Capacity Building for Research and Conservation of Endangered Sea Turtles in Venezuela and Colombia

BP Conservation Programme Follow-Up Award 1999

BP REPORT

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ABSTRACT

Sea turtle populations in the Caribbean of Colombia have declined dramatically in the last century due to persistent human over-exploitation. Despite existing regional treaties and national laws to protect sea turtles in Colombia and other countries, turtles are still accidentally captured and drowned in fishing gear, adult females are slaughtered on nesting beaches, and there is widespread collection of eggs for commercial sale and local consumption. Pollutants of many species contaminate coastal and pelagic waters, including oil and plastic, and nesting and foraging habitats disturbed or destroyed. Sea turtle populations of Venezuela and Colombia have been observed to be declining in this last decade (Rueda et al. 1992; Amorocho et al. 1998).

The hawksbill turtle (Eretomochelys imbricata) is considered "Critically Endangered". The other four species of sea turtle, the green (Chelonia mydas), the loggerhead (Caretta caretta), the olive ridley (Lepidochelys olivacea) and the leatherback turtle (Dermochelys coriacea) are considered "Endangered" by the IUCN World Conservation Monitoring Centre (Red List Data Book, 1996).

Some of the most important nesting grounds are found along the Colombian Caribbean coastline and on the Colombian islands in the Caribbean. Once the current status of the Colombian sea turtle populations is better defined, appropriate national and bi-national conservation strategies can be improved for the protection of a key population of sea turtles in the Caribbean Region.

The information compiled and recommendations formulated during this project are important for consideration during the implementation of long-term management and protection plans for sea turtles in Colombian and Venezuelan waters. As a result of this one-year follow-up project, the capacity of these countries to establish scientifically sound and successful sea turtle conservation programs was strengthened. The research component of this program had involved the identification and study of sea turtle nesting beaches and foraging grounds, distribution, conservation status and threats to their survival. This information is a valuable contribution to filling in the gaps in knowledge about sea turtle ecology and conservation in this important region for sea turtle survival in the Caribbean Ocean. In Colombia, the research was conducted according to specific recommendations from the United Nations Environmental Programme (UNEP) Sea Turtle Recovery Action Plan, which is currently under construction for Colombia and must be completed in 2002 (Amorocho, in prep.).

The conservation aspect to our work was focused on technical training, networking and environmental education. The training and education component of this project demonstrated to the local inhabitants the plight and endangered status of sea turtles and the fragility of eco-systems critical to their survival. Regional training workshops developed during the project, enforce networking between national institutions (both governmental and non-governmental) and improved the co-ordination, between stakeholders, of the research and management of turtle populations and important coastal and marine habitats. These training courses and workshops, as well as the research conducted by the project team members established the basis for co-operative bi-national management of endangered coastal areas with fragile eco-systems such as coral reefs, sandy beaches and sea grass beds on which many species of marine fauna depend for survival. This bi-lateral approach is critical, as sea turtles are highly migratory, passing through territorial

waters of many countries and, in this case, through waters of both Colombia and Venezuela implying the need for protecting a larger area.

Other conservation issues included during the project implementation were: increasing public, government and corporate awareness of important current marine issues and fostering a conservation ethic through the creation and distribution of educational materials, giving presentations and integrating community members of field study into conservation.

1 INTRODUCTION

The project initially approved and financed by the BP Conservation Programme in 1998 was titled "Reproductive Biology of Marine Turtles on the nesting beaches to the north-east of the city of Santa Marta, in the Departments of the Magdalena and La Guajira".

This coastal fringe measuring more than 43 kilometres of sandy beaches, is an area of singular importance in the reproduction of at least three of the four species of marine turtles that spawn in the Colombian Caribbean. However, regardless of the fact that this project cornered funding, the BP Conservation Programme solicited repositioning given the complicated conditions of security operating in the area at that time in Colombia. That forced the National Co-ordinators of WIDECAST for Colombia and Venezuela to propose as an alternative, developing the activities as laid out in the original project, namely to expand the frontiers of knowledge about marine turtles, in another insular territory of Colombia in the Caribbean.

Giving credence to the preoccupation expressed by the BP Conservation Programme of not placing the members of the project in risky situations, be they Colombians or foreigners; the project relocated to the Archipelago of San Andres and Providencia. This came in lieu of the fact that on one hand the National Co-ordinator of WIDECAST was finishing directing a Bachelors Degree thesis in Marine Biology for two students of Colombian Universities, on aspects related to the reproductive biology of marine turtles that frequent the Archipelago. And on the other there had been a certain narrowing of the gap between the National Co-ordinators of WIDECAST for Colombia and CORALINA, the environmental authority charged with the protection and sustainable management of natural resources on the Archipelago. This rapport stemmed from the I International Seminar on Biology and Marine Turtle Conservation in Colombia organised by WIDECAST in Palomino (Guajira) in May 1998.

Unfortunately, the legal paperwork demanded by CORALINA, to register the project and to obtain the permission required to further the investigation proposed by WIDECAST for the Archipelago with BP Conservation Programme funding, resulted in a delay of a year and a half to receive a go-ahead. Notification on this matter was received by e-mail from this entity in January 2000; and up to this moment no official notification on the issue of permission has been received.

Seeing the tiresome this situation was proving to be, a decision to act was reached. This decision was supported by the fact that the delay in obtaining the respective permissions caused mayhem in the adherence to the timetable proposed by WIDECAST to employ resources of the BP Conservation Programme destined for Colombia in the framework of the bi-national project to jointly execute with Venezuela. Further support was found in consideration of the unfolding community initiatives for the conservation of marine turtles in the region initially cited and where WIDECAST had continued working until an elusive peace returned. Therefore decision by the National Co-ordinators of WIDECAST, with the approval of the Executive Director of this entity, to invest the financial resources destined for San Andres from the BP Follow Up Award in the nesting beaches of marine turtles. The beaches of Palomino, Don Diego, Buritaca and Guachaca on the central coast of the Colombian Caribbean were central again to this initiative.

Fortunately this decision was the right one to make, seeing that during 1999 and the first half of 2000 there have been significant advances in the process of consolidation of the Colombian

Network for the Conservation of Marine Turtles in the Central Caribbean region. This has permitted the establishment of technical co-operation and financial agreements between the different actors related with the challenges of conservation of marine turtles in these communities of the Department of the Magdalena, in the Colombian Caribbean.

Between February and May, 1999 the National Co-ordinator of WIDECAST for Colombia, co-leader of this bi-national project executed jointly with Venezuela, was named Regional Director of the Natural National Parks of the Colombian Caribbean, as an employee of the Ministry for the Environment. Thanks to this posting at the Special Administrative Unit of the Natural National Parks System, it was possible to bolster the activities proposed within the Action Plan for the Conservation of Marine Turtles in the Colombian Caribbean, as fundamental objective of the labour of WIDECAST in the Wider Caribbean.

As direct result of this, inter-institutional and inter-sectoral agreements have been subscribed to which have fortified the capacity of WIDECAST Colombia to attract partners to invest in local and regional conservation of marine turtles in the Central Caribbean of Colombia. This labour would not have been possible without the help and confidence in our good judgement extended to us by the BP Conservation Programme.

Having made this points, which we consider pertinent and necessary to have explained, we are pleased to present to BP Conservation Programme, BP Amoco, Bird-life International, and Flora and Fauna International the results obtained at closure of activities. Activities proposed within the framework of the bi-national project between Colombia and Venezuela, financed with resources from the BP Follow Up Award and for the period between March 1999 and July 2000.

2 DESCRIPTION OF THE FIELD STUDY AREA

The areas of the Colombian Caribbean where marine turtles conservation is practised in the framework of the WIDECAST Project - BP Conservation Programme, are the Archipelago of Nuestra Señora del Rosario and the coasts located to the north-east of the Santa Marta City. The latter is basically the zone of influence of Sierra Nevada de Santa Marta. These two areas are described below:

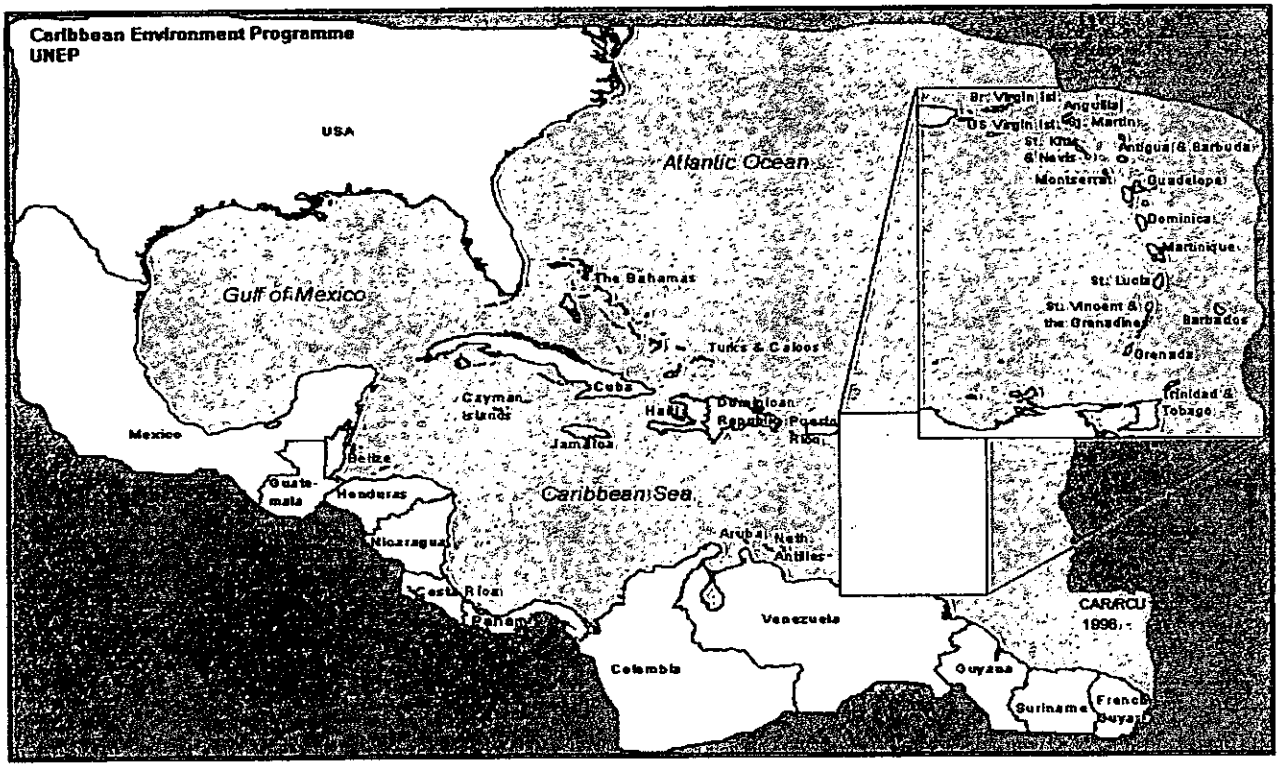


Figure 1. Colombia's Geographical location.

2.1 ARCHIPIELAGO OF NUESTRA SEÑORA DEL ROSARIO.

Usually called Islands of the Rosary (a translation from Spanish), they are found located 25 miles to the south western direction of the city of Cartagena of Indias, on the Caribbean north coast of the country of Colombia.

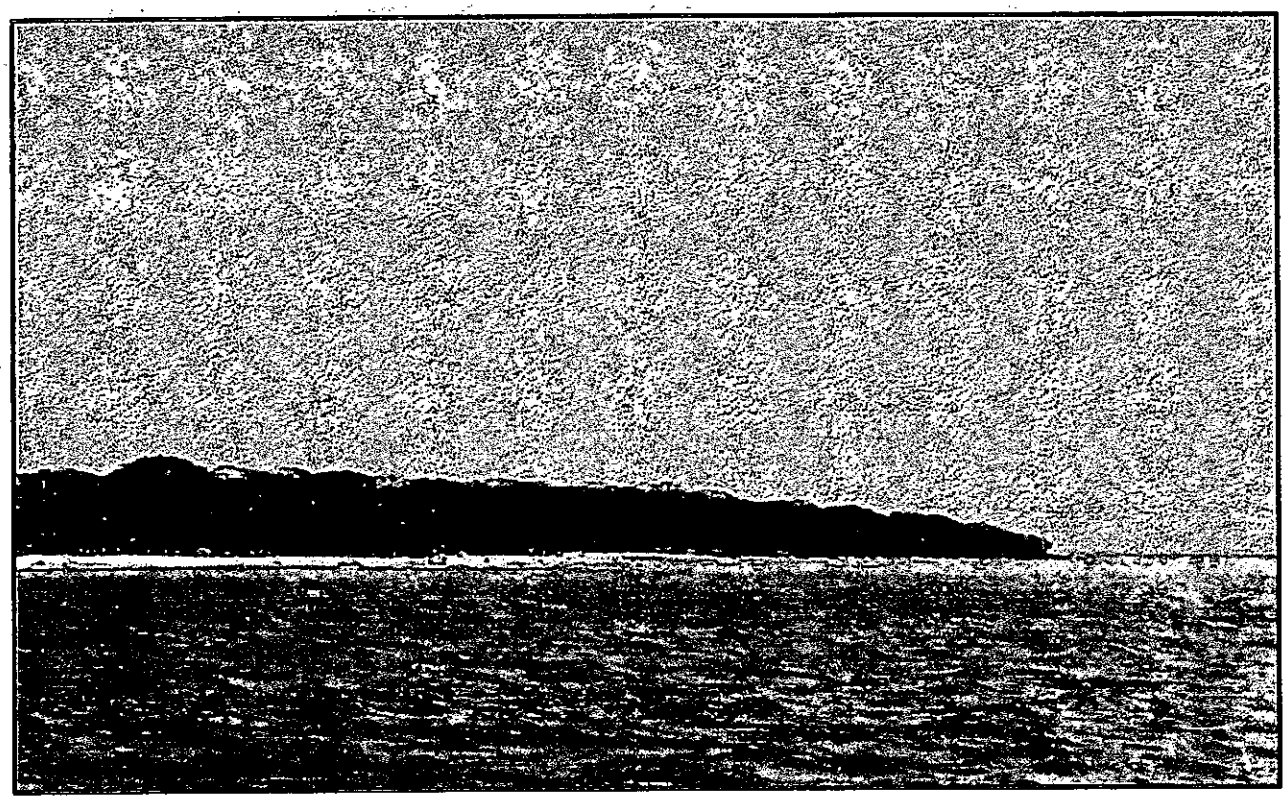


Figure 2. Sand beach of coral origin in the Archipiélago de Nuestra Señora del Rosario, Colombian;s Caribbean.

The indigenous Mocane People, who stem from the Karib linguistic family and who pioneered ceramic manufacture in the American continent, have inhabited these islands from Pre-Columbian times. With the arrival of the Spanish Conquerors, these islands began to be settled by the ancestors of black slaves that came from West Africa. Currently they are inhabited, in most part, by people originating from the interior of Colombia, the country that has slowly acquired these islands that possess unique landscape wealth developing them through tourism.

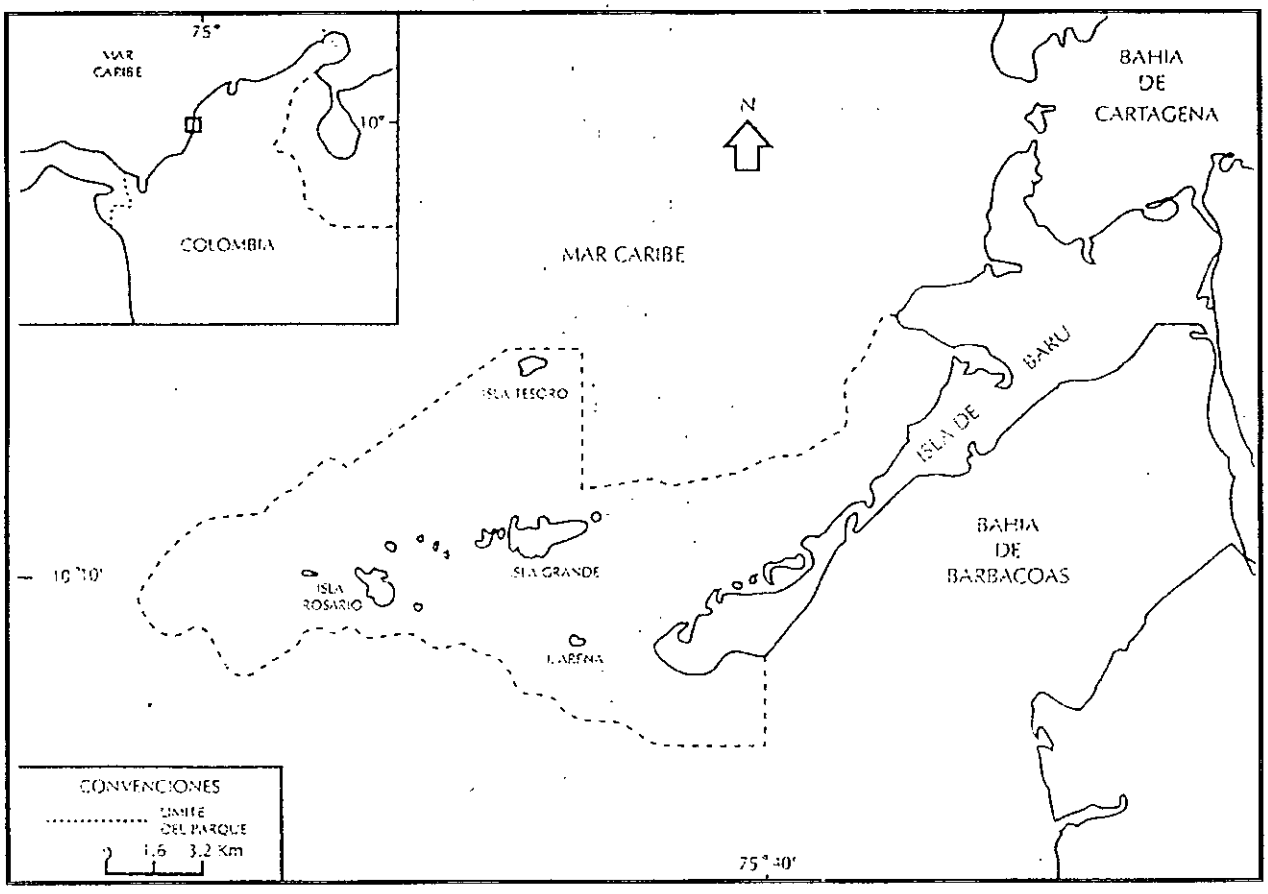


Figure 3. Location of the study area, Natural National Park Corales del Rosario and San Bernardo.

The climate is dry the Wider part of the year, having an average annual temperature of 27.7 - 33.1°C, and presenting an average annual rainfall of 786 – 817 mm and a relative humidity of 80 - 85%. The topography is flat and the islands are of coral origin, the waters are transparent and there are found plentiful coral reefs on the seabed. The Islands of the Rosary are comprised of four main outcrops surrounded by 28 smaller ones.

The National Institute of the Renewable Natural Resources (INDERENA) declared this Archipelago a Natural National Park in 1977, recently annexing to it the insular zone of San Bernardo. It counts currently with a surface of 120,000 hectares and possesses a great variety of marine-time coastal eco-systems, these understood as extending from the high tide mark until a depth of 60 meters.

2.2 COASTS OF THE MAGDALENA AND OF THE GUAJIRA

The area is located geographically to the north east of the Santa Marta city on the beaches among the belt inlet in the Tayrona Natural National Park (TNNP) in the department of the Magdalena until the delta outlet of the Cañas river in the department of The Guajira. It is here that are found the band of coastal beaches of the NNP of The Sierra Nevada de Santa Marta (SNSM -NNP) and its influence zone.

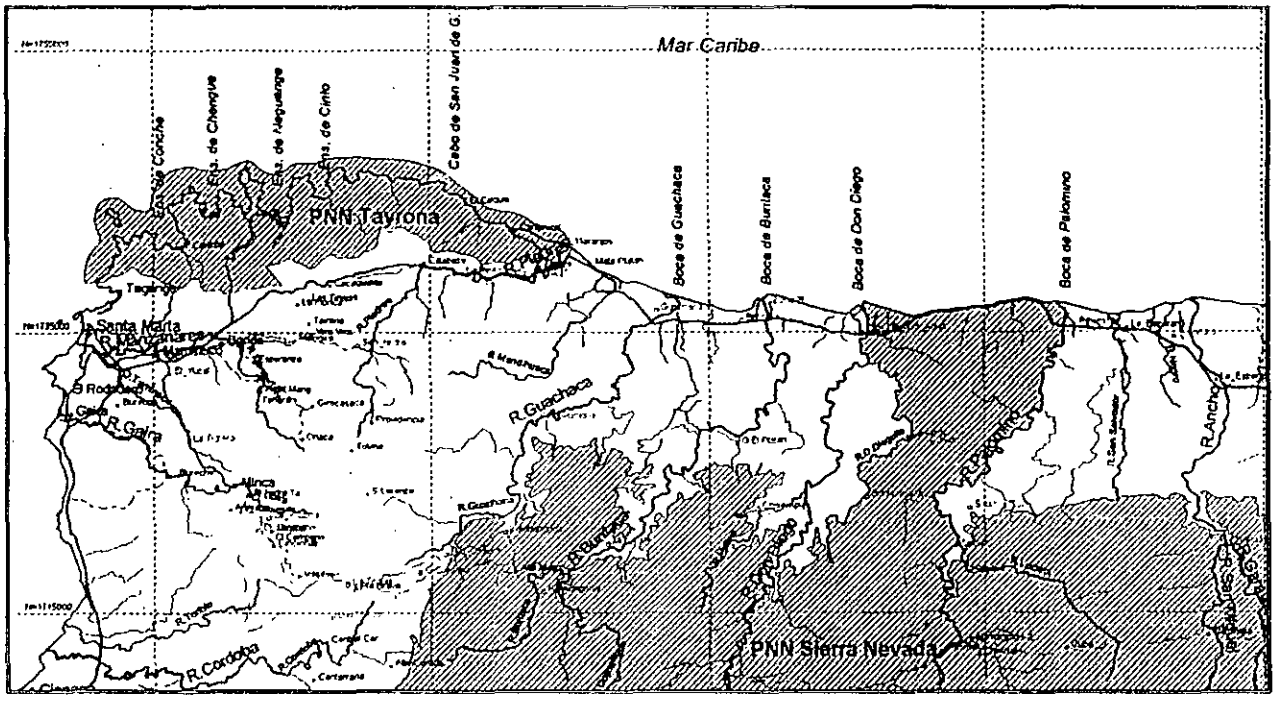


Figure 4. Location study area, Tayrona Natural National Park, The Sierra Nevada de Santa Marta, and their buffer zones.

The previously described zones receive permanent contributions from continental waters forming small estuaries in the outlets of the rivers, those which belong to the north slope of The Sierra Nevada de Santa Marta and that condition the climate of the region. From the Cinto sound to the outlet of the Piedras river, Tayrona NNP, the rocky substrate presents a steep face due to the fact that the cliffs of the Sierra Nevada de Santa Marta fall directly to the sea. If we follow the coast in its' north-eastern direction we encounter the outlet of the Piedras River and, from here, until the Don Diego locality in the department of the Magdalena, the continental shelf widens. The flat area continues from the Cape of San Augustin or otherwise known as Los Muchachitos hill until the Palomino locality in the department of The Guajira. This terrain still belongs to The Sierra Nevada de Santa Marta NNP, and is where the substrate turns rocky again due to the cliffs of th The Sierra Nevada de Santa Marta. From Palomino towards the high Guajira, the continental Shelf widens again and one of the characteristics of the sea in this region is its' dynamic tidal surge.

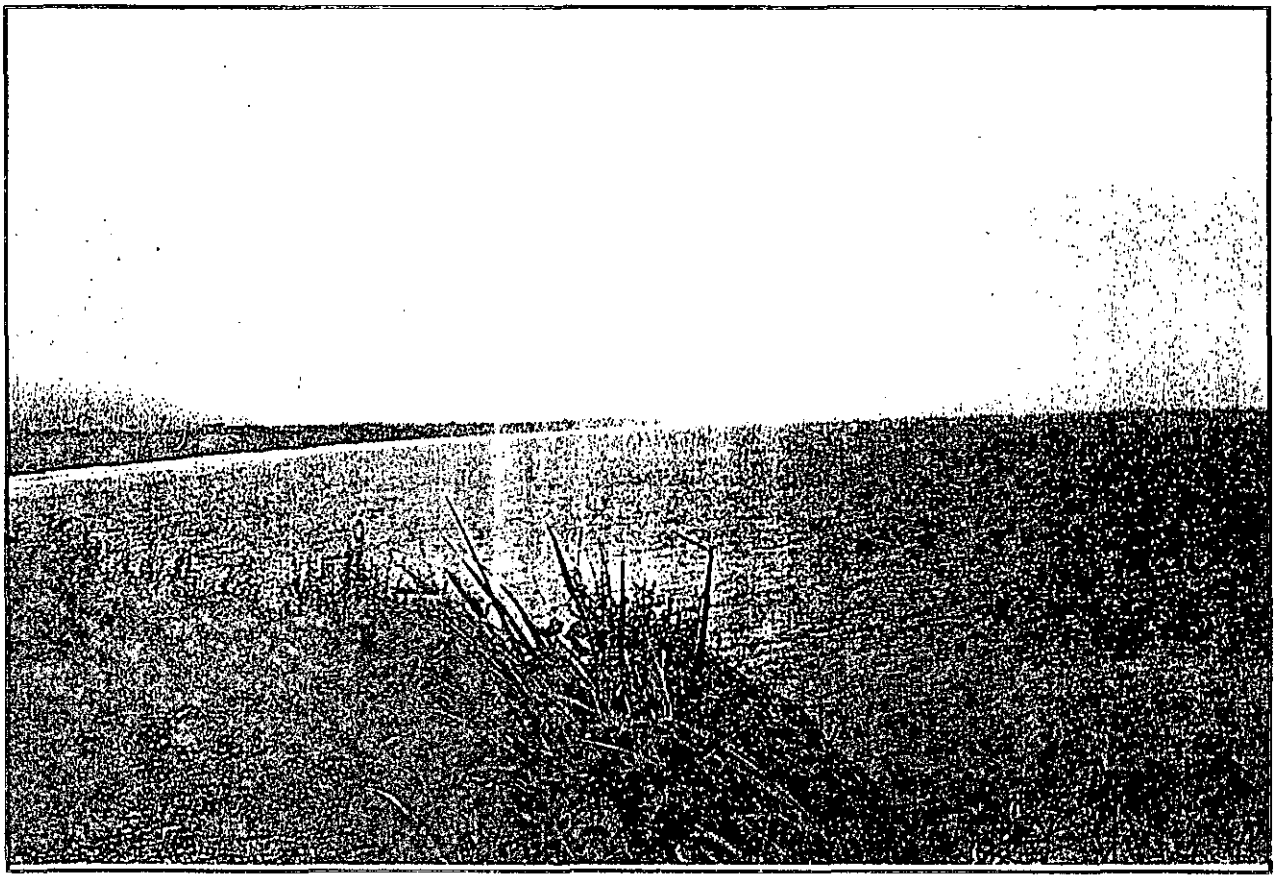


Figure 5. A Panoramic look of the beach of the right margin of the San Diego River, The Sierra Nevada De Santa Marta Natural National Park.

3 FIELD STUDIES

3.1 OBJECTIVE 1

To study and to collect information on ecology and reproductive biology of the different species of marine turtles that frequent the study areas.

3.2 OBJECTIVE 2

To advance an investigation on the characterisation of the populations of marine turtles in the Colombian Caribbean based on the taking of samples for an analysis of the sequences of mitochondrial DNA.

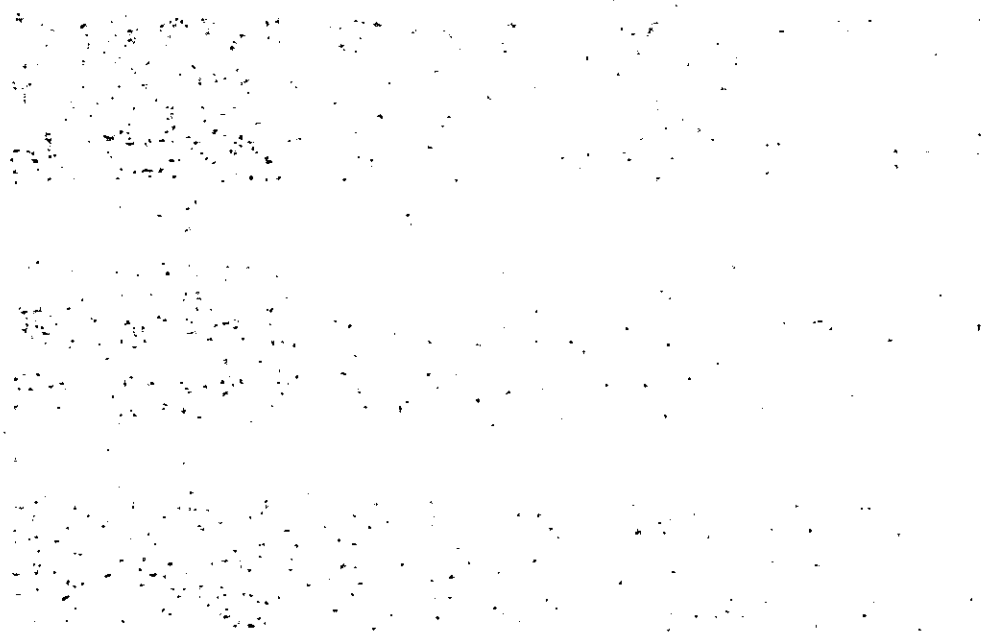
3.2.1 Corales del Rosario and San Bernardo

It was established that of the four species of reported marine turtles for the Colombian Caribbean, the "hawsbill" or "carey" turtle (Eretmochelys imbricata) is the one which is found all year round. During the visits led by the field Co-ordinator in this area during the months of August to November of 1999 it could also be established that this was due to a notorious juvenile presence of this species in the zone. These juveniles are captured to market mainly their "turtle shells" (Bekko), and live individuals in many occasions are carried to the Investigation, Education and Recreation Centre (CEINER), where they are bought for their subsequent tagging or labelling, and release.

The "green" turtle (Chelonia mydas) is not frequent in this area and only a few individuals are sighted and / or captured by the fishermen in the course of the year. The "leaherback" turtle (Dermochelys coriacea) is a specie that sporadically has been seen or reported, while "caguama" (Caretta caretta) up until this moment has not been sighted in this area.

During the monitoring and the tours completed in the Islands of the Rosary, it was determined that E. imbricata constantly frequents the coral reefs of this archipelago. Concurrently with these initiatives, interviews and conversations were recorded with natives fishermen of the islands who confirmed that the sites where they mainly capture juvenile individuals and sub-adult marine turtles classified as E. imbricata are:

- Around Rosary Island,
- In front of the lower portion Sand Island,
- A coral reef designated the Stone of Pablo,
- To the west of Treasure Island,
- And in the reefs designated Lower Turtle Island to the west Rosary Island where marine grass meadows prevail. Here the grass is mainly Thalassia testudinum and Syringodium filiform, and there are coral patches where it is common to find sponges present, the principal food of the "Carey" turtles.



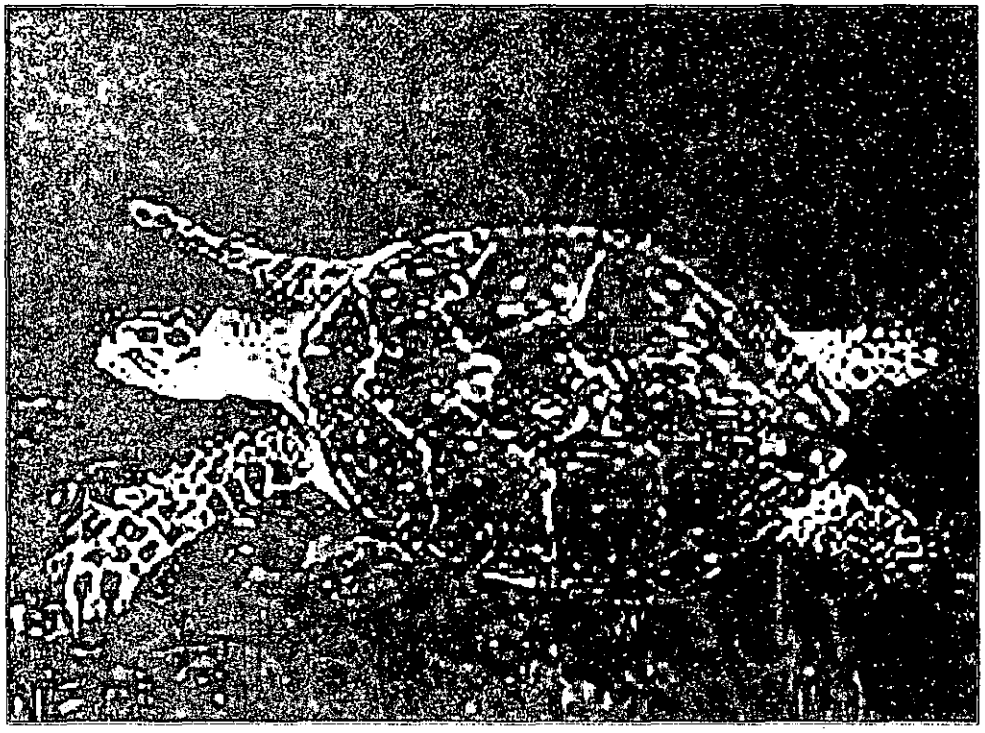


Figure 6. "Hawksbill Jovenile" representative species of the coral reefs of the Islands of the Ärchipielago Nuestra Señora del Rosario.

During the investigation effected in this area, led by the field Co-ordinator and the National Co-ordinator of the project, relationships were established for joint work with the Oceanarium CEINER (Research, Education and Recreation Center) of the Islands of the Rosary, The Corales del Rosario & San Bernardo Natural National Park, and Conservation International (CI), obtaining among others, the following results:

During the nesting season of 1999, all the gathered nests were carried to Treasure Island, one of the headquarters of the Corales del Rosario and San Bernardo Natural National Park. The total number of nests protected during the season was seven (7), of which five (5) originated from the Casimba beaches on Rosary Island, and the remaining ones were collected in Treasure Island. Of the nests moved to Treasure Island two (2) were relocated at CEINER. The Hatchlings obtained there they were held back, while obtained originally from Treasure Island were released at the moment of hatching.

Table 1. The results obtained during the 1999 Nesting Season in the Archipelago of the Islands of the Rosary are shown in following table:

Species	Transplanted eggs	Hatched Eggs	Released Hatchling	% Success of hatchling	Observations
Ei	102	85	85	86.7	
Ei	106	91	91	85.8	
Ei	121	87	87	71.9	
Ei	135	118	118	87.4	
Ei	----				Damaged by Hurricane Lenny.
Ei	464	381	381		

It could be established as well that the reproductive season of E. imbricata begins in mid July and extends until the end of September, showing a maximum activity peak around the end of July and beginning of September. It emerged that Rosary Island is the chosen place where most nesting activity is reported, followed by Treasure Island (Isla del Tesoro). Through communication with the fishermen and personnel of the CEINER, it was alleged that in Pavitos Island and Playa Blanca Beach in the continental part toward the Island of Barú, marine turtle hatchlings have emerged. This last event has yet to be confirmed at this time.

Given the previously described data it can be inferred that in the Colombian Caribbean, the Archipelago of the Islands of the Rosary constitute an important and strategic nourishment area for the conservation of the "hawksbill" sea turtle.

3.3 COASTS OF THE DEPARTMENTS OF THE MAGDALENA AND THE GUAJIRA

On these beaches three monitoring centres have been situated thus:

- María River that is found between the rivers Guachaca and Buritaca,
- Protected Beach hatchery of Don Diego on the left margin of the outlet of the Don Diego river,
- And "Donaire" in the beaches of the Palomino village.

The fauna and flora associated with these beaches has been affected by the rapid growth of agriculture in the region and by the extension of the banana plantations. This has brought us to the brink of extinction and put in critical danger several species of fauna and flora of the region.

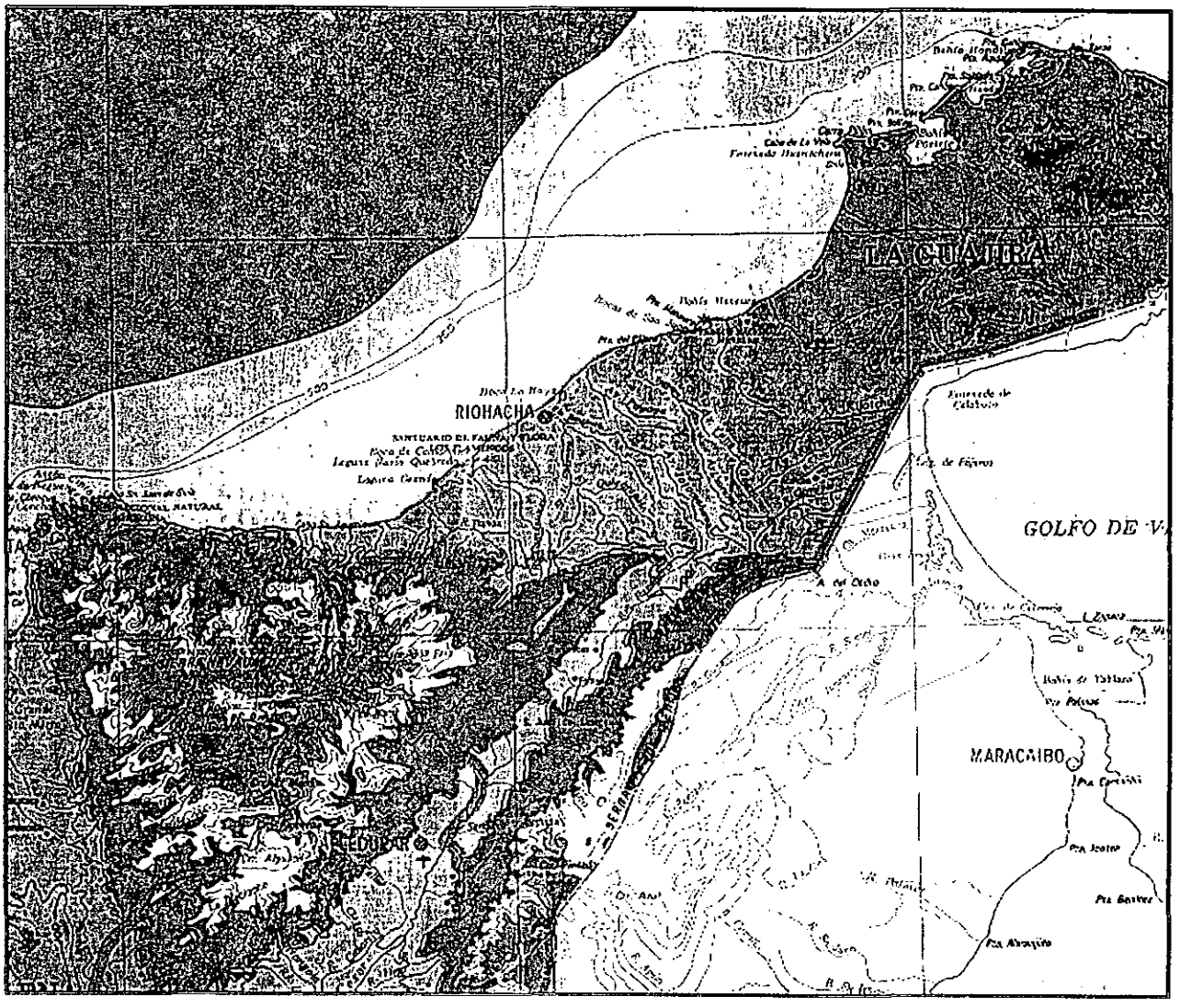


Figure 7. Map of the department of the Magdalena and of The Guajira, in the Colombian Caribbean

During the development of the field activities confirmation that the reproductive period of spawning of four species of marine turtles was determined and is as follows:

- Dermochelys coriacea (Leatherback) spawns from the end of March until mid May,
- Caretta caretta (loggerhead - "caguamo") from the beginning of May until the end of August,
- Chelonia mydas (Green turtle) from mid July until mid September
- and Eretmochelys imbricata (hawksbill) from the beginning of June until mid September.

Buritaca and Don Diego are the zones on the Colombian coast which are of greatest activity and Caretta caretta the specie most representative of the area.

Other relevant beaches concerning the presence and nesting activity of marine turtles during a large part of the year are the eastern sector beaches of the Tayrona NNP of, as well as the Cinto sound, where lately monitoring, nests and nesting female protection have been undertaken.

Table 2. Results of the 1999 Nesting Season. Belt (Cinto) sectors, Don Diego and Buritaca.

Sp	Relocated Eggs	Hatched Eggs	Released Hatchlings	% Hatchling Success	Observations
Dc	80				Damaged by excess of dampness
Dc	60				Damaged by excess of dampness
Cc	130	102	102	78.4	
Cc	110	66	66	60.0	
Cc	119	97	97	81.5	Nest of 123 eggs. 4 broken
Cc	116	107	107	92.3	
Cc	100	77	77	77.0	Nest of 103 eggs. 3 broken in transit
Cc	110	93	93	84.5	
Cc	120	72	72	60.0	
Cc	124	112	112	90.0	
Cc	97	86	86	88.6	Nest of 137 eggs. The remaining carried to Palomino.
Ei	142	136	136	95.7	
Ei	159	148	148	93.1	
Ei	121	108	108	89.2	
Total	1588	1204			

To characterise and facilitate the establishment of a conservation strategy and to determine the populational structure of the marine turtles species that frequent this area of the Wider Caribbean, a genetic study has surfaced. It has arisen within a joint work plan framework among WIDECAST, CEINER and the Natural National Parks System (UAESPNN), the Regional Autonomous Corporation of the Magdalena (CORPAMAG) and different entities of the civil society. This genetic study with markers of DNAm contributes to the construction of a conservation strategy based on an integral approach compatible with the "Sea Turtle Action Restoration Plan" of Marine Turtles Management proposed for the Wider Caribbean.

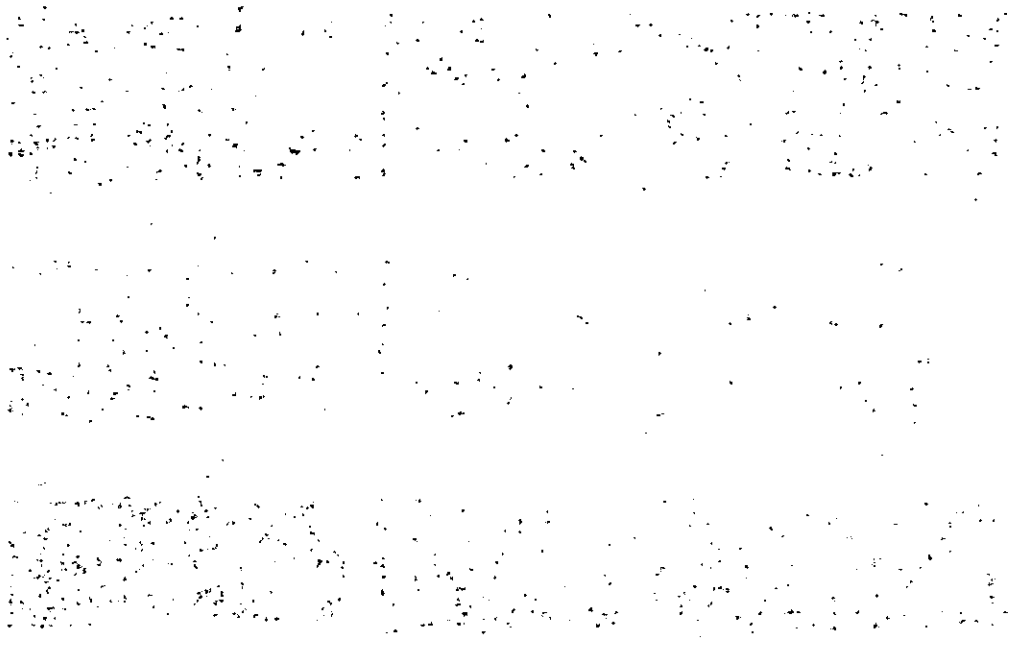


Figure 8. Doctor Brian Bowen of the University of Florida teaching the technique of taking Blood Samples to the Palomino Artisanal Fishermen Committee.

With this purpose in mind, the collection of tissue and blood samples of individual adults, juveniles and hatchlings of the different species of marine turtles has proceeded. The turtles in question frequent the Corales del Rosario NNP, Tayrona NNP, NNP the Sierra Nevada de Santa Marta and the beaches of Buritaca, Don Diego and Palomino in the Colombian portion of the Caribbean. The tests and analysis will be performed in the laboratories of Gainesville, in the University of Florida counting on the collaboration of the Dr. Brian Bowen. Determining if the presence of the marine turtles is due to the fact that they are a resident population, that is fed and nestled in this area, or if alternatively, they belong and cross with other colonies in the Caribbean or other latitudes.

The project in mention was presented by the Co-ordinator of WIDECAST for Colombia and financed by a small grant fund from WIDECAST and the Columbus ZOO. Currently the respective procedures to obtain the CITES permits of export of the samples to USA are going ahead. These permits exist by resolution emanated from the Ministry of the Environment, and which have been requested officially through the wildlife office of CORPAMAG.

During the development of the 20th International Symposium on Biology and Marine Turtle Conservation undertaken in Orlando, Florida, co-operation was achieved with the:

- Caribbean Conservation Corporation (CCC) with headquarters in Tortuguero, Costa Rica,

- University of Zulia (Venezuela), the Foundation of Marine Turtles of Santa Marta,
- and WIDECAST (Colombia and Venezuela).

This co-operation was aimed at combining efforts to advance a regional project for the "green" turtle (Chelonia mydas) conservation, in the Caribbean amongst the nations of Costa Rica, Colombia and Venezuela.

Figure 9. Participants in the VII Latin American Meeting of Marine Turtles Specialists, Camp Challenge, Orlando, Florida 25 - 28 February, 2000.

Furthermore a database to systematise the information of the tagging program of marine turtles in the Colombian Caribbean has been designed.

3.4 OBJECTIVE 3

Evaluation of the current threats in the different phases of the lifecycle of the marine turtles and a synopsis of their habitat in the areas of the study

3.4.1 Archipelago Nuestra Señora del Rosario.

Modification or habitats destruction:

- The see-grass beds and coral reefs have been altered or destroyed by the great quantity of sediment that arrives from the bay of Cartagena originating in the Magdalena river through the Dike Channel. that then are dragged by the oceanic currents toward the Archipelago.

- Simultaneously evidence of the fragmentation of the coral and the loss of meadow areas by action of the surge, the currents, storms and hurricanes was documented. This area is found exposed to the strong action of the waves, of the wind and of the wash of vessels that daily patrol in the area with tourists.

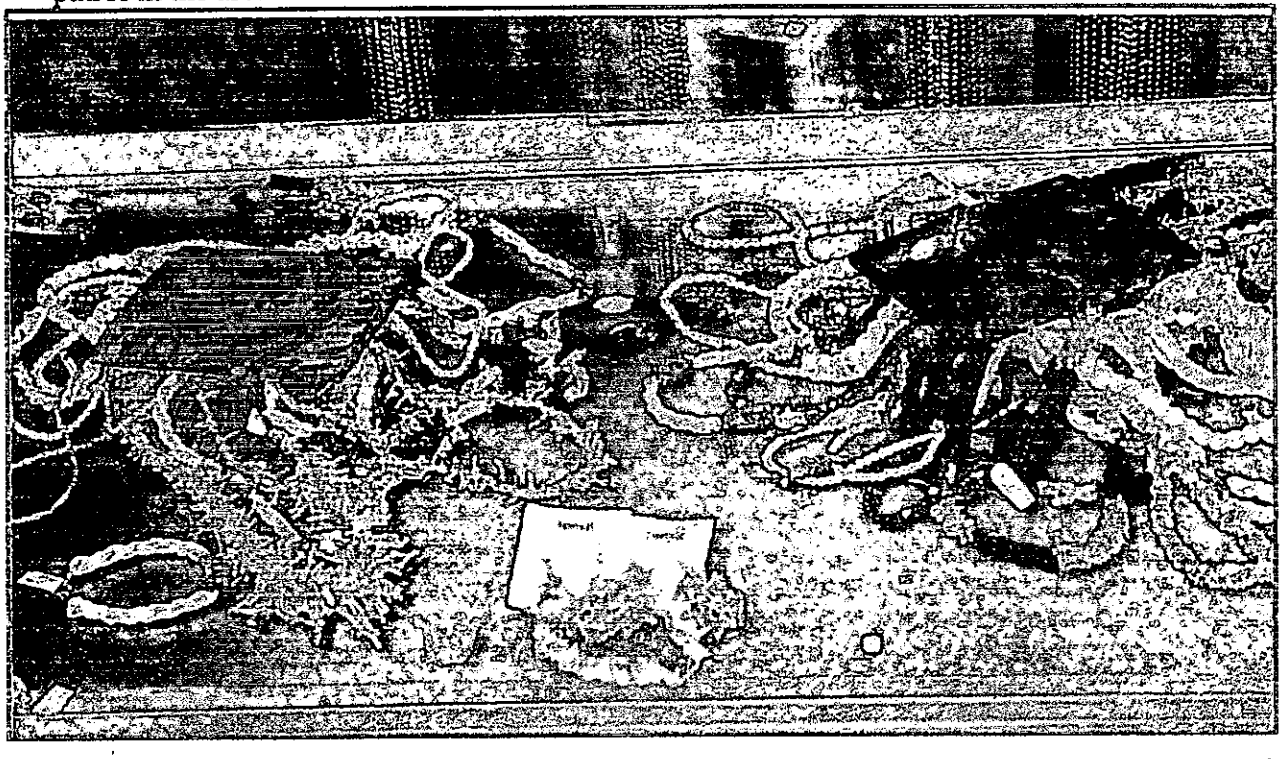


Figure 10. Objects of "turtle-shell" (Beko) and coral exposed for their sale in the city of Cartagena of Indias.

3.4.2 Coasts of the Magdalena and The Guajira

The habitats have been affected mainly by the extension of the limits to agricultural practices, the tourism resorts area development, the sediments and the pollution by refuse that is dragged by the rivers that come down from of the Sierra Nevada de Santa Marta. This alters the natural conditions of beach regeneration.

Other Human Activities:

- Fishing with dynamite.
- Oil spills.
- Nest poaching.
- Reproductive female slaughter on nesting beaches.
- Capture of juveniles and adults of E. imbricata for meat consumption, eggs, and the marketing of the shell for the production of handicrafts by the fishmen.
- Hunting of reproductive females, eggs and hatchlings by domestic animals during the nesting season on the beaches.
- Incidental fishing by dragnet fishing by shrimp or prawn trawlers about the coast during the mating season.
- Artificial lighting and tourist infrastructure construction on the nesting beaches.
- High commercial value of some by-products of the meat and of the shells such as oil, extracted from D. coriacea that it is used as cough medicine for children and adult.

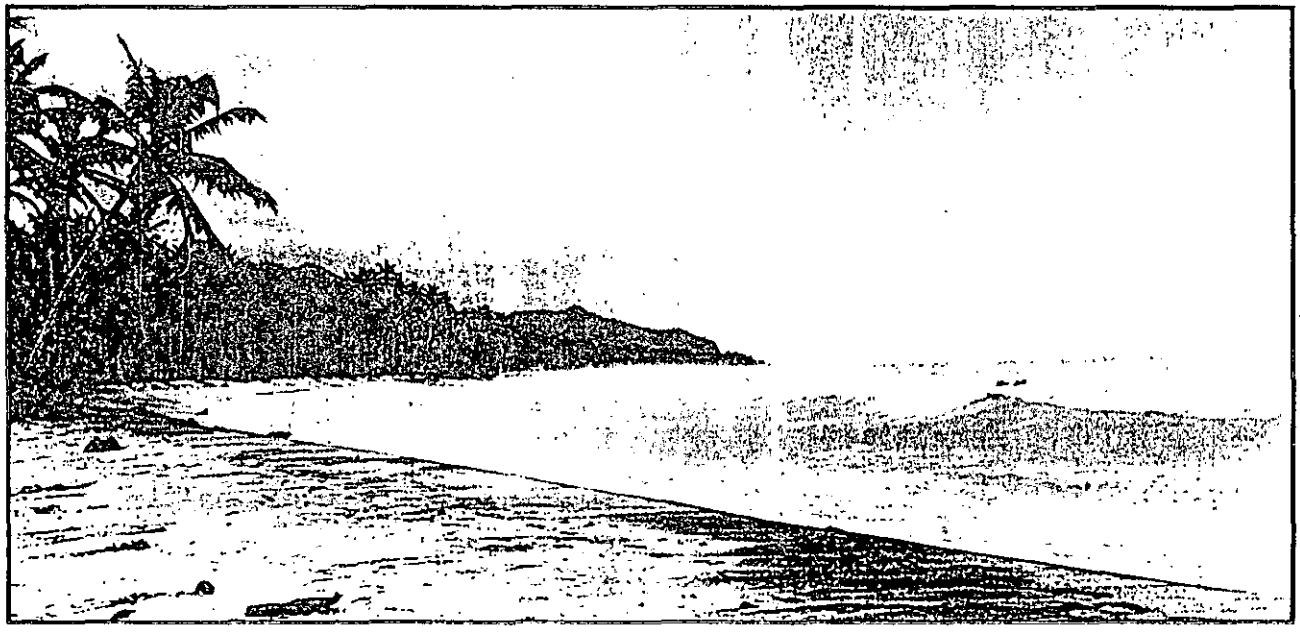


Figure 11. A frame of the dynamics of the surge on spawning beach of the Sierra Nevada de Santa Marta.

In addition to the previously mentioned threats, a serious problem to which we see ourselves facing is the lack of initiative on the part of the government entities charged with the conservation of natural resources. The aforementioned is due to the improper distribution of the small budget destined to implement mechanisms to normalise conditions for wildlife and to have wider institutional presence for an effective control. This limits the possibility of establishing state conservation programs for the medium to long term and of supporting the non-governmental entity initiatives or community organisations.

3.5 TRAINING AND ADVISING

3.5.1 OBJECTIVE 1

To sponsor and develop local and sub-regional workshops on the biology, conservation and research techniques of the marine turtle for biology students, professionals of governmental organisations, NGOs and local organisations.

3.5.2 OBJECTIVE 2

To promote the training and the institutional strengthening of the NGOs, GOs and grass-roots groups present in the zone, facilitating their integration and articulation in the natural resource management and conservation programs of marine turtles that are promoted at a regional level.

3.5.3 OBJECTIVE 3

To improve the technical capacity and logistics in the national arena to then consolidate the Sea Turtle Recovery Action Plan (STRAP) in the Colombian Caribbean, emphasising the component of community participation in conservation.

From the 27th to the 28th of March, 1999 a Workshop Course on Biology and Marine Turtles Conservation in the Tayrona NNP was helded & attended, promoted by the Co-ordinator of the project with the support of the field Co-ordinator and of the Foundation for Marine Turtles of Santa Marta. The attendees to this Training Course and Workshop were:

- Officials of the Natural National Parks of the Atlantic Coast region (UAESPNN),
- Eco-tourism guides,
- Agents of the National Police Force that lend their services to patrol the Tayrona NNP,
- Members of the Fishermen Committee of Los Cocos Village,
- Students of the baccalaureate association of the Revolt Village and of the primary school Palomino, communities which are located in the influence zone of Tayrona and the Sierra Nevada de Santa Marta Natural National Parks.

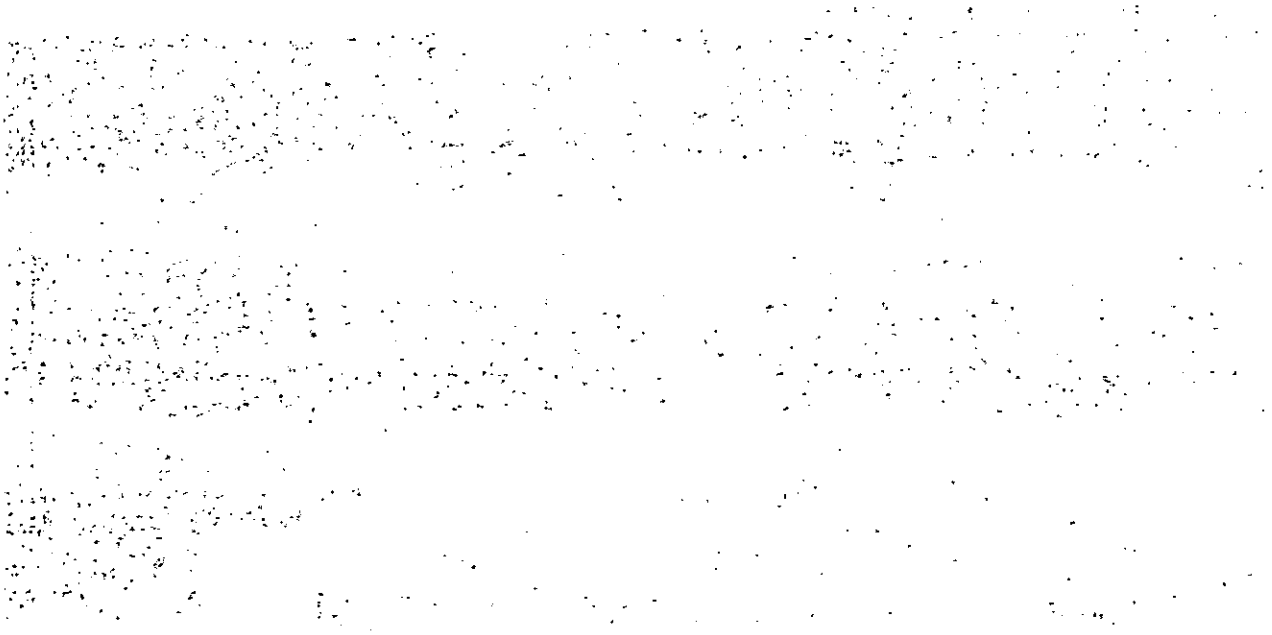
Figure 12. Participants in the Workshop "Biology and Marine Turtle Conservation in Colombia" undertaken in the Tayrona Natural National Park, March of 1999.

The Co-ordinator of the project and the field Co-ordinator set upon themselves the task of organising between the 25th and 28th August in the Tayrona Natural National Park, the "II International Seminar - Workshop on Conservation and Marine Turtle Biology" with the support of the:

- Tayrona and the Sierra Nevada de Santa Marta Natural National Parks (PNNT / PNN SNSM)
- Conservation International (CI)
- and the Foundation for Marine Turtles of Santa Marta (FTMSM).

This event was attended by:

- Specialists in biology and marine turtles conservation originating from the University of Florida - USA,
- The ANAI Association of Costa Rica,
- The Ministry of the Environment,
- The UAESPNN, (Special Administration Unit for The Natural National Parks System),
- Palomino Artisanal Fishermen Committee (COPAP) of The Guajira,
- The foundations of Darién, Ave Phoenix and Marine Turtles of Santa Marta;
- As well as students of the Universities of Antioquia and Jorge Tadeo Lozano,
- Officials of CORPAMAG



- and NGOs present in the region.

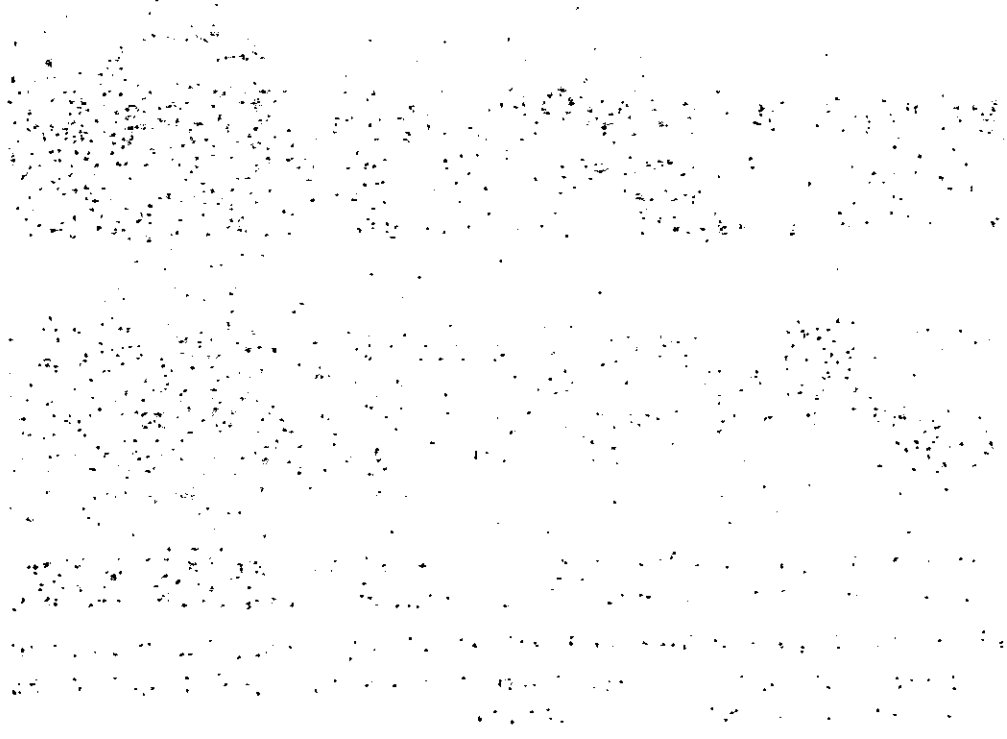
Figure 13. Group of presenters of the II International Seminar - Workshop. Tayrona Natural National Park, August of 1999.

Topics discussed included research and the geographical information systems as tools for conservation, the management of marine turtles given the cultural context, and the classification of the territory and the coastal marine zones. The participation of the communities and the organisations representative of civilian society in the conservation, the resource management and the consolidation of the Colombian Net for the Conservation of the Marine Turtles (RETOMAR) were also discussed. After several days of activities the following results were obtained:

- A situational diagnosis of the different regions as an Input for the elaboration of a logical framework that could orient the formulation of the Sea Turtle Recovery Action Plan of Colombia (STRAP), the same that is being reviewed by the Ministry of the Environment.

- Report Document of the event "II International Seminar - Workshop on Conservation and Marine Turtles Biology," the one which was distributed to the participants and other entities with emphasis on the topic of the marine turtles.

- Publication of articles in the press that allude to the event and that invite participation in the effort of marine turtles conservation that WIDECAST forwards in Colombia.



- A video sequence was filmed for the ecological program "Eco-habitat", which was shown on the regional television channel TELECARIBE.

- Definition of the operative mechanisms the Colombian Network for the Conservation of Marine Turtles (RETOMAR) uses, whose management remained in the hands of the National Co-ordinator of WIDECAST in Colombia, and in whose organisational structure figures an Administrative and Operative Co-ordinator and three regional co-ordinators (Darién, Pacific and Caribbean). At the same time, there were commitments established on behalf of the members of RETOMAR to elaborate a communications proposal and to set up a web site on-line. In addition, a protocol for the standardisation of management and work methodologies in field, the maintenance budget of RETOMAR, the management of resources, the set-up and systemising of a data base, and the authorisation of WIDECAST in Colombia as an officially constituted entity were all worked upon.

Additionally, the field Co-ordinator of the project offered an informal training chat between the 22nd and the 24th September, 1999 in the city of Santa Marta, aimed at educators of the department of the Magdalena. This chat formed part of the "Incorporation of Environmental Education in basic education in small urban and rural zones of the country" initiative. Here we find an integral component to the activities agreed to between the Ministry of the Environment and the National Education Ministry. This training talk encompassed a handful of other topics, such as the following: taxonomy, geographical distribution and life cycle of each one of the species of marine turtles that frequent the Colombian Caribbean. Likewise, it went into the related technical aspects of conservation, and the factors that affect the survival of the marine turtles. Moreover, it touched on an update on the projects in marine turtles conservation that are underway in Colombia and the scope of the RETOMAR program as promoted by WIDECAST, Colombia.

Figure 14. Release of Marine Turtle Hatchlings during the II International Seminar & Workshop on Sea Turtle Conservation in Colombia Cañaveral Tayrona Beaches NNP, August of 1999.

During the 3rd and 4th June, 2000 a Workshop Course was undertaken in the city of Barranquilla, Atlantic department on Biology and Marine Turtles Conservation. The workshop counted on the National Co-ordinator of WIDECAST, the Field Co-ordinator of the Project and a Member of the Marine Turtles Foundation of Santa Marta as keynote speakers. The support of the REMAR Foundation, the Park Route Island of Salamanca (UAESPNN) and the Biology Faculty of the University of the Atlantic was also essential.

Figure 15. Workshop facilities for "Biology and Techniques of Marine Turtles Conservation" Course, Park Route Island of Salamanca, June, 2000.

3.5.4 Island of Salamanca Route Park.

Students of Biology and related careers of the universities Jorge Tadeo Lozano, of the Atlantic, of the Cesar and of The Guajira participated in this Workshop – Course. As did officials of CORPAMAG, the Foundation Pro – Sierra Nevada de Santa Marta and the Corales del Rosario and San Bernardo Natural National Park. The field phase of this Workshop – Course was conducted on the coasts of the Park Route Island of Salamanca, in the Department of the Magdalena, where work on marine turtles monitoring has since begun, as there is here evidence of nesting of the species mentioned on these beaches.

Since 1998, WIDECAST Colombia has supported the Palomino Artisanal Fishermen Committee (COPAP), who develop protection and transport activities of nests and nesting females, tagging of adult marine turtles and release of hatchlings to mention a few of their tasks. To guarantee the continuity of these projects and to achieve the strengthening of institutions and community groups, the process of signing an framework agreement of co-operation is underway between the

Foundation Prosierra Nevada de Santa Marta (previously translated), the COPAP, the Foundation of Marine Turtles of Santa Marta and WIDECAST Colombia. In the framework of this agreement a Workshop on Planning, Leadership and Community Strengthening was undertaken in mid-August, with the fishermen at COPAP. Also the Field Co-ordinator led Workshop on the techniques of Marine Turtles Conservation for the fishing communities and inhabitants of the coastal zone in Buritaca Village.

The advances in the development of training and marine turtle conservation management have permitted the various leading institutions to work not only jointly with governmental institutions. Also benefiting from advise and guidance for the managing and conservation policies of marine turtles are the Regional Autonomous Corporations and the Special Adminsitrative Unit of the Natural National Parks System (UAESPNN). Products of this interaction have been numerous.

Due to the abandoning of field-work around mid-April, 1999, the Co-ordinator of the project and the Field Co-ordinator have established a work agreement between a few institutions. WIDECAST, the Natural National Park of The Corales del Rosario and San Bernard and the Investigation, Education and Recreation Centre of the Islands of the Rosary namely (CEINER), worked together to jointly develop protection, investigation and education activities on marine turtles in the area. A co-operation agreement was signed for the formal authorisation of these activities between WIDECAST and the CEINER, and a Work Plan was canvassed to perform activities such as research into the dynamics, ecology and the problems of the Marine turtles on the Rosary Islands. It included workshops on training in specialised aspects related with their Biology and conservation in the CEINER subscribed area, as well as the design of a strategy of dissemination and conservation encouragement and marine turtles protection.

With the Autonomous Regional Corporation of the Magdalena "Corpamag", there has been enthusiasm about a co-operation agreement. This agreement is to advance joint efforts directed towards the generation of information for the STRAP in Colombia establishment (Sea Turtle Recovery Action Plan). This mainly to give a jump-start to programs of conservation of marine turtles on the Department of Magdalena coastlines articulated with other entities both regional and national.

An agreement signed by the Special Administrative Unit of the National Natural Parks System UAESPNN and WIDECAST has seen the development of the following objectives:

- To work jointly on the construction on outlines of social participation to the end of conservation of marine turtles in the National Parks,
- To elaborate a social and environmental map based on the social and institutional players predominant in the nesting, migration, and feeding areas of marine turtles in the National Natural Parks and their buffer zones,
- To participate in the planning and territorial zoning processes with the diverse entities and players involved, principally in relation to the Policy for planning Coastal and Marine Zones,
- To determine economic and social sustainability of the productive projects that can be classified as 'alternative' focused on the conservation of marine turtles species, the habitats and eco-systems require for their survival,
- To evaluate and to follow-up of the administration work in the environmental programs and projects of conservation of marine turtles initiated together,

- To contribute to implementing and developing the STRAP program (Sea Turtle Recovery Action Plan), in the Wider Caribbean amongst others.

The National Co-ordinator of WIDECAST presented in October 1999 in Washington the results of the joint work of the member entities of RETOMAR to the WWF, the Centre for Marine Conservation, TNC, C.I. and the US FWS. Further, the co-ordinator spoke about the three proposals that are to be worked on in the Colombian Caribbean and Pacific, of which two were approved and funds secured from the National Marine Fisheries Service (NMFS).

The interchange of experience and the articulation of national and foreign entities, which work with marine turtles, have been enriched through meeting in two International Seminar – Workshops, maintaining constant contact and allowing flow of information between entities such as the following:

- WIDECAST
- ANAI Association of Costa Rica,
- The University of Florida,
- Center for Marine Conservation,
- U.S. Fish and Wildlife Service,
- World Wildlife Fund,
- Pro-TAMAR,
- Natura Foundation,
- Pro-Sierra Nevada de Santa Marta,
- And Darien Foundation, amongst others.

In this sense, participation in important international events has taken place. For example, participation by the National Coordinator of WIDECAST as presenter in the Workshop titled "Dialogue towards a Regional Management of the Marine Turtles in the Widen Caribbean" organised by WIDECAST, WWF and UNEP in November, 1999 in the Dominican Republic. More recently in July this year, the National Co-ordinator of WIDECAST together with the Field Co-ordinator of the project, participated in the workshop titled "Guidelines for the Elaboration of the Action Plan for the Conservation of Marine Turtles in Latin America and the Caribbean" held in Santa Marta, Colombia, with the sponsorship of the WWF-USA.

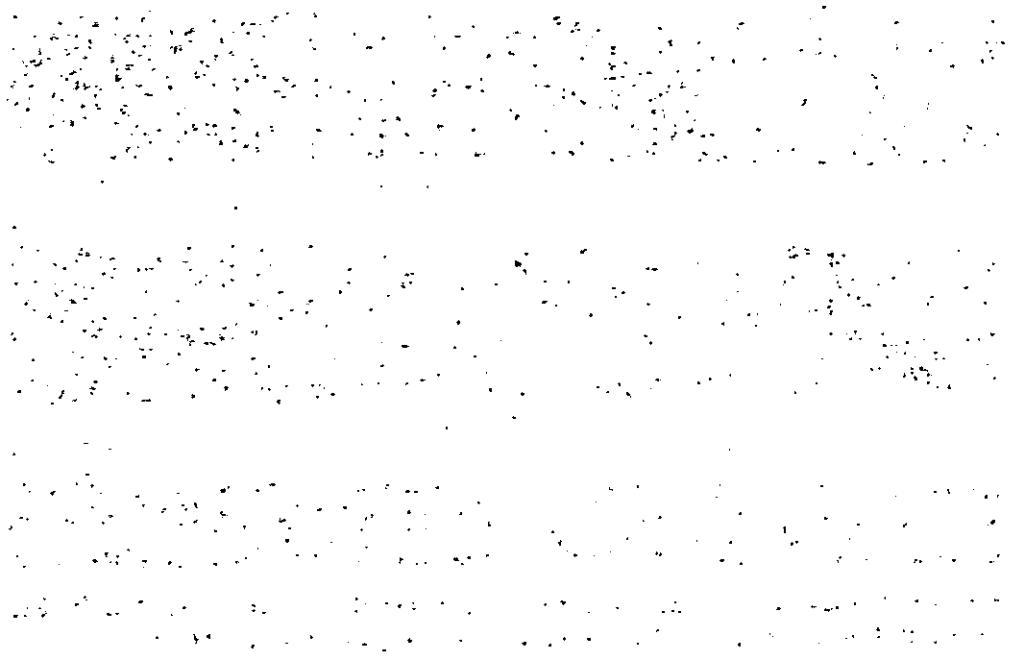
3.6 TRAINING AND CONSULTANCY

3.6.1 Objective 1

Generate the processes of communication, dissemination, and education to achieve a sensibility, possession, and participation of the communities in the local, regional, and national arenas for the conservation of marine turtles in Colombia.

3.6.2 Objective 2

Broaden the general public knowledge base about the biology, threats and needs of marine turtles conservation and protection of the marine and coastal eco-systems important for their survival.



3.6.3 Objective 3

Give inputs and strengthen environmental education as fundamental component to the different processes and programs underway and to articulate this with other entities at a regional level. This is one of the action plans which have been adhered to strongly, lending support and serving as a facilitator in the processes of establishing inter-institutional accords, allowing in turn identification and implementation of the alternatives of the solution to the environmental challenges and the marine turtles conservation. This permit bettering of the conditions of life of the communities established in the coastal regions of the Caribbean, the Pacific, and other island territories of Colombia.

Through the different training courses, meetings and events organised or participated in, room for communication and dissemination of results have been generated. Education tools like topical guides, and posters have been distributed. Identification "Leaflets"of species charts, scientific articles, stickers and other memorabilia have been exchanged. These materials have been converted into inputs for researchers, community groups, NGOs, government entities, and the public in general.

These actions facilitate the contributions of individuals and entities to the different initiatives. Initiative which lay out the ground work for work on the conservation of marine turtles in the different regions. The campaigns of awareness have been fundamental to the efforts with the collaboration of students of the Universities of INCCA and Jorge Tadeo Lozano, students of the Volunteer Park Rangers from the Special Adminsitrative Unit of the Natural National Parks System (UAESPNN), teachers of schools of the Department of the Magdalena and the group of environmental educators of the SILAKANGAMA NGO of Santa Marta.

Figure 16. Group of Specialists in Marine Turtles visiting the Beach Hatchery of the Palomino Artisanal Fishermen Committee, August 1999.

The motivation and the degree of appropriation achieved by local and regional actors upon entering in contact with the WIDECAST-BP Conservation programme project, has permitted that in addition to the profitable and educational activities promoted, there was enthusiasm for the voluntary labour in the field activities such as:

- Establishing and maintenance of the monitoring centers located in the previously described points.
- Ecological awareness towards the reproduction beaches.
- Tagging and nesting female protection.
- Nest identificatin and relocalisation on a Beach Protected Hatcheries
- Follow-up to the hatching process of the trans-located nests.
- Release of hatchlings.

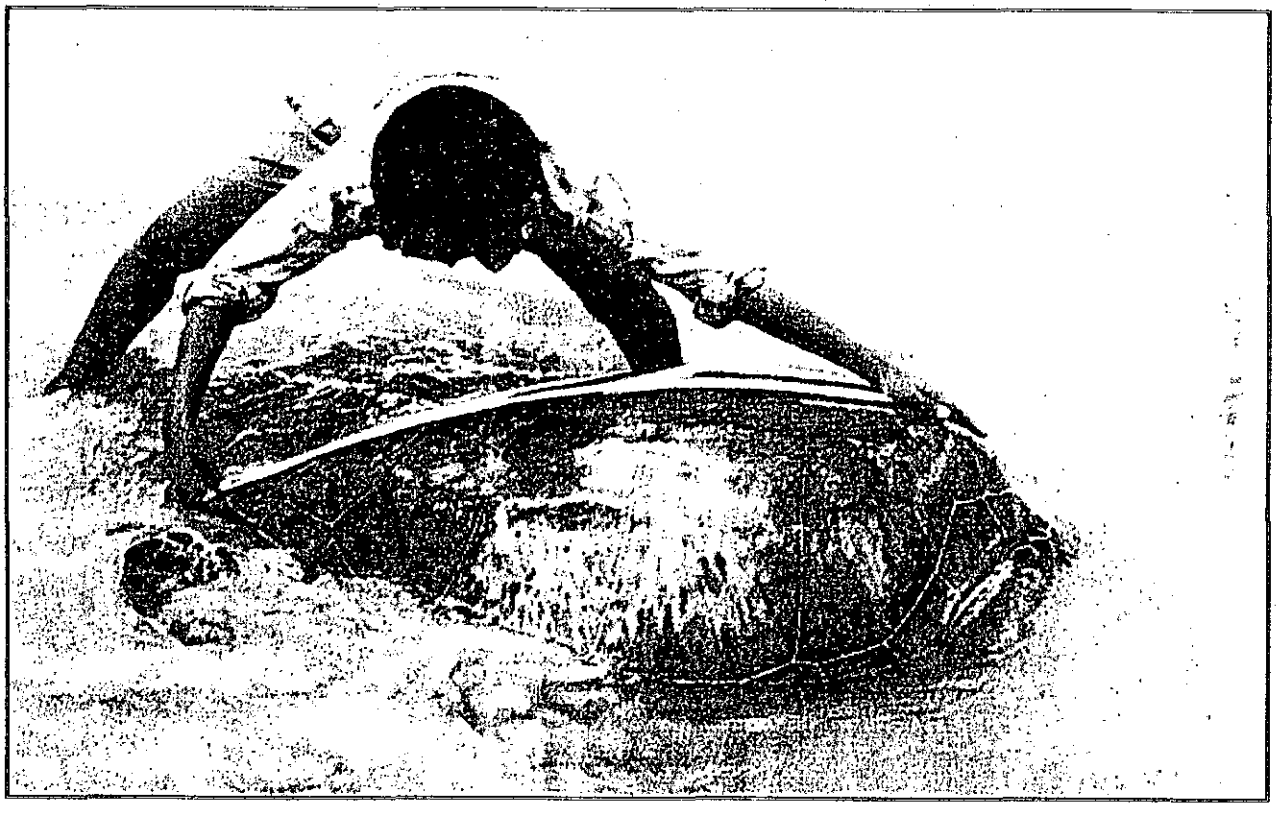


Figure 17. A Youth of the Palomino Community in activities of Marine Turtles Protection during Marine Turtles Protection Activities.

4 OTHER RESULTS

Within the negotiations brought forward by the Coordinator of the Project and the Field Co-ordinator of the WIDECAST-BP Conservation programme project, and within the framework of the institutional strengthening activities, the following are emphasised:

- Support and consultancy was extended to two students of the Marine Biology Faculty of the University Jorge Tadeo Lozano Foundation. The research project they worked on is best summarised as the behaviour and reproductive biology of the marine turtles that nest in the area of the Tayrona NNP and the buffer zone of the NNP of the Sierra Nevada de Santa Marta.

- Scientific address to fulfil requirements for a Bachelor Degree of Ecology thesis titled "Nutritional Behaviour of the Marine Turtles in the NNP of the Gorgona in the Colombian Pacific Ocean" developed by two students of the Foundation University of Popayán (was supported with information).

- Negotiations with the Program Chief of the Corales del Rosario and San Bernardo Islands Natural National Park of the were tabled, so that within the framework of the policy for "Parks with People", a workshop is to be undertaken in Palomino. Palomino Artisanal Fishermen Committee (COPAP) are participating on planning, leadership and community strengthening in conservation of species and ecosystems. Empowered by the pedagogic experiences of exchange, the fishermen and community leaders of the Archipelago of the Islands of the Rosario, will share with the members of the COPAP and community leaders of the region.

- Cornering financial resources through the National Coordinator of WIDECAST Colombia, for the construction of a multipurpose "kiosko" (bamboo gazebo) on the beach located on the straight margin of the Palomino River. Here members of COPAP could keep their fishing tackles, launches and boats. The gazebo could serve at the same time as a refuge for the volunteers that participate in the project of marine turtles conservation and, further, so that the women of the COPAP can perform activities of sale of foodstuffs. Tourists that visit the beaches in the area on the weekend would be attended in style.

- Consultancy was extended to the members of the COPAP for the formulation and presentation to the Spaniard International Cooperative Agency (AECI) of the project profiled as "Intercultural Strengthening among Traditional Fishermen and Indigenous Peoples in the sector of the Basin of the Palomino River – Sierra Nevada de Santa Marta." It was proposed that they obtain a vessel duly equipped to accomplish fishing tasks and to improve the food quality of the members of the COPAP and the indigenous community settled in the basin of the Palomino River. The aim was to encourage the exchange of agricultural products for crafts and by products of the sea.

- Brought to closure was a Workshop on Biology and Techniques of Marine Turtles Conservation, in Buritaca, on the 3rd August, 2000, in which the Fishermen Committee of The

Cabins of Buritaca participated. The workshop saw coastal inhabitants, students of the baccalaureate association of Buritaca, members of the Ecological Association UAI, officials of the Tayrona and Sierra Nevada dė Santa Marta Natural National Parks participate. Also participating were the officials of the foundation Pro-Sierra Nevada de Santa Marta and students of the faculties of Marine Biology of the Universities of Jorge Tadeo Lozano and of the Magdalena.

5 BEQUESTS

The donations that were received for the task of management by the National Coordinator with resources stemming from the Agreement of the WIDECAST - BP Conservation Programme, were the following:

- A manual scanner to effect readings of PIT (microchips) that, in turn, will be inserted in the nesting females of D. coriacea. Dr. Richard Reina of the University of Indiana, USA donated this equipment.

- A computer "Gateway 486" and a slide projector brand "Kodak" were procured from Idea Wild.

- From the Centre for Marine Conservation, the Association ANAI of Costa Rica, and the Foundation Pro-Tamar of Brazil, the National Co-ordinator obtained audio-visual material, videos, posters, and identification leaflets for the environmental education and awareness program about marine turtles.

- A photographic camera, a nocturnal visor, metallic bands and applicators of the laboratories of Gainesville of the University of the Florida, implements destined for the WIDECAST-BP Conservation programme in the Colombian Caribbean were received from the US Fish and Wildlife Service.

- Conservation International - Colombia, donated airline tickets on AVIANCA for transportation of the international and national conference participants that have attended the different events organised by the project of the WIDECAST-BP Conservation programme. It also made contributions of air tickets for the assistance of the National Coordinator of the project and the Field Co-ordinator to the 20 International Symposium in Biology and Marine Turtles Conservation attended in February and March of this year in Orlando, USA.

- Entities such as the WWF - Colombia and the David and Lucille Packard Foundation also contributed resources to cover transport, housing and nourishment of the Director and the Field Co-ordinator of the project when they attended the 20 International Symposium in Biology and Marine Turtles Conservation. This done, it also funded costs of a representative of one of the member entities of RETOMAR to the same symposium.

6 FINANCIAL STATEMENT

BP Conservation Programme Follow-up Award US $1 = $1,550 Col. Pesos

Financial Statement - San Andrés & Islas del Rosario (US $)

Items	Total approved budget	Expenses San Andrés	Expenses Islas del Rosario	Project balance
Personnel				
Project Coordinator	3,097	387	194	2,516
Assistants	1,806	-	710	1,096
Secretarial services	419	202	-	217
Temporary	516	-	194	322
Supplies / materials	323	148	931	(756)
Equipment	645	13	883	(251)
Travel				
Travel (air & expenses)	1,613	2,201	2,977	(3,565)
Travel (ground)	145	517	670	(1,042)
Capacity building & dissemination	935	2	542	391
Sub-total	**9,499**	**3,470**	**7,101**	**-1,072**
Income (Reimbursement BP travel expenses for researcher to UK)			-1,087	**1,087**
Total	**9,499**	**3,470**	**6,014**	**15**

Note: Overexpenditures in the line items supplies / materials, equipment and travel are due to the execution of more workshops than originally proposed.

Should further information on project budget execution be required, please contact project Coordinator Diego Amorocho at widecast@widecast-col.org

Diego Amorocho LL. - CoordinatorWIDECAST Colombia

7. ANNEXES

Colombian Sea Turtle Conservation Network
Red Colombiana para la Conservación de las Tortugas Marinas

RETOMAR

The main objective for the "II International Seminar-Workshop on Biology and Conservation of Sea Turtles" held in the Tayrona National Park, between the 25th and 28th of August, 1999, was to enforce the Colombian Sea Turtle Conservation Network, within the frame of the WIDECAST-BP Colombian project.

The goal was to define the main guidelines to design and implement the Sea Turtle Restoration Plan (STRAP), which aims to help reduce the decline of populations that inhabits the marine and coastal zones of Colombia.

RETOMAR Working groups

Photo 2: II International Seminar participants

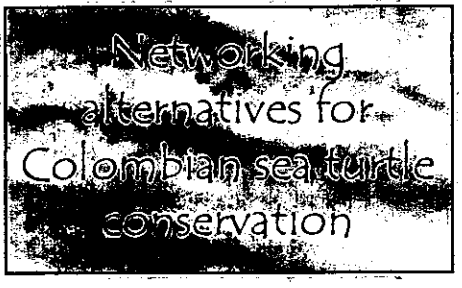
The "II International Seminar-Workshop" was the continuation of a series of events started in May of 1998 in Palomino (Department of La Guajira), which served to establish the base for the STRAP. This led to the creation of the Colombian Sea Turtle Network – RETOMAR –, which includes the Governmental agencies, NGOs, Community grass-roots groups, and Universities that are currently running up projects in both, the Caribbean and Pacific coasts of Colombia.

Contact Details

Diego Amorocho
BP Conservation Programme - Colombia
Project Leader
WIDECAST National Coordinator
Calle 48 #38A-37, Santa Isabel.
Cali, COLOMBIA
Tel.: (572) 557-4265
E-mail:

Figure 1: Sea turtle nesting and feeding areas of Colombia

The RETOMAR workshop participants, identified diverse social, economic and ecological issues affecting the current sea turtle population. As a result of this, the participants committed themselves to the implementation of management programs in order to minimize the factors depleting sea turtle population in their nesting and feeding areas.

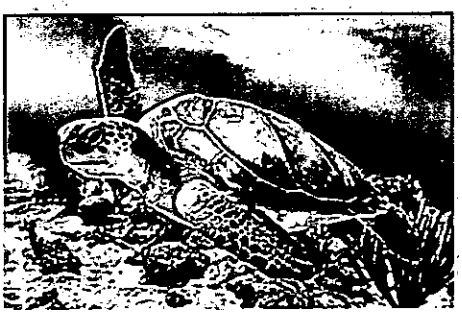


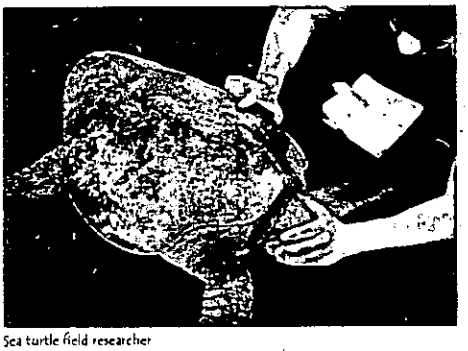
RETOMAR MEMBER ORGANIZATIONS

WIDECAST - Colombia
Fundación Danén
Fundación Ave Fênix
Asociación Nacional de Estudiantes de Ciencias Biológicas (ANECB)
CORPAMAG
Parques Nacionales Naturales Tayrona, Sierra Nevada de Santa Marta, Gorgona y Sanquianga- UAESPNN
Ministerio del Medio Ambiente
Fundación Tortugas Marinas de Santa Marta
Comité de Pescadores Artesanales de Palomino (COPAP)
Asociación Defensores de la Naturaleza

The lack of scientific information, weak law enforcement and little environmental education are some other issues that contribute to the decline of sea turtles in the areas mentioned above.

To face these threats, the organizations participating in the workshop developed a collaborative logical framework which included a set of written proposals that consider economic options for the local communities. This initiative had the support of the Ministry of the Environment and WIDECAST.





Sea turtle field researcher

The aim of these projects is to ensure the income of the local communities, providing the future generations with an opportunity to shift into new activities, confronting the challenge of the new millennium.

Sea turtle project researchers

WIDECAST - BP Conservation Programme - Birdlife International - Fauna and Flora International - Conservation International - UAESPNN

CURSO – TALLER SOBRE BIOLOGIA Y CONSERVACION DE TORTUGAS MARINAS

Organizan:
FUNDACION REMAR
VIA PARQUE ISLA DE SALAMANCA
FUNDACION TORTUGAS MARINAS
WIDECAST - BP Conservation
Programme
RETOMAR
UAESPNN
UNIATLANTICO

Fecha: Junio 3 al 4 del 2000

Lugar: Universidad del Atlántico
Vía Parque Isla de Salamanca

UNIDAD ADMINISTRATIVA ESPECIAL SISTEMA DE PARQUES NACIONALES NATURALES

WIDECAST
Red para la Conservación de las Tortugas Marinas en el Gran Caribe

Remar

BP
Part of BP Amoco group

UNIATLANTICO
FACULTAD DE CIENCIAS BASICAS

FTMSM
The BP Conservation Programme

BirdLife INTERNATIONAL

FICHA DE INSCRIPCION

NOMBRE Y APELLIDOS: _____

DOCUMENTO DE IDENTIDAD: _____

OCUPACION: _____

ENTIDAD: _____

DIRECCION: _____ TELEFONO: _____

E - mail: _____

Favor enviar el volante de consignación al fax: 3599229, a nombre del Curso - Taller sobre Biología y Conservación de Tortugas Marinas. Glenn Gallardo o Anneth Vásquez

OBJETIVOS

* Suministrar herramientas metrológicas para la integración, manejo y conservación de las Tortugas Marinas.
* Ilustrar la problemática de conservación de T.M. en Colombia y la región del Gran Caribe.
* Contribuir a la consolidación y puesta en funcionamiento de la Red Colombiana para la Conservación de las Tortugas marinas (RETOMAR).

METODOLOGIA

* Conferencias magistrales.
* Prácticas de laboratorio y campo.
* Medios audiovisuales.
* Material impreso.

CONFERENCISTAS

DIEGO AMOROCHO:
Miembro del grupo de especialista de Tortugas Marinas de la UICN.
Coordinador Nacional de WIDECAST para Colombia.(Red para la Conservación de Tortugas Marinas para el Gran Caribe y Las Antillas).
Coordinador Nacional de RETOMAR.
Planificador - UAESPNN

CARLOS H. PINZON:
Coordinador Caribe Central Colombiano de Retomar (Red Colombiana para la conservación de Tortugas Marinas).
Miembro Fundación Tortugas Marinas de Santa Marta.
Investigador asociado a WIDECAST - Colombia.

PATRICIA SALDAÑA:
Profesional Universitario UAESPNN
Miembro Fundación Tortugas Marinas de Santa Marta
Investigador asociado a WIDECAST - Colombia

CONTENIDO

Primer día

- Historia, taxonomía y distribución geográfica de las Tortugas Marinas.
- Biogeografía de las Tortugas Marinas
- Biología, ecología y comportamiento nidatorio de las Tortugas Marinas.
- Factores que afectan la supervivencia de las Tortugas Marinas, técnicas de seguimiento y conservación.
- La pesca incidental y los DET'S
- Los habitantes locales frente a la gestión ambiental y la conservación de especies de importancia ecológica y económica.
- Actualización sobre proyectos investigativos en biología y conservación de T. M. en Colombia y la Región del Gran Caribe.
- Legislación nacional y acuerdos internacionales sobre la protección de Tortugas Marinas.

Segundo día

- Caracterización de playas, manejo de formularios para la toma de datos, manejo de hembras reproductoras y manejo de nidos.
- Importancia de las áreas protegidas para la conservación de la Tortugas Marinas.
- Proyecto binacionales Colombia - Venezuela Costa Rica.
- Problemática y estado actual de conservación de las Tortugas Marinas en Colombia.
- Formulación y presentación de propuestas y acceso a fuentes de financiación para proyectos de conservación de Tortugas Marinas.
- Discusión por mesa de trabajo: " *La Conservación de las Tortugas Marinas en Colombia*".
- Plenaria: Bases para la elaboración de un Plan de Acción para la Conservación de las Tortugas Marinas en el Caribe Colombiano.

DURACION

Dos días
Primer día: 8 :00 AM - 6:30 PM. U.A.
Segundo día. 8:30 AM - 6:00 PM. VIPIS

NUMERO DE PARTICIPANTES: 45
Máximo

DIRIGIDO A: estudiantes universitarios, profesores,investigadores, entidades públicas y privadas Nacionales e Internacionales, interesados en enfoques teóricos y técnicas de conservación en Tortugas Marinas.

INVERSION:

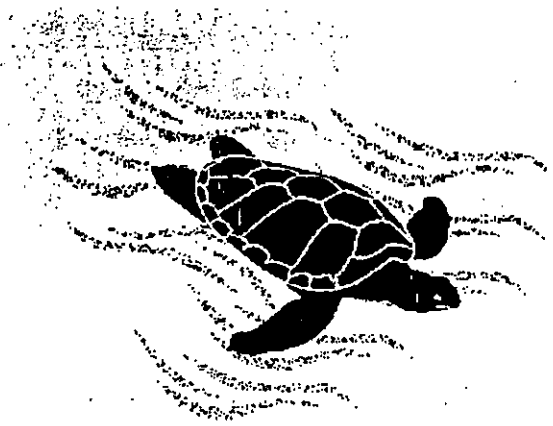
Estudiantes: $ 60.000
Profesionales: $ 70.000

Incluye memorias, certificado, refrigerios, traslado a Vía Parque Isla de Salamanca y almuerzo segundo día.

CONSIGNAR: Banco de Occidente 802 - 80473 - 2, a nombre de la Facultad de Ciencias Básicas

Informes: FUNDACION REMAR

Gleini Gallardo Tel: 3415126
E- mail: glega_99 @ yahoo.com
Anneth Vásquez Tel: 3659446
E - mail: ane63@latinmail.com
Fax: 3599229
Barranquilla - Atlántico
Colombia



"Las tortugas eran hermosas y
grandes vacas que pastaban
en la noche, en la mañana
retornaban a las praderas del mar.
Una mañana las vacas de Pulowi
no pudieron retornar,
el sol las sorprendio
cuando venían del arroyo
de Pajara hacia la playa
y quedaron convertidas
en rocas blancas para siempre.
Allí están como recuerdo
de cuando el ganado de Pulowi
pastaba por las noches
en la tierra y en el día
retornaban al mar.. "

Mito Wayúu-Rafael Pana
Clan Uriana, La Guajira

CONFERENCISTAS INVITADOS

INTERNACIONALES:

Neca Marcovaldi
PRESIDENTE FUNDACIÓN PROTAMAR (BRAZIL)

Brian Bowen
UNIVERSIDAD DE LA FLORIDA (USA)

Jorge Picón
SERVICIO DE PESCA Y VIDA SILVESTRE DE LOS ESTADOS UNIDOS

Didhier Chacón
ASOCIACIÓN ANAI (COSTA RICA)

NACIONALES:

Rafael Vieira
DIRECTOR CEINER

Carlos Bohorquez
DIRECTOR DE PROYECTOS CEINER

Efrain Rodriguez
JEFE DE PROGRAMA PNN CORALES DEL ROSARIO

Pedro Arenas
MINISTERIO DEL MEDIO AMBIENTE

Daniel Castañeda
UAESPNN REGIONAL SUR OCCIDENTAL

Hernán D. Correa
ASESOR UAESPNN.

Santiago Carrizosa
CONSERVACIÓN INTERNACIONAL

Kathryn Laign
CONSULTOR

Francisco Gutierrez
MINISTERIO DEL MEDIO AMBIENTE

Juan Manuel Díaz
INVEMAR

Fabio Ocampo
FUNDACIÓN AVE FENIX

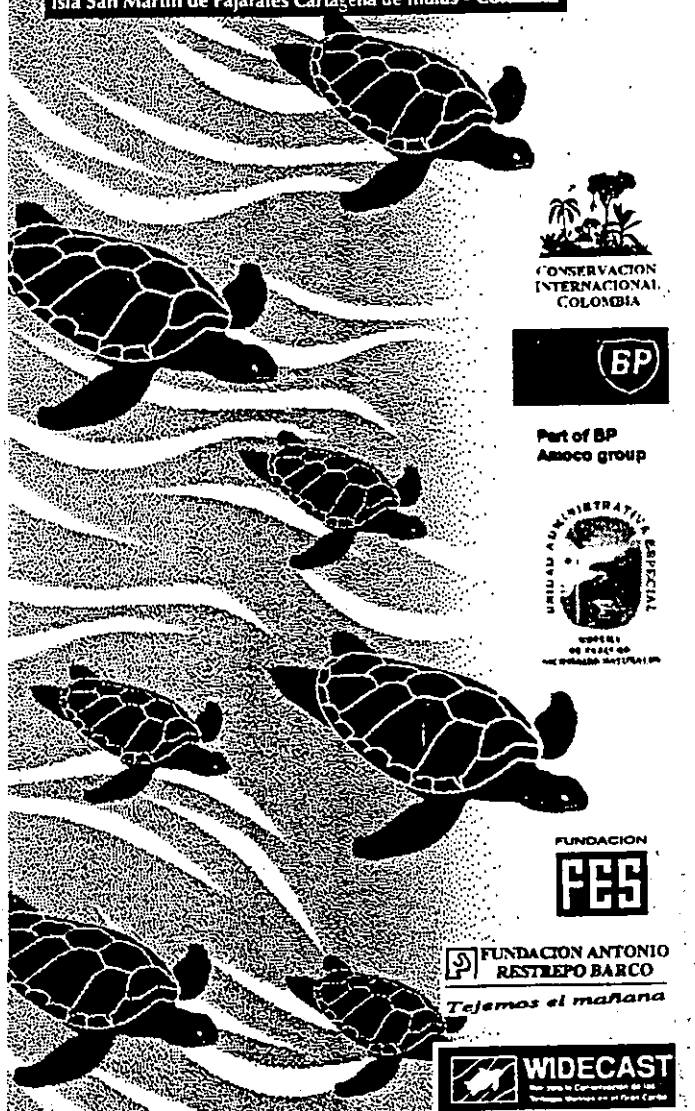
Diego Amorocho
COORDINADOR NACIONAL WIDECAST COLOMBIA

Carlos H. Pinzón
INVESTIGADOR ASOCIADO WIDECAST - BP

Patricia Saldaña
FUNDACIÓN TORTUGAS MARINAS DE SANTA MARTA

II SEMINARIO TALLER INTERNACIONAL SOBRE CONSERVACIÓN Y BIOLOGÍA DE TORTUGAS MARINAS

Isla San Martín de Pajarales Cartagena de Indias - Colombia



CONSERVACION INTERNACIONAL COLOMBIA

BP

Part of BP Amoco group

UNIDAD ADMINISTRATIVA ESPECIAL

FUNDACION FES

FUNDACION ANTONIO RESTREPO BARCO
Tejemos el mañana

WIDECAST

28 - 31 de julio de 1999

PRESENTACIÓN

Este evento pretende mostrar el estado actual de las poblaciones de tortugas marinas en Colombia y otros aspectos relacionados con su problemática. Consolidar además la Red de Conservación de tortugas Marinas en Colombia y como se articulan en el contexto de la región del Gran Caribe.

¿QUE OFRECE?

Se están ofreciendo cuatro (4) becas para estudiantes de biología, ingeniería ambiental y pesquera, ecología y carreras afines a las ciencias naturales y sociales lo mismo que a personas que se encuentren trabajando con tortugas marinas en su institución. Los aspirantes deben enviar su hoja de vida acompañada de la carta de recomendación del tutor. La beca está representada en inscripción, alojamiento, alimentación y transporte Cartagena -San Martín de Pajarales - Cartagena.

ENTIDADES PARTICIPANTES

UAESPNN, Ministerio del Medio Ambiente, WIDECAST, Oceanario CEINER, U.S. Wildlife Service, Projeto TAMAR, INVEMAR, Fundación Pro-Sierra Nevada de Santa Marta, Universidad de La Florida, Earth Island Institute, Conservación Internacional, Fundación NATURA, Corporaciones Regionales, ONG´s y Sociedad en General.

PONENCIAS MAGISTRALES

Algunas de las ponencias estarán dirigidas por los siguientes conferencistas:

Brian Bowen	Universidad de la Florida - USA
Jorge Picón	U.S. Wildlife Fish Service - USA
Didhier Chacón	Asociación ANAI - Costa Rica
Joca Thomé	Fundación PROTAMAR. Brazil
Juan M. Diaz	INVEMAR - Colombia
Pedro Arenas	Ministerio del Medio Ambiente
Hernán D. Correa	UAESPNN

INSCRIPCIONES

El Seminario Taller tiene un costo de **$ 400.000.oo** que comprende:

- Alojamiento
- Alimentación
- Transporte Cartagena - CEINER - Cartagena
- Certificado
- Memorias

Las inscripciones deben hacerse antes del 11 de julio de 1999 y consignar a la cuenta No. 1160 - 036084 - 6 de la Corporación DAVIVIENDA a nombre de CARLOS HERNÁN PINZÓN B.

Cupo Máximo de Participantes: 35 personas

NOTA:

La hora de salida desde la ciudad de Cartagena hacia la Isla San Martín está programada para las 6:30 AM del miércoles 28 de julio en las instalaciones del Club de Pesca Cartagena de Indias, en el Fuerte del Pastelillo sector de Manga.

A los asistentes de nacionalidad colombiana, se les solicita, para que puedan participar en el taller y la plenaria, presentar un resumen de máximo (3) hojas de sus trabajos realizados sobre tortugas marinas. Igualmente deben remitir un diskete con la misma información en Word 6.0, tipo documento, a doble espacio, tamaño de letra 12 y justificado, con el fin de que la entrega de memorias sea durante "II SEMINARIO TALLER INTERNACIONAL SOBRE CONSERVACIÓN Y BIOLOGÍA DE TORTUGAS MARINAS"

Para solicitar mayor información contactar a:

DIEGO F. AMOROCHO LL.
Calle 7 Oeste No. 2-168
Tel. (092) 892 6869
E-mail: damorocho@ciat.cgiar.org
Cel. (033) 493 5598
Cali - Valle del Cauca

CARLO H. PINZÓN B.
Calle 11 No. 16D-04
Tel. (095) 420 4504 / 05

Cel. (033) 640 2151
Santa Marta - Magdalena

II SEMINARIO TALLER INTERNACIONAL SOBRE CONSERVACIÓN Y BIOLOGIA DE TORTUGAS MARINAS

SAN MARTÍN DE PAJARALES
- ISLAS DEL ROSARIO
- CARTAGENA DE INDIAS - COLOMBIA
28 - 31 DE JULIO DE 1999

Nombre: _____

_____

Documento de identidad: _____

de _____

Nacionalidad: _____

_____

Dirección: _____

_____

Teléfono: _____

Fax: _____

E-mail: _____

Entidad que lo patrocina: _____

_____

¿Trabaja actualmente con tortugas marinas?

Sí: _____ No: _____

Fecha consignación valor de la inscripción:

Día _____ Mes _____ Año _____

"CON EL ENVÍO DE ESTA INFORMACIÓN SE ESTÁ CONFIRMANDO LA ASISTENCIA AL CURSO"

UNIDAD ADMINISTRATIVA ESPECIAL SISTEMA DE PARQUES NACIONALES NATURALES

OCEANARIO Islas del Rosario CEINER

CONSERVACION INTERNACIONAL COLOMBIA

FUNDACION FES

FUNDACION ANTONIO RESTREPO BARCO
Tejemos el mañana

WIDECAST

UNIDAD ADMINISTRATIVA ESPECIAL
SISTEMA DE PARQUES NACIONALES NATURALES

WIDECAST
Red para la Conservación de las Tortugas Marinas en el Gran Caribe

BP
Part of BP Amoco group

CONSERVATION INTERNATIONAL

CERTIFICAN QUE:

FABIO OCAMPO C. - AVE FENIX

Participó en el "II Seminario-Taller Internacional Sobre Conservación y Biología de Tortugas Marinas" y "II Encuentro de la Red Colombiana para la Conservación de las Tortugas Marinas" Realizado en el Parque Nacional Natural Tayrona, con una intensidad de 32 horas Santa Marta D.T.C.H. Agosto 25 - 28 de 1999.

DIEGO F. AMOROCHO LL.
Coordinador Nacional de WIDECAST
Colombia

ARIEL MARTINEZ C.
Jefe de Programa
Parque Nacional Natural Tayrona

Red Colombiana para la Conservación de las Tortugas Marinas

RETOMAR

Programa **WIDECAST – Colombia**

ANTECEDENTES

Iniciativa de WIDECAST Colombia para la integración de esfuerzos en la construcción, gestión y ejecución del STRAP.

La propuesta es tema central en el I Seminario - Taller Internacional sobre Biología y Conservación de Tortugas Marinas en Colombia. (mayo de 1998 Palomino, La Guajira).

A partir de entonces se avanza con acciones articuladas en su consolidación para la conservación de las tortugas marinas a nivel nacional

MIEMBROS

Organizaciones Gubernamentales

- CORPAMAG
- Universidad del Atlántico
- Parques Nacionales Naturales Tayrona, Sierra Nevada de Santa Marta, Gorgona, Sanquianga y AME Darién– UAESPNN
- Ministerio del Medio Ambiente

MIEMBROS ONGs

- Fundación Darién
- Fundación Ave Fénix
- Asociación Nacional de Estudiantes de Ciencias Biológicas (ANECB)
- Fundación REMAR
- Fundación Natura
- Fundación Prosierra Nevada de Santa Marta
- Fundación Tortugas Marinas de Santa Marta
- Comité de Pescadores Artesanales de Palomino (COPAP)
- Fundación Universitaria de Popayán
- Asociación Defensores de la Naturaleza

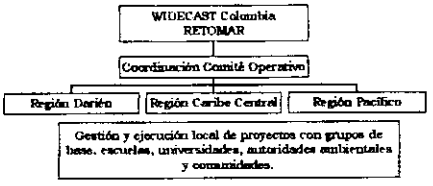
OBJETIVO GENERAL

Agrupar, ordenar y fomentar los esfuerzos de conservación e investigación sobre Tortugas Marinas en Colombia, tendientes a la formulación y ejecución del STRAP.

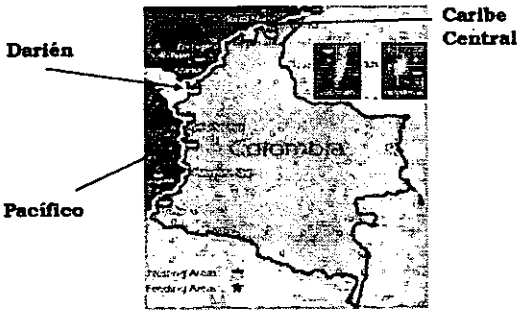
EJES TEMÁTICOS
Para la Conservación efectiva

1. **Investigación científica**
2. **Protección y Manejo**
3. **Alternativas Productivas Sostenibles**
4. **Educación ambiental y social**
5. **Legislación normatividad**
6. **Gestión**

Organigrama RETOMAR



COORDINACION OPERATIVA



RESULTADOS

1. **Investigación (Proyectos)**

- Binacional BP Conservation Programme
- Análisis Genético de Poblaciones de TM
- Biología de la Conservación de TM en Palomino.
- Comportamiento alimenticio de TM en Gorgona
- Biología de la Conservación en Playona Darién
- Compilación y Sistematización de TM en Colombia.

RESULTADOS

2. **Gestión**

- WIDECAST – CEINER, Islas del Rosario.
- Fundación PROSIERRA, Santa Marta
- WIDECAST – CORPAMAG, Santa Marta.
- WIDECAST – UAESPNN
- WIDECAST – MINAMBIENTE Colombia
- Donaciones Equipo IDEA WILD
- Donaciones material educativo CMC
- Proyectos NMFS (Darién y Caribe Central)
- Programa de Protección TM en el Pacífico
- Participación en procesos de Ordenamiento Territorial y de Manejo de zonas Marino Costeras.
- Donación WWF Asistencia 20 Simposio

RESULTADOS

3. **Capacitación y Divulgación**

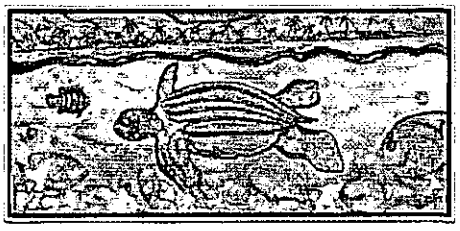
- Taller Biología de la Conservación Acandí.
- Guía Temática para la Conservación de las TM
- Taller El Valle, Chocó
- Memorias 2° Curso Taller y 1° Seminario RETOMAR en Palomino.
- Curso Taller área de amortiguación PNN Tayrona
- 2° Seminario Internacional y Taller en Tayrona y Memorias
- Taller Biología de la Conservación Barranquilla.
- Programas TV, entrevistas radiales y de prensa, artículos publicados.
- Asistencia a Cursos y Seminarios nacionales e internacionales
- Distribución de material educativo

RESULTADOS

4. **Fortalecimiento**

   - Posicionamiento de WIDECAST Colombia y su programa RETOMAR en el ámbito nacional e internacional.
   - Capacidad Técnica y administrativa para la coordinación de programas y proyectos.
   - Constitución Jurídica.

NUESTRO **RETO** ...



... MANTENERLAS EN EL **MAR**

RETOMAR

Sigue el sacrificio de los quelonios

El Espectador, miércoles, 13 de octubre de 1999

Buscan proteger a las tortugas

Bogotá

El fortalecimiento del plan de acción para la conservación de las tortugas marinas en Colombia fue el objetivo principal del II Seminario-Taller Internacional en Biología y Conservación de Tortugas Marinas que se llevó a cabo entre los días 25 y 28 de agosto en el Parque Nacional Natural Tayrona. Es la segunda vez que estos quelonios, los más grandes y desprotegidos de nuestro país, son el centro de atención de la comunidad científica.

Este II Seminario-Taller es la continuación del primer evento realizado en Palomino, departamento de La Guajira en mayo de 1998, donde se establecieron las bases para el plan de acción, a partir de la conformación y consolidación de la red colombiana para la conservación y protección de las tortugas marinas, con la participación de entidades gubernamentales, ONG's, grupos comunitarios organizados, universidades y personas naturales de diferentes zonas del país.

El evento reunió a especialistas en el tema de las tortugas marinas, quienes apoyados por Conservación Internacional-Colombia, arribaron a la sede de la reunión provenientes de la Universidad de La Florida (USA), la Asociación Anai (Costa Rica), el Ministerio del Medio Ambiente, las Universidades de Antioquia y Jorge Tadeo Lozano, el Comité de Pescadores Artesanales de Palomino, la Unidad de Parques Nacionales Naturales y las Fundaciones Darién, Ave Fénix y Tortugas Marinas de Santa Marta.

ARCHIVO

Hay que escuchar a tiempo el llamado de atención. S.O.S por las tortugas.

Estos reptiles marinos que por más de 50 millones de años han existido sobre la faz de la tierra sin experimentar cambios significativos, representan un importante componente de la diversidad biológica mundial. En el siglo pasado sus poblaciones fueron abundantes en los mares tropicales y subtropicales y hoy en el umbral del siglo XXI, algunas poblaciones de las cinco especies que frecuentan nuestro país, han tenido una reducción drástica y otras han desaparecido debido al sacrificio masivo de hembras en las playas de anidamiento, sustracción de huevos para el consumo humano, el mercadeo de la carne y algunos subproductos como la grasa, el aceite y los caparazones, además de la pesca accidental de tortugas en barcos.

Protección de especies en peligro de extinción

II seminario internacional sobre conservación de tortugas marinas

Por CARLOS PINZÓN B.
Coordinador Proyecto Tortugas Marinas zona Caribe Central.
Widecast - UAESPNN PNN Sierra Nevada de Santa Marta

"Flor del mar" fue uno de los nombres asignados a los más de 600 juveniles de tortugas marinas liberadas en las playas del Parque Nacional Natural Tairona, como culminación del "II Seminario Taller Internacional sobre Conservacion y Biología de Tortugas Marinas" efectuado allí entre el 25 y el 28 de agosto del presente año.

Al avento asistieron especialistas en conservación y protección de tortugas marinas provenientes de la Universidad de la Florida (USA), miembros de la asociación ANAI (Costa Rica), del Ministerio del Medio Ambiente, la Unidad de Parques Nacionales Naturales (UAESPNN), del Comité de Pescadores Artesanales de Palomino (COPAP), de las fundaciones "Darién", "Ave Fénix" y "Tortugas Marinas" de Santa Marta y de las universidades de "Antioquia" y "Jorge Tadeo Lozano".

El Objetivo del II Seminario Taller era sentar las bases de las políticas para consolidar y poner en marcha el "Plan de Accción de Conservación de Tortugas Marinas para Colombia" y actualizar los trabajos que sobre estas especies se vienen realizando a lo largo de las costas de nuestro país.

Este evento, que se encuentra enmarcado dentro de las actividades del convenio Wi decast-BP Conservation Programme, contó con el apoyo de la Unidad de Parques a través de las direcciones de los Parques Nacionales Sierra Nevada y Tayrona, Conservación Internacional (CI) y la Fundación Tortugas Marinas.

Forma parte de un proceso que se inició en mayo de 1998, en Palomino (Guajira) con la realización del "I curso sobre biología y conservación de tortugas marinas" y "I taller para la integración de la Red del Caribe colombiano."

El seminario-taller efectuado contempló diferentes actividades, estructuradas de la siguiente manera:

PONENCIAS MAGISTRALES

Con el fin de avanzar en el proceso para establecer un "Plan acción de conservación de las tortugas marinas en Colombia" la participación de los ponentes estuvo orientada hacia el manejo con perspectiva regional, los componentes sociales, económicos y culturales de la problemática y la consecusión de recursos para financiar acciones.

Por ello, además de la biología y ecología de las especies, se trataron entre otros los siguientes temas: "La visión del desarrollo humano sostenible en los Parques Nacionales"; "Análisis genéticos como herramientas para la conservación y base para el manejo regional de las tortugas"; "Las tortugas marinas como eje integral y legitimación del territorio en la cultura wayúu"; "El SIG como herramienta de conservación para especies en peligro"; "Legislación nacional e internacional, acuerdos, convenios nacionales e internacionales para la protección de las tortugas marinas"; "Alternativas empresariales enfocadas a la conservación y la actualización sobre proyectos de conservación y biología de tortugas marinas realizados en Colombia."

Liberación de juveniles de tortugas en el Parque Tayrona. (F. T)

MESAS DE TRABAJO

Se establecieron grupos de trabajo por regiones y se nombró un coordinador para cada una de ellas, así: — Región Pacífico: Luis Jiménez, del PNN Sanquianga.

— Región del Darién: Claudio Madaume, de la Fundación Darién.

— Región Caribe: Carlos H. Pinzón, del PNN Sierra Nevada de Santa Marta .

En cada región se hizo un análisis de la situación actual, debilidades, fortalezas y se establecieron objetivos, sobre los cuales cada región elaboró una propuesta de trabajo dirigida a consolidar el "Plan de Acción" y, por ende, la Red Colombiana.

ACTIVIDAD EN PLAYA

Se realizó la liberación de cerca de 600 juveniles de tortugas marinas de la especie *Caretta caretta* provenientes de un criadero de las playas de Palomino. En la jornada participaron educadores de las diferentes escuelas del departamento del Magdalena, niños y pescadores del área. Estas tortuguitas son mantenidas en cautiverio por el COPAP como parte de un programa de protección y conservación de la especie en esta región del Caribe colombiano.

COMPROMISOS

En aras de agilizar las acciones tanto para el Plan de Acción como para la Red, se asignaron compromisos a las entidades y personas de las diferentes regiones tales como: — Elaborar propuesta de comunicaciones y creación de la página WEB de la Red, como mecanismo de integración.

— Sistematización del directorio de la Red.

— Estructuración y conceptualización del marco lógico para la formulación de proyectos.

— Revisión de la documentación y elaboración de un protocolo para estandarizar metodologías de trabajo en campo.

— Se estableció una cuota anual para el mantenimiento de la Red, así: Personas jurídicas: $120.000.oo; naturales: $60.000.oo, y Parques Nacionales: en especies.

— Gestión de recursos en diversos niveles y definir estructura y/o procedimientos para ello.

— Tramitar la legalización de Widecast en Colombia.

— Explorar posibilidades para el manejo de recursos a través de ONGs.

AGUA TIERRA

SILA

KANGAMA

El Informador

¡¡ En playa Salguero, como en todas nuestras playas y arrecifes, se alejan los peces por la dinamita !! Hasta cuando seremos testigos y cómplices silen

La atarraya un arte noble

Por Mauricio González. UJTL.

"Bastante para hoy, hambruna para mañana," dijo el Señor A. en Playa Salguero, en la desembocadura del Río Gaira referente a la pesca con dinamita. Él pesca con Atarraya porque heredo el arte de los mayores cuando era niño. Hoy en día los pescadores saben muy bien el daño que está sufriendo el recurso pesquero por la dinamita y la manta con ojo pequeño. Aunque estas sacan harto pescado "muchos son pequeños, que todavía no se han reproducido y no sirven de alimento," dice el Señor A: "Antes había más peces y estaban cerca a la costa. Ahora hay poco y están en lo hondo. Se han alejado por la dinamita."

Respecto a los dinamiteros: "Ellos mismos se están poniendo la soga al cuello." Hoy hasta el momento el Señor A. ha intentado más de 40 lances lo que requiere fuerza, concentración, y habilidad. Él dice que antes también "había más atarrayeros y sacaban suficiente lisa para llenar un tanque con pocos lances."

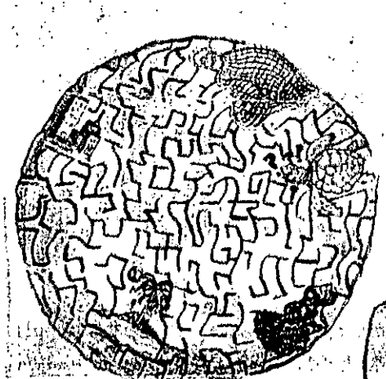
Al preguntarle al Señor A. sobre el futuro de la Atarraya él reconoce que él es un fuerte ejemplo para los niños y conservando el arte de la Atarraya conservará su vida, la de las futuras generaciones, y la del Ambiente Natural. En contraste, se le pregunto a un grupo de jóvenes que estaban listos para soltar un "taco" ¿qué esperaban cuando se acabara la pesca? Y respondieron "cuando ya *no* haya pesca comeremos gente." El siguiente día de haber hablado con A. vi otro atarrayero realizar un lance. Al sumergirse la red abierta comenzaron a brincar bastantes pecesillos, y al sacar la Atarraya salieron 2 lisas medianas y una de buen tamaño. Ese día comerán bien los miembros de su familia.

Taironeando

El pasado fin de semana se realizo en el parque Tairona el I curso taller sobre la biología y conservación de las tortugas marinas, con la presencia de una autoridad internacional en el tema, Dr. Diego Amorocho, miembro del convenio FES-WIDWCAST (Red para la Conservación de las Tortugas Marinas en el Gran Caribe), y los ingenieros pesqueros Patricia Gallo de la Unidad de Parques Nacionales y Carlos pinzón de la Fundación Tortugas Marinas Colombia Santa Marta.

Al evento asistieron el Comité de Pescadores Corales de los Cocos, los funcionarios de los Parques Nacionales del Tairona y Sierra Nevada, Vía Parque Isla de Salamanca, Santuario Los Flamencos, la Policía Nacional y gente de la comunidad, quienes elaboraron un plan de acción para la conservación de las tortugas marinas en el área, que abarca 6 frentes diferentes: la investigación, el manejo y uso, la educación ambiental y divulgación, así como la integración de las instituciones y la legislación ambiental.

Esta actividad se enmarca en el proceso de sensibilización y capacitación que se ha iniciado en las áreas de Parque Nacionales para la conservación de esta importante especie en vía de extinción.



Las tortugas realizan migraciones muy largas para poner sus huevos en la misma playa donde nacieron. ¿Puedes ayudarle a encontrar su camino?

DIRIJA SUS COMENTARIOS Y SUGERENCIAS

Diccionario

Atarraya Es un objeto que se utiliza para pescar, consiste en una red redonda (como la de las

Dinamita Es un explosivo que se utiliza cuando el hombre quiere derrumbar, destruir, matar,

Habitantes del trópico

Antiguos reptiles marinos. (cuatro especies en nuestros *mares*) CONÓCELOS

Tortuga Carey, Tiene un pico estrecho y ganchudo, su caparazón es café con manchas más claras y oscuras. Le fascina comer los peces, medusas, cangrejos y esponjas.

Tortuga Cabezona, Gogo o Cabezona, el caparazón es de *color rojizo* y tiene forma de corazón, su alimento preferido son los crustáceos, peces y moluscos.

Tortuga Canal, Canal o Laud, es la más grande de todas las tortugas, puede medir hasta 1.90 cm y pesar 600 Kg, no tiene un caparazón óseo como las demás, este es de cuero grueso, negro con manchas blancas, su manjar preferido son las medusas.

Tortuga Verde, [illegible] alimenta de medusas y peces, en la edad adulta es herbívora, es decir, come pastos *marinos y algas*, su *caparazón* es oval y tiene una cabeza pequeña.