gland, Switzerland and Cambridge, UK.
- Dimopoulos D. 1991. Zakynthos 1990: An update on the public awareness programme. *Marine Turtle Newsletter* 54: 21-23.
- Dimopoulos D. 1992. Zakynthos 1990: Still trying to live together. Pages 29-31 in *Proceedings of the Eleventh Annual Workshop on Sea Turtle Biology and Conservation* (compilers: M. Salmon, J. Wyneken). Jekyll Island, Georgia, 26 February-2 March 1991. NOAA Technical Memorandum NMFS-SEFSC-302, Miami, USA.
- Dimopoulos D. 1995. Aspects of sea turtle conservation efforts in Greece with emphasis on the island of Zakynthos. Pages 26-27 in *Proceedings of the Twelfth Annual Workshop on Sea Turtle Biology and Conservation* (compilers: J.I. Richardson, T.H. Richardson). Jekyll Island, Georgia, 25-29 February 1992. NOAA Technical Memorandum NMFS-SEFSC-361, Miami, USA.
- Dimopoulos D. 2001. The National Marine Park of Zakynthos: A refuge for the Loggerhead Turtle in the Mediterranean. *Marine Turtle Newsletter* 93: 5-9.
- Groombridge B. 1990. *Marine Turtles in the Mediterranean: Distribution, Population Status, Conservation*. Council of Europe, Publishing and Documentation Service, Strasbourg.
- IUCN Commission on National Parks and Protected Areas. 1994. *Parks for Life: Action for Protected Areas in Europe*. IUCN, Gland, Switzerland and Cambridge, UK.
- IUNC/UNEP/WWF. 1991. *Caring for the Earth. A strategy for sustainable living*. Gland, Switzerland, 228 pp.
- Katselidis K., and D. Dimopoulos. 2000. The impact of tourist development on loggerhead nesting activity at Daphni beach, Zakynthos, Greece. Pages 75-77 in *Proceedings of the Eighteenth International Sea Turtle Symposium* (compilers: F.A. Abreu-Grobois, R. Briseño-Dueñas, R. Márquez-Millán, L. Sarti-Martínez). Mazatlán, México, 3-7 March 1998. NOAA Technical Memorandum NMFS-SEFSC-436, Miami, USA.

- Kelleher G., and R. Kenchington. 1992. Guidelines for Establishing Marine Protected Areas. A Marine Conservation and Development Report. IUCN, Gland, Switzerland.
- Laurent L., M.N. Bradai, D.H. Hadoud, H.M. El Gomati, and A.A. Hamza. 1998. Marine Turtle Nesting Activity Assessment on Libyan Coasts. Phase 3: Survey of the Coasts Between the Tunisian Border and Misratah. RAC/SPA, Tunis, Tunisia.
- Margaritoulis D. 1982. Observations on loggerhead sea turtle *Caretta caretta* activity during three nesting seasons (1977-79) in Zakynthos, Greece. *Biological Conservation* 24: 193-204.
- Margaritoulis D. 2000. An estimation of the overall nesting activity of the loggerhead turtle in Greece. Pages 48-50 in *Proceedings of the Eighteenth International Sea Turtle Symposium* (compilers: F.A. Abreu-Grobois, R. Briseño-Dueñas, R. Márquez-Millán, L. Sarti-Martínez). Mazatlán, México, 3-7 March 1998. NOAA Technical Memorandum NMFS-SEFSC-436, Miami, USA.
- Spyropoulou S., and D. Dimopoulos. 1999. Incentives for the Conservation of the Nesting Grounds of the Sea Turtle *Caretta caretta* in Laganas Bay, Zakynthos, Greece. ENV/EPOC/GEEI/BIO(99)5/FINAL: OECD.
- Theodossopoulos D. 1997. Turtles, farmers and 'ecologists': The cultural reasons behind a community's resistance to environmental conservation. *Journal of Mediterranean Studies* 7(2): 250-267.
- Venizelos L. 1986. Guest editorial: Greek loggerheads face dangers. *Marine Turtle Newsletter* 39: 1.
- Venizelos L. 1999. 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), 29 November - 3 December 1999, Strasbourg, T-PVS (99) 70.